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Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART - 1

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This is one of a series of microcircuit device reliability publications.

Abstract (Limit 200 words)

This compendium of digital SSI/MSI microcircuit device reliability is separated into two volumes. Part I deals with general summaries and detailed listings which address the various aspects of burn-in and environmental/screening tests at the component level. Devices are classified according to test types and are arranged by test source, device function, operational type, device manufacturer, and commercial part number. Part II contains summaries of failure analysis data based upon failure indicators, failure modes, failure defects, failure defect causes, and failure activating stresses, as well as a detailed listing of verified failure events as derived from device- and equipment-level testing.

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Environmental/Screening Testing
Failure Analysis Results

b. Identifiers/Open-Ended Terms

Digital Detailed Microcircuit Device Reliability Compendium

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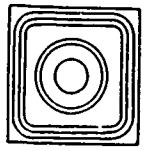

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Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA, PART 1

Summer 1980

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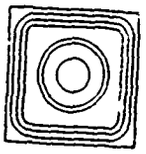

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PREFACE

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA is one of a series of annual microcircuit device reliability data publications compiled by the Reliability Analysis Center. Other volumes consider digital failure rate data, discrete semiconductors, hybrid devices, and memory/LSI devices. An additional volume is dedicated to nonelectronic device reliability.

Each document in the series contains analyzed reliability information in addition to a detailed presentation of field and test results. This information aids in determining device fallout rates and the operational test and field characteristics of devices. Life test results and their relationships to field experience, as well as observed versus predicted failure rates, can be reviewed. The relative risks of screening decisions may also be determined. Additionally, information is available to form the foundation for failure mode effects and criticality analyses (FMECA). Through the data presented, these publications are intended to actively complement such publications as MIL-STD-883 and MIL-HDBK-217C. **The user is cautioned, however, that the data contained herein may not be used in lieu of contractually cited references.**

The detailed data sections of this publication, in addition to selected summary tables, were printed directly from the Reliability Analysis Center's computerized database utilizing a customized file system approach developed by the RAC programming staff. This system allows the generation of special reports and analyses wherein the data are categorized to match the needs of the user. The author would especially like to thank Edward J. Szweda for his work in providing the software for the failure summaries and the detailed listings presented in Part 2 of this publication.

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INTRODUCTION

The publication of Digital Evaluation and Failure Analysis Data, Cat. No. MDR-15, represents a new dimension in the presentation of the Reliability Analysis Center's series of microcircuit device reliability compendiums. Intended as an update to Digital Evaluation and Generic Failure Analysis Data, Cat. No. MDR-10, issued in January, 1979, the scope of the book has been expanded to encompass a more detailed and refined approach to digital microcircuit failure analysis data. The introduction of this feature has necessitated that MDR-15 be issued in two separate volumes, to be discussed below. All of the data for this publication were collected, reduced and summarized from reports issued by a broad spectrum of government and industry sources by the Reliability Analysis Center in order to present objective information in a format compatible with general user understanding.

The first volume of Digital Evaluation and Failure Analysis Data is divided into two major sections dealing with burn-in and environmental/screening test data summaries (Section 1) and a computerized detailed listing (Section 2) from which the summaries are derived. The summary section is presented such that comparisons of operational types (TTL, MOS, etc.) and package types (Hermetic DIP, Plastic DIP, Hermetic Flatpack) with a variety of test types, test durations and test sequences allow maximum visibility into those factors affecting the most effective screening evaluation programs. The detailed burn-in and environmental/screening test data listings are presented at the part number level and are categorized for burn-in, environmental, board-level environmental, equipment- level environmental, environmental burn-in, and step stress tests.

The second volume of MDR-15 is dedicated to the analysis of digital SSI/MSI failure event information in summarized (Section 3) and detailed (Section 4) formats. The failure data found in the detailed listing, from which the failure summaries are derived, are listed by Microcircuit Failure Event File report number (MFEF #) and represent failure descriptions as reported from device screening programs, equipment level testing, and actual field operation. The failure

summary section is classified according to Failure Indicator, Failure Mode, Failure Defect, Failure Defect Cause, and Failure Activating Stress, as determined for each microcircuit operational logic type.

The data included herein may be applied to part selection, as well as aid in the evaluation and determination of an optimum part-level screening program through analysis of the interdependencies between device characteristics and associated electrical/environmental test parameters. The reader will, based upon the failure summaries presented, also be able to identify those failure characteristics peculiar to any generic class of devices, thus enabling him to use the most cost-effective evaluation tests in order to screen his parts, or to identify the most prevalent indicators of failure. This latter feature is most beneficially applied by those interested in performing FMECA or Fault Tree Analysis techniques on a given equipment design.

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS

The Usage Guides, located on pages 67 in Volume I and 54 in Volume II, contain definitions for the terms and conventions used within the computerized detailed listings of Sections 2 and 4. A listing of the basic terms and abbreviations used throughout the summarized tables of Sections 1 and 3, and based upon the Usage Guides of Sections 2 and 4, is included here in order to allow the reader to become familiar with them so that he may avoid having to reference back and forth between the Usage Guides and the summarized tables.

BURN-IN

OP CNST	Constant Operation Test
OP DYN	Dynamic Operation Test
PAR EXC	Parallel Excitation Test
REV BIAS	Reverse Bias Test
RING CNT	Ring Counter Test
BURN-IN (NOC)	Burn-In Test (Not Otherwise Classified)

ENVIRONMENTAL/SCREENING TEST TYPE

AUTOCLV	Autoclave Test
CONSTANT ACC (CNST ACC)	Constant Acceleration Test
DYNAMIC EM	Dynamic Test, Electrical Measurements
EM	Electrical Measurements
FUNCTIONAL EM	Functional Test, Electrical Measurements
HT CONT	High Temperature Continuity Test
MECH SHOCK	Mechanical Shock Test
MOISTURE RES	Moisture Resistance Test
SALT ATMOS	Salt Atmosphere Test
S&F EM	Static and Functional Test, Electrical Measurements

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

SDF EM	Static, Dynamic, Functional Test, Electrical Measurements
STAT EM	Static Test, Electrical Measurements
TEMP CYCLE	Temperature Cycle Test
TERMINAL STR	Terminal Strength Test
THERM SHOCK	Thermal Shock Test
VBVRFQ	Vibration Varying Frequency Test
VISUAL INSP (VIS INSP)	Visual Inspection Test

FAILURE ANALYSIS DEFINITIONS

FAILURE ACTIVATING STRESS	The physical characteristic of stress(es) which was primarily responsible for activating the failure defect cause/description.
FAILURE DEFECT CAUSE	The responsible chemical/electrical/mechanical/thermal phenomena which culminated in device parameter degradation or catastrophic failure.
FAILURE DEFECT DESCRIPTION	A detailed description of the physical characteristics of the failure mode.
FAILURE EVENT	A detailed description of the physical and/or electrical attributes of the failure, including the failure indicator, failure mode, failure defect, failure defect cause, and failure activating stress(es), where such information is reported.

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

FAILURE INDICATOR	The failure condition identified by parametric measurements of the device prior to performing destructive analyses.
FAILURE MODE	The physical location within the device which is caused to catastrophically fail or degrade due to exposure to chemical/electrical/mechanical/thermal environments.

OPERATIONAL TYPE

CMOS	Complementary Metal Oxide Semiconductor
PMOS	P-Channel Metal Oxide Semiconductor
DTL	Diode-Transistor Logic
ECL	Emitter Coupled Logic
RTL	Resistor-Transistor Logic
SUHL	Sylvania Universal High Level Logic
HTTL	High Speed TTL
LTTL	Low Power TTL
LSTTL	Low Power Schottky TTL
STTL	Schottky TTL
TTL	Transistor-Transistor Logic
N.R.	Not Reported

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

PACKAGE TYPE

HDIP	Hermetic Dual-In-Line Package
PDIP	Plastic Dual-In-Line Package
HFPK	Hermetic Flat Package
N.R.	Not Reported

STRESS LEVEL

ARCS	Number of Arcs
AXES	As Defined in MIL-STD-883B
BDS	Number of Bonds
BLOS	Number of Blows
C	Degrees Centrigrade
CYC/CY	Number of Cycles
DEG	Degrees
DT	Dwell Time
E	Each
FLUOR	Fluorocarbon
FO	Fan Out
G	Gravitational Acceleration Constant
GMS MSQ	Grams Per Square Meter
HE	Helium
HZ	Hertz
IL	Leakage Current
KCY	Kilocycles
KG	Kilograms
KHZ	Kilohertz
MA	Milliamps
MIN	Minutes

GLOSSARY OF TERMS AND ABBREVIATIONS USED IN THE DATA ANALYSIS (Cont'd)

MSEC	Milliseconds
OZ	Ounces
%	Percent
PSIG	Pounds Per Square Inch, Guage (PSIG=PSIA + 15 at sea level)
RADIS	Radioisotope
RH	Relative Humidity
SEC	Seconds
X	Times (magnification)

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA

SECTION 1

DIGITAL EVALUATION DATA - SUMMARIZED DATA

SECTION 1

DIGITAL EVALUATION DATA - SUMMARIZED DATA

The summarized data included within Section 1 are intended to reflect the relationship between physical microcircuit attributes and the stresses of associated burn-in and environmental/screening evaluations. Readers will discover pertinent data relating operational performance, package integrity and test types to burn-in test durations in the subsection entitled "Summarized Burn-In Data". The second category of Section 1 is entitled "Summarized Environmental/Screening Data" and analyzes the available digital microcircuit data at various levels of summarized detail based upon device operational type, package classification and construction, and the number of stresses employed in any referenced test sequence. In all cases, comparisons are made between pre- and post-stress device fallout rates.

The two above-referenced subsections are derived from the detailed data listings in Section 2 but also incorporate historical data which have appeared in the detailed listings of previous publications. Device data submitted by microcircuit vendors, while included in Section 2 of this publication, have been excluded from these summary tables wherever possible.

Additional information related to microcircuit screening effectiveness and techniques is contained in the Reliability Analysis Center publication "Microcircuit Screening Effectiveness," TRS-1. This document is directly available from the RAC.

SUMMARIZED BURN-IN DATA

The data presented within this subsection are identical in format to the predecessor tables of MDR-10, "Digital Evaluation and Generic Failure Analysis Data." As in MDR-10, the data are based on burn-in and environmental burn-in test results for digital SSI/MSI microcircuits as listed in Section 2 of this publication. For reference purposes, the test date cutoff point was established as January, 1975, i.e., data from tests conducted prior to this date are included within the summary tables, but excluded from the detailed listings.

The results contained herein have been analyzed according to operational logic type (as represented by Tables 1 through 8), package type/construction (Tables 9 through 16) and burn-in test type (Tables 17 through 24), where only part-level tests were taken into consideration. Within each of these three major classifications, refinement has taken place to form groups which are representative of incremental test durations (based on 24 hour intervals), thereby providing a means for comparison between device fallout rates (in percent defective) and varying test durations. Part hours at each summary level have been provided to allow the reader to determine, if necessary, the average number of test hours for each data entry. Entries which did not exhibit a factor of 24 hours for a test duration were grouped into the closest representative category. For example, a data entry which exhibited a burn-in test duration of 160 hours would be included within the 168-hour summary tables. The temperature stress for the majority of the burn-in tests is 125°C, and both static and dynamic tests have been utilized, as indicated in Tables 17 through 24.

From within each test duration category an additional refinement has taken place according to burn-in and environmental burn-in tests. The former represents a burn-in test usually followed and sometimes preceded by a non-stressed evaluation (visual inspection, electrical measurements, etc.). The latter category, denoted by an asterisk(*) in the summary tables, indicates a burn-in test which followed directly after a sequence of mechanical/thermal stress testing, as well as a pre- and post-burn-in non-stressed screening. The percent defective values calculated for these entries reflect the device fallout rates for the burn-in tests

only. Comparisons can then be made between stressed and non-stressed device populations, indicating the contribution of each to the data entry subtotal.

In examining the aggregate totals for all microcircuit devices, regardless of operational type, package type, or burn-in test type, the most interesting result encountered is that the percent defective value for parts that underwent an environmental screening sequence prior to burn-in testing is only 20% higher than the percentage fallout for unscreened devices. Looking more closely at the results, however, provides additional insight into some of the phenomena comprising this outcome. From Table 1, HTTL, STTL, and Standard TTL devices exhibit fallout rates between 1.1 and 1.7 percent, regardless of the degree of stress testing, while the low-power TTL devices (Schottky and Standard) present values representing approximately 50% of this result. Additionally, both of the low-power TTL logic families have fallout rates which are higher for the unscreened devices than the screened parts. The reverse is true for High Speed TTL, while standard TTL exhibits a 1.1% reject rate regardless of the prior screening criteria. The distribution of fallout rates as a function of burn-in test duration is left to the reader.

Examining the burn-in test results by package-type (Table 9) indicates that, regardless of the package configuration, the device fallout rate for unscreened devices is consistantly lower than the fallout rate for parts subjected to an environmental test sequence. As expected, the reject value for hermetic flatpacks is smaller than the value for hermetic DIPs, reflecting a higher overall package integrity. It is somewhat surprising, however, to see an overall percent defective rate of 0.99 for plastic DIPs as compared to the 3.0 value for hermetic DIPs, as you would traditionally expect the results to be somewhat more comparable, if not opposite. This can best be explained by the fact that a large percentage of the plastic devices were burned-in at a temperature of $100^{o}C$, rather than $125^{o}C$. In fact, the reject rate for plastic parts is approximately 1.3 percent for the data added to this publication (screened devices, $125^{o}C$ temperature, 168-hour average burn-in duration) since MDR-10, a result that maintains the HDIP/PDIP discrepancy, but begins to explain the apparent anomaly. The reader is cautioned, however, against drawing objective conclusions due to the relatively limited

amount of data involved in these summaries and the number of variables, which may or may not be apparent from the reported data, utilized in their compilation.

Finally, evaluating the effectiveness of several burn-in test types in screening out infant mortality failures (Table 17) indicates the relative success of Reverse Bias testing when compared to Operational Constant and Operational Dynamic tests, although the quantity of data for these latter two tests is overshadowed by the former category. Once again, the results reveal that the burn-in exposure of screened devices yields a higher percent defective value than for unscreened devices, disregarding the insufficient data from the Operational Constant category and the unknown characteristics of the Burn-In (NOC) category. The reader is, again, encouraged to examine the tables provided as a function of test duration in order to ascertain the contribution and relative impact of each test duration category on the aggregate results.

TABLE 1: BURN-IN RESULTS BY OPERATIONAL TYPE

TOTAL FOR ALL BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
CMOS	915	10	94,968	1.1	104
CMOS*	1,849	329	286,080	18	155
SUB TOTAL	2,764	339	381,048	12	138
DTL	75	0	7,200	-	96
DTL*	11,147	149	1,872,696	1.3	168
SUB TOTAL	11,222	149	1,879,896	1.3	168
ECL*	100	1	16,800	1.0	168
RTL*	36,433	797	6,006,740	2.2	165
SUHL*	252,036	4,970	34,750,124	2.0	138
HTTL	49,534	288	5,310,163	0.58	107
HTTL*	52,829	1,412	8,730,360	2.7	165
SUB TOTAL	102,363	1,700	14,040,523	1.7	137
LTTL	6,605	130	1,043,544	2.0	158
LTTL*	142,741	652	23,988,672	0.46	168
SUB TOTAL	149,346	782	25,032,216	0.52	168
LSTTL	22,474	223	3,775,632	1.0	168
LSTTL*	134,020	981	22,367,520	0.73	167
SUB TOTAL	156,494	1,204	26,143,152	0.77	167

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 1: BURN-IN RESULTS BY OPERATIONAL TYPE

TOTAL FOR ALL BURN-IN TESTS (Cont'd)

Operational Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
S-TTL*	56,197	772	8,809,800	1.4	157
TTL	133,374	1,447	16,630,111	1.1	125
TTL*	1,661,483	18,658	274,685,007	1.1	165
SUB TOTAL	1,794,857	20,105	291,315,118	1.1	162
TOTAL FOR ALL DEVICES	2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS	212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*	2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 2: BURN-IN RESULTS BY OPERATIONAL TYPE

24-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	Defective
CMOS	290	2	7,920	0.69
HTTL*	272	4	6,528	1.5
LSTTL*	1,130	27	20,400	2.4
STTL*	4,320	6	103,680	0.14
TTL*	357	8	8,568	2.2
TOTALS	6,369	47	147,096	0.74

TABLE 3: BURN-IN RESULTS BY OPERATIONAL TYPE

72-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	Defective
CMOS	50	0	3,600	-
HTTL*	84	2	6,048	2.4
TTL	35,897	130	2,903,786	0.36
TTL*	4,097	101	287,280	2.5
SUB TOTAL	39,994	231	3,191,066	0.58
TOTALS	40,128	233	3,200,714	0.58

TABLE 4: BURN-IN RESULTS BY OPERATIONAL TYPE

96-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	Defective
CMOS	50	0	4,800	-
CMOS*	240	34	23,040	14
SUB TOTAL	290	34	27,840	12
DTL	75	0	7,200	-
HTTL	42,319	73	4,129,515	0.17
HTTL*	1,923	132	208,584	6.9
SUB TOTAL	44,242	205	4,338,099	0.46
LTTL	918	27	88,128	2.9
LSTTL*	50	0	4,800	-
STTL*	128	1	12,288	0.78
TTL	37,376	113	3,629,357	0.30
TTL*	8,599	483	803,928	5.6
SUB TOTAL	45,975	596	4,433,285	1.3
TOTALS	91,678	863	8,911,640	0.94

TABLE 5: BURN-IN RESULTS BY OPERATIONAL TYPE
120-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
LTTL* TOTALS	14	1	1,680	7.1

TABLE 6: BURN-IN RESULTS BY OPERATIONAL TYPE
144-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
SUHL*	234,107	3,980	31,809,768	1.7
TTL*	114,519	343	16,163,112	0.30
TOTALS	348,626	4,323	47,972,880	1.2

TABLE 7: BURN-IN RESULTS BY OPERATIONAL TYPE
168-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
CMOS	402	7	52,416	1.7
CMOS*	1,609	295	263,040	18
SUB TOTAL	2,011	302	315,456	15
DTL*	11,147	149	1,872,696	1.3
ECL*	100	1	16,800	1.0
RTL*	36,433	797	6,006,740	2.2
SUHL*	17,929	990	2,940,356	5.5
HTTL	7,215	215	1,180,648	3.0
HTTL*	50,550	1,274	8,509,200	2.5
SUB TOTAL	57,765	1,489	9,689,848	2.6
LTTL	5,687	103	955,416	1.8
LTTL*	142,604	641	23,957,472	0.45
SUB TOTAL	148,291	744	24,912,888	0.50
LSTTL	22,474	223	3,775,632	0.99
LSTTL*	132,490	954	22,258,320	0.72
SUB TOTAL	154,964	1,177	26,033,952	0.76
STTL*	51,749	765	8,693,832	1.5
TTL	60,101	1,204	10,096,968	2.0
TTL*	1,527,385	17,503	255,986,408	1.2
SUB TOTAL	1,587,486	18,707	266,083,376	1.2
TOTALS	2,067,875	25,121	346,565,944	1.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 8: BURN-IN RESULTS BY OPERATIONAL TYPE

240-HOUR BURN-IN TESTS

Operational Type	Number Tested	Number Failed	Part Hours	% Defective
CMOS	123	1	26,232	0.81
LTTL*	123	10	29,520	8.1
LSTTL*	350	0	84,000	-
TTL*	6,526	220	1,435,711	3.4
TOTALS	7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 9: BURN-IN RESULTS BY PACKAGE TYPE

TOTAL FOR ALL BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
CAN	125°C	302	4	50,736	1.3	168
CAN*	125°C	33,458	652	5,506,940	2.0	165
SUB TOTAL		33,760	656	5,557,676	1.9	165
HDIP	125°C	21,407	559	3,250,301	2.6	152
HDIP*	125°C	81,761	2,544	13,922,599	3.1	170
SUB TOTAL		103,168	3,103	17,172,900	3.0	166
PDIP	100/125°C	95,935	591	12,183,210	0.62	127
PDIP*	100/125°C	1,958,881	19,664	323,834,952	1.0	165
SUB TOTAL		2,054,816	20,255	336,018,162	0.99	164
HFPK	125°C	81,995	915	10,126,863	1.1	124
HFPK*	125°C	272,725	5,858	37,911,628	2.2	139
SUB TOTAL		354,720	6,773	48,038,491	1.9	135
N.R.	N.R.	13,338	29	1,250,508	0.22	94
N.R.*	125°C	2,010	3	337,680	0.15	168
SUB TOTAL		15,348	32	1,588,188	0.21	103
TOTAL FOR ALL DEVICES		2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS		212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*		2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 10: BURN-IN RESULTS BY PACKAGE TYPE

24-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
PDIP*	100°C	4,959	18	119,016	0.36
	125°C	1,120	27	20,160	2.4
SUB TOTAL		6,079	45	139,176	0.74
N.R.	N.R.	290	2	7,920	0.69
TOTALS		6,369	47	147,096	0.74

TABLE 11: BURN-IN RESULTS BY PACKAGE TYPE

72-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HFPK*	125°C	968	7	61,992	0.72
PDIP	125°C	35,897	130	2,903,786	0.36
PDIP*	125°C	3,213	96	231,336	3.0
SUB TOTAL		39,110	226	3,135,122	0.58
N.R.	N.R.	50	7	3,600	-
TOTALS		40,128	233	3,200,714	0.58

TABLE 12: BURN-IN RESULTS BY PACKAGE TYPE

96-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP	125°C	4,769	23	455,117	0.48
HDIP*	125°C	2,227	72	219,744	3.2
SUB TOTAL		6,996	95	674,861	1.4
PDIP	125°C	11,472	49	1,146,240	0.43
PDIP*	125°C	5,322	429	474,216	8.1
SUB TOTAL		16,794	478	1,620,456	2.9
HFPK	125°C	51,599	117	5,020,335	0.23
HFPK*	125°C	3,391	149	358,680	4.4
SUB TOTAL		54,990	266	5,379,015	0.48
N.R.	125°C	12,898	24	1,237,308	0.19
TOTALS		91,678	863	8,911,640	0.94

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 13: BURN-IN RESULTS BY PACKAGE TYPE

120-HOUR BURN-IN TESTS

Package Type		Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP*	TOTALS	125°C	14	1	1,680	7.1

TABLE 14: BURN-IN RESULTS BY PACKAGE TYPE

144-HOUR BURN-IN TESTS

Package Type		Stress Level	Number Tested	Number Failed	Part Hours	% Defective
PDIP*		100°C	114,519	343	16,163,112	0.30
HFPK*		125°C	234,107	3,980	31,809,768	1.7
	TOTALS		348,626	4,323	47,972,880	1.2

TABLE 15: BURN-IN RESULTS BY PACKAGE TYPE

168-HOUR BURN-IN TESTS

Package Type		Stress Level	Number Tested	Number Failed	Part Hours	% Defective
CAN		125°C	302	4	50,736	1.3
CAN*		125°C	33,458	652	5,506,940	2.0
	SUB TOTAL		33,760	656	5,557,676	1.9
HDIP		125°	16,638	536	2,795,184	3.2
HDIP*		125°C	73,025	2,242	12,272,904	3.1
	SUB TOTAL		89,663	2,778	15,068,088	3.1
PDIP		100/125°C	48,443	411	8,106,952	0.85
PDIP*		100/125°C	1,829,398	18,751	306,743,112	1.0
	SUB TOTAL		1,877,841	19,162	314,850,064	1.0
HFPK		125°C	30,396	798	5,106,528	2.6
HFPK*		125°C	34,105	1,721	5,644,228	5.1
	SUB TOTAL		64,501	2,519	10,750,756	3.9
N.R.		N.R.	100	3	1,680	3.0
N.R.*		125°C	2,010	3	337,680	0.15
	SUB TOTAL		2,110	6	339,360	0.28
	TOTALS		2,067,875	25,121	346,565,944	1.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 16: BURN-IN RESULTS BY PACKAGE TYPE

240-HOUR BURN-IN TESTS

Package Type	Stress Level	Number Tested	Number Failed	Part Hours	% Defective
HDIP*	125°C	6,495	229	1,428,271	3.5
PDIP	125°C	123	1	26,232	0.81
PDIP*	125°C	350	0	84,000	-
SUB TOTAL		473	1	110,232	0.21
HFPK*	125°C	154	1	36,960	0.65
TOTALS		7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 17: BURN-IN RESULTS BY TEST TYPE

TOTAL FOR ALL BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective	Avg Hours on Test Per Device
OP CNST	379	4	63,672	1.1	168
OP CNST*	2,983	11	501,144	0.37	168
SUB TOTAL	3,362	15	564,816	0.45	168
OP DYN	119,940	349	11,295,722	0.29	94
OP DYN*	306	4	51,408	1.3	168
SUB TOTAL	120,246	353	11,347,130	0.29	94
PAR EXC*	32,109	1,573	5,271,463	4.9	164
REV BIAS	23,429	192	3,880,152	0.82	166
REV BIAS*	2,262,732	25,529	367,168,800	1.1	162
SUB TOTAL	2,286,161	25,721	371,048,952	1.1	162
RING CNT*	31,240	1,334	5,232,096	4.3	167
BURN-IN(NOC)	69,229	1,553	11,622,072	2.2	168
BURN-IN(NOC)*	19,465	270	3,288,888	1.4	169
SUB TOTAL	88,694	1,823	14,910,960	2.1	168
TOTAL FOR ALL DEVICES	2,561,812	30,819	408,375,417	1.2	159
TOTAL FOR UNSCREENED PARTS	212,977	2,098	26,861,618	1.0	126
TOTAL FOR SCREENED PARTS*	2,348,835	28,721	381,513,799	1.2	162

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 18: BURN-IN RESULTS BY TEST TYPE

24-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
REV BIAS	290	2	7,920	0.69
REV BIAS*	6,079	45	139,176	0.74
SUB TOTAL	6,369	47	147,096	0.74
TOTALS	6,369	47	147,096	0.74

TABLE 19: BURN-IN RESULTS BY TEST TYPE

72-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	35,897	130	2,903,786	0.36
PAR EXC*	968	7	61,992	0.72
REV BIAS*	3,213	96	231,336	3.0
BURN-IN(NOC)	50	0	3,600	-
TOTALS	40,128	233	3,200,714	0.58

TABLE 20: BURN-IN RESULTS BY TEST TYPE

96-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	80,688	213	7,854,200	0.26
PAR EXC*	5,373	218	554,904	4.1
REV BIAS*	5,567	432	497,736	7.8
BURN-IN(NOC)	50	0	4,800	-
TOTALS	91,678	863	8,911,640	0.94

TABLE 21: BURN-IN RESULTS BY TEST TYPE

120-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
BURN-IN(NOC)* TOTALS	14	1	1,680	7.1

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

TABLE 22: BURN-IN RESULTS BY TEST TYPE

144-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
REV BIAS* TOTALS	348,626	4,323	47,972,880	1.2

TABLE 23: BURN-IN RESULTS BY TEST TYPE

168-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP CNST	379	4	63,672	1.1
OP CNST*	2,983	11	501,144	0.37
SUB TOTAL	3,362	15	564,816	0.45
OP DYN	3,232	5	511,504	0.15
OP DYN*	306	4	51,408	1.3
SUB TOTAL	3,538	9	562,912	0.25
PAR EXC*	19,396	1,129	3,255,816	5.8
REV BIAS	23,139	190	3,872,232	0.82
REV BIAS*	1,898,897	20,633	318,243,672	1.1
SUB TOTAL	1,922,036	20,823	322,115,904	1.1
RING CNT*	31,240	1,334	5,232,096	4.3
BURN-IN(NOC)	69,129	1,553	11,613,672	2.3
BURN-IN(NOC)*	19,174	258	3,220,728	1.4
SUB TOTAL	88,303	1,811	14,834,400	2.1
TOTALS	2,067,875	25,121	346,565,944	1.2

TABLE 24: BURN-IN RESULTS BY TEST TYPE

240-HOUR BURN-IN TESTS

Test Type	Number Tested	Number Failed	Part Hours	% Defective
OP DYN	123	1	26,232	0.81
PAR EXC*	6,372	219	1,398,751	3.4
REV BIAS*	350	0	84,000	-
BURN-IN(NOC)*	277	11	66,480	4.0
TOTALS	7,122	231	1,575,463	3.2

*Indicates that parts went through a sequence of environmental testing prior to burn-in testing.

SUMMARIZED ENVIRONMENTAL/SCREENING DATA

Data within this subsection are, as with the previous subsection, derived from the computerized detailed listings of Section 2 (vendor data excluded) and deal solely with part-level environmental/screening results. The material presented here provides an overview of the effects of thermal/mechanical stress testing on the device fallout rate when considered as a function of operational type, package construction and the severity of the stress test sequence (related as the number of actual stress tests per test sequence).

The general overview of these data is supplied by the stress test summaries of Table 25 (by operational type), Table 26 (by package type), and Table 27 (by the number of stress tests per sequence). The results in each of these tables have been presented to reflect three distinct categories of evaluation: Category A represents test types which do not actively subject the devices to a thermal/mechanical stress and would include the results of pre-cap visual inspection, initial electrical measurements at ambient temperatures, etc.; Category B has been established to highlight the test results achieved by subjecting the parts to a series of stress-induced tests, with up to seven tests performed in the sequence, and includes the results of evaluations (electrical measurements, hermeticity tests, etc.) sandwiched between stress test types; Category C represents the results of post-stress testing (visual inspection, final electrical measurements, etc.) which, when combined with those reject rates obtained from Category B, may be used to judge the effectiveness of the associated environmental/screening program.

Based upon these conventions, the most effective screening results appear to be exhibited for MOS devices, where thermal stresses can be expected to accelerate failure due to die surface anomalies. Bipolar devices (excluding the insignificant entry for LSTTL parts) are fairly consistant in their fallout rates, generally around 1.0%, as a result of environmental stress testing. Examining package types again reveals the integrity of hermetic flat-package parts (relatively low reject rates for all three categories), while plastic DIPs exhibit a higher pre-screen reject rate and a lower post-screen fallout percent than hermetic DIPs. The majority of the thermal stresses for plastic parts were

manifested through thermal shock testing, while hermetic parts were more frequently exposed to temperature cycling stresses. Evaluating the quantity of stresses introduced during a test sequence (Table 27) reveals that approximately 95% of those devices exposed to thermal/mechanical stress were exposed to no more than 3 stress tests for a given sequence, a factor which should be considered when setting up a cost effective screening program. The introduction of each successive stress, between 1 and 3 stresses, subsequently resulted in an increase in the device fallout rates of Category C (1.5%, 2.4%, and 4.6%, respectiveiy), thus indicating a greater degree of efficiency in eliminating infant mortality failures, assuming, of course, that the addition of each stress does not induce an inherently good device to fail.

The remaining tables within this subsection, numbered 28 through 33, provide a more detailed picture of the specific stress levels encountered for each generic device class. The distinction has been made between pre-stress evaluation (Table 28), single stress tests (Tables 29 through 32) and multiple stress tests (Table 33) as a function of specific test types (where sorting is based upon the principle test type), operational types and package types, where the latter two categories provide the second and third levels of sorting. The zero-stress test data (Table 28) incorporate the Category A data from the single and multiple stress test summaries in order to present an expanded foundation for component evaluation. Additionally, the single stress test data have been re-formatted to illustrate their effect on hermetic dual-in-line (Table 29), plastic dual-in-line (Table 30), and hermetic flat (Table 31) packages. Comparisons between these three tables may be used to further evaluate relative package integrity.

For the purpose of this publication, single stress tests are defined as receiving no previous mechanical/thermal stress testing and are not immediately followed by a stress test. Hence, from the multiple stress test table, a test sequence defined as 1)MECH SHOCK, 2)STAT EM, 3)MOISTURE RES, 4)STAT EM, 5)LEAD FATIGUE, 6)FINE LEAK, 7)GROSS LEAK has been utilized in Table 29 through 32 as a MECH SHOCK test followed by a STAT EM evaluation. Again, this convention was incorporated in order to extract maximum efficiency from the available data.

TABLE 25: ENVIRONMENTAL/SCREENING DATA

STRESS TEST SUMMARIES BY OPERATIONAL TYPE

Op Type	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
MOS	17,845	5	0.030	20,281	31	0.15	18,612	1,516	8.2
DTL	29,034	111	0.38	59,034	14	0.024	57,174	514	0.90
RTL	3,354	24	0.72	-	-	-	-	-	-
HTTL	33,808	338	1.0	5,348	0	0.0	5,213	52	1.0
LTTL	24,988	473	1.9	22,052	15	0.068	21,784	201	0.92
STTL	2,030	3	0.15	1,844	0	0.0	1,844	24	1.3
LSTTL	-	-	-	25	0	0.0	25	0	0.0
TTL	404,022	11,239	2.8	175,538	47	0.030	169,588	1,972	1.2
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 26: ENVIRONMENTAL/SCREENING DATA

STRESS TEST SUMMARIES BY PACKAGE TYPE

Package Type	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
HDIP	27,494	386	1.4	25,340	29	0.11	23,280	467	2.0
PDIP	429,896	10,722	2.5	139,033	54	0.040	134,360	2,000	1.5
HFPK	17,106	84	0.49	69,245	24	0.035	66,096	561	0.85
N.R.	42,585	1,001	2.4	50,504	0	0.0	50,504	1,219	2.4
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 27: ENVIRONMENTAL/SCREENING DATA

STRESS TEST SUMMARIES

BY NUMBER OF STRESS TESTS PER SEQUENCE

Number Stresses Per Sequence	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
0	433,347	11,155	2.6	-	-	-	-	-	-
1	70,703	1,015	1.4	258,042	23	0.0089	254,643	3,704	1.5
2	10,410	23	0.22	17,490	52	0.30	16,046	389	2.4

TABLE 27: ENVIRONMENTAL/SCREENING DATA (Cont'd)

STRESS TEST SUMMARIES

BY NUMBER OF STRESS TESTS PER SEQUENCE

Number Stresses Per Sequence	Category A			Category B			Category C		
	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective	Number Tested	Number Failed	% Defective
3	515	0	0.0	8,259	24	0.29	3,370	153	4.6
4	-	-	-	180	8	4.4	30	0	0.0
6	-	-	-	20	0	0.0	20	1	5.0
7	106	0	0.0	131	0	0.0	131	0	0.0
TOTALS	515,081	12,193	2.4	284,122	107	0.050	274,240	4,247	1.6

TABLE 28: ENVIRONMENTAL/SCREENING DATA

ZERO STRESS TESTS

Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
Fine Leak	He, 5.E-8, 60 Min. 30 Min	MOS	HDIP	16	0	0.0
Hermeticity	260°C, 95%, 5 Sec	HTTL	N.R.	52	0	0.0
Hermeticity	260°C, 95%, 5 Sec	LTTL	HDIP	52	0	0.0
Hermeticity	260°C, 95%, 5 Sec	LTTL	HFPK	71	1	1.4
Hermeticity	260°C, 95%, 5 Sec	TTL	HDIP	408	2	0.49
Hermeticity	260°C, 95%, 5 Sec	TTL	HFPK	332	2	0.60
Ht Cont	100°C	TTL	PDIP	4,860	0	0.0
Stat EM	25°C/125°C/-55°C	LTTL	HDIP	13	0	0.0
Vis Insp	10X, 20X	TTL	HDIP	37	0	0.0
Vis Insp	N.R.	TTL	PDIP	13,521	2,970	22.0
Vis Insp	10X, 20X	TTL	HFPK	2	0	0.0
Vis Insp	3X, 20X	DTL	HFPK	3,840	0	0.0
EM	N.R.			3,840	20	0.52
Vis Insp	N.R.	DTL	PDIP	25,194	0	0.0
S&F EM	25°C			25,194	88	0.35
Ht Cont	100°C			25,194	3	0.012
Vis Insp	N.R.	RTL	PDIP	3,354	0	0.0
S&F EM	25°C			3,354	20	0.60
Ht Cont	100°C			3,354	4	0.12
Vis Insp	N.R.	HTTL	PDIP	29,588	0	0.0
S&F EM	25°C			29,588	220	0.74
Ht Cont	100°C			29,588	94	0.32
Vis Insp	N.R.	LTTL	PDIP	1,813	0	0.0
S&F EM	25°C			1,813	23	1.3
Ht Cont	100°C			1,813	0	0.0
Vis Insp.	N.R.	STTL	PDIP	215	0	0.0
S&F EM	25°C			215	1	0.47
Ht Cont	100°C			215	0	0.0

TABLE 28: ENVIRONMENTAL/SCREENING DATA

ZERO STRESS TESTS (Cont'd)

Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
Vis Insp	N.R.	TTL	PDIP	318,803	3,244	1.0
S/F CM	25°C			318,803	3,840	1.2
% Cont	100°C			318,803	199	0.062
X-Ray	N.R.	HTTL	HDIP	1,207	0	0.0
EM	N.R.			1,207	21	1.7
X-Ray	N.R.	HTTL	HFPK	2,010	0	0.0
EM	N.R.			2,010	0	0.0
X-Ray	N.R.	LTTL	HDIP	1,581	0	0.0
EM	N.R.			1,581	30	1.9
X-Ray	N.R.	STTL	HDIP	492	0	0.0
EM	N.R.			492	2	0.41
X-Ray	N.R.	TTL	HDIP	13,186	0	0.0
EM	N.R.			13,186	188	1.4
X-Ray	N.R.	TTL	PDIP	6,925	0	0.0
EM	N.R.			6,925	1	0.014
X-Ray	N.R.	TTL	HFPK	940	0	0.0
EM	N.R.			940	42	4.5
EM	N.R.	HTTL	HDIP	85	0	0.0
X-Ray	N.R.			85	0	0.0
EM	N.R.			85	3	3.5
EM	N.R.	LTTL	HDIP	1,485	6	0.40
X-Ray	N.R.			1,479	0	0.0
EM	N.R.			1,479	40	2.7
EM	N.R.	TTL	HDIP	3,265	16	0.49
X-Ray	N.R.			3,249	0	0.0
EM	N.R.			3,249	75	2.3

TABLE 29: ENVIRONMENTAL/SCREENING DATA

SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE

HERMETIC DUAL-IN-LINE PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
Bond Strength	297	0	0.0
Lead Fatigue	548	1	0.18
Mech Shock	50	1	2.0
Salt Atmos	743	3	0.40
Solderability	180	0	0.0
Temp Cycle	50	0	0.0
Thermal Shock	650	1	0.15
VBVRFQ	242	0	0.0

TABLE 30: ENVIRONMENTAL/SCREENING DATA

SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE

PLASTIC DUAL-IN-LINE PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
High Pressure	20	0	0.0
Lead Fatigue	14	0	0.0
Moisture Res	245	8	3.3
Solderability	12	3	25.0
Temp Cycle*	32,923	455	1.4
Thermal Shock	194	3	1.5

*The stresses experienced by the majority of these devices are represented by temperature extremes of -55°C/150°C for 10 cycles, 15 min/15 min dwell time.

TABLE 31: ENVIRONMENTAL/SCREENING DATA

SINGLE STRESS TESTS-RESULTS BY PACKAGE TYPE

HERMETIC FLAT PACKAGE

Single Stress Test Type	Number Tested	Number Failed	% Defective
Bond Strength	215	3	1.4
Constant Acc	5	0	0.0
Lead Fatigue	715	7	0.98
Mech Shock	1,565	0	0.0
Salt Atmos	712	14	2.0
Solderability	249	1	0.40
Temp Cycle	8	0	0.0
Thermal Shock	191	1	0.52
VBVRFQ	267	1	0.37

TABLE 32: ENVIRONMENTAL/SCREENING DATA

SINGLE STRESS TESTS

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Bond Strength	N.R.	B-1	HDIP	22	0	0.0
Bond Strength	1 GMS, 4 BDS	B-1	HDIP	18	0	0.0
Bond Strength	1 GMS, 52 BDS	B-1	HDIP	10	0	0.0
Bond Strength	1 GMS, 52 BDS	B-1	HFPK	10	0	0.0
Bond Strength	1 GMS, 166 BDS	B-1	HDIP	10	0	0.0
Vis Insp	N.R.	B-1	HFPK	22	0	0.0
Bond Strength				22	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	5	0	0.0
Bond Strength				5	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	34	0	0.0
Bond Strength	1 GMS, 4 BDS			34	0	0.0
Vis Insp	10X, 20X	B-1	HFPK	40	0	0.0
Bond Strength	1 GMS, 8 BDS			40	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	52	0	0.0
Bond Strength	1 GMS, 8 BDS			52	0	0.0
Vis Insp	10X, 20X	B-1	HFPK	9	0	0.0
Bond Strength	1 GMS, 8 BDS			9	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	32	0	0.0
Bond Strength	1 GMS, 22 BDS			20	0	0.0
Vis Insp	10X, 20X	B-1	HFPK	22	3	14.
Bond Strength	1 GMS, 22 BDS			10	0	0.0
Vis Insp	10X, 20X	A-1	HFPK	55	0	0.0
Bond Strength	1 GMS, 45 BDS			10	0	0.0
Vis Insp	10X, 20X	B-1	HFPK	17	0	0.0
Bond Strength	1 GMS, 68 BDS			17	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	25	0	0.0
Bond Strength	1 GMS 152 BDS			25	0	0.0
Vis Insp	10X, 20X	B-1	HDIP	81	0	0.0
Bond Strength	1 GMS, 166 BDS			81	0	0.0
Vis Insp	10X, 20X	B-1	HFPK	40	0	0.0
Bond Strength	1 GMS, 166 BDS			40	0	0.0
Vis Insp	45X	A-1	HDIP	55	0	0.0
Bond Strength	2.5 GMS, 129 BDS			10	0	0.0
Vis Insp	80X	A-1	HFPK	55	0	0.0
Bond Strength	1 GMS, 129 BDS			55	0	0.0

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Cnst Acc	30 Kg, 3 Axes, 1 Min E	N.R.	HFPK	5	0	0.0
High Pressure	15 PSIG, Steam	N	PDIP	20	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	52	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	52	0	0.0
Lead Fatigue	8 oz, 90 Deg, 6 Arcs	N	PDIP	14	0	0.0
Lead Fatigue	16 oz, 90 Deg, 6 Arcs	B-1	HDIP	16	0	0.0
Lead Fatigue	3 oz, 90 Deg, 3 Arcs	A-1	HFPK	55	0	0.0
Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
Lead Fatigue	3 oz, 90 Deg, 3 Arcs	A-1	HFPK	55	0	0.0
Fine Leak	3.E-8, 180 Min, 7 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			55	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	A-1	HDIP	55	0	0.0
Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	90	0	0.0
Fine Leak	5.E-8, 60 Min, 30 Min			90	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			90	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	147	0	0.0
Fine Leak	5.E-8, 60 Min, 30 Min			147	1	0.68
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			147	4	2.7
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	22	0	0.0
Fine Leak	5.E-8, 70 Min, 10 Min			22	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			22	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	22	0	0.0
Fine Leak	5.E-8, 70 Min, 20 Min			22	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			22	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HDIP	313	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			313	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			313	1	0.32
Lead Fatigue	8 oz, 90 Deg, 3 Arcs	B-1	HFPK	180	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			180	1	0.56
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			179	1	0.56
Fine Leak	5.E-8, 60 Min, 30 Min	N	HFPK	201	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			201	0	0.0
Lead Fatigue	8 oz, 90 Deg, 3 Arcs			201	0	0.0
Fine Leak	5.E-8, 60 Min, 30 Min			201	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			201	0	0.0

TABLE 32: ENVIRONMENTAL/SCREENING DATA

SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Mech Shock	3 Kg, 0.5 msec, 6 Axes, 5 Blos	N.R.	HFPK	5	0	0.0
Mech Shock	1.5 Kg, 0.5 msec, 2 Axes, 5 Blos	B-1	HDIP	50	0	0.0
Dynamic EM	30 Kg, 3 Axes, 1 Min E			50	0	0.0
SDF EM				50	1	2.0
Mech Shock	1.5 Kg, 0.5 msec, 4 Axes, 5 Blos	N.G.	HFPK	1,650	0	0.0
Stat EM	25° C			1,650	0	0.0
Moisture Res	25° C, 65° C, 90% RH	N	PDIP	16	0	0.0
Moisture Res	85° C, 85% RH	N	PDIP	16	0	0.0
Moisture Res	25° C, 65° C, 90% RH	N	PDIP	107	0	0.0
EM	25° C			107	2	1.9
EM	100° C			105	3	2.9
Moisture Res	85° C, 85% RH	N	PDIP	108	0	0.0
EM	25° C			108	2	1.9
EM	100° C			106	1	0.94
Salt Atmos	35° C, 15 GMS, MSQ, 24 Hrs	B-1	HDIP	22	0	0.0
Salt Atmos	35° C, 25 GMS, MSQ, 24 Hrs	B-1	HDIP	582	3	0.52
Salt Atmos	35° C, 25 GMS, MSQ, 24 Hrs	B-1	HFPK	635	13	2.0
Salt Atmos	35° C, 27 GMS, MSQ, 24 Hrs	A-1	HDIP	84	0	0.0
Salt Atmos	35° C, 30 GMS, MSQ, 24 Hrs	A-1	HDIP	55	0	0.0
Salt Atmos	35° C, 30 GMS, MSQ, 24 Hrs	A-1	HFPK	55	1	1.8
Salt Atmos	35° C, 48 GMS, MSQ, 24 Hrs	B-1	HFPK	22	0	0.0
Solderability	260° C, 95%, 5 Sec	A-1	HDIP	82	0	0.0
Solderability	260° C, 95%, 5 Sec	A-1	HFPK	110	1	0.91
Solderability	260° C, 95%, 5 Sec	B-1	HDIP	76	0	0.0
Solderability	260° C, 95%, 5 Sec	B-1	HFPK	149	0	0.0
Solderability	260° C, 95%, 5 Sec	N	PDIP	12	3	25.
Temp Cycle		B-1	HDIP	50	0	0.0
Temp Cycle	0° C, 100° C, 50 cyc, 15/15 DT	N	PDIP	100	0	0.0
Temp Cycle	-65° C, 150° C, 10 cyc, 10/10 DT	N.R.	HFPK	8	0	0.0
Temp Cycle	-55° C, 150° C, 10 cyc, 15/15 DT	N	PDIP	32,697	0	0.0
EM	N.R.			32,697	454	1.4

TABLE 32: ENVIRONMENTAL/SCREENING DATA
SINGLE STRESS TESTS (Cont'd)

Test Type	Stress Level	Screen Class	Package	Number Tested	Number Failed	% Defective
Temp Cycle	0° C, 100° C, 10 cyc, 15/15 DT	N	PDIP	126	0	0.0
EM	25° C			126	1	0.79
EM	100° C			125	0	0.0
Therm Shock	-50° C, 175° C, 20 cyc, Liquid	C-1	HDIP	15	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	A-1	HDIP	197	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	A-1	HFPK	115	0	0.0
Therm Shock	0° C, 100° C, 15 cyc, Liquid	N	PDIP	194	0	0.0
EM	25° C			194	1	0.52
EM	100° C			193	2	1.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid	B-1	HDIP	159	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			159	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			159	0	0.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid	B-1	HFPK	41	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			41	1	2.4
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			41	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc	B-1	HDIP	62	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			62	1	1.6
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			62	0	0.0
Therm Shock	-65° C, 150° C, 15 cyc, Liquid	B-1	HFPK	35	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			35	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			35	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm	B-1	HDIP	217	0	0.0
Therm Shock	-55° C, 125° C, 15 cyc, Liquid			217	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			217	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	A-1	HDIP	142	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	A-1	HFPK	165	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HDIP	13	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			13	0	0.0
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			13	0	0.0
Stat EM	25° C, 125° C, -55° C			13	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HFPK	65	0	0.0
Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			65	1	1.5
Gross Leak	Fluor, 125° C, 3X, 90 PSIG			65	0	0.0
Stat EM	25° C, 125° C, -55° C			65	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	B-1	HDIP	65	0	0.0
Stat EM	25° C, 125° C, -55° C			65	0	0.0
VBVRFQ	20 Hz, 2 KHz, 20G, 3 Axes	B-1	HFPK	37	0	0.0
Stat EM	25° C, 125° C, -55° C			37	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	A	S & D EM	25°C	CMOS	HDIP	125	1	0.80
	B	Autoclv	15 PSIG, Steam, 15 Hrs			124	0	0.0
		S&D EM	25°C			124	0	0.81
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			123	0	0.0
		S&D EM	25°C			123	0	0.0
2	A	S&D EM	25°C	CMOS	PDIP	125	4	3.2
	B	Autoclv	15 PSIG, Steam, 15 Hrs			121	0	0.0
		S&D EM	25°C			121	4	3.3
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			117	0	0.0
		S&D EM	25°C			117	0	0.0
2	A	S&D EM	25°C	TTL	HDIP	125	0	0.0
	B	Autoclv	15 PSIG, Steam, 15 Hrs			125	0	0.0
		S&D EM	25°C			125	3	2.4
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			122	0	0.0
		S&D EM	25°C			122	0	0.0
2	A	S&D EM	25°C	TTL	PDIP	125	0	0.0
	B	Autoclv	15 PSIG, Steam, 15 Hrs			125	0	0.0
		S&D EM	25°C			125	4	3.2
		Thrm Shk	0°C/100°C, 5 Cyc, Liquid			121	0	0.0
		S&D EM	25°C			121	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			38	0	0.0
	C	EM	N.R.			38	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	CMOS	HDIP	75	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			75	0	0.0
		Cnst Acc	20 Kg, 6 Axes, 1 Min			75	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 10 Min			75	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			75	0	0.0
		EM	25°C, 125°C, -55°C			75	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	CMOS	HFPK	55	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			55	0	0.0
		Cnst Acc	20 Kg, 6 Axes, 1 Min			55	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 10 Min			55	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 75 PSIG			55	0	0.0
		EM	25° C, 125° C, -55° C			55	1	1.8
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	76	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			76	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			76	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			76	1	1.3
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			75	2	2.7
		EM	25° C			73	1	1.4
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	42	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			42	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			42	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			42	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			42	0	0.0
		EM	N.R.			42	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	34	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			34	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			34	0	0.0
	C	Fine Leak	5.E-8, 70 Min, 30 Min			34	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			34	0	0.0
		EM	N.R.			34	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	90	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			90	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			90	1	1.1
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			90	1	1.1
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			90	0	0.0
		EM	25° C, 125° C, -55° C			89	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			52	0	0.0
		EM	25° C, 125° C, -55° C					
3	B	Mech Shock	1.5 Kg, 0.6 msec, 6 Axes, 5 Blos	TTL	HFPK	22	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			22	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			22	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 5 Min			22	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			22	0	0.0
		EM	N.R.					
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	CMOS	HFPK	75	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			75	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			75	0	0.0
	C	Fine Leak	3.E-8, 180 Min, 7 Min			75	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			75	0	0.0
		SDF EM	-55° C, 25° C, 125° C			75	3	4.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 90 PSIG			38	0	0.0
		Visual Insp	5X, 10X			38	0	0.0
		EM	N.R.					
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	LTTL	HDIP	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	15	29.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	1	1.9
		Visual Insp	N.R.			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	76	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			76	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			76	0	0.0
	C	S & F EM	25° C, 125° C, -55° C			76	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	78	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			78	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			78	0	0.0
	C	S & F EM	25° C, 125° C, -55° C			78	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			52	0	0.0
	C	Stat EM	25° C, 125° C, -55° C			52	1	1.9
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HFPK	74	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			74	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			74	0	0.0
	C	Stat EM	25° C, 125° C, -55° C			74	0	0.0
3	B	Mech Shock	5 Kg, 0.5 msec, 6 Axes, 5 Blos	LTTL	HFPK	55	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 50 G, 3 Axes			55	0	0.0
		Cnst Acc	75 Kg, 6 Axes, 1 Min			55	1	1.8
	C	Stat EM	25° C			54	6	11.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	102	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			102	0	0.0
		Cnst Acc	3 Kg, 6 Axes, 1 Min			102	0	0.0
	C	Visual Insp	N.R.			102	0	0.0
		Stat EM	25° C, 125° C, -55° C			102	1	0.98
3	A	Fine Leak	5.E-8, 60 Min, 30 Min	HTTL	HFPK	175	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 95 PSIG			175	0	0.0
		Stat EM	25° C			175	0	0.0
	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos			175	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 50 G, 3 Axes			175	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			175	2	1.1
	C	Stat EM	25° C					

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	A	Fine Leak	5.E-8, 60 Min, 30 Min	TTL	HFPK	21	0	0.0
		Gross Leak	Fluor, 125° C, 3X, 95 PSIG			21	0	0.0
		Stat EM	25° C			21	0	0.0
	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos			21	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 50 G, 3 Axes			21	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			21	0	0.0
	C	Stat EM	25° C			21	0	0.0
2	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos	TTL	HDIP	22	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			22	0	0.0
	C	Dynamic EM	75 Kg, 6 Axes, 1 Min			22	0	0.0
3	B	Mech Shock	1.5 Kg, 0.5 msec, 4 Axes, 5 Blos	DTL	HFPK	1,560	0	0.0
		Stat EM	25° C			1,560	0	0.0
		Moisture Res	-10° C, 65° C, 98% RH			1,560	0	0.0
		Stat EM	25° C			1,560	0	0.0
		Lead Fatigue	8 oz			1,560	0	0.0
		Fine Leak	He, 5.E-8			1,560	0	0.0
		Gross Leak	Fluor, 90° C, 90 PSIG			1,560	0	0.0
3	A	Stat EM	25° C, 125° C, -55° C	LTTL	HFPK	27	0	0.0
	B	Mech Shock	1.5 Kg, 0.5 msec, 6 Axes, 5 Blos			27	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			27	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			27	0	0.0
	C	Stat EM	25° C, 125° C, -55° C			27	0	0.0
2	B	Moisture Res	25° C, 65 °C, 90% RH	TTL	PDIP	105	0	0.0
		EM	25° C			105	2	1.9
		EM	100° C			103	3	2.9
		Moisture Res	25° C, 65° C, 90% RH			100	0	0.0
	C	EM	25° C			100	1	1.0
		EM	100° C			99	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Moisture Res	85° C, 85% RH	TTL	PDIP	108	0	0.0
		EM	25° C			108	2	1.9
		EM	100° C			106	1	0.94
		Moisture Res	85° C, 85% RH			105	0	0.0
		EM	25° C			105	4	3.8
		EM	100° C			101	0	0.0
		Moisture Res	85° C, 85% RH			101	0	0.0
	C	EM	25° C			101	0	0.0
		EM	100° C			101	0	0.0
3	B	Solder Heat	230° C, 5 sec.	PMOS	PDIP	25	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			25	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			25	0	0.0
3	B	Solder Heat	230° C, 5 sec.	DTL	PDIP	175	1	0.57
		Temp Cycle	-65° C, 150° C, 25 cyc			175	4	2.3
		Moisture Res	-10° C, 25° C, 98% RH			175	0	0.0
3	B	Solder Heat	230° C, 5 sec.	HTTL	PDIP	35	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			35	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			35	0	0.0
3	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	2,899	5	0.17
		Temp Cycle	-65° C, 150° C, 25 cyc			2,899	1	0.034
		Moisture Res	-10° C, 25° C, 98% RH			2,899	2	0.069
3	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	18	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			18	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			18	0	0.0
4	B	Solder Heat	230° C, 5 sec.	DTL	PDIP	79	3	3.8
		Temp Cycle	-65° C, 150° C, 25 cyc			100	1	1.0
		Temp Cycle	-65° C, 150° C, 25 cyc			99	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			100	3	3.0
4	B	Solder Heat	230° C, 5 sec.	TTL	PDIP	36	0	0.0
		Temp Cycle	-65° C, 150° C, 25 cyc			50	1	2.0
		Temp Cycle	-65° C, 150° C, 25 cyc			49	0	0.0
		Moisture Res	-10° C, 25° C, 98% RH			49	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	B	Temp Cycle	-40° C, 125° C, 10 cycles	DTL	HFPK	52,204	0	0.0
	C	Bake	150° C			52,204	0	0.0
		EM	N.R.			52,204	408	0.78
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	HTTL	PDIP	3,580	0	0.0
	C	Bake	150° C, 100%			3,580	0	0.0
		EM	N.R.			3,580	27	0.75
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	LTTL	PDIP	1,439	0	0.0
	C	Bake	150° C, 100%			1,439	0	0.0
		EM	N.R.			1,439	17	1.2
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	LSTTL	PDIP	25	0	0.0
	C	Bake	150° C, 100%			25	0	0.0
		EM	N.R.			25	0	0.0
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	STTL	PDIP	521	0	0.0
	C	Bake	150° C, 100%			521	0	0.0
		EM	N.R.			521	11	2.1
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	TTL	HDIP	15,890	0	0.0
	C	Bake				15,890	0	0.0
		EM				15,890	154	0.97
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	TTL	PDIP	66,533	0	0.0
	C	Bake	150° C, 100%			66,533	0	0.0
		EM	N.R.			66,533	801	1.2
1	B	Temp Cycle	-55° C, 85° C, 5 cyc, 10/10 DT	TTL	N.R.	7,971	0	0.0
	C	Bake	150° C, 100%			7,971	0	0.0
		EM	N.R.			7,971	31	0.39
3	B	Temp Cycle	0° C, 100° C, 10 cyc, 15/15 DT	TTL	PDIP	126	0	0.0
		EM	25° C			126	1	0.79
		EM	100° C			125	0	0.0
		Temp Cycle	0° C, 100° C, 10 cyc, 15/15 DT			125	0	0.0
		EM	25° C			125	0	0.0
		EM	100° C			125	0	0.0
		Temp Cycle	0° C, 100° C, 30 cyc, 15/15 DT			125	0	0.0
	C	EM	25° C			125	0	0.0
		EM	100° C			125	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Temp Cycle	-55°C, 125°C, 1000 cyc, 10/10 DT	CMOS	PDIP	100	0	0.0
		S&F EM	25°C, 125°C			100	0	0.0
		Lo Press	1.09T, 25°C			100	0	0.0
		S&F EM	25°C, 125°C			100	0	0.0
2	B	Temp Cycle	-55°C, 125°C, 1000 cyc, 10/10 DT	TTL	PDIP	200	0	0.0
		S&F EM	25°C, 125°C			200	0	0.0
		Lo Press	1.09T, 25°C			200	0	0.0
		S&F EM	25°C, 125°C			200	0	0.0
2	B	Temp Cycle	-65°C, 150°C, 25 cyc	DTL	PDIP	25	1	4.0
		Temp Cycle	-65°C, 150°C, 25 cyc			24	1	4.2
2	B	Temp Cycle	-65°C, 125°C, 10 cyc, 15/15 DT	TTL	PDIP	222	0	0.0
		Temp Cycle	-65°C, 150°C, 40 cyc, 15/15 DT			222	0	0.0
3	B	Temp Cycle	-65°C, 125°C, 10 cyc, 15/15 DT	TTL	PDIP	100	0	0.0
		Therm Shock	0°C, 100°C, 10 cyc, Liquid			100	0	0.0
		Moisture Res	85°C, 85% RH			100	0	0.0
3	B	Temp Cycle	-65°C, 125°C, 10 cyc, 15/15 DT	TTL	PDIP	125	0	0.0
		Therm Shock	0°C, 100°C, 10 cyc, Liquid			125	0	0.0
		Moisture Res	85°C, 85% RH			125	0	0.0
	C	EM	25°C			125	5	4.0
		EM	100°C			120	0	0.0
2	B	Bake	150°C	CMOS	PDIP	495	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			495	0	0.0
		Cnst Acc	30 Kg, 1 Axis, 1 Min E			495	0	0.0
	C	D&F EM	25°C			495	22	4.4
2	B	Bake	150°C	TTL	PDIP	2,475	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			2,475	0	0.0
		Cnst Acc	30 Kg, 1 Axis, 1 Min E			2,475	0	0.0
	C	D&F EM	25°C			2,475	125	5.1

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	A	Bake	150°C	CMOS	PDIP	10,404	0	0.0
	B	Temp Cycle	-55°C, 125°C, 10 cyc			10,404	0	0.0096
	C	EM	N.R.			10,403	284	2.7
1	A	Bake	150°C	CMOS	N.R.	6,580	0	0.0
	B	Temp Cycle	-55°C, 125°C, 10 cyc			6,580	0	0.0
	C	EM	N.R.			6,580	1,178	18.0
2	A	Vis Insp	N.R.	CMOS	HDIP	400	0	0.0
	B	Bake	150°C			400	0	0.0
		Temp Cyc	-65°C, 150°C, 10 cyc, 10/5 DT			400	0	0.0
		Cnst Acc	30 Kg, 1 Axis, 1 Min E			400	0	0.0
	C	Fine Leak	He, 5.E-7, 60 Min, 30 Min			400	6	1.5
		Gross Leak	Fluor, 125°C, 3X, 9 PSIG			394	13	3.3
		S&D EM	25°C			381	13	3.4
2	A	Vis Insp	N.R.	CMOS	PDIP	85	0	0.0
	B	Bake	150°C			85	0	0.0
		Temp Cyc	-65°C, 150°C, 10 cyc, 10/5 DT			85	0	0.0
		Cnst Acc	30 Kg, 1 Axis, 1 Min E			85	0	0.0
	C	Fine Leak	He, 5.E-7, 60 Min, 30 Min			85	0	0.0
		Gross Leak	Fluor, 125°C, 3X. 9 PSIG			85	11	13.0
2	A	Visual Insp	30X, 100X	LTTL	HFPK	8,884	16	0.18
		Bake	150°C			8,868	0	0.0
	B	Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			8,868	1	0.0
		Cnst Acc	30Kg, 6 Axes, 1 Min			8,868	1	0.011
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			8,867	60	0.68
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			8,807	61	0.69
		EM	N.R.			8,746	690	7.9
2	A	Vis Insp	N.R.	TTL	HDIP	200	2	1.0
	B	Bake	150°C			198	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/5 DT			198	0	0.0
		Cnst Acc	30Kg, 1 Axis, 1 Min E			198	0	0.0
	C	Fine Leak	He, 5.E-7, 60 Min, 30 Min			198	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 9 PSIG			198	0	0.0
		S&D EM	25°C			198	1	0.51

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	Defective
2	A	Visual Insp	N.R.	TTL	PDIP	100	0	0.0
	B	Bake	150°C			100	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/5 DT			100	0	0.0
		Cnst Acc	30Kg, 1 Axis, 1 Min E			100	0	0.0
	C	Fine Leak	He, 5.E-7, 60 Min, 30 Min			100	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 9 PSIG			100	0	0.0
		S&D EM	25°C			100	0	0.0
1	A	Visual Insp	10X, 20X	TTL	PDIP	196	0	0.0
		EM	N.R.			196	0	0.0
		Bake	200°C			196	0	0.0
	B	Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			196	0	0.0
	C	EM	N.R.			196	0	0.0
		Ht Cont	100°C			196	1	0.51
		Visual Insp	N.R.			195	0	0.0
1	A	Visual Insp	10X, 20X	TTL	PDIP	8,450	0	0.0
		EM	N.R.			8,450	0	0.0
		Bake	200°C			8,450	0	0.0
	B	Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			8,450	0	0.0
	C	Ht Cont	100°C			8,450	13	0.15
		Functional EM	N.R.			8,437	40	0.47
		Visual Insp	N.R.			7,997	0	0.0
1	A	Visual Insp	N.R.	STTL	PDIP	800	0	0.0
		EM	N.R.			800	0	0.0
		Bake	200°C			800	0	0.0
	B	Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			800	0	0.0
	C	Ht Cont	100°C			800	1	0.13
		Stat EM	N.R.			799	12	1.5
		Visual Insp	N.R.			787	0	0.0
1	A	Visual Insp	10X, 20X	TTL	HDIP	2,000	0	0.0
		EM	N.R.			2,000	0	0.0
		Bake	200°C			2,000	0	0.0
	B	Temp Cyc	-40°C, 125°C, 15 cyc, 10/10 DT			2,000	0	0.0
	C	Ht Cont	100°C			2,000	0	0.0
		Stat EM	N.R.			2,000	77	3.9
		Visual Insp	N.R.			1,923	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	A	Visual Insp	10X, 20X	TTL	PDIP	2,000	0	0.0
		EM	N.R.			2,000	0	0.0
		Bake	200°C			2,000	0	0.0
	B	Temp Cyc	-40°C, 125°C, 15 cyc, 10/10 DT			2,000	0	0.0
	C	Ht Cont	100°C			2,000	12	0.60
		Stat EM	N.R.			1,980	31	1.6
		Visual Insp	N.R.			1,959	0	0.0
1	A	Visual Insp	N.R.	STTL	PDIP	523	0	0.0
		EM	N.R.			523	0	0.0
		Bake	200°C			523	0	0.0
	B	Temp Cycle	-40°C, 125°C, 15 cyc, 10/10 DT			523	0	0.0
	C	Ht Cont	100°C			523	0	0.0
		Visual Insp	N.R.			523	0	0.0
1	A	Visual Insp	N.R.	TTL	PDIP	264	0	0.0
		EM	N.R.			264	1	0.38
	B	Temp Cyc	N.R.			264	0	0.0
	C	Visual Insp	N.R.			264	0	0.0
1	A	Visual Insp	N.R.	LTTL	N.R.	10,894	0	0.0
		Fine Leak	N.R.			10,894	0	0.0
		Gross Leak	N.R.			10,894	0	0.0
		EM	N.R.			10,894	357	3.3
	B	Temp Cyc	N.R.			10,894	0	0.0
	C	Visual Insp	N.R.			10,894	0	0.0
								0.0
1	A	Visual Insp	N.R.	TTL	N.R.	24,560	10	0.041
		Fine Leak	N.R.			24,560	33	0.13
		Gross Leak	N.R.			24,560	22	0.090
		EM	N.R.			24,560	496	2.0
	B	Temp Cyc	N.R.			24,560	0	0.0
	C	Visual Insp	N.R.			24,560	0	0.0
1	A	Visual Insp	N.R			499	0	0.0
		Fine Leak	N.R.			499	17	3.4
		Gross Leak	N.R.			499	6	1.2
		EM	N.R.			499	70	14.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
1	B	Temp Cyc	N.R.			499	0	0.0
	C	Visual Insp	N.R.			499	1	0.20
		X-Ray	N.R.			499	9	1.8
2	B	Therm Shock	0°C, 100°C, 15 cyc, Liquid	TTL	PDIP	194	0	0.0
		EM	25°C			194	1	0.52
		EM	100°C			193	1	0.52
		Therm Shock	-65°C, 150°C, 15 cyc, Liquid			192	0	0.0
	C	EM	25°C			192	1	0.52
		EM	100°C			191	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	38	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			38	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atm			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		Stat EM	25°C, 125°C, -55°C			38	0	0.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	HTTL	HDIP	10	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			10	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			10	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			10	0	0.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	1	1.9
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		VBVRFQ	20 Hz, 2KHz, 20 G, 3 Axes			51	0	0.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	HFPK	35	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			35	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			35	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			35	0	0.0

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HDIP	7	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			7	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			7	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			7	0	0.0
	C	EM	N.R.			7	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	38	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	EM	N.R.			38	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	76	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			76	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			76	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			76	1	1.3
	C	Stat EM	25°C, 125°C, -55°C			75	1	1.3
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	41	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			41	1	2.4
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			40	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G			40	3	7.5
	C	Stat EM	25°C, 125°C, -55°C			37	0	0.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	PDIP	100	0	0.0
		S&F EM	25°C, 125°C			100	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			100	0	0.0
		S&F EM	25°C, 125°C			100	4	4.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	PDIP	200	0	0.0
		S&F EM	25°C, 125°C			200	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			200	0	0.0
		S&F EM	25°C, 125°C			200	1	0.50

Table 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
7	B	Therm Shock	-55°C, 125°C, 15 cyc			25	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			25	0	0.0
		Moisture Res	85°C, 125°C, 98% RH			25	0	0.0
		Dynamic EM	N.R.			25	0	0.0
		Solderability	260°C			25	0	0.0
		Terminal Str	N.R.			25	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			25	0	0.0
		Lead Fatigue	8 oz, 90 Deg, 3 Arcs			25	0	0.0
	C	Visual Insp	N.R.			25	0	0.0
		Hermeticity	N.R.			25	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Fine Leak	He, 5.E-8, 60 Min, 30 Min			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			52	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HFPK	57	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			57	0	0.0
		Fine Leak	He, 5.E-8, 60 Min, 30 Min			57	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			57	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			57	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			57	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	138	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			138	0	0.0
		Fine Leak	5.E-8, 60 Min, 30 Min			138	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			138	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			138	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			138	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	8	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			8	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			8	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			8	0	0.0
		Stat EM	25°C, 125°C, -55°C			8	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HFPK	55	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			55	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 5 Axes, 5 Blos			55	0	0.0
	C	Stat EM	25°C			55	0	0.0
4	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	22	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			22	0	0.0
		Moisture Res	-10°C, 65°C, 76% RH			22	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			22	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			22	0	0.0
		EM	N.R.			22	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			22	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			22	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			22	0	0.0
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	HDIP	118	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			118	0	0.0
		Moist	-10°C, 65°C, 98% RH			118	0	0.0
	C	Fine Leak	3.E-8, 125°C, 3X, 75 PSIG			118	1	0.85
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			118	0	0.0
		EM	25°C, 125°C, -55°C			117	0	0.0
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	HFPK	55	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			55	0	0.0
		Moist	-10°C, 65°C, 98% RH			55	0	0.0
	C	Fine Leak	3.E-8, 60 Min, 10 Min			55	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 75 PSIG			55	0	0.0
		EM	25°C, 125°C, -55°C			55	1	1.8
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	150	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			150	0	0.0
		Moist	-10°C, 65°C, 98% RH			150	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			150	1	0.67
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			150	0	0.0
		EM	N.R.			150	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	HFPK	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Moist	-10°C, 65°C, 98% RH			52	1	1.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		EM	25°C, 125°C, -55°C			51	0	0.0
3	B	Therm SHock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	42	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			42	0	0.0
		Moist	-10°C, 65°C, 98% RH			42	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			42	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			42	1	2.4
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	22	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			22	0	0.0
		Moist	-10°C, 65°C, 98% RH			22	0	0.0
	C	Fine Leak	5.E-8, 65 Min, 10 Min			22	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			22	0	0.0
		EM	N.R.			22	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	45	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			45	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			45	0	0.0
	C	Fine Leak	N.R.			45	0	0.0
		Gross Leak	N.R.			45	0	0.0
		EM	N.R.			45	1	2.2
3	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	CMOS	HFPK	75	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			75	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			75	0	0.0
	C	Fine Leak	3.E-8, 180 Min, 7 Min			75	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			75	0	0.0
		SDF EM	25°C, 125°C, -55°C			75	1	1.3
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HDIP	41	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			41	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			41	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			41	1	2.4
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			41	0	0.0
		Stat EM	25°C, 125°C, -55°C			41	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	38	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			38	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		Stat EM	25°C, 125°C, -55°C			38	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
		Visual Insp	N.R.			52	40	77.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		Visual Insp	N.R.			52	31	60.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	75	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			75	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			75	0	0.0
	C	S & F EM	25°C, 125°C, -55°C			75	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			75	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			75	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	106	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			106	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			106	0	0.0
	C	S & F EM	25°C, 125°C, -55°C			106	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			106	0	0.0
		Gross Leak	Flour, 125°C, 3X, 90 PSIG			106	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc	TTL	HDIP	52	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			52	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			52	0	0.0
	C	Visual Insp	N.R.			52	34	65.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
6	B	Therm Shock	-55°C, 125°C, 15 cyc	TTL	PDIP	20	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			20	0	0.0
		Solderability	260°C			20	0	0.0
		Terminal Str	N.R.			20	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			20	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 3 Axes, 5 Blos			20	0	0.0
	C	Visual Insp	N.R.			20	0	0.0
		Hermeticity	N.R.			20	1	5.0
2	B	Therm Shock	0°C, 100°C, 15 cyc, Liquid	TTL	PDIP	25	0	0.0
		Therm Shock	-65°C, 150°C, 15 cyc, Liquid			25	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	52	0	0.0
		VBVRFQ	20 Hz, KHz, 20 G, 3 Axes			52	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			52	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			52	0	0.0
3	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
		Cnst Acc	30 Kg, 6 Axes, 1 Min			52	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			52	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HDIP	29	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			29	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			29	4	14.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Cp Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	41	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			41	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			41	5	12.0
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	HTTL	HDIP	20	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			20	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			20	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			20	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	241	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			241	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			241	25	10.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			241	1	0.41
2	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	HFPK	90	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			90	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			90	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			90	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HDIP	361	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			361	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			361	4	1.1
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			357	6	1.7
		EM	25°C			351	1	0.28
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HFPK	148	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			148	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			148	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			148	0	0.0
		EM	25°C			148	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	690	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			690	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			690	8	1.2
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			682	3	0.44
		EM	25°C			679	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 Cyc, Liquid	TTL	HFPK	144	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			144	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			144	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			144	2	1.4
		EM	25°C			142	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	156	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			156	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			156	21	13.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			156	3	1.9
		EM	25°C, 125°C, -55°C			132	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	34	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			34	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			34	1	2.9
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			34	1	2.9
		EM	25°C, 125°C, -55°C			34	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HFPK	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		S & F EM	25°C, 125°C, -55°C			38	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			38	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			38	0	0.0
		S & F EM	25°C, 125°C, -55°C			38	1	2.6
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	HTTL	HDIP	52	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			52	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			52	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			52	0	0.0
		Stat EM	25°C, 125°C, -55°C			52	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HDIP	217	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			217	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			217	1	0.46
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			217	0	0.0
		Stat EM	25°C, 125°C, -55°C			217	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	TTL	HFPK	251	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			251	0	0.0
	C	Fine Leak	5.E-8, 60 Min, 30 Min			251	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			251	0	0.0
		Stat EM	25°C, 125°C, -55°C			251	2	0.80
4	B	Therm Shock	-65°C, 150°C, 15 cyc, Liquid	TTL	HFPK	8	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			8	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			8	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			8	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			8	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			8	0	0.0
2	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid	LTTL	HDIP	38	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			38	0	0.0
	C	Visual Insp	N.R.			38	0	0.0
		Stat EM	25°C, 125°C, -55°C			38	0	0.0
1	A	Bake	125°C	HTTL	PDIP	272	0	0.0
	B	Therm Shock	0°C, 100°C, 10 cyc, Liquid			272	0	0.0
	C	EM	25°C, 125°C			272	7	2.6
1	A	Bake	125°C	TTL	PDIP	2,186	0	0.0
	B	Therm Shock	0°C, 100°C, 10 cyc, Liquid			2,186	0	0.0
	C	EM	25°C, 125°C			2,186	111	5.1
7	A	Dynamic EM	N.R.	HTTL	HDIP	13	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc			13	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			13	0	0.0
		Solderability	260°C			13	0	0.0
		Terminal Str	N.R.			13	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			13	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 3 Axes, 5 Blos			13	0	0.0
		Lead Fatigue	8 oz, 90 Deg. 3 Arcs			13	0	0.0
	C	Dynamic EM	N.R.			13	0	0.0

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Op Type	Package	Number Tested	Number Failed	% Defective
7	A	Dynamic EM	N.R.	TTL	PDIP	93	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc			93	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc			93	0	0.0
		Solderability	260°C			93	0	0.0
		Terminal Str	260°C			93	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			93	0	0.0
		Mech Shock	1.5 Kg, 0.5 msec, 3 Axes, 5 Blos			93	0	0.0
		Lead Fatigue	8 Oz, 90 Deg, 3 Arcs			93	0	0.0
	C	Dynamic EM	N.R.			93	0	0.0
2	A	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	144	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			144	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			144	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			144	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			144	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			144	0	0.0
2	A	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	73	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			73	0	0.0
		Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			73	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			73	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			73	2	2.7
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			73	0	0.0
		EM	25°C, 125°C, -55°C			73	0	0.0
2	A	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo	TTL	HDIP	24	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			24	0	0.0
		VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes			24	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			24	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			24	0	0.0
3	A	Fine Leak	5.E-8, 60 Min, 30 Min	HTTL	HFPK	205	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			205	0	0.0
		Stat EM	25°C			205	0	0.0
		Therm Shock	0°C, 100°C, 15 cyc, Liquid			205	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			205	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			205	0	0.0
	C	Stat EM	25°C			205	1	0.49

TABLE 33: ENVIRONMENTAL/SCREENING DATA
MULTIPLE STRESS TESTS (Cont'd)

Number Stresses Per Sequence	Category	Test Type	Stress Level	Cp Type	Package	Number Tested	Number Failed	% Defective
1	A	Stat EM	25°C, 125°C, -55°C	LTTL	HDIP	12	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			12	0	0.0
1	A	Stat EM	25°C, 125°C, -55°C	LTTL	HFPK	13	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			13	0	0.0
1	A	Stat EM	25°C, 125°C, -55°C	LTTL	HDIP	31	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			31	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			31	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			31	0	0.0
1	A	Stat EM	25°C, 125°C, -55°C	TTL	HDIP	19	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			19	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			19	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			19	0	0.0
1	A	Stat EM	25°C, 125°C, -55°C	TTL	HFPK	38	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			38	1	2.6
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			37	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			37	0	0.0
3	A	Stat EM	25°C, 125°C, -55°C	LTTL	HFPK	87	0	0.0
	B	Therm Shock	-55°C, 125°C, 15 cyc, Liquid			87	0	0.0
		Temp Cycle	-65°C, 150°C, 10 cyc, 10/10 DT			87	0	0.0
		Moisture Res	-10°C, 65°C, 98% RH			87	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			87	0	0.0
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			87	0	0.0
		Stat EM	25°C, 125°C, -55°C			87	0	0.0
2	B	VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	35	0	0.0
		Therm Shock	-65°C, 150°C, 15 cyc, Liquid			35	0	0.0
	C	Fine Leak	Radis, 5.E-8, 12 Min, 5 Atmo			35	2	5.7
		Gross Leak	Fluor, 125°C, 3X, 90 PSIG			35	0	0.0
2	B	VBVRFQ	20 Hz, 2 KHz, 20 G, 3 Axes	TTL	HDIP	50	0	0.0
		Therm Shock	-55°C, 125°C, 15 cyc, Liquid			50	0	0.0
	C	Stat EM	25°C, 125°C, -55°C			50	0	0.0

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

SECTION 2

DIGITAL EVALUATION DATA -
DETAILED LISTINGS

Section 2

DIGITAL EVALUATION DATA - DETAILED LISTINGS

The data presented in this section have been extracted from numerous government and industry reports dealing with SSI and MSI digital microcircuits.* These data include component level burn-in and environmental/screening tests, as well as board- and equipment-level environmental tests, environmental burn-in tests, and step stress tests. The following listings are classified according to 1)test type, 2)device function, 3)operational type (CMOS, TTL, etc.), 4)device manufacturer, and 5)commercial part number and are formatted to present relevant information about each specific test in terms of package characteristics, screen class levels, test stress parameters and number tested/number failed criteria. In addition, where a verified failure(s) has occurred, the appropriate line entry will indicate a microcircuit failure event file cross-reference number (MFEF#). This MFEF# relates directly to Part 2, Section 4 of this publication (Digital Failure Analysis Data-Detailed Listings) in that a detailed description of all of the reported and pertinent device/test/failure information dealing with a specific failure event will be listed in this section.

The information listed within this section has been screened to include only those data which completed testing after January, 1975. Also, part numbers are presented in a left-hand justified format and, within each identical part number, are arranged in order of decreasing screen class quality (A-1 to NONE). Care should be taken when the reader wishes to locate a specific part number, as a part number such as 54107 would, due to the left-hand justification process, be listed before a part number of 5411 as a result of the fourth digit (0 and 1, respectively).

The data presented here are best utilized for comparing the results of various test sequences on identical commercial part numbers as a function of

*Digital LSI and memory devices are contained under a separate cover entitled "Memory/LSI Data." (Reliability Analysis Center Document Number MDR-13)

manufacturer, screen class level, etc., as well as an indication through cross-referencing of the detailed failure descriptions which result from a specific test type. The user is cautioned, however, that the data contained herein may not be used in lieu of other contractually cited references and specifications.

A Usage Guide directly follows and will prove beneficial to the reader who wishes to familarize himself with the format, terminology and abbreviations used throughout Section 2.

USAGE GUIDE
DIGITAL EVALUATION DATA

The description given below applies to the computer listings of Section 2. The circled numbers shown on the tabulation form below refer to the explanatory text which follows. A few minutes spent familiarizing oneself with the information supplied below will aid in the user's comprehension of the data contained herein.

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② ADDER ① BURN-IN RELIABILITY ANALYSIS CENTER

③ BASIC TECHNOLOGY BIPOLAR ④ OPERATIONAL TYPE TTL

MANUFACTURER / PART NO.	PKG/ PINS	SCR CL/ INSP REQ	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY	#
FAIRCHILD ⑤ 9304 ⑥	FPK ⑦ 16	S ⑧ S.B. ⑨	12/75 ⑪ ⑬	BURN-IN ⑫ EM	⑬	S.B. ⑭	6336 ⑮	⑯	0 ⑰	⑱	

① SOURCE CODE. The major grouping criterion for Section 2. The tests considered are Burn-In, Environmental, Board Level Environmental, Equipment Level Environmental, Environmental Burn-In, and Step Stress.

② DEVICE FUNCTION. Indicates basic design function (adder, buffer, etc.) and is listed alphabetically within each source code category.

③ BASIC TECHNOLOGY. Categorizes the digital microcircuits into Bipolar and MOS subgroups.

④ OPERATIONAL TYPE. Reflects the device technology (CMOS, PMOS, DTL, ECL, LTTL, HTTL, LSTTL, STTL, TTL, SUHL).

⑤ MANUFACTURER. Denotes the manufacturer of the tested devices. Manufacturers are arranged alphabetically within each operational type. The term "VARIOUS" is used to indicate parts produced by two or more manufacturers. This term is most commonly applied where second sourcing of equipment level parts occurs.

(6) PART NO. The listing of the device part number, neglecting package and temperature rating suffixes/prefixes. Part numbers are arranged in left-hand justified numerical order, allowing part number sequences as follows: 5408, 54107, 5411, 74160, 8162.

(7) PKG/PINS (PACKAGE PINS). Indicates the generic package construction and the number of pins per package.

PACKAGE PREFIXES		PACKAGE SUFFIXES	
BLANK	Hermetic	DIP	Dual In-Line Package
E	Epoxy	FPK	Flat Package
S	Silicone	QIP	Quad In-Line Package

(8) SCR CL (SCREEN CLASS). Screen class is listed in order of decreasing quality within each part number category. These screening codes are of the same basic form as found in MIL-HDBK-217C, with slight variations.

A-1	MIL-STD-883, Method 5004, Class A (Class S)	C-1	MIL-STD-883, Method 5004, Class C
JB	MIL-M-38510, Class B (JAN)	C-2	Vendor equivalent of C-1
B-1/JB	Combination of JAN and B-1 parts	N	No screening beyond vendor's normal QC (Class D, D-1)
B-1	MIL-STD-883, Method 5004, Class B	N.R.	Not Reported
B-2	Vendor equivalent of B-1		

(9) TMP RNG (TEMPERATURE RANGE). Indicates the min/max temperature limits of the package type, in degrees Centigrade, where $-55^{o}/125^{o}C$ is typically a military quality temperature range and $0^{o}/70^{o}C$ is typically a commercial package temperature range.

(10) DATE. Indicates the date (month/year) when testing was completed. Testing completed prior to January, 1975 has been excluded from this detailed listing.

(11) SRC (SOURCE). Indicates by whom the data were generated, i.e., vendor (V), user (U), independent test lab, (I), government agency (G), or qualification tests (Q).

(12) TEST TYPE. Test type terms are listed below. Where a sequence of tests were performed, the tests are listed in the order in which they occurred.

ACC RB	Accelerated Reverse Bias
AUTOCLV	Autoclave
BAKE	High Temperature, Non-Operating Bake
BONDSTR	Bond Strength
BURN-IN	Burn-In (NOC)
CNSTACC	Constant Acceleration
EM	Electrical Measurement
FINE LK	Fine Leak
FNCT EM	Functional Electrical Measurement
GROSS LK	Gross Leak
HERMET	Hermeticity
HT CONT	High Temperature Continuity
LEAD FTG	Lead Fatigue
MECH SHK	Mechanical Shock
MINOIL	Mineral Oil
MOIST	Moisture Resistance
N.A.	Not Applicable
OP CNST	Constant Operation
OP DYN	Dynamic Operation
PAR EXC	Parallel Excitation
REV BIAS	Reverse Bias
RINGCNT	Ring Counter
SALT ATM	Salt Atmosphere

S&D EM	Static & Dynamic Electrical Measurement
S&F EM	Static & Functional Electrical Measurement
SDF EM	Static, Dynamic & Functional Electrical Measurements
SLDRHT	Solder Heat
SOLDER	Solderability
STAT EM	Static Electrical Measurement
TEMP CYC	Temperature Cycle
THRMSHK	Thermal Shock
VBVRFQ	Vibration, Varying Frequency
VIB FTG	Vibration Fatigue
VIB RDM	Random Vibration
VIS INS	Visual Inspection
X-RAY	X-ray Inspection

(13) STRESS LEVEL. This column contains available information about the test conditions. The higher of any two temperatures listed is used in calculating the junction temperature ("JCT*. TEMP.") of the device under test. Percentages apply to the percentage of applied power, the percent "ON" time (listed after the number of g's for power cycling tests), the percentage of applied vibration, or, when "RH" is the suffix, the percentage of relative humidity. One hundred percent rated power should be assumed when not stated. Descriptors used are as follows:

ARCS	Number of Arcs
AXES	As defined in MIL-STD-883B
BDS	Number of Bonds
BLOS	Number of Blows
C	Degrees Centigrade
CYC/CY	Number of Cycles
DEG	Degrees
DT	Dwell Time
E	Each
FLUOR	Fluorocarbon
FO	Fan Out

G	Gravitational Acceleration Constant
GMS MSQ	Grams Per Square Meter
HE	Helium
HZ	Hertz
IL	Leakage Current
KCY	Kilocycles
KG	Kilograms
KHZ	Kilohertz
MA	Milliamps
MIN	Minutes
MSEC	Milliseconds
OZ	Ounces
%	Percent
PSIG	Pounds Per Square Inch, Gauge (PSIG=PSIA+15 at sea level)
RADIS	Radioisotope
RH	Relative Humidity
SEC	Seconds
X	Times (magnification)

(14) SPEC. REF. (SPECIFICATION REFERENCE). The military document and method number describing the test type to which the referenced device was tested.

(15) NO. TEST (NUMBER TESTED). The number of devices tested for a given test type.

(16) DEVICE HOURS. This number represents the product of the number of devices tested multiplied by the number of test hours per device. The "E**" symbol indicates ten raised to the "**" power. Thus, "5.9E 04" represents fifty-nine thousand (59,000) hours.

(17) NO. FLD (NUMBER FAILED). The number of devices which failed the test type criteria.

(15) FAILURE SUMMARY/#. This column contains a Microcircuit Failure Event File cross-reference number, followed by the number of devices represented by each MFEF number. Example: MFEF 123/2 means that the failure description for 2 devices is referenced by MFEF 123. The detailed MFEF numbers and their failure descriptions are found in Part 2, Section 4 of this publication (Digital Failure Analysis Data-Detailed Listings).

ADDER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	FPK	N	12/75	BURN-IN			6334		0	
9304	16	N.R.	U			N.R.				
				EM			6334		7	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			6371		0	
5482	14	-55/125	U			N.R.				
				EM			6371		46	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			5033		0	
9304	16	-55/125	U			N.R.				
				EM			5033		9	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			2415		0	
5482	14	-55/125	U			N.R.				
				EM			2415		4	
			U			N.R.				

BUFFER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	FPK	N	12/75	BURN-IN			10104		0	
54H40	14	-55/125	U			N.R.				
				EM			10104		46	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			13446		0	
54H40	14	-55/125	U			N.R.				
				EM			13446		17	
			U			N.R.				

BUFFER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N	05/77	FNCT EM	025C		1492		3	
74LS38	14	0/70C	U			N.R.				
				BURN-IN	125C		1489	2.50E 05	0	
			U			N.R.				
				FNCT EM	025C		1489		20	
			U			N.R.				
T.I.	E-DIP	N	05/77	FNCT EM	025C		1429		1	
74LS38	14	0/70C	U			N.R.				
				BURN-IN	125C		1428	2.40E 05	0	
			U			N.R.				
				FNCT EM	025C		1428		1	
			U			N.R.				

BUFFER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	N	12/75	BURN-IN			80		0	
5440	14	-55/125	U			N.R.				
				EM			80		0	
			U			N.R.				
NATIONAL	DIP	N	12/75	BURN-IN			40		0	
7200	14	-55/125	U			N.R.				
				EM			40		0	
			U			N.R.				

CUSTOM — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE PMOS,STATIC

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NITRON	DIP	B-1	02/78	REVBIAS	125C		26265	4.41E 06	0	
	40	N.R.	U			N.R.				
				S&F EM	085C		26265		82	
			U			N.R.				
				STAT EM	-035C		26265		30	
			U			N.R.				
				FNCT EM	025C		26265		153	
			U			N.R.				
				VIS INS			26265		67	
			U			N.R.				
NITRON	DIP	B-1	02/78	REVBIAS	125C		2820	4.74E 05	0	
	40	N.R.	U			N.R.				
				S&F EM	085C		2820		24	
			U			N.R.				
				STAT EM	-035C		2820		17	
			U			N.R.				
				FNCT EM	025C		2820		21	
			U			N.R.				
				VIS INS			2820		2	
			U			N.R.				
NITRON	DIP	B-1	02/78	REVBIAS	125C		137	2.30E 04	0	
	40	N.R.	U			N.R.				
				S&F EM	085C		137		4	
			U			N.R.				
				STAT EM	-035C		137		1	
			U			N.R.				
				FNCT EM	025C		137		3	
			U			N.R.				
				VIS INS			137		2	
			U			N.R.				

COUNTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	E-DIP	C-1	05/77	FNCT EM	025C		524		5	
74LS193	16	0/70C	U			N.R.				
				BURN-IN	125C		519	8.72E 04	0	
			U			N.R.				
				FNCT EM	025C		519		5	
			U			N.R.				
ADV MICRO DEV	E-DIP	C-1	05/77	FNCT EM	025C		87		0	
74LS193	16	0/70C	U			N.R.				
				BURN-IN	125C		87	1.46E 04	0	
			U			N.R.				
				FNCT EM	025C		87		8	
			U			N.R.				

COUNTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	FPK	N	12/75	BURN-IN			1515		0	
9310	16	-55/125	U			N.R.				
				EM			1515		0	
			U			N.R.				
ADV MICRO DEV	FPK	N	12/75	BURN-IN			8942		0	
9316	16	-55/125	U			N.R.				
				EM			8942		32	
			U			N.R.				
ADV MICRO DEV	DIP	N	12/75	BURN-IN			796		0	
9316	16	N.R.	U			N.R.				
				EM			796		5	
			U			N.R.				

COUNTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TESTED	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 9310	FPK 16	N -55/125	12/75	BURN-IN		N.R.	221		0	
				FM			221		0	
			P			N.R.				
FAIRCHILD 9310	DIP 16	N -55/125	12/75	BURN-IN		N.R.	32		0	
				FM			32		0	
			P			N.R.				
FAIRCHILD 9316	FPK 16	N -55/125	12/75	BURN-IN		N.R.	4119		0	
				FM			4119		4	
			C			N.R.				
FAIRCHILD 9316	DIP 16	N -55/125	12/75	BURN-IN		N.R.	427		0	
				FM			427		1	
			P			N.R.				
SIGNETICS 5493	DIP 14	N -55/125	12/75	BURN-IN		N.R.	42		0	
				FM			42		0	
			C			N.R.				
T.I. 5499A	FPK 14	N -55/125	12/75	BURN-IN		N.R.	67		0	
				FM			67		0	
			P			N.R.				
T.I. 5490A	DIP 14	N -55/125	12/75	BURN-IN		N.R.	55		0	
				FM			55		0	
			P			N.R.				
ADV MICRO DEV 9301	FPK 16	N -55/125	12/75	BURN-IN		N.R.	3673		0	
				FM			3673		0	
			P			N.R.				
ADV MICRO DEV 9301	DIP 16	N -55/125	12/75	BURN-IN		N.R.	424		0	
				FM			424		0	
			P			N.R.				
ITT 9301	FPK 16	N -55/125	12/75	BURN-IN		N.R.	1714		0	
				FM			1714		2	
			P			N.R.				
T.I. 5442A	DIP 16	N -55/125	12/75	BURN-IN		N.R.	24		0	
				FM			24		0	
			P			N.R.				

DEC-DFNUX — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TESTED	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 74LS138	F-DIP 16	N C/70C	05/77	FUNCT PM	125C	N.R.	125		0	
				OP LIFE	125		125	2.1E6	0	
			P			N.R.				
SIGNETICS 74LS138	F-DIP 16	N C/70C	05/77	FUNCT PM	125C	N.R.	257		3	
				OP LIFE	125C		257	2.1E6	0	
			C			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
T.I.	FPK	N	12/75	BURN-IN			150		0	
54H02	14	-55/125	M			N.R.				
				EM			150		0	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			541		0	
54H04	14	-55/125	M			N.R.				
				EM			541		2	
			M			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
T.I.	DIP	N	12/75	BURN-IN			105		0	
54L74	14	-55/125	M			N.R.				
				EM			105		0	
			M			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
FAIRCHILD	FPK	N	12/75	BURN-IN			94		0	
54H102	14	-55/125	M			N.R.				
				EM			94		1	
			M			N.R.				
RAYTHEON	FPK	N	12/75	BURN-IN			138		0	
3130	14	-55/125	M			N.R.				
				EM			138		0	
			M			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			1388		0	
54H72	14	-55/125	M			N.R.				
				EM			1388		15	
			M			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			463		0	
54H73	14	-55/125	M			N.R.				
				EM			463		1	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			155		0	
54H101	14	-55/125	M			N.R.				
				EM			155		0	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			3153		0	
54H102	14	-55/125	M			N.R.				
				EM			3153		2	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			59		0	
54H103	14	-55/125	M			N.R.				
				EM			59		0	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			1435		0	
54H10	14	-55/125	M			N.R.				
				EM			1435		9	
			M			N.R.				
T.I.	FPK	N	12/75	BURN-IN			1065		0	
54H74	14	-55/125	M			N.R.				
				EM			1065		1	
			M			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
FAIRCHILD	E-DIP	N	05/77	FNCT EM	025C		205		1	
74LS174	16	0/70C	U			N.R.				
				BURN-IN	125C		204	3.43E 04	0	
			U			N.R.				
				FNCT EM	025C		204		3	
			U			N.R.				
NATIONAL	E-DIP	N	05/77	FNCT EM	025C		2183		11	
74LS74	14	0/70C	U			N.R.				
				BURN-IN	125C		2172	3.65E 05	0	
			U			N.R.				
				FNCT EM	025C		2172		0	
			U			N.R.				
SIGNETICS	E-DIP	N	05/77	FNCT EM	025C		50		0	
74LS174	16	0/70C	U			N.R.				
				BURN-IN	125C		50	8.40E 03	0	
			U			N.R.				
				FNCT EM	025C		50		0	
			U			N.R.				
SIGNETICS	E-DIP	N	05/77	FNCT EM	025C		1360		0	
74LS74	14	0/70C	U			N.R.				
				BURN-IN	125C		1360	2.28E 05	0	
			U			N.R.				
				FNCT EM	025C		1360		4	
			U			N.R.				
T.I.	E-DIP	N	05/77	FNCT EM	025C		34		1	
74LS'23	16	0/70C	U			N.R.				
				BURN-IN	125C		33	5.54E 03	0	
			U			N.R.				
				FNCT EM	025C		33		0	
			U			N.R.				
T.I.	E-DIP	N	05/77	FNCT EM	025C		80		3	
74LS73	14	0/70C	U			N.R.				
				BURN-IN	125C		77	1.29E 04	0	
			U			N.R.				
				FNCT EM	025C		77		0	
			U			N.R.				
T.I.	E-DIP	N	05/77	FNCT EM	025C		2056		27	
74LS74	14	0/70C	U			N.R.				
				BURN-IN	125C		2029	3.41E 05	0	
			U			N.R.				
				FNCT EM	025C		2029		1	
			U			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
FAIRCHILD	FPK	N	12/75	BURN-IN			3803		0	
9601	14	-55/125	U			N.R.				
				EM			3803		11	
			U			N.R.				
FAIRCHILD	DIP	N	12/75	BURN-IN			127		0	
9601	14	-55/125	U			N.R.				
				EM			127		0	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			936		0	
9601	14	-55/125	U			N.R.				
				EM			936		1	
			U			N.R.				
ITT	DIP	N	12/75	BURN-IN			268		0	
9601	14	-55/125	U			N.R.				
				EM			268		0	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			537		0	
9601	14	-55/125	U			N.R.				
				EM			537		0	
			U			N.R.				

FLIP FLOP — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	FPK	N	12/75	BURN-IN			149		0	
5470	14	-55/125	U			N.R.				
				EM			149		4	
			U			N.R.				
T.I.	DIP	N	12/75	BURN-IN			18		0	
54121	14	-55/125	U			N.R.				
				EM			18		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			19		0	
5470	14	-55/125	U			N.R.				
				EM			19		0	
			U			N.R.				

GATE — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	N	12/75	BURN-IN			14		0	
54L10	14	-55/125	U			N.R.				
				EM			14		0	
			U			N.R.				

GATE — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	N	12/75	BURN-IN			919		0	
54H00	14	-55/125	U			N.R.				
				EM			919		1	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			7260		0	
54H30	14	-55/125	U			N.R.				
				EM			7260		7	
			U			N.R.				
SIGNETICS	DIP	N	12/75	BURN-IN			224		0	
54H30	14	-55/125	U			N.R.				
				EM			224		1	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			2637		0	
54H01	14	-55/125	U			N.R.				
				EM			2637		0	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			2431		0	
54H10	14	-55/125	U			N.R.				
				EM			2431		3	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			5858		0	
54H11	14	-55/125	U			N.R.				
				EM			5858		4	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			1613		0	
54H20	14	-55/125	U			N.R.				
				EM			1613		0	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			1770		0	
54H21	14	-55/125	U			N.R.				
				EM			1770		2	
			U			N.R.				
SIGNETICS	FPK	N	12/75	BURN-IN			1289		0	
54H30	14	-55/125	U			N.R.				
				EM			1289		1	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /F
SIGNETICS	FPK	N	12/75	BURN-IN			3940		0	
54H51	14	-55/125	U			N.R.				
				EM			3940		4	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			11965		0	
54H00	14	-55/125	U			N.R.				
				EM			11965		12	
			U			N.R.				
T.I.	DIP	N	12/75	BURN-IN			144		0	
54H00	14	-55/125	U			N.R.				
				FM			148		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			2307		0	
54H01	14	-55/125	U			N.R.				
				FM			2307		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			3666		0	
54H10	14	-55/125	U			N.R.				
				FM			3666		5	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			10237		0	
54H11	14	-55/125	U			N.R.				
				FM			10237		5	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			2101		0	
54H20	14	-55/125	U			N.R.				
				EM			2101		5	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			138		0	
54H21	14	-55/125	U			N.R.				
				EM			138		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			1102		0	
54H21	14	-55/125	U			N.R.				
				EM			1102		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			2163		0	
54H30	14	-55/125	U			N.R.				
				EM			2163		1	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			3547		0	
54H51	14	-55/125	U			N.R.				
				FM			3547		4	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			22356		0	
54H52	14	-55/125	U			N.R.				
				EM			22356		18	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			292		0	
54H53	14	-55/125	U			N.R.				
				EM			292		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			10890		0	
54H54	14	-55/125	U			N.R.				
				EM			10890		7	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			3201		0	
54H55	14	-55/125	U			N.R.				
				EM			3201		5	
			U			N.R.				
VARIOUS	DIP	N	12/75	BURN-IN			1175		0	
54H10	14	-55/125	U			N.R.				
				FM			1175		01	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR LEV/ TEMP RNG	DATE/ SPC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
FAIRCHILD 74LS20	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	75		0	
				BURN-IN	125C	N.R.	75	1.26E 04	0	
			B	FNCT EM	025C	N.R.	75		0	
FAIRCHILD 74LS32	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	174		0	
				BURN-IN	125C	N.R.	174	2.92E 04	0	
			B	FNCT EM	025C	N.R.	174		2	
FAIRCHILD 74LS38	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	2250		2	
				BURN-IN	125C	N.R.	2248	3.78E 05	0	
			B	FNCT EM	025C	N.R.	2248		3	
FAIRCHILD 74LS51	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	856		4	
				BURN-IN	125C	N.R.	852	1.43E 05	0	
			B	FNCT EM	025C	N.R.	852		0	
NATIONAL 74LS20	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	331		1	
				BURN-IN	125C	N.R.	330	5.54E 04	0	
			B	FNCT EM	025C	N.R.	330		1	
NATIONAL 74LS240	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	140		0	
				BURN-IN	125C	N.R.	140	2.35E 04	0	
			B	FNCT EM	025C	N.R.	140		0	
SIGNETICS 74LS00	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	2325		4	
				BURN-IN	125C	N.R.	2321	3.90E 05	0	
			B	FNCT EM	025C	N.R.	2321		4	
SIGNETICS 74LS02	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	1253		1	
				BURN-IN	125C	N.R.	1252	2.10E 05	0	
			B	FNCT EM	025C	N.R.	1252		2	
SIGNETICS 74LS20	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	491		5	
				BURN-IN	125C	N.R.	486	8.16E 04	0	
			B	FNCT EM	025C	N.R.	486		0	
SIGNETICS 74LS38	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	480		4	
				BURN-IN	125C	N.R.	476	8.00E 04	0	
			B	FNCT EM	025C	N.R.	476		129	
SIGNETICS 74LS32	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	407		3	
				BURN-IN	125C	N.R.	404		0	
			B	FNCT EM	025C	N.R.	404		37	
T.I. 74LS51	E-DIP 14	S 0/70C	05/77 B	FNCT EM	025C	N.R.	3595		11	
				BURN-IN	125C	N.R.	3584	6.02E 05	0	
			B	FNCT EM	025C	N.R.	3584		2	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
T.I.	E-DIP	S	35/77	FSCT FM	025C		35		0	
74LS13	14	0/70C	"	"	"	N.R.	"	"	"	
				BURN-IN	125C		35	5.86E 03	0	
			"	"	"	N.R.	"	"	"	
				FSCT FM	025C		35		0	
			"	"	"	N.R.	"	"	"	
T.I.	E-DIP	S	35/77	FSCT FM	025C		54		0	
74LS13	14	0/70C	"	"	"	N.R.	"	"	"	
				BURN-IN	125C		54	4.07E 03	0	
			"	"	"	N.R.	"	"	"	
				FSCT FM	025C		54		1	
			"	"	"	N.R.	"	"	"	
T.I	E-DIP	S	05 77	FSCT FM	025C		35		0	
74LS20	14	0/70C	"	"	"	N.R.	"	"	"	
				BURN-IN	125C		35	5.44E 03	0	
			"	"	"	N.R.	"	"	"	
				FSCT FM	025C		35		0	
			"	"	"	N.R.	"	"	"	
T.I.	E-DIP	S	35 77	FSCT FM	025C		70		0	
74LS266	14	0/70C	"	"	"	N.R.	"	"	"	
				BURN-IN	125C		70	1.18E 04	0	
			"	"	"	N.R.	"	"	"	
				FSCT FM	025C		70		0	
			"	"	"	N.R.	"	"	"	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
SIGNETICS	DIP	S	32/75	BURN-IN			210		0	
5400	14	-55/125C	"	"		N.R.	"	"	"	
				FM			210		0	
			"	"		N.R.	"	"	"	
SIGNETICS	DIP	S	32 75	BURN-IN			420		0	
5402	14	-55 125	"	"		N.R.	"	"	"	
				FM			420		0	
			"	"		N.R.	"	"	"	
SIGNETICS	E-DIP	S	31/77	OP DTS	025C		60	1.20E 04	0	
7400	14	0/70C	"	"		N.R.	"	"	"	
				FM			60		0	
			"	"		N.R.	"	"	"	
SIGNETICS	E-DIP	S	31 77	OP DTS	25C		50	1.20E 04	0	
7430	14	0/70C	"	"		N.R.	"	"	"	
				FM			50		0	
			"	"		N.R.	"	"	"	
T.I.	DIP	S	32/75	BURN-IN			336		0	
5400	14	-55 125	"	"		N.R.	"	"	"	
				FM			336		0	
			"	"		N.R.	"	"	"	
T.I.	DIP	S	32 75	BURN-IN			70		0	
5413	14	-55/125	"	"		N.R.	"	"	"	
				FM			70		0	
			"	"		N.R.	"	"	"	
T.I.	DIP	S	32/75	BURN-IN			20		0	
5420	14	-55/125	"	"		N.R.	"	"	"	
				FM			20		0	
			"	"		N.R.	"	"	"	
T.I.	DIP	S	32/75	BURN-IN			20		0	
5430	14	-55 125	"	"		N.R.	"	"	"	
				FM			20		0	
			"	"		N.R.	"	"	"	
T.I.	FPP	S	32 75	BURN-IN			1394		0	
5454	14	-55 125	"	"		N.R.	"	1394	"	
				FM						
			"	"		N.R.	"	"	"	

GATE — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
FAIRCHILD	FPK	N	12/75	OP CNST	125C		49	8.23E 03	0	
11C01	16	N.R.	V			N.R.				
				EM			49		0	
			V			N.R.				

GENERATOR — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
T.I.	FPK	N	12/75	BURN-IN			382		0	
54180	14	-55/125	U			N.R.				
				EM			382		0	
			U			N.R.				

GENERATOR — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE PMOS,STATIC

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
NITRON	DIP	B-I	02/78	REVBIAS	125C		2553	4.29E 05	0	
	40	N.R.	U			N.R.				
				S&F EM	085C		2553		25	
			U			N.R.				
				STAT EM	-035C		2553		18	
			U			N.R.				
				FNCT EM	025C		2553		27	
			U			N.R.				
				VIS INS			2553		12	
			U			N.R.				

INVERTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
T.I.	FPK	N	12/75	BURN-IN			3690		0	
54H04	14	-55/125	U			N.R.				
				EM			3690		2	
			U			N.R.				
T.I.	DIP	N	12/75	BURN-IN			98		0	
54H05	14	-55/125	U			N.R.				
				EM			98		0	
			U			N.R.				

INVERTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
SIGNETICS	E-DIP	N	05/77	FNCT EM	025C		111		0	
74LS04	14	0/70C	U			N.R.				
				BURN-IN	125C		111	1.86E 04	0	
			U			N.R.				
				FNCT EM	025C		111		0	
			U			N.R.				

INVERTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
SIGNETICS	DIP	N	12/75	BURN-IN			42		0	
5404	14	-55/125	U			N.R.				
				EM			42		0	
			U			N.R.				
T.I.	DIP	N	12/75	BURN-IN			40		0	
5405	14	-55/125	U			N.R.				
				EM			40		8	
			U			N.R.				

INVERTER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: MOS — OPERATIONAL TYPE: CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
MOTOROLA	E-DIP	N	10/77	OP-DYN	125C		123	2.62E 04	1	
MC307	14	-40/80C	V			N.R.				
				EM			121		0	
			V			N.R.				

LATCH — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV	FPK	N	12/75	BURN-IN			438		0	
9314	16	-55/125	U			N.R.				
				EM			438		3	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			51		0	
9314	16	-55/125	U			N.R.				
				EM			51		3	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			2768		0	
5477	14	-55/125	U			N.R.				
				EM			2768		3	
			U			N.R.				

LOGIC UNIT — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
T.I.	FPK	N	12/75	BURN-IN			160		0	
54H87	14	-55/125	U			N.R.				
				EM			160		0	
			U			N.R.				

MULTIPLEXER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV	FPK	N	12/75	BURN-IN			722		0	
93L12	16	-55/125	U			N.R.				
				EM			722		14	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			1490		0	
93L12	16	-55/125	U			N.R.				
				EM			1490		14	
			U			N.R.				

MULTIPLEXER — BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
ADV MICRO DEV	FPK	N	12/75	BURN-IN			7674		0	
9309	16	-55/125	U			N.R.				
				EM			7674		20	
			U			N.R.				
ADV MICRO DEV	FPK	N	12/75	BURN-IN			16330		0	
9312	16	-55/125	U			N.R.				
				EM			16330		57	
			U			N.R.				
ADV MICRO DEV	FPK	N	12/75	BURN-IN			396		0	
9322	16	-55/125	U			N.R.				
				EM			396		3	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			1011		0	
9309	16	-55/125	U			N.R.				
				EM			1011		11	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			5875		0	
9312	16	N.R.	U			N.R.				
				EM			5875		67	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			250		0	
9322	16	-55/125	U			N.R.				
				EM			250		0	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			1487		0	
9309	16	-55/125	U			N.R.				
				EM			1487		2	
			U			N.R.				
ADV MI RO DEV	FPK	N	12/75	BURN-IN			18020		0	
9300	16	-55/125	U			N.R.				
				EM			18020		33	
			U			N.R.				
FAIRCHILD	FPK	N	12/75	BURN-IN			12733		0	
9300	16	-55/125	U			N.R.				
				EM			12733		39	
			U			N.R.				
ITT	FPK	N	12/75	BURN-IN			117		0	
5495	4	-55/125	U			N.R.				
				EM			117		0	
			U			N.R.				
T.I.	DIP	N	12/75	BURN-IN			105		0	
54164	14	-55/125	U			N.R.				
				EM			105		0	
			U			N.R.				
T.I.	FPK	N	12/75	BURN-IN			5117		0	
5495A	14	-55/125	U			N.R.				
				EM			5117		12	
			U			N.R.				

ADDER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	64		0	
5482	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	47		0	
5482	14	-55/125	V			2008				
				BONDSTR		MS-883	47		0	
			V			2011				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	11		0	
5482	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5482	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	MECHSHK	1.5KG 5MSEC	MS-883	15		0	
5482	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	15		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 D				
				EM			15		0	
			V			N.R.				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG 5MSEC	MS-883	14		0	
5482	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	14		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	14		0	
			V		1 MIN E	2001 D				
				EM			14		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
5482	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		1	
			V			N.R.				
ITT	FPK	A-1	09/75	THRMSHK	-055C 1 5C	MS-883	73		0	
5482	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	73		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	73		0	
			V		98%RH	1004				
				EM			73		0	
			V			N.R.				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	64		0	
5482	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5 E-8	MS-883	64		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	64		0	
			V		3X	1014 C				
VARIOUS	FPK	N	12/75	X-RAY			940		0	
9304	16	-55/125	U			N.R.				
				EM			940		42	MFEF 636/9, 637/9, 638/24
			U			N.R.				

BUFFER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: HIGH SPEED TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	57		0	
74H40	14	0/70C	V		MSQ	1009 A				

BUFFER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO FLD	FAILURE SUMMARY //
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	25		0	
74H40	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98%RH	1004				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
74H40	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
74H40	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	FPK	A=1	09/75	SOLDER	260C 95%	MS-883	13		0	
9009	14	-55/125	V			2003				
ITT	FPK	A=1	09/75	VIS INS		MS-883	13		0	
9009	14	-55/125	V			2008				
				BONDSTR		MS-883	13		0	
			V			2011				
ITT	FPK	A=1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
9009	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3X	1014 C				
SIGNETICS	DIP	B=1	10/75	THRMSHK	-055C 125C	MM38510	41		0	
54H40	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	41		0	
			Q			N.R.				
SIGNETICS	FPK	B-1	10/75	THRMSHK	-055C 125C	MM38510	41		0	
54H40	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	41		0	
			Q			N.R.				

BUFFER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	88		0	
5438	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	88		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	88		0	
			V		98%RH	1004				
				EM			88		2	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
ITT	5438	DIP 14	N -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	32		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	32		0	
					CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	32		0	
					EM		N.R.	32		0	
ITT	5440	DIP 14	B-1 -55/125	09/75 V	SOLDER	260C 95Z	MS-883 2003	142		0	
ITT	5440	DIP 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	50		0	
ITT	5440	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	50		0	
					CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	50		0	
					EM		N.R.	50		0	
ITT	5440	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	50		0	
					CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	50		0	
					EM		N.R.	50		0	
ITT	5440	DIP 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	72		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	72		0	
					MOIST	-010C 065C 98ZRH	MS-883 1004	72		0	
					EM		N.R.	72		0	
ITT	5440	DIP 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	72		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	72		0	
					MOIST	-010C 065C 98ZRH	MS-883 1004	72		0	
					EM		N.R.	72		0	
ITT	5440	DIP 14	C-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	45		0	
					FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	45		0	
					GROSSLK	FLUOR 125C 3X	MS-883 1014 C	45		0	
ITT	5440	DIP 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	143		0	
					FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	143		0	
					GROSSLK	FLUOR 125C 3X	MS-883 1014 C	143		0	
ITT	7437	DIP N 14	0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	64		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	64		0	
					MOIST	-010C 065C 98ZRH	MS-883 1004	64		0	
					EM		N.R.	64		1	
ITT	7440	DIP 14	B-1 0/70C	09/75 V	SOLDER	260C 95Z	MS-883 2003	38		0	
ITT	7440	E-DIP N 14	0/70C	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25		0	
ITT	7440	DIP 14	B-1 0/70C	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	32		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR LVL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	7440	DIP 14	B-1 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	38		0	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	38		0	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	38		0	
				V	EM		N.R.	38		0	
ITT	7440	DIP 14	N 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	102		0	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	102		0	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	102		0	
				V	EM		N.R.	102		2	
ITT	7440	E-DIP 14	N 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	75		0	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	75		0	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	75		0	
				V	EM		N.R.	75		0	
ITT	7440	DIP 14	B-1 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	54		0	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	54		0	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	54		0	
				V	EM		N.R.	54		0	
ITT	7440	DIP 14	N 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50		0	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	50		0	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	50		0	
				V	EM		N.R.	50		0	
ITT	7440	E-DIP 14	N 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25		0	
				V	EM		N.R.	25		0	
ITT	7440	E-DIP 14	N 0/70C	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	15		0	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
ITT	7440	DIP 14	N 0/70C	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	50		0	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	50		0	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	50		0	
ITT	7440	DIP 14	B-1 0/70C	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	64		0	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	64		0	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	64		0	

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 9400	DIP 40	N N.R.	05/78 V	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	42		0	
			V	CNSTACC	30KG 1 AXIS 1 MIN E	MS-883 2001 E	42		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	42		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	42		0	
			V	EM		N.R.	42		0	
FAIRCHILD 9408	DIP 40	N N.R.	05/78 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	42		0	
			V	VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	42		0	
			V	CNSTACC	30KG 1 AXIS 1 MIN E	MS-883 2001 E	42		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	42		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	42		0	
			V	EM		N.R.	42		0	
FAIRCHILD 9408	DIP 40	N N.R.	05/78 V	THRMSHK	-055C 125C 15CY	MS-883 1011 B	42		0	
			V	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	42		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	42		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	42		0	
			V	EM		N.R.	42		0	

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 93L16	DIP 16	N -55/125	12/75 U	EM		N.R.	1225		5	MFEF-639/1, 640/2, 641/2
			U	X-RAY		N.R.	1220		0	
			U	EM		N.R.	1220		40	MFEF-642/6, 643/33, 738/1

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75 V	VIS INS	10X 20X	MS-883 2008 A	15		0	
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75 V	BONDSTR	10MS 15GDS	MS-883 2011 D	10		0	
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75 V	SOLDER	260C 95% 5 SEC	MS-883 2003	15		0	
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	03/75 V	LEADFTG	3 OZ 90DEGS 3 ARCS	MS-883 2004 B	15		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	05/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
			V	THRMSHK	-0 5C 125C 15CY	MS-883 1011 B	15		0	
			V	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	15		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	15		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
			V	EM	025C	N.R.	15		0	
ADV MICRO DEV 9316	FPK 16	C-2 -55/125	05/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
			V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
			V	VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	15		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	15		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
			V	EM	025C	N.R.	15		0	
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	45		0	
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
			V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	15		0	
			V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	15		0	
			V	EM		N.R.	15		0	
ITT 54192/54193	DIP 16	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	32		0	
			V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	32		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	32		0	
			V	EM		N.R.	32		0	
ITT 54193	DIP 16	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	15		0	
ITT 54193	DIP 16	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	47		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	47		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	47		0	
ITT 5490	DIP 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25		0	
ITT 5490	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
			V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
			V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25		0	
			V	EM		N.R.	25		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY (1)
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	25:		0:	
5490	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25:		0:	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25:		0:	
			V		98%RH	1004				
				EM			25:		0:	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15:		0:	
5490	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15:		0:	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25:		0:	
5492	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25:		0:	
5492	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E	2001 D				
				EM			25:		0:	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	43:		0:	
5492	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	43:		0:	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	43:		0:	
			V		98%RH	1004				
				EM			43:		0:	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45:		0:	
5492	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45:		0:	
			V		3X	1014 C				
ITT	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	64:		0:	
5493	16	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	32:		0:	
5493	16	-55/125	V			2008				
				BONDSTR		MS-883	32:		0:	
			V			2011				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	79:		0:	
5493	16	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	79:		0:	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	79:		0:	
			V		3X	1014 C				
ITT	FPK	B-1	12/75	MECHSHK	1.5KG .5MSEC	MM38510	43:		0:	
5493	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	43:		0:	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	43:		0:	
			V		1 MIN E	2001 E				
				FINE LK	RADIS 5.E-8	MM38510	43:		0:	
			V		12 MIN	1014 B				
				GROSSLK	FLUOR 125C	MM38510	43:		0:	
			V		3X	1014 C				
ITT	FPK	B-1	12/75	SALTATM	035C 25GMS	MM38510	25:		0:	
5493	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	12/75	VIS INS	80X	MM38510	22:		0:	
5493	14	-55/125	V			2014				
ITT	FPK	B-1	12/75	BONDSTR	1.8GMS 22BDS	MM38510	10:		0:	
5493	14	-55/125	V			2011 D				
ITT	FPK	B-1	12/75	SOLDER	260C 95%	MM38510	22:		0:	
5493	14	-55/125	V		5 SEC	2003				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC/ REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	FPK	B-1	12/75	LEADFTG	3 OZ 90DEGS	MM38510	22		0	
5493	14	-55/125	V		3 ARCS	2004 B				
				FINE LK	RADIS 5.E-8	MM38510	22		0	
			V		12 MIN	1014 B				
				GROSSLK	FLUOR 125C	MM38510	22		0	
			V		3X	1014 C				
ITT	FPK	B-1	12/75	THRMSHK	-055C 125C	MM38510	42		0	
5493	14	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	42		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MM38510	42		0	
			V		98%RH	1004				
				FINE LK	RADIS 5.E-8	MM38510	42		0	
			V		12 MIN	1014 B				
				GROSSLK	FLUOR 125C	MM38510	42		0	
			V		3X	1014 C				
ITT	DIP	N	09/75	VIS INS		MS-883	15		0	
74161	16	0/70C	V			2008				
				BONDSTR		MS-883	15		0	
			V			2011				
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	45		0	
74161	16	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	45		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	45		0	
			V		98%RH	1004				
				EM			45		1	
			V			X-R				
ITT	DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
74161	16	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	15		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 D				
				EM			15		0	
			V			X-R				
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
74161	16	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		102		0	
7490	14	0/70C	V		100%RH	X-R				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	104		0	
7490	14	0/70C	V		10CYC	1010 C				
				EM			104		0	
			V			X-R				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
9316	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	SALTATH	035C 50GMS	MS-883	15		0	
9316	16	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	60		0	
9316	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	60		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	60		0	
			V		1 MIN E	2001 D				
				EM			60		0	
			V			X-R				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	60		0	
9316	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60		0	
			V		98%RH	1004				
				EM			60		0	
			V			X-R				

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLR	FAILURE SUMMARY
ITT	FPK	B-1	09/75	LEADFIG	8 OZ 90DEG	MS-883	65		0	
9316	16	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	65		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	65		0	
			V		3X	1014 C				
SIGNETICS	FPK	B-1	01/75	THRMSHK	-055C 125C	MM38510	42		0	
54163	16	-55/125	Q		15CYC	1011 B				
				TEMPCYC	-065C 150C	MM38510	42		0	
			Q		10CYC	1010 C				
				MOIST	-010C 065C	MM38510	42		0	
			Q		98%RH	1004				
				FINE LK	HE 5.E-8	MM38510	42		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	42		1	
			Q		3X	1014 C				
				EM			41		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	01/75	THRMSHK	-055C 125C	MM38510	10		0	
54163	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	10		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	10		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	10		0	
			Q		3X	1014 C				
				EM	025C	MM38510	10		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	01/75	THRMSHK	-055C 125C	MM38510	43		0	
54163	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	43		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	43		2	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	41		0	
			Q			N.R.				
SIGNETICS	DIP	N	12/75	X-RAY			499		0	
8293	14	-55/125	U			N.R.				
				EM			499		30	MFEF 644/21,
			U			N.R.				645/6, 646/3
VARIOUS	DIP	N	12/75	X-RAY			1998		0	
5490A	14	-55/125	U			N.R.				
				EM			1998		139	MFEF 647/68,
			U			N.R.				648/69, 649/1

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLR	FAILURE SUMMARY
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	26		0	
10010	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	26		0	
			V		10CY	1010 C				
				HERMET			26		0	
			V			N.R.				

COUNTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE FCL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 10010	DIP 16	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	26		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	26		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	26		0	
				HERMET		N.R.	26		0	
FAIRCHILD 10010	DIP 16	N -55/125	01/77 V	THRMSHK	-055C 125C 15CY	MM38510 1011 B	50		0	
				TEMPCYC	-065C 150C 10CY	MM38510 1010 C	50		0	
				HERMET		N.R.	50		0	
FAIRCHILD 10010	DIP 16	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	50		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	50		0	
				TEMPCYC	-065C 150C 10CY	MM38510 1010 C	50		0	
				HERMET		N.R.	50		0	
FAIRCHILD 10016	E-DIP 16	N 0/70C	01/77 V	THRMSHK	-055C 125C 15CY	MM38510 1011 B	27		0	
				TEMPCYC	-065C 150C 10CY	MM38510 1010 C	27		0	
				HERMET		N.R.	27		0	
FAIRCHILD 10016	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C	N.R.	50		0	
				EM		N.R.	50		0	
FAIRCHILD 11C05	DIP 14	N -55/125	01/77 V	THRMSHK	-055C 125C 15CY	MM38510 1011 B	60		0	
				TEMPCYC	-065C 150C 10CY	MM38510 1010 C	60		0	
				HERMET		N.R.	60		0	
FAIRCHILD 11C05	DIP 14	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	60		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	60		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	60		0	
				HERMET		N.R.	60		0	
FAIRCHILD 11C05	DIP 14	N -55/125	01/77 V	THRMSHK	-055C 125C 15CY	MM38510 1011 B	30		0	
				TEMPCYC	-065C 150C 10CY	MM38510 1010 C	30		0	
				HERMET		N.R.	30		1	MFEP 681/1
FAIRCHILD 11C05	DIP 14	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	30		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	30		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	30		0	
				HERMET		N.R.	30		0	

DECODER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 5442	FPK B-1 16	-55/125	09/75 V	SALTATM	035C 50GMS MSO	MS-883 1009 A	15		0	

DECODER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10		0	
5442	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	10		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10		0	
			V		1 MIN E	2001 D				
				EM			10		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
5442	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM	0		72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
9301	16	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
9301	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	50		0	
9301	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98%RH	1004				
				EM			50		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
9301	16	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	17		0	
9311	24	N.R.	V			2003				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
9311	24	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3X	1014 C				

DEC-DEMUX — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	22		0	
10161	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	22		0	
			V		10CY	1010 C				
				HERMET			22		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50		0	
10161	16	N.R.	V			N.R.				
				FM			50		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50		0	
10161	16	N.R.	V			N.R.				
				EM			50		0	
			V			N.R.				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	DIP	N	12/75	X-RAY			750		0	
26L02	16	-55/125	U			N.R.				
				EM			750		4	MFEF 650/1
			U			N.R.				
NATIONAL	DIP	N	12/75	THRMSHK	000C 100C	MS-883	15		0	
54L73	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	15		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	15		0	
			V		98%RH	1004				
				EM			15		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
54L73	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	15		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 E				
				EM			15		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	MECHSHK	1.5KG .5MSEC	MS-883	5		0	
54L74	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	5		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	5		0	
			V		1 MIN E	2001 E				
				EM			5		0	
			V			N.R.				
VARIOUS	DIP	N	12/75	X-RAY			339		0	
54L73	14	-55/125	U			N.R.				
				EM			339		24	MFEF 651/13, 652/9,653/2
			U			N.R.				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	26		0	
74H73	14	0/70C	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	45		0	
74H73	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	45		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	45		0	
			V		1 MIN E	2001 D				
				EM			45		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	50		0	
74H73	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98%RH	1004				
				EM			50		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8.0Z 90DEG	MS-883	45		0	
74H73	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	72		0	
9000	14	-55/125	V		MSQ	1009 A				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTUREK PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	72		0	
9000	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	72		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	72		0	
			V		1 MIN E	2001 D				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
9000	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44		0	
9000	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	44		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	44		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44		0	
9001	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	44		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	44		0	
			V		3X	1014 C				
SIGNETICS	FPK	B-1	05/75	THRMSHK	-055C 125C	MM38510	41		0	
54H103	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	41		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	05/75	THRMSHK	-055C 125C	MM38510	57		0	
54H103	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	57		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	57		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	57		2	
			Q		3X	1014 C				
				EM	025C	MM38510	55		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	06/75	THRMSHK	-055C 125C	MM38510	41		0	
54H76	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		2	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	39		1	
			Q		3X	1014 C				
				EM	025C	MM38510	38		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	07/75	THRMSHK	-055C 125C	MM38510	65		0	
54H76	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	65		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	65		2	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	63		1	
			Q		3X	1014 C				
				EM	025C	MM38510	62		0	
			Q			N.R.				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/75	X-RAY			492		0	
9LS109	16	-55/125	U			N.R.				
				EM			492		2	MFEF 657/2
			U			N.R.				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	DIP	N	12/75	X-RAY			8275		0	
2602	16	-55/125	U			N.R.				
				EM			8275		14	MFEF 654/2,
			U			N.R.				655/1,656/11
FAIRCHILD	DIP	N	04/75	THRMSHK	000C 100C	MS-883	59		0	
9601	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	59		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	59		0	
			V		98%RH	1004				
				EM			59		0	
			V			N.R.				
FAIRCHILD	DIP	N	04/75	MECHSHK	1.5KG .5MSEC	MS-883	59		0	
9601	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	59		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	59		0	
			V		1 MIN E	2001 E				
				EM			59		2	
			V			N.R.				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
54121	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	SOLDFR	260C 95%	MS-883	32		0	
54121	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	15		0	
54121	14	-55/125	V			2008				
				BONDSTR		MS-883	15		0	
			V			2011				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	150		0	
54121	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
54121	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
54121	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
54121	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		98%RH	1004				
				EM			47		0	
			V			N.R.				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
54121	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3%	1014 C				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	65		0	
54121	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	65		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	65		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	67		0	
5470	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	37		0	
5470	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	45		0	
5470	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	45		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	45		0	
			V		1 MIN E	2001 D				
				EM			45		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	85		0	
5470	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	85		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	85		0	
			V		98%RH	1004				
				EM			85		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75		0	
5470	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	75		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	75		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	45		0	
5472	14	-55/125	V			2003				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
5472	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5472	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
5472	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	60		0	
5472	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	60		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	60		0	
			V		1 MIN E	2001 D				
				EM			60		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	59		0	
5472	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	59		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	59		0	
			V		98%RH	1004				
				EM			59		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	25		0	
5472	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98%RH	1004				
				EM			25		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR GL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
5472	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
5472	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	67		0	
5473	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	32		0	
5473	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	32		0	
5473	14	-55/125	V			2008				
				BONDSTR		MS-883	32		0	
			V			2011				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	50		0	
5473	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5473	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	SALTATM	035C 50GMS	MS-883	51		0	
5473	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	530		0	
5473	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	530		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	530		0	
			V		1 MIN E	2001 D				
				EM			530		0	
			V			N.R.				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
5473	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	54		0	
5473	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	54		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	54		0	
			V		1 MIN E	2001 D				
				EM			54		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	60		0	
5473	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60		0	
			V		98%RH	1004				
				EM			60		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	50		0	
5473	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98%RH	1004				
				EM			50		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	FPK	A-1	09/75	THRMSHK	-055C 125C	MS-883	530		0	
5473	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	530		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	530		0	
			V		98%RH	1004				
				EM			530		0	
			V			N.R.				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	22		0	
5473	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	22		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	22		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75		0	
5473	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	75		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	75		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
5473	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	52		0	
5474	14	-55/125	V			2003				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	65		0	
5474	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	30		0	
5474	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	75		0	
5474	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ		MS-883	75		0	
			V			2007 A				
				CNSTACC	20KG 6 AXES	MS-883	75		0	
			V		1 MIN E	2001 D				
				EM			75		0	
			V			N.R.				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	74		0	
5474	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	74		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	74		0	
			V		1 MIN E	2001 D				
				EM			74		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
5474	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	100		0	
5474	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	100		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	100		0	
			V		98%RH	1004				
				EM			100		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
5474	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	98		0	
5474	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	98		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	98		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
5476	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	60		0	
5476	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60		0	
			V		98%RH	1004				
				EM			60		1	
			V			N.R.				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		52		0	
7470	14	0/70C	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
7470	14	0/70C	V		10CYC	1010 C				
				EM			52		0	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		52		0	
7470	14	0/70C	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		0	
7470	14	0/70C	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	75		0	
7470	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75		0	
			V		98%RH	1004				
				EM			75		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
7470	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
7470	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	44		0	
7472	14	0/70C	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	52		0	
7472	14	0/70C	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	11		0	
7472	14	0/70C	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10		0	
7472	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	10		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10		0	
			V		1 MIN E	2001 D				
				EM			10		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	22		0	
7472	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	22		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	22		0	
			V		98%RH	1004				
				EM			22		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	55		0	
7472	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	55		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	55		0	
			V		98%RH	1004				
				EM			55		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	98		0	
7472	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	98		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	98		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		157		1	
7474	14	0/70C	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
7474	14	0/70C	V		10CYC	1010 C				
				EM			52		0	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		52		0	
7474	14	0/70C	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	SALTATH	035C 50GMS	MS-883	25		0	
7474	14	0/70C	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	61		0	
7474	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	61		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	61		0	
			V		98%RH	1004				
				EM			61		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
7474	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
7474	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	98		0	
7476	16	0/70C	V		10CYC	1010 C				
				EM			98		0	
			V			N.R.				
ITT	E-DIP	N	09/75	VIS INS		MS-883	15		0	
7476	16	0/70C	V			2008				
				BONDSTR		MS-883	15		0	
			V			2011				
ITT	DIP	N	09/75	SALTATH	035C 50GMS	MS-883	101		0	
9001	14	0/70C	V		MSQ	1009 A				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	114		0	
9001	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	114		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	114		0	
			V		98%RH	1004				
				EM			114		0	
			V			N.R.				
ITT	DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	114		0	
9001	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	114		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	114		0	
			V		1 MIN E	2001 D				
				EM			114		0	
			V			N.R.				
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	60		0	
9001	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	60		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	60		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	26		0	
9024	14	N.R.	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	75		0	
9024	14	N.R.	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	75		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	75		0	
			V		1 MIN E	2001 D				
				EM			75		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	75		0	
9024	14	N.R.	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75		0	
			V		98%RH	1004				
				EM			75		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
9024	14	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
9601	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-383	66		0	
9601	14	-55/125	V			2003				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	81		0	
9601	14	-55/125	V		MSQ	1009 A				
ITT	FPK	C-1	09/75	SALTATM	035C 50GMS	MS-883	48		0	
9601	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	52		0	
9601	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	132		0	
9601	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	132		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	132		0	
			V		1 MIN E	2001 D				
				EM			132		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	9601	FPK 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC	MS-883 2002 B	68		0	
						6 AXES					
					VBVRFQ	100HZ 2KHZ	MS-883 2007 A	68		0	
				V		20G					
					CNSTACC	20KG 6 AXES	MS-883 2001 D	68		0	
				V		1 MIN E					
					EM		N.R.	68		0	
				V							
ITT	9601	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC	MS-883 2002 B	54		0	
						6 AXES					
					VBVRFQ	100HZ 2KHZ	MS-883 2007 A	54		0	
				V		20G					
					CNSTACC	20KG 6 AXES	MS-883 2001 D	54		0	
				V		1 MIN E					
					EM		N.R.	54		0	
				V							
ITT	9601	DIP 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C	MS-883 1011 B	72		0	
						15CYC					
					TEMPCYC	-065C 150C	MS-883 1010 C	72		0	
				V		10CYC					
					MOIST	-010C 065C	MS-883 1004	72		0	
				V		98%RH					
					EM		N.R.	72		0	
				V							
ITT	9601	DIP 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C	MS-883 1011 B	132		0	
						15CYC					
					TEMPCYC	-065C 150C	MS-883 1010 C	132		0	
				V		10CYC					
					MOIST	-010C 065C	MS-883 1004	132		0	
				V		98%RH					
					EM		N.R.	132		0	
				V							
ITT	9601	FPK 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C	MS-883 1011 B	90		0	
						15CYC					
					TEMPCYC	-065C 150C	MS-883 1010 C	90		0	
				V		10CYC					
					MOIST	-010C 065C	MS-883 1004	90		0	
				V		98%RH					
					EM		N.R.	90		0	
				V							
ITT	9601	FPK 14	C-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883 2004 B	56		0	
						6 ARCS					
					FINE LK	HE 5.E-8	MS-883 1014 A	56		0	
				V		60 MIN					
					GROSSLK	FLUOR 125C	MS-883 1014 C	56		0	
				V		3X					
ITT	9601	DIP 14	C-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883 2004 B	105		0	
						6 ARCS					
					FINE LK	HE 5.E-8	MS-883 1014 A	105		0	
				V		60 MIN					
					GROSSLK	FLUOR 125C	MS-883 1014 C	105		0	
				V		3X					
ITT	9601	DIP 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883 2004 B	174		0	
						6 ARCS					
					FINE LK	HE 5.E-8	MS-883 1014 A	174		0	
				V		60 MIN					
					GROSSLK	FLUOR 125C	MS-883 1014 C	174		0	
				V		3X					
ITT	9601	FPK 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883 2004 B	15		0	
						6 ARCS					
					FINE LK	HE 5.E-8	MS-883 1014 A	15		0	
				V		60 MIN					
					GROSSLK	FLUOR 125C	MS-883 1014 C	15		0	
				V		3X					
ITT	9602	FPK 16	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	15		0	
ITT	9602	FPK 16	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG	MS-883 2004 B	15		0	
						6 ARCS					
					FINE LK	HE 5.E-8	MS-883 1014 A	15		0	
				V		60 MIN					
					GROSSLK	FLUOR 125C	MS-883 1014 C	15		0	
				V		3X					

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
MOTOROLA	FPK	N	07/75	FINE LK	HE 5.E-8	MS-883	18:		0:	
54103	14	-55/125	Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	18:		0:	
			Q		3X	1014 C				
				LEADFTG	90DEG	MS-883	18:		0:	
			Q		3 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	18:		0:	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	18:		0:	
			Q		3X	1014 C				
MOTOROLA	FPK	N	07/75	SOLDER	260C 95Z	MS-883	7:		0:	
54103	14	-55/125	Q		5 SEC	2003				
MOTOROLA	FPK	N	07/75	FINE LK	HE 5.E-8	MS-883	21:		0:	
54103	14	-55/125	Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	21:		0:	
			O		3X	1014 C				
				STAT EM	025C		21:		0:	
			Q			N.R.				
				MECHSHK	1.5KG .5MSEC	MS-883	21:		0:	
			Q		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	21:		0:	
			Q		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	21:		0:	
			O		1 MIN E	2001 E				
				STAT EM	025C		21:		0:	
			Q			N.R.				
MOTOROLA	FPK	N	07/75	FINE LK	HE 5.E-8	MS-883	23:		0:	
54103	14	-55/125	Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	23:		0:	
			Q		3X	1014 C				
				STAT EM	025C		23:		0:	
			Q			N.R.				
				THRMSHK	000C 100C	MS-883	23:		0:	
			O		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	23:		0:	
			Q		10CY	1010 C				
				MOIST	-010C 065C	MS-883	23:		0:	
			Q		98%RH	1004				
				STAT EM	025C		23:		0:	
			Q			N.R.				
SIGNETICS	DIP	B-1	03/75	THRMSHK	-055C 125C	MM38510	41:		0:	
54174	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41:		0:	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41:		0:	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41:		0:	
			Q		3X	1014 C				
				EM	025C	MM38510	41:		0:	
			Q			N.R.				
SIGNETICS	DIP	B-1	10/75	THRMSHK	-055C 125C	MM38510	32:		0:	
5476	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	32:		0:	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	32:		0:	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	32:		0:	
			Q		3X	1014 C				
				EM	025C	MM38510	32:		0:	
			Q			N.R.				
SIGNETICS	DIP	B-1	06/75	THRMSHK	-055C 125C	MM38510	41:		0:	
5475	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41:		0:	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41:		5:	
			O		60 MIN	1014 A				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
SIGNETICS 74174	N.R 16	N.R. 0/70C	08/75 C	VIS INS		N.R.	100		0	
				FINE LK		N.R.	100		0	
				GROSSLK		N.R.	100		0	
				EM		N.R.	100		0	
				EM		N.R.	100		3	
				TEMPCYC		N.R.	100		0	
				VIS INS		N.R.	100		0	
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75 V	SALTATM	035C 50GMS 48HRS	MS-883 1009 A	22		0	
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	28		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	28		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	28		0	
				EM		N.R.	28		0	
STEWART WARNER 1439	FPK 14	C-1 N.R.	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	100		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	100		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	100		0	
T.I. 74174	N.R 16	N.R. 0/70C	08/75 U	VIS INS		N.R.	226		0	
				FINE LK		N.R.	226		0	
				GROSSLK		N.R.	226		0	
				EM		N.R.	226		0	
				EM		N.R.	226		2	
				TEMPCYC		N.R.	226		0	
				VIS INS		N.R.	226		0	
T.I. 74175	N.R 16	N.R. 0/70C	08/75 U	VIS INS		N.R.	1285		0	
				FINE LK		N.R.	1285		8	REF 1677/8
				GROSSLK		N.R.	1285		0	
				EM		N.R.	1285		2	
				EM		N.R.	1285		29	
				TEMPCYC		N.R.	1285		0	
				VIS INS		N.R.	1285		0	
VARIOUS 54109	DIP 16	N -55/125	12/75 U	EM		N.R.	506		3	REF 658/1, 659/1, 660/1
				X-RAY		N.R.	503		0	
				EM		N.R.	503		0	
VARIOUS 5473	DIP 14	N -55/125	12/75 U	X-RAY		N.R.	770		0	
				EM		N.R.	770		0	
VARIOUS 9602	DIP 16	N -55/125	12/75 U	X-RAY		N.R.	207		0	
				EM		N.R.	207		0	

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	50		0	
10131	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	50		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	50		0	
			V		1 MIN E	2001 E				
				HERMET			50		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	50		0	
10131	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	50		0	
			V		10CY	1010 C				
				HERMET			50		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	VIS INS	10X	MM38510	5		0	
10231	16	-55/125	V		20X	2008 B				
				BONDSTR		MM38510	5		0	
			V			2011				
				SOLDER	260C 95%	MM38510	5		0	
			V		5 SEC	2003				
				LEADFTG	8 OZ 90DEGS	MM38510	5		0	
			V		3 ARCS	2004 B				
				HERMET			5		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	10		0	
10231	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	10		0	
			V		10CY	1010 C				
				HERMET			10		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	10		0	
10231	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	10		0	
			V		10CY	1010 C				
				HERMET			10		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	SALTATM	035C 25GMS	MM38510	10		0	
10231	16	-55/125	V		MSQ	1009 A				
				VIS INS			10		0	
			V			N.R.				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	A-1	03/75	VIS INS	45X	MM38510	55		0	
4013A	14	-55/125	Q			2014				
				BONDSTR	2.5GMS129BDS	MM38510	10		0	
			Q			2011 D				
RCA	DIP	A-1	03/75	SOLDER	260C 95%	MM38510	55		0	
4013A	14	-55/125	Q		5 SEC	2003				
RCA	DIP	A-1	03/75	LEADFTG	8 OZ 90DEGS	MM38510	55		0	
4013A	14	-55/125	Q		3 ARCS	2004 B				
				FINE LK	HE 3.E-8	MM38510	55		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	55		0	
			Q		3X	1014 C				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	A-1	04/75	THRMSHK	-065C 150C	MM38510	75		0	
4013A	14	-55/125	Q		15CYC	1011 C				
				TEMPCYC	-065C 150C	MM38510	75		0	
			Q		10CYC	1010 C				
				MOIST	-010C 065C	MM38510	75		0	
			Q		98%RH	1004				
				FINE LK	HE 3.E-8	MM38510	75		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	75		0	
			Q		3X	1014 C				
				EM	025C	MM38510	75		0	
			Q			N.R.				
				EM	125C	MM38510	75		0	
			Q			N.R.				
				EM	-055C	MM38510	75		0	
			Q			N.R.				
RCA	DIP	A-1	04/75	MECHSHK	1.5KG .5MSEC	MM38510	75		0	
4013A	14	-55/125	Q		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	75		0	
			Q		20G	2007 A				
				CNSTACC	20KG 6 AXES	MM38510	75		0	
			Q		1 MIN E	2001 D				
				FINE LK	HE 5.E-8	MM38510	75		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	75		0	
			Q		3X	1014 C				
				EM	025C	MM38510	75		0	
			Q			N.R.				
				EM	125C	MM38510	75		0	
			Q			N.R.				
				EM	-055C	MM38510	75		0	
			Q			N.R.				
RCA	DIP	A-1	03/75	SALTATM	035C 30GMS	MM38510	55		0	
4013A	14	-55/125	Q		MSQ	1009 A				
RCA	DIP	A-1	08/75	SALTATM	035C 30GMS	MM38510	55		1	
4027A	16	-55/125	V		MSQ	1009 A				
RCA	DIP	C-1	11/75	SOLDER	260C 95%	MM38510	5		0	
4027A	16	-55/125	Q		5 SEC	2003				
RCA	DIP	B-1	12/75	THRMSHK	-065C 150C	MM38510	43		0	
4027A	16	-55/125	Q		15CYC	1011 C				
				TEMPCYC	-065C 150C	MM38510	43		0	
			Q		10CYC	1010 C				
				MOIST	-010C 065C	MM38510	43		0	
			Q		98%RH	1004				
				FINE LK	HE 5.E-8	MM38510	43		1	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	42		0	
			Q		3X	1014 C				
				EM		MM38510	42		0	
			Q			N.R.				
RCA	DIP	C-1	12/75	SALTATM	035C 27GMS	MM38510	42		0	
4027A	16	-55/125	Q		MSQ	1009 A				
RCA	DIP	A-1	08/75	OP CNST	125C	MM38510	129	1.29E 05	0	
4027A	16	-55/125	V			1005 B				
RCA	DIP	A-1	08/75	BAKE	150C	MM38510	45	4.50E 04	0	
4027A	16	-55/125	V			1008 C				
RCA	DIP	A-1	08/75	MECHSHK	1.5KG .5MSEC	MM38510	32		0	
4027A	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	32		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MM38510	32		0	
			V		1 MIN E	2001 D				
				FINE LK	HF 5.E-8	MM38510	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	32		0	
			V		3X	1014 C				

FLIP FLOP — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	A-1	08/75	THRMSHK	-065C 150C	MM38510	32		0	
4027A	16	-55/125	V		15CYC	1011 C				
				TEMPCYC	-065C 150C	MM38510	32		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MM38510	32		0	
			V		94%RH	1004				
				FINE LK	HE 5.E-8	MM38510	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	32		0	
			V		3X	1014 C				
RCA	DIP	A-1	08/75	LEADFTG	8 OZ 90DEG	MM38510	55		0	
4027A	16	-55/125	V		3 ARCS	2004 B				
				FINE LK	HE 3.E-8	MM38510	55		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	55		0	
			V		3X	1014 C				
RCA	DIP	A-1	08/75	SOLDER	260C 95%	MM38510	55		0	
4027A	16	-55/125	V		5 SEC	2003				
RCA	DIP	A-1	08/75	BONDSTR	2.5GMS 129BD	MM38510	129		0	
4027A	16	-55/125	V			2011 D				
RCA	DIP	A-1	08/75	VIS INS	80X	MM38510	55		0	
4027A	16	-55/125	V			2014				
FAIRCHILD	E-DIP	N	05/78	THRMSHK	-055C 125C		25		0	
9406	24	0/70C	V		15CY	N.R.				
				TEMPCYC	-065C 150C		25		0	
			V		10CY	N.R.				
				EM			25		1	MFEF 682/1
			V			N.R.				

GATE — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	DIP	N	12/75	THRMSHK	000C 100C	MS-883	7		0	
54L00	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	7		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	7		0	
			V		98%RH	1004				
				EM			7		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	THRMSHK	000C 100C	MS-883	5		0	
54L00	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	5		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	5		0	
			V		98%RH	1004				
				EM			5		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	MECHSHK	1.5KG .5MSEC	MS-883	7		0	
54L00	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	7		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	7		0	
			V		1 MIN E	2001 E				
				EM			7		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	THRMSHK	000C 100C	MS-883	15		0	
54L10	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	15		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	15		0	
			V		98%RH	1004				
				EM			15		0	
			V			N.R.				

GATE ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	DIP	N	12/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
54L10	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	15		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 E				
				EM			15		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	THRMSHK	000C 100C	MS-883	22		0	
54L86	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	22		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	22		0	
			V		98%RH	1004				
				EM			22		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	THRMSHK	000C 100C	MS-883	5		0	
54L86	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	5		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	5		0	
			V		98%RH	1004				
				EM			5		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	MECHSHK	1.5KG .5MSEC	MS-883	21		0	
54L86	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	21		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	21		0	
			V		1 MIN E	2001 E				
				FM			21		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	MECHSHK	1.5KG .5MSEC	MS-883	5		0	
54L86	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	5		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	5		0	
			V		1 MIN E	2001 E				
				EM			5		0	
			V			N.R.				

GATE ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		82		0	
54H00	14	-55/125	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	104		0	
54H00	14	-55/125	V		10CYC	1010 C				
				EM			104		0	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		30		0	
54H00	14	-55/125	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	VIS INS		MS-883	15		0	
54H00	14	-55/125	V			2008				
				BONDSTR		MS-883	15		0	
			V			2011				
ITT	FPK	R-1	09/75	SOLDER	260C 95%	MS-883	30		0	
54H00	14	-55/125	V			2003				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		0	
54H00	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
54H00	14	-55/125	V		MSQ	1009 A				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
54H00	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	50		0	
54H00	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98%RH	1004				
				EM			50		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	25		0	
54H00	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98%RH	1004				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
54H00	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
54H00	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
54H00	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
54H00	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	45		0	
54H10	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
54H10	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
54H10	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	45		0	
54H10	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2 KHZ	MS-883	45		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	45		0	
			V		1 MIN E	2001 D				
				EM			45		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	75		0	
54H10	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75		0	
			V		98%RH	1004				
				EM			75		1	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
54H10	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	69		0	
54H10	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	69		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	69		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	42		0	
54H30	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	22		0	
54H30	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
54H30	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2.KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	60		0	
54H30	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60		0	
			V		98ZRH	1004				
				EM			60		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44		0	
54H30	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	44		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	44		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	10		0	
74H00	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	10		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	10		0	
			V		98ZRH	1004				
				EM			10		0	
			V			N.R.				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	22		0	
9002	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	11		0	
9002	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	11		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	11		0	
			V		98ZRH	1004				
				EM			11		0	
			V			N.R.				
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	142		0	
9003	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	142		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	142		0	
			V		98ZRH	1004				
				EM			142		0	
			V			N.R.				
ITT	DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	76		0	
9003	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	76		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	76		0	
			V		1 MIN E	2001 D				
				EM			76		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	60		0	
9003	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	60		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	60		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	68		0	
9007	14	-55/125	V		6 ARCS	2004 B				
				HERMET		MS-883	68		1	
			V			1014				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
9007	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
9007	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				FM			38		1	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
9007	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
9008	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
9008	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	38		0	
9008	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	38		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	38		0	
			V		98%RH	1004				
				EM			38		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
9008	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-(	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
MOTOROLA	FPK	N	07/75	FINE LK	HE 5.E-8	MS-883	102		0	
54H00	14	-55/125	Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	102		0	
			Q		3X	1014 C				
				LEADFTG	90DEG	MS-883	102		0	
			Q		3 ARCS	2004 B				
				FINE LF	HE 5.E-8	MS-883	102		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	102		0	
			Q		3X	1014 C				
MOTOROLA	FPK	N	07/75	SOLDER	260C 95%	MS-883	14		0	
54H00	14	-55/125	Q		5 SEC	2003				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA 54H00	FPK 14	N -55/125	07/75 Q	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	94		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	94		0	
				STAT EM	025C	N.R.	94		0	
				MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	94		0	
				VBVRFQ	20HZ 2KHZ 50G	MS-883 2007 B	94		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	94		0	
				STAT EM	025C	N.R.	94		2	
MOTOROLA 54H00	FPK 14	N -55/125	07/75 Q	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	103		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	103		0	
				STAT EM	025C	N.R.	103		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	103		0	
				TEMPCYC	-065C 150C 10CY	MS-883 1010 C	103		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	103		0	
				STAT EM	025C	N.R.	103		1	
MOTOROLA 54H40	FPK 14	N -55/125	07/75 Q	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	81		0	
				LEADFTG	90DEG 3 ARCS	MS-883 2004 B	81		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	81		0	
MOTOROLA 54H40	FPK 14	N -55/125	07/75 Q	SOLDER	260C 95% 5 SEC	MS-883 2003	8		0	
MOTOROLA 54H40	FPK 14	N -55/125	07/75 Q	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	81		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	81		0	
				STAT EM	025C	N.R.	81		0	
				MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	81		0	
				VBVRFQ	20HZ 2KHZ 50G	MS-883 2007 B	81		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	81		0	
				STAT EM	025C	N.R.	81		0	
MOTOROLA 54H40	FPK 14	N -55/125	07/75 Q	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	79		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	79		0	
				STAT EM	025C	N.R.	79		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	79		0	
				TEMPCYC	-065C 150C 10CY	MS-883 1010 C	79		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	79		0	
				STAT EM	025C	N.R.	79		0	
RAYTHEON 3220	FPK 14	N -55/125	12/75 U	X-RAY		N.R.	1962		0	
				EM		N.R.	1962		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	FPK	B-1	05/75	THRMSHK	-055C 125C	MM38510	41		0	
54H01	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	0	4.10E 04	0	
			Q			N.R.				
SIGNETICS	DIP	B-1	06/75	THRMSHK	-055C 125C	MM38510	29		0	
54H50	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	29		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	29		0	
			Q		3X	1014 C				
				EM	025C	MM38510	29		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	05/75	THRMSHK	-055C 125C	MM38510	29		0	
54H50	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	29		4	
			Q		60 MIN	1014 A				
SIGNETICS	DIP	B-1	04/75	THRMSHK	-055C 125C	MM38510	29		0	
54H51	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	29		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	29		0	
			Q		3X	1014 C				
				EM	025C	MM38510	29		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	02/75	THRMSHK	-055C 125C	MM38510	24		0	
54H53	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	24		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	24		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	24		0	
			Q		3X	1014 C				
				EM	025C	MM38510	24		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	02/75	THRMSHK	-055C 125C	MM38510	29		0	
54H54	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	29		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	29		1	
			Q		3X	1014 C				
				EM	025C	MM38510	28		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	02/75	THRMSHK	-055C 125C	MM38510	25		0	
54H55	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	25		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	25		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	25		1	
			Q		3X	1014 C				
				EM	025C	MM38510	24		1	
			Q			N.R.				
T.I.	FPK	N	12/75	X-RAY			633		0	
54H55	14	-55/125	U			N.R.				
				EM			633		19	MFEF 661/17,
			U			N.R.				662/1,663/1

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	N	12/75	X-RAY			48		0	
54H00	14	-55/125	U			N.R.				
				EM			48		0	
			U			N.R.				
VARIOUS	DIP	N	12/75	X-RAY			200		0	
54H00	14	-55/125	U			N.R.				
				EM			200		2	MFEF 664/2
			U			N.R.				
VARIOUS	DIP	N	12/75	EM			85		0	
54H10	14	-55/125	U			N.R.				
				X-RAY			85		0	
			U			N.R.				
				EM			85		3	MFEF 665/3
			U			N.R.				
VARIOUS	DIP	N	12/75	X-RAY			374		0	
54H21	14	-55/125	U			N.R.				
				EM			374		0	
			U			N.R.				

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BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N	02/75	TEMPCYC	000C 125C		80		0	
74LS00	14	0/70C	V		2000CY	N.R.				
				EM			80		0	
			V			N.R.				

GATE ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	SOLDER	260C 95Z	MS-883	242		0	
5400	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	SOLDER	260C 95Z	MS-883	220		0	
5400	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	SOLDER	260C 95Z	MS-883	32		0	
5400	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	32		0	
5400	14	-55/125	V			2008				
				BONDSTR		MS-883	32		0	
			V			2011				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
5400	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5400	14	-55/125	V		MSQ	1009 A				
ITT	FPK	A-1	09/75	SALTATM	035C 50GMS	MS-883	52		9	
5400	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5400	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
5400	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	5400	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	47		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	47		0	
					CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	47		0	
					EM		N.R.	47		0	
ITT	5400	FPK 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
					CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25		0	
					EM		N.R.	25		0	
ITT	5400	FPK 14	A-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	52		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	52		0	
					MOIST	-010C 065C 98%RH	MS-883 1004	52		0	
					EM		N.R.	52		0	
ITT	5400	FPK 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	45		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	45		0	
					MOIST	-010C 065C 98%RH	MS-883 1004	45		0	
					EM		N.R.	45		0	
ITT	5400	DIP 14	N -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	25		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	25		0	
					MOIST	-010C 065C 98%RH	MS-883 1004	25		0	
					EM		N.R.	25		1	
ITT	5400	FPK 14	A-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	1077		0	
					VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	1077		0	
					CNSTACC	20KG 6 AXES 1 MINE	MS-883 2001 D	1077		0	
					EM		N.R.	1077		0	
ITT	5400	DIP 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	47		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	47		0	
					MOIST	-010C 065C 98%RH	MS-883 1004	47		0	
					EM		N.R.	47		0	
ITT	5400	DIP 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	50		0	
					TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	50		0	
					MOIST	-010C 065C 98%RH	MS-883 1004	50		0	
					EM		N.R.	50		0	
ITT	5400	FPK 14	A-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	32		0	
					FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	32		0	
					GROSSLK	FLUOR 125C 3X	MS-883 1014 C	32		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 5400	DIP 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	180		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	180		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	180		0	
ITT 5400	FPK 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	220		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	220		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	220		0	
ITT 5401	DIP 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	94		0	
ITT 5401	DIP 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25		0	
ITT 5401	FPK 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25		0	
ITT 5401	FPK 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	60		0	
ITT 5401	DIP 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	30		0	
ITT 5401	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	25		0	
			V	EM		N.R.	25		0	
ITT 5401	FPK 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	25		0	
			V	EM		N.R.	25		0	
ITT 5401	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	47		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	47		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	47		0	
			V	EM		N.R.	47		0	
ITT 5401	FPK 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	50		0	
				CNSTACC	20KG 6 AXES	MS-883 2001 D	50		0	
			V	EM		N.R.	50		0	
ITT 5401	FPK 14	B-1 -55/125	09/75 V	THRUSHK	-055C 125C 15CYC	MS-883 1011 B	57		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	57		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	57		0	
			V	FM		N.R.	57		0	
ITT 5401	DIP 14	B-1 -55/125	09/75 V	THRUSHK	-055C 125C 15CYC	MS-883 1011 B	47		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	47		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	47		0	
			V	FM		N.R.	47		0	

DATA ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	DIP	T-1	09/75	THRMSHK	-055C 125C	MS-883	75		0	
5401	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75		0	
			V		98%RH	1004				
				EM			75		0	
			V			N.R.				
ITT	FPK	G-1	09/75	THRMSHK	-055C 125C	MS-883	44		0	
5401	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	44		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	44		0	
			V		98%RH	1004				
				EM			44		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	77		0	
5401	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	4F 5.E-8	MS-883	77		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	77		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
5401	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	90		0	
5402	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	79		0	
5402	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	90		0	
5402	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	32		0	
5402	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	11		0	
5402	14	-55/125	V			2008				
				BONDSTR		MS-883	11		0	
			V			2011				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	24		0	
5402	14	-55/125	V		MSQ	1009 A				
ITT	FPK	C-1	09/75	SALTATM	035C 50GMS	MS-883	22		0	
5402	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	30		0	
5402	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	30		0	
5402	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
5402	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	FPK	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
5402	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
5402	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	78		0	
5402	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	78		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	78		0	
			V		1 MIN E	2001 D				
				EM			78		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	88		0	
5402	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	88		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	88		0	
			V		98ZRH	1004				
				EM			88		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
5402	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98ZRH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	75		0	
5402	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	75		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	75		0	
			V		98ZRH	1004				
				EM			75		0	
			V			N.R.				
ITT	FPK	C-1	09/75	THRMSHK	-055C 125C	MS-883	38		0	
5402	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	38		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	38		0	
			V		98ZRH	1004				
				EM			38		1	
			V			N.R.				
ITT	FPK	A-1	9/75	LEADFTG	8 OZ 90DEG	MS-883	52		0	
5402	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.7-6	MS-883	52		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	52		0	
			V		3X	1014 C				
ITT	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	42		0	
5402	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.6-8	MS-883	42		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	42		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
5402	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.6-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	99		0	
5402	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.6-8	MS-883	99		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	99		0	
			V		3X	1014 C				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	155		0	
5402	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	155		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	155		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	30		0	
5403	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5403	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	63		0	
5403	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	53		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	63		0	
			V		1 MIN E	2001 D				
				EM			63		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	85		0	
5403	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	85		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	85		0	
			V		98%RH	1004				
				EM			85		1	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	85		0	
5403	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	85		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	85		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	75		0	
5410	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	205		0	
5410	14	-55/125	V			2003				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	48		0	
5410	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5410	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	30		0	
5410	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	48		0	
5410	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2 KHZ	MS-883	48		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	48		0	
			V		1 MIN E	2001 D				
				EM			48		0	
			V			N.R.				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	32		0	
5410	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	32		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	32		0	
			V		1 MIN E	2001 D				
				EM			32		0	
			V			N.R.				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	47		0	
5419	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	47		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	47		0	
			V		1 MIN E	2001 D				
				EM			47		0	
			V			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	36		0	
5410	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	36		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	36		0	
			V		98%RH	1004				
				EM			36		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
5410	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		98%RH	1004				
				EM			47		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	48		0	
5410	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	48		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	48		0	
			V		98%RH	1004				
				EM			48		0	
			V			N.R.				
ITT	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
5410	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	90		0	
5410	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	90		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	90		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	57		0	
5410	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	57		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	57		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	52		0	
5410	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	52		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	52		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		15		0	
5420	14	-55/125	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	38		0	
5420	14	-55/125	V		10CYC	1010 C				
				EM			38		0	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		15		0	
5420	14	-55/125	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	VIS INS		MS-883	25		0	
5420	14	-55/125	V			2008				
				BONDSTR		MS-883	25		0	
			V			2011				
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	90		0	
5420	14	-55/125	V			2003				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	20		0	
5420	14	-55/125	V		MSQ	1009 A				
ITT	FPK	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
5420	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	10		0	
5420	14	-55/125	V		MSQ	1009 A				

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MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	5420	FPK 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25:		0:	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25:		0:	
				V	EM		N.R.	25:		0:	
ITT	5420	FPK 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	22:		0:	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	22:		0:	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	22:		0:	
				V	EM		N.R.	22:		0:	
ITT	5420	FPK 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	46:		0:	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	46:		0:	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	46:		0:	
				V	EM		N.R.	46:		0:	
ITT	5420	E-DIP 14	N -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	25:		0:	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	25:		0:	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	25:		0:	
				V	EM		N.R.	25:		0:	
ITT	5420	FPK 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	25:		0:	
				V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	25:		0:	
				V	MOIST	-010C 065C 98%RH	MS-883 1004	25:		0:	
				V	EM		N.R.	25:		0:	
ITT	5420	E-DIP 14	N -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:	
				V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25:		0:	
				V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25:		0:	
				V	EM		N.R.	25:		0:	
ITT	5420	E-DIP 14	N -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	15:		0:	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15:		0:	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15:		0:	
ITT	5420	FPK 14	C-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG .6 ARCS	MS-883 2004 B	15:		0:	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15:		0:	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15:		0:	
ITT	5420	FPK 14	B-1 -55/125	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	90:		0:	
				V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	90:		0:	
				V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	90:		0:	
ITT	5430	FPK 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	190:		0:	
ITT	5430	DIP 14	B-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	175:		0:	
ITT	5430	FPK 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	38:		1:	

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	45		0	
5430	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	128		0	
5430	14	-55/125	V		MSQ	1009 A				
ITT	FPK	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	28		0	
5430	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	28		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	28		0	
			V		1 MIN E	2001 D				
				EM			28		0	
			V			N.R.				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	32		0	
5430	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	32		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	32		0	
			V		1 MIN E	2001 D				
				EM			32		0	
			V			N.R.				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	128		0	
5430	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	128		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	128		0	
			V		1 MIN E	2001 D				
				EM			128		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
5430	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		98%RH	1004				
				EM			47		1	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	140		0	
5430	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	140		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	140		0	
			V		98%RH	1004				
				EM			140		0	
			V			N.R.				
ITT	FPK	C-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
5430	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		98%RH	1004				
				EM			47		0	
			V			N.R.				
ITT	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
5430	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	147		0	
5430	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	147		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	147		0	
			V		3X	1014 C				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	190		0	
5430	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	190		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	190		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	62		0	
5450	14	-55/125	V			2003				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 5450	FPK 14	A-1 -55/125	09/75 V	SOLDER	260C 95%	MS-883 2003	32:		0:	
ITT 5450	FPK 14	A-1 -55/125	09/75 V	VIS INS		MS-883 2008	32:		0:	
				BONDSTR		MS-883 2011	32:		0:	
ITT 5450	DIP 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25:		0:	
ITT 5450	FPK 14	C-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25:		0:	
ITT 5450	DIP 14	B-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	15:		0:	
ITT 5450	FPK 14	A-1 -55/125	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	32:		0:	
ITT 5450	FPK 14	A-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	32:		0:	
				VBVRFQ	100HZ 2KHZ	MS-883	32:		0:	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	32:		0:	
			V		1 MIN E	2001 D				
				EM			32:		0:	
			V			N.R.				
ITT 5450	DIP 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:	
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E	2001 D				
				EM			25:		0:	
			V			N.R.				
ITT 5450	FPK 14	C-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:	
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E	2001 D				
				EM			25:		0:	
			V			N.R.				
ITT 5450	DIP 14	B-1 -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25:		0:	
				VBVRFQ	100HZ 2KHZ	MS-883	25:		0:	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25:		0:	
			V		1 MIN E	2001 D				
				EM			25:		0:	
			V			N.R.				
ITT 5450	DIP 14	B-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	57:		0:	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	57:		0:	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	57:		0:	
				EM			57:		1:	
			V			N.R.				
ITT 5450	DIP 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	75:		0:	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	75:		0:	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	75:		0:	
				EM			75:		0:	
			V			N.R.				
ITT 5450	FPK 14	C-1 -55/125	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	75:		0:	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	75:		0:	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	75:		0:	
				EM			75:		0:	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	A-1	09/75	THRMSHK	-055C 125C	MS-883	32		0	
5450	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	32		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	32		0	
			V		98%RH	1004				
				EM			32		0	
			V			N.R.				
ITT	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
5450	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
5450	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	62		0	
5450	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	62		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	62		0	
			V		3X	1014 C				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
5450	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	97		0	
5453	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5453	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
5453	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		.1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	73		0	
5453	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	73		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	73		0	
			V		98%RH	1004				
				EM			73		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	178		0	
5453	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	178		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	178		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	54		0	
5454	14	-55/125	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	15		0	
5454	14	-55/125	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
5454	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER	PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT		DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	56		0	
	5454	14	-55/125	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	56		0	
				V		10CYC	1010 C				
					MOIST	-010C 065C	MS-883	56		0	
				V		98%RH	1004				
					EM			56		0	
				V			N.R.				
ITT		DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75		0	
	5454	14	-55/125	V		6 ARCS	2004 B				
					FINE LK	HE 5.E-8	MS-883	75		0	
				V		60 MIN	1014 A				
					GROSSLK	FLUOR 125C	MS-883	75		0	
				V		3X	1014 C				
ITT		E-DIP	N	09/75	AUTOCLV	15PSIG 100C		268		1	
	7400	14	0/70C	V		100%RH	N.R.				
ITT		E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	288		0	
	7400	14	0/70C	V		10CYC	1010 C				
					EM			288		0	
				V			N.R.				
ITT		E-DIP	N	09/75	TEMPCYC	000C 125C		292		0	
	7400	14	0/70C	V		10CYC	N.R.				
ITT		DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	432		0	
	7400	14	0/70C	V		6 ARCES	2004 B				
					HERMET		MS-883	432		1	
				V			1014				
ITT		DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	388		0	
	7400	14	0/70C	V		6 AR S	2004 B				
					HERMET		MS-883	388		4	
				V			1014				
ITT		DIP	B-1	09/75	SOLDER	260C 95%	MS-883	43		0	
	7400	14	0/70C	V			2003				
ITT		E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	68		1	
	7400	14	0/70C	V		MSQ	1009 A				
ITT		DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	11		0	
	7400	14	0/70C	V		MSQ	1009 A				
ITT		E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	105		3	
	7400	14	0/70C	V		MSQ	1009 A				
ITT		DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	20		0	
	7400	14	0/70C	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	20		0	
				V		20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	20		0	
				V		1 MIN E	2001 D				
					EM			20		0	
				V			N.R.				
ITT		DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	32		0	
	7400	14	0/70C	V		MSQ	1009 A				
ITT		DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	20		0	
	7400	14	0/70C	V		6 AXES	2002 B				
					VBVRFQ	100HZ 2KHZ	MS-883	20		0	
				V		20G	2007 A				
					CNSTACC	20KG 6 AXES	MS-883	20		0	
				V		1 MIN E	2001 D				
					EM			20		0	
				V			N.R.				
ITT		DIP	B	09/75	THRMSHK	-055C 125C	MS-883	153		0	
	7400	14	0/70C	V		15CYC	1011 B				
					TEMPCYC	-065C 150C	MS-883	153		0	
				V		10CYC	1010 C				
					MOIST	-010C 065C	MS-883	153		0	
				V		98%RH	1004				
					EM			153		1	
				V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	% F/D	FAILURE SUMMARY /#
ITT 7400	E-DIP 14	N 0/70C	09/75 V	THRMSHK	-065C 125C 15CYC	MS-883 1011 B	192		0	
			V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	192		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	192		0	
			V	EM		N.R.	192		0	
ITT 7400	DIP 14	B-1 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	54		0	
			V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	54		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	54		0	
			V	EM		N.R.	54		0	
ITT 7400	DIP 14	C-1 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	25		0	
			V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	25		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	25		0	
			V	EM		N.R.	25		1	
ITT 7400	E-DIP 14	N 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	22		0	
			V	TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	22		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	22		0	
			V	EM		N.R.	22		0	
ITT 7400	DIP 14	N 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	76		0	
			V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	76		0	
			V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	76		0	
			V	EM		N.R.	76		0	
ITT 7400	E-DIP 14	N 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	11		0	
			V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	11		0	
			V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	11		0	
			V	EM		N.R.	11		0	
ITT 7400	E-DIP 14	N 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	38		0	
			V	VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	38		0	
			V	CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	38		0	
			V	EM		N.R.	38		0	
ITT 7400	E-DIP 14	N 0/70C	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	22		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
ITT 7400	DIP 14	N 0/70C	09/75 V	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	63		0	
			V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	63		0	
			V	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	63		0	

GATL ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
7400	14	0/70C	Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	1.20E 04	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-T025C	MS-883	50	2.40E 03	0	
			Q			1001 G				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	1.20E 04	0	
			Q			1001 G				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		104		1	
7401	14	0/70C	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
7401	14	0/70C	V		10CYC	1010 C				
				EM			52		0	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		52		0	
7401	14	0/70C	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		0	
7401	14	0/70C	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	47		0	
7401	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		96%RH	1004				
				EM			47		1	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
7401	14	0/70C	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	15		0	
7401	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	15		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	22		0	
7403	14	0/70C	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	20		0	
7403	14	0/70C	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10		0	
7403	14	0/70C	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	10		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10		0	
			V		1 MIN E	2001 D				
				EM			10		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	42		0	
7403	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	42		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	42		0	
			V		98%RH	1004				
				EM			42		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	62		9	
7403	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	62		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	62		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		1	
7410	14	0/70C	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SOLDER	260C 95Z	MS-883	44		0	
7420	14	0/70C	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	32		0	
7420	14	0/70C	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10		0	
7420	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	10		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10		0	
			V		1 MIN E	2001 D				
				EM			10		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	54		0	
7420	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	54		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	54		0	
			V		98ZRH	1004				
				EM			54		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	64		0	
7420	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	64		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	64		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		52		0	
7430	14	0/70C	V		100ZRH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
7430	14	0/70C	V		10CYC	1010 C				
				EM			52		1	
			V			N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	000C 125C		52		0	
7430	14	0/70C	V		10CYC	N.R.				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	72		1	
7430	14	0/70C	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	50		0	
7430	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98ZRH	1004				
				EM			50		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
7430	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
7430	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	E-DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
7430	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HF 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	25		0	
7450	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98%RH	1004				
				EM			25		0	
			V			N.R.				
ITT	DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
7450	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
7450	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	25		0	
7451	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98%RH	1004				
				EM			25		0	
			V			N.R.				
	E-DIP	N	01/75	MECHSHK	1.5KG .5MSEC	MS-883	11		0	
7451	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	11		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	11		0	
			V		1 MIN E	2001 D				
				EM			11		1	
			V			N.R.				
ITT	DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		0	
7453	14	0/70C	V		MSQ	1009 A				
ITT	DIP	N	09/75	THRMSHK	-055C 125C	MS-883	38		0	
7453	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	38		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	38		0	
			V		98%RH	1004				
				EM			38		0	
			V			N.R.				
ITT	DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
7453	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				
ITT	DIP	N	09/75	LEADFTG	8 OZ 90DEG	MS-883	21		0	
7453	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	21		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	21		0	
			V		3X	1014 C				
ITT	E-DIP	N	9/75	SALTATM	035C 50GMS	MS-883	25		0	
9003	14	N.S			MSQ	1009 A				

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ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
9003	14	N.R.	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	38		0	
9004	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	38		0	
9004	14	-55/125	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	38		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	38		0	
			V		1 MIN E	2001 D				
				EM			38		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
9004	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44		0	
9004	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	44		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	44		0	
			V		3Y	1014 C				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	33		0	
9005	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	10		0	
9005	14	-55/125	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	10		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	10		0	
			V		1 MIN E	2001 D				
				EM			10		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	72		0	
9005	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	44		0	
9005	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	44		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	44		0	
			V		3Y	1014 C				
ITT	E-DIP	N	09/75	SALTATM	035C 50GMS	MS-883	25		0	
9007	14	N.R.	V		MSQ	1009 A				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-882	25		0	
9007	14	N.R.	V		6 AXES	2002 B				
				VIBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
MOTOROLA	DIP	N	12/75	EM			1872		7	NFEF 666/3,
576	14	-55/125	U			N.R.				667/3.668/1
				X-RAY			1865		0	
			U			N.R.				
				EM			1865		39	NFEF 669/2,
			U			N.R.				670/11.671/26.

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NATIONAL	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883		2.40E 03	0	
5400	14	-55/125	Q			1001 F				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	1.20E 04	0	
			Q			1001 F				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	2.40E 03	0	
			Q			1001 G				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	1.20E 04	0	
			Q			1001 G				
				S&F LN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
SIGNETICS	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
5400	14	-55/125	Q			1001 F				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	1.20E 04	0	
			Q			1001 F				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	2.40E 03	0	
			Q			1001 G				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	1.20E 04	0	
			Q			1001 G				
				S&F EN	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
SIGNETICS	DIP	B	12/75	X-RAY			175		0	
5402	14	-55/125	U			N.R.				
				EN			175		1	MFEP 672/1
			U			N.R.				
SIGNETICS	DIP	B-1	06/75	THRMSHK	-055C 125C	MM38510	30		0	
5450	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	30		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM3850	30		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	30		0	
			Q		3X	1014 C				
				EM	025C	MM38510	30		0	
			Q			N.R.				
SIGNETICS	DIP	B-1	08/75	THRMSHK	-055C 125C	MM38510	29		0	
5451	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	29		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	29		0	
			Q		3X	1014 C				
				EM	025C	MM38510	29		0	
			Q			N.R.				
SIGNETICS	E-DIP	B-1	09/75	SOLDER	260C 95%	MS-883	10		0	
7450	14	0/70C	V			2003				
SIGNETICS	E-DIP	B-1	09/75	SALTATM	035C 500HS	MS-883	52		0	
7450	14	0/70C	V		MSQ	1009 A				
SIGNETICS	E-DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	17		0	
7450	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	10CHZ 2KHZ	MS-883	17		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	17		0	
			V		1 MIN E	2001 D				
				EM			17		0	
			V			N.R.				
SIGNETICS	E-DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	55		0	
7456	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	55		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	55		0	
			V		98%RH	1004				
				EM			55		0	
			V			N.R.				

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SIGNETICS	E-DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	64		0	
7450	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	64		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	64		0	
			V		3X	1014 C				
T.I.	E-DIP	X	05/77	LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
7400	14	0/70C	Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	1.20E 04	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	2.40E 03	0	
			Q			1001 G				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.E-6T025C	MS-883	50	1.20E 04	0	
			Q			1001 G				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
VARIOUS	DIP	N	12/75	EM			625		6	MREF 673/1,
5402	14	-55/125	U			N.R.				674/5
				X-RAY			819		0	
			U			N.R.				
				EM			819		36	MREF 675/14,
			U			N.R.				676/22
VARIOUS	DIP	N	12/75	X-RAY			397		0	
5410	14	-55/125	U			N.R.				
				EM			397		0	
			U			N.R.				
VARIOUS	DIP	N	12/75	EM			62		0	
5430	14	-55/125	U			N.R.				
				X-RAY			62		0	
			U			N.R.				
				EM			62		0	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	50		0	
100101	24	-55/125	V		6 AXES	2002 B				
				VSVRFQ	20HZ 2KHZ	MM38510	50		0	
			V		20G	2007 A				
				CONSTACC	30KG 6 AXES	MM38510	50		0	
			V		1 MIN E	2001 C				
				HERMET			50		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	50		0	
100101	24	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	50		0	
			V		10CY	1010 C				
				HERMET			50		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	LEADITG	8 OZ 90DEGS	MM38510	23		0	
100101	24	-55/125	V		3 ARCS	2004 B				
				HERMET			23		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	SALTATM	035C 25CMS	MM38510	23		0	
100101	24	-55/125	V		5SQ	1009 A				
				VIS INS			23		0	
			V			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	FPK	N	01/77	SALTATM	035C 25GMS	MM38510	12		0	
100101	24	-55/125	V		MSQ	1009 A				
				VIS INS			12		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	22		0	
100101	24	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	22		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	22		0	
			V		1 MIN E	2001 E				
				HERMET			22		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	22		0	
100101	24	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	22		0	
			V		10CY	1010 C				
				HERMET			22		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	TEMPCYC	-065C 150C	MM38510	20		0	
100101	24	-55/125	V		10CY	1010 C				
				CNSTACC	30KG 6 AXES	MM38510	20		0	
			V		1 MIN E	2001 E				
				HERMET			20		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	30		0	
100101	24	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	30		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	30		0	
			V		1 MIN E	2001 E				
				HERMET			30		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	30		0	
100101	24	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	30		0	
			V		10CY	1010 C				
				HERMET			30		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	20		0	
100101	24	0/70C	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	20		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	20		0	
			V		1 MIN E	2001 E				
				HERMET			20		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	THRMSHK	-055C 125C	MM38510	35		0	
100101	24	0/70C	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	35		0	
			V		10CY	1010 C				
				HERMET			35		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	SOLDER	260C 95%	MM38510	15		0	
100102	24	-55/125	V		5 SEC	2003				
				LEADFTG	8 OZ 90DEGS	MM38510	15		0	
			V		3 ARCS	2004 B				
				HERMET			15		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	TEMPCYC	-065C 150C	MM38510	30		0	
100107	24	-55/125	V		10CY	1010 C				
				CNSTACC	30KG 6 AXES	MM38510	30		0	
			V		1 MIN E	2001 E				
				HERMET			30		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	50		0	
10101	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	50		0	
			V		10CY	1010 C				
				HERMET			50		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 10101	DIP 16	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	50		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	50		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	50		0	
			V	HERMET		N.R.	50		0	
FAIRCHILD 10101	DIP 16	N -55/125	01/77 V	SOLDER	260C 95% 5 SEC	MM38510 2003	15		0	
			V	HERMET		N.R.	15		0	
FAIRCHILD 10101	DIP 16	N -55/125	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	43		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	43		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	43		0	
			V	HERMET		N.R.	43		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	30		0	
			V			N.R.	30		0	
FAIRCHILD 10101	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	50		0	
			V			N.R.	50		0	
FAIRCHILD 10102	DIP 16	N N.R.	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	43		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	43		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	43		0	
			V	HERMET		N.R.	43		0	
FAIRCHILD 10102	DIP 16	N N.R.	01/77 V	MECHSHK	1.5KG .5MSEC 6 AXES	MM38510 2002 B	8		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	8		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MM38510 2001 E	8		0	
			V	HERMET		N.R.	8		0	
FAIRCHILD 10102	E-DIP 16	N 0/70C	01/77 V	AUTOCLV	15PSIG121C EM	N.R.	50		0	
			V			N.R.	50		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYP ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	58		0	
10103	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	58		0	
			V		10CY	1010 C				
				HERMET			58		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	60		0	
10193	16	-55, 125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	60		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	60		0	
			V		1 MIN E	2001 E				
				HERMET			60		1	MFEF 684/1
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	45		0	
11C01	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	45		0	
			V		10CY	1010 C				
				HERMET			45		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	34		0	
11C01	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	34		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	34		0	
			V		1 MIN E	2001 E				
				HERMET			34		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	LEADFTG	8 OZ 90DEGS	MM38510	34		0	
11C01	16	N.R.	V		3 ARCS	2004 B				
				HERMET			34		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	25		0	
11C01	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	25		0	
			V		10CY	1010 C				
				HERMET			25		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	22		0	
11C01	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	22		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	22		0	
			V		1 MIN E	2001 E				
				HERMET			22		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	SOLDER	260C 95%	MM38510	15		0	
11C01		N.R.	V		5 SEC	2003				
				LEADFTG	8 OZ 90DEGS	MM38510	15		0	
			V		3 ARCS	2004 B				
				SALTATM	035C 25GMS	MM38510	15		0	
			V		HSQ	1009 A				
				HERMET			15		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	TEMPCYC	-065C 150C	MM38510	19		0	
11C01	16	N.R.	V		10CY	1010 C				
				CNSTACC	30KG 6 AXES	MM38510	19		0	
			V		1 MIN E	2001 E				
				HERMET			19		0	
			V			N.R.				
FAIRCHILD	FPK	N	01/77	THRMSHK	-055C 125C	MM38510	23		0	
11C01	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	23		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MM38510	23		0	
			V		98%RH	1004				
				HERMET			23		0	
			V			N.R.				

GATE ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	FPK	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	23		0	
11C01	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	23		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	23		0	
			V		1 MIN E	2001 E				
				HERMET			23		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	25		0	
95110	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	25		0	
			V		10CY	1010 C				
				HERMET			25		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	25		0	
95110	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	25		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	25		0	
			V		1 MIN E	2001 E				
				HERMET			25		0	
			V			N.R.				

GATE ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	B	03/76	STAT EM	025C		20		0	
4002	14	0/70C	G			N.R.				
				HUMLIFE	085C 85%RH		20	8.39E 04	12	NEF 686/12
			G			N.R.				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	N	03/76	STAT EM	025C		10		0	
4002A	14	-55/125	G			N.R.				
				PWR CYC	-055C 125C		10		1	MFEF 687/1
			G			N.R.				
				STAT EM	025C		9		0	
			G			N.R.				
				FINE LK	HE 5.E-8	MS-883	9		0	
			G		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	9		0	
			G		3X	1014 C				
				MIXED			9		0	
			G			N.R.				
				FINE LK	HE 5.E-	MS-883	9		0	
			G		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	9		0	
			G		3X	1014 C				
RCA	DIP	N	03/76	THRMSHK	-065C 150C	MS-883	7		1	MFEF 688/1
4002A	14	-55/125	G		520CY	1011 C				
				STAT EM	025C		6		0	
			G			N.R.				
				FINE LK	HE 5.E-8	MS-883	6		1	MFEF 689/1
			G		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	5		0	
			G		3X	1014 C				
RCA	S-DIP	N	03/76	STAT EM	025C		10		0	
4002A	14	0/70C	G			N.R.				
				HUMLIFE	085C 85%RH		10	1.90E 04	9	MFEF 690/10
			G			N.R.				
				STAT EM	025C		1		1	
			G			N.R.				
RCA	FPK	A-1	02/75	VIS INS	80X	MM38510	55		0	
4011A	14	-55/125	Q			2014				
				BONDSTR	1GMS 129BDS	MM38510	10		0	
			Q			2011 B				
RCA	FPK	A-1	02/75	SOLDER	260C 95%	MM38510	55		1	
4011A	14	-55/125	Q		5 SEC	2003				
RCA	FPK	A-1	02/75	LEADFTG	3 OZ 90DEGS	MM38510	55		0	
4011A	14	-55/125	Q		3 ARCS	2004 B				
				FINE LK	HE 3.E-8	MM38510	55		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	55		0	
			Q		3X	1014 C				
RCA	FPK	A-1	03/75	THRMSHK	-065C 150C	MM38510	55		0	
4011A	14	-55/125	Q		15CYC	1011 C				
				TEMPCYC	-065C 150C	MM38510	55		0	
			Q		10CYC	1010 C				
				MOIST	-010C 065C	MM38510	55		0	
			Q		98%RH	1004				
				FINE LK	HE 3.E-8	MM38510	55		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	55		0	
			Q		3X	1014 C				
				EM	025C 125C	MM38510	55		1	
			Q		055C	N.R.				
RCA	FPK	A-1	04/75	MECHSHK	1.5KG .5MSEC	MM38510	55		0	
4011A	14	-55/125	Q		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	55		0	
			Q		20G	2007 A				
				CNSTACC	20KG 6 AXES	MM38510	55		0	
			Q		1 MIN E	2001 D				
				FINE LK	HE 5.E-8	MM38510	55		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	55		0	
			Q		3X	1014 C				
				EM	025C 125C	MM38510	55		1	
			Q		-055C	N.R.				
RCA	FPK	A-1	04/75	SALTATM	035C 30GNS	MM38510	55		1	
4011A	14	-55/125	Q		MSQ	1009 A				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /6
RCA	DIP	N	05/75	TEMPCYC	-065C 150C		40		0	
4011A	14	-55/125	V		25CY	N.R.				
				HERMET			40		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		40		0	
4011A	14	-55/125	V		25CY	N.R.				
				HERMET			40		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		40		0	
4011A	14	-55/125	V		50CY	N.R.				
				HERMET			40		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4011A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4011A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4011A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
RCA	FPK	A-1	06/75	THRMSHK	-065C 150C	MM38510	55		0	
4012A	14	-55/125	Q		15CYC	1011 C				
RCA	FPK	A-1	07/75	OP CNST	125C	MM38510	129	1.29E 05	0	
4012A	14	-55/125	Q			1005 B				
RCA	FPK	A-1	07/75	STGLIFE	150C	MM38510	77	7.70E 04	0	
4012A	14	-55/125	Q			1008 C				
RCA	FPK	A-1	08/75	VBVRFQ	20HZ 2KHZ	MM38510	55		0	
4012A	14	-55/125	Q		20G	2007 A				
RCA	DIP	N	05/75	TEMPCYC	-065C 150C		20		0	
4019A	16	-55/125	V		25CY	N.R.				
				HERMET			20		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		20		0	
4019A	16	-55/125	V		25CY	N.R.				
				HERMET			20		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		20		0	
4019A	16	-55/125	V		50CY	N.R.				
				HERMET			20		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		15		0	
4019A	16	-55/125	V			N.R.				
				EM	025C		15		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		15		0	
4019A	16	-55/125	V			N.R.				
				EM	025C		15		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		15		0	
4019A	16	-55/125	V			N.R.				
				EM	025C		15		0	
			V			N.R.				
RCA	FPK	A-1	07/75	THRMSHK	-065C 150C	MM38510	55		0	
4023A	14	-55/125	Q		15CYC	1011 C				
RCA	FPK	A-1	08/75	VBVRFQ	20HZ 2KHZ	MM38510	55		0	
4023A	14	-55/125	Q		20G	2007 A				
RCA	FPK	A-1	07/75	STGLIFE	150C	MM38510	129	1.29E 05	0	
4023A	14	-55/125	Q			1008 C				
RCA	FPK	A-1	07/75	OP CNST	125C	MM38510	77	7.70E 04	0	
4023A	14	-55/125	Q			1005 B				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	A-1	06/75	THRMSHK	-065C 150C	MM38510	55		0	
4025A	14	-55/125	Q		15CYC	1011 C				
RCA	DIP	A-1	08/75	VBVRFQ	20HZ 2KHZ	MM38510	55		0	
4025A	14	-55/125	Q		20G	2007 A				
RCA	DIP	A-1	08/75	OP CNST	125C	MM38510	129	1.29E 05	0	
4025A	14	-55/125	Q			1005 B				
RCA	DIP	A-1	09/75	STGLIFE	150C	MM38510	77	7.70E 04	0	
4025A	14	-55/125	Q			1008 C				
RCA	DIP	N	05/75	TEMPCYC	-065C 150C		39		0	
4025A	14	-55/125	V		25CY	N.R.				
				HERMET			39		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		40		0	
4025A	14	-55/125	V		25CY	N.R.				
				HERMET			40		0	
			V			N.R.				
RCA	DIP	N	05/75	THRMSHK	-065C 150C		40		0	
4025A	14	-55/125	V		50CY	N.R.				
				HERMET			40		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4025A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4025A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
RCA	DIP	N	05/75	AUTOCLV	15PSIG121C		30		0	
4025A	14	-55/125	V			N.R.				
				EM	025C		30		0	
			V			N.R.				
SOLID STATE SC	DIP	B-1	09/75	VIS INS	80X	MS-883	3		0	
4001A	14	-55/125	V			2014				
				BONDSTR		MS-883	3		0	
			V			2011				
SOLID STATE SC	DIP	N	09/75	SOLDER	260C 95%	MS-883	15		0	
4001A	14	-55/125	V		5 SEC	2003				
				VIS INS	10X	MS-883	15		0	
			V			N.R.				
SOLID STATE SC	DIP	B-1	09/75	LEADFTG	8 OZ 90DEGS	MS-883	25		0	
4001A	14	-55/125	V		3 ARCS	2004 B				
				HERMET		MS-883	25		0	
			V			1014				
SOLID STATE SC	DIP	N	09/75	THRMSHK		MS-883	34		0	
4001A	14	-55/125	V		15CY	1001				
				TEMPCYC		MS-883	34		0	
			V		10CY	1010				
				MOIST	-010C 065C	MS-883	34		0	
			V		98%RH	1004				
				HERMET		MS-883	34		0	
			V			1014				
				EM			34		0	
			V			N.R.				
SOLID STATE SC	DIP	N	03/76	STAT EM	025C		5		0	
4002A	14	-55/125	G			N.R.				
				BAKE	300C		5	8.40E 02	0	
			G			N.R.				
				STAT EM	025C		5		0	
			G			N.R.				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SOLID STATE SC 4002A	DIP 14	N -55/125	03/76 C	STAT EM	025C	N.R.	5		0	
				PWR CYC	-055C 125C	N.R.	5		2	MFEF 691/2
			C			N.R.				
				STAT EM	025C		3		0	
			C			N.R.				
				FINE LK	HE 5.E-8	MS-883	3		0	
			C		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	3		0	
			C		3X	1014 C				
				MIXED			3		0	
			C			N.R.				
				FINE LK	HE 5.E-8	MS-883	3		0	
			C		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	3		0	
			C		3X	1014 C				
SOLID STATE SC 4011A	DIP 14	N -55/125	09/75 V	MOIST	-010C 065C 98%RH	MS-883X 1004	64	2.30E 05	0	
				EM			64		0	
			V			N.R.				
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	TEMPCYC	-065C 150C 2.5CY	MS-883 1010 C	60		0	
				EM			60		0	
			V			N.R.				
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	TEMPCYC	-065C 150C 25CY	MS-883 1010 C	100		0	
				EM			100		0	
			V			N.R.				
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	MOIST	-010C 065C 98%RH	MS-883X 1004	100	2.40E 04	0	
				EM			100		0	
			V			N.R.				
SOLID STATE SC 4012A	DIP 14	N -55/125	09/75 V	THRMSHK	15CY	MS-883 1001	100		0	
				TEMPCYC	10CY	MS-883 1010	100		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	100		0	
				HERMET		MS-883 1014	100		0	
			V	EM			100		0	
						N.R.				
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	AUTOCLV	15PSIG 025C	N.R.	26		0	
				EM			26		0	
			V			N.R.				
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	VIS INS		MS-883 2016	15		0	
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	VIS INS	80X	MS-883 2014	3		0	
				BONDSTR		MS-883 2011	3		0	
			V							
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	SOLDER	260C 95% 5 SEC	MS-883 2003	15		0	
				VIS INS	10X	MS-883	15		0	
			V			N.R.				
SOLID STATE SC 4023A	DIP 14	N -55/125	09/75 V	LEADFTG	8 OZ 90DEGS 3 ARCS	MS-883 2004 b	15		0	
			V	HERMET		MS-883 1014	15		0	

GATE — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SOLID STATE SC 4023A	DIP 14	N -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	15		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	15		0	
				HERMET		MS-883 1014	15		0	
				VIS INS	5X 10X	MS-883 N.R.	15		0	
				EM		N.R.	15		0	
SOLID STATE SC 4025A	DIP 14	N -55/125 V	09/75	VIS INS		MS-883 2016	15		0	
SOLID STATE SC 4025A	DIP 14	N -55/125 V	09/75	VIS INS	80X	MS-883 2014	3		0	
				BONDSTR		MS-883 2011	3		0	
SOLID STATE SC 4025A	DIP 14	N -55/125 V	09/75	SOLDER	260C 95% 5 SEC	MS-883 2003	15		0	
				VIS INS	10X	MS-883 N.R.	15		0	
SOLITRON DEV 4002A	DIP 14	N -55/125 G	03/76	STAT EM	025C	N.R.	10		0	
				PWR CYC	-055C 125C	N.R.	10		1	MFEF 692/1
				STAT EM	025C	N.R.	9		1	MFEF 692/1
				FINE LK	HE 1.5E-8 60 MIN	MS-883 1014 A	8		1	MFEF 693/1
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	7		3	MFEF 693/3
				MIXED		N.R.	4		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	4		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	4		0	
SOLITRON DEV 4002A	DIP 14	N -55/125 G	03/76	THRMSHK	-065C 150C 520CY	MS-883 1011 C	2		1	MFEF 694/1
				STAT EM	025C	N.R.	1		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	1		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	1		0	
SOLITRON DEV 4002A	E-DIP 14	N 0/70C G	03/76	STAT EM	025C	N.R.	17		12	MFEF 695/12
				HUMLIFE	085C 85%RH	N.R.	5	1.22E 04	5	MFEF 696/5
				STAT EM	025C	N.R.	0		0	

GENERATOR — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS 54182	DIP 16	B-1 -55/125 Q	08/75	THRMSHK	-055C 125C 15CY	MM38510 1011 B	41		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	41		0	
				FINE LK	HE 5.E-8 60 MIN	MM38510 1014 A	41		1	
				GROSSLK	FLUOR 125C 3X	MM38510 1014 C	40		0	
				EM	025C	MM38510 N.R.	40		0	

GENERATOR — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG 5MSEC	MM38510	45		0	
10160	16	N.R.	V		6 AXES	2002 B				
				VIBVRFQ	20HZ 2KHZ	MM38510	45		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	45		0	
			V		1 MIN E	2001 E				
				HERMET			45		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	LEADFTG	8 OZ 90DEGS	MM38510	45		0	
10160	16	N.R.	V		3 ARCS	2004 B				
				HERMET			45		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	45		0	
10160	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	45		0	
			V		10CY	1010 C				
				HERMET			45		0	
			V			N.R.				

INVERTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	DIP	N	07/76	THRMSHK	000C 100C	MS-883	11		0	
54L04	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	11		0	
			V		10CY	.010 C				
				MOIST	-010C 065C	MS-883	11		0	
			V		98%RH	1004				
				EM			11		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	MECHSHK	1.5KG .5MSEC	MS-883	11		0	
54L04	14	-55/125	V		6 AXES	2002 B				
				VIBVRFQ	20HZ 2KHZ	MS-883	11		0	
			V		5GG	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	11		0	
			V		1 MIN E	2001 E				
				EM			11		0	
			V			N.R.				
T.I.	E-DIP	N	11/76	AUTOCLV	15PSIG		40		0	
74L04	14	0/70C	V		100%RH	N.R.				
				STAT EM	025C		40		0	
			V			N.R.				
T.I.	E-DIP	N	11/76	TEMPCYC	-065C 150C	MS-883	58		2	
74L04	14	0/70C	V		1000CY	1010 C				
				STAT EM	025C		56		0	
			V			N.R.				

INVERTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
54H04	14	-55/125	V			2003				
ITT	FPK	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	55		0	
54H04	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	55		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-183	55		0	
			V		3X	1014 C				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 5404	DIP 14	B-1 -55/125 V	09/75	SOLDER	260C 95%	MS-883 2003	204		0	
ITT 5404	FPK 14	B-1 -55/125 V	09/75	SOLDER	260C 95%	MS-883 2003	230		0	
ITT 5404	DIP 14	N -55/125 V	09/75	SALTATM	035C 50GMS MSQ	MS-883 1009 A	11		0	
ITT 5404	DIP 14	C-1 -55/125 V	09/75	SALTATM	035C 50GMS MSQ	MS-883 1009 A	25		0	
ITT 5404	FPK 14	B-1 -55/125 V	09/75	SALTATM	035C 50GMS MSQ	MS-883 1009 A	52		0	
ITT 5404	DIP 14	C-1 -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	25		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	25		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	25		0	
				EM		N.R.	25		0	
ITT 5404	FPK 14	B-1 -55/125 V	09/75	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	96		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	96		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	96		0	
				EM		N.R.	96		0	
ITT 5404	DIP 14	N -55/125 V	09/75	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	80		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	80		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	80		0	
				EM		N.R.	80		3	
ITT 5404	DIP 14	C-1 -55/125 V	09/75	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	50		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	50		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	50		0	
				EM		N.R.	50		0	
ITT 5404	FPK 14	B-1 -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	50		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	50		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	50		0	
				EM		N.R.	50		0	
ITT 5404	DIP 14	N -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	22		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	22		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	22		0	
				EM		N.R.	22		0	
ITT 5404	DIP 14	B-1 -55/125 V	09/75	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	96		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	96		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	96		0	
ITT 5404	FPK 14	B-1 -55/125 V	09/75	LEADFTG	8 OZ 90DEG 6 ARCS	MS-883 2004 B	230		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	230		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	230		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
5404	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	FPK	C-1	09/75	SALTATM	035C 50GMS	MS-883	47		0	
5405	14	-55/125	V		MSQ	1009 A				
ITT	FPK	B-1	09/75	SALTATM	035C 50GMS	MS-883	22		0	
5405	14	-55/125	V		MSQ	1009 A				
ITT	FPK	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	50		0	
5405	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	50		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	50		0	
			V		1 MIN E	2001 D				
				EM			50		0	
			V			N.R.				
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	32		0	
5405	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	32		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	32		0	
			V		1 MIN E	2001 D				
				EM			32		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	4		0	
5405	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	4		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	4		0	
			V		98ZRH	1004				
				EM			4		0	
			V			N.R.				
ITT	FPK	C-1	09/75	THRMSHK	-055C 125C	MS-883	50		0	
5405	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98ZRH	1004				
				EM			50		0	
			V			N.R.				
ITT	FPK	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	30		0	
5405	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	30		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
7404	14	0/70C	V		10CYC	1010 C				
				EM			52		0	
			V			N.R.				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	25		0	
7405	14	0/70C	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
7405	14	0/70C	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	C-1	09/75	THRMSHK	-055C 125C	MS-883	25		0	
7405	14	0/70C	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	25		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	25		0	
			V		98ZRH	1004				
				EM			25		0	
			V			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	45		0	
7405	14	0/70C	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	45		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	45		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	10		0	
9016	14	N.R.	V			2003				
ITT	DIP	C-1	09/75	SALTATM	035C 50GMS	MS-883	36		0	
9016	14	-55/125	V		MSQ	1009 A				
ITT	DIP	C-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	72		0	
9016	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	72		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	72		0	
			V		1 MIN E	2001 D				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	TLRMSHK	-055C 125C	MS-883	72		0	
9016	14	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	72		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	72		0	
			V		98%RH	1004				
				EM			72		0	
			V			N.R.				
ITT	DIP	C-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
9016	14	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	32		0	
9016	14	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	32		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	32		0	
			V		3X	1014 C				
NATIONAL	DIP	N	12/75	THRMSHK	000C 100C	MS-883	15		0	
5404	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	15		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	15		0	
			V		95%RH	1004				
				EM			15		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	THRMSHK	000C 100C	MS-883	5		0	
5404	14	-55/125	V		15CY	1011 A				
				TEMPCYC	-065C 150C	MS-883	5		0	
			V		10CY	1010 C				
				MOIST	-010C 065C	MS-883	5		0	
			V		98%RH	1004				
				EM			5		0	
			V			N.R.				
NATIONAL	DIP	N	12/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
5404	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	15		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 E				
				EM			15		0	
			V			N.R.				
NATIONAL	DIP	N	07/76	MECHSHK	1.5KG .5MSEC	MS-883	5		0	
5404	14	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MS-883	5		0	
			V		50G	2007 B				
				CNSTACC	30KG 6 AXES	MS-883	5		0	
			V		1 MIN E	2001 E				
				EM			5		0	
			V			N.R.				

INVENTEK ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS 5404	DIP 14	N :-55/125	12/75 Q	X-RAY		N.R.	865		0	
				EM			865		5	HFEF 67//4, 678/1

INVENTEK ENVIRONMENTAL RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL 4007	E-DIP 14	X :-40/85C	05/77 Q	LOPRESS S&F EM LOPRESS S&F EM LOPRESS S&F EM	1.09T 025C :025C 125C :-055C :1.09T 025C :025C 125C :-055C :1.E-6T025C :025C 125C :-055C	MS-883 1001 F N.R. MS-883 1001 F N.R. MS-883 1001 J N.R. MS-883 1001 C N.R. MS-883 1001 F N.R. MS-883 1001 G N.R. MS-883 1001 G N.R.	50 50 50 50 50 50 50 50 50	2.40E 03 1.20E 04 2.40E 03 1.20E 04 2.40E 03 1.20E 04	0 0 0 0 0 0 0 0 0	
NATIONAL 4007A	DIP 14	C-1 :-55/125 Q	07/76	THERMSHK :20CY	-050C 175C	MS-883X 1011	15		0	
RCA 4007A	FPK 14	A-1 :-55/125 Q	07/75	THERMSHK :15CYC	-065C 150C	MS38510 1011 C	55		0	
RCA 4007A	FPK 14	A-1 :-55/125 Q	06/75	VSVRFQ :20C	.20HZ 2KHZ	MS38510 2007 C	55		0	
RCA 4007A	E-DIP 14	X :-40/85C	05/77 Q	LOPRESS S&F EM LOPRESS S&F EM LOPRESS S&F EM	1.09T 025C :025C 125C :-055C :1.09T 025C :025C 125C :-055C :1.E-6T025C :025C 125C :-055C	MS-883 1001 F N.R. MS-883 1001 F N.R. MS-883 1001 G N.R. MS-883 1001 G N.R. MS-883 1001 G N.R.	50 50 50 50 50 50 50 50 50	2.40E 03 1.20E 04 2.40E 03 1.20E 04 2.40E 03 1.20E 04	0 0 0 0 0 0 0 0 0	
SOLID STATE SC 4007A	DIP 14	C-1 :-55/125 V	09/75	VIS INS		MS-883 2016	15		0	
SOLID STATE SC 4007A	DIP 14	C-1 :-55/125 V	09/75	VIS INS : : :	BGX	MS-883 2014 MS-883 2011	3 3		0 0	
SOLID STATE SC 4007A	DIP 14	C-1 :-55/125 V	09/75	LEADFIG :3 AMPS : HERMET	.6 OZ 90DEGS	MS-883 2004 B MS-883 1014	15 15		0 0	

INVERTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SOLID STATE SC 4007A	DIP 14	N -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	15		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	15		0	
				HERMET		MS-883 1014	15		0	
				VIS INS	5X 10X	MS-883 N.R.	15		0	
				EM		N.R.	15		0	
SOLID STATE SC 4007A	DIP 14	N -55/125	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	15		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	15		0	
				HERMET		MS-883 1014	15		0	
				VIS INS	5X 10X	MS-883 N.R.	15		0	
				EM		N.R.	15		0	
SOLID STATE SC 4007A	DIP 14	N -55/125	09/75 V	SALTATM	035C 25GMS MSQ	MS-883 1009 A	15	3.60E 02	0	
				VIS INS	5X 10X	MS-883 N.R.	15		0	
SOLID STATE SC 4007A	DIP 14	N -55/125	09/75 V	SALTATM	035C 25GMS MSQ	MS-883 1009 A	15	3.60E 02	0	
				VIS INS	5X 10X	MS-883 N.R.	15		0	

LATCH — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT 7475	DIP 16	B-1 0/70C	09/75 V	SALTATM	035C 50GMS MSQ	MS-883 1009 A	62		0	
ITT 7475	DIP 16	B-1 0/70C	09/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	38		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	38		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 D	38		0	
				EM		N.R.	38		0	
ITT 7475	DIP 16	B-1 0/70C	09/75 V	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	55		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	55		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	55		0	
				EM		N.R.	55		0	
SIGNETICS 5475	DIP 16	B-1 -55/125	05/75 Q	THRMSHK	-055C 125C 15CY	MM38510 1011 B	41		0	
				VBVRFQ	20HZ 2KHZ 20G	MM38510 2007 A	41		0	
				FINE LK	HE 5.E-8 60 MIN	MM38510 1014 A	41		0	
				GROSSLK	FLUOR 125C .?X	MM38510 1014 C	41		0	
				EM	025C	MM38510 N.R.	41		0	

LATCH — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	FPK	B-1	03/75	THRMSHK	-055C 125C	MM38510	41		0	
5477	14	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41		0	
			Q		20G	2007 A				
				FINE LK	HE 5.E-8	MM38510	41		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41		0	
			Q		3X	1014 C				
				EM	025C	MM38510	41		0	
			Q			N.R.				

LATCH — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	76		0	
10130	16	N.R.	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	76		0	
			V		10CY	1010 C				
				HERMET			76		0	
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	76		0	
10130	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	76		0	
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	76		0	
			V		1 MIN E	2001 E				
				HERMET			76		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50		0	
10133	16	0/70C	V			N.R.				
				EM			50		0	
			V			N.R.				
FAIRCHILD	E-DIP	N	01/77	AUTOCLV	15PSIG121C		50		0	
10133	16	0/70C	V			N.R.				
				EM			50		0	
			V			N.R.				

LOGIC UNIT — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	DIP	B-1	07/75	LEADFTG	15DSG	MM38510	38		1	
54181	24	-55/125	Q		3 ARCS	2004 B				
				FINE LK	HE 5.E-8	MM38510	37		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	37		0	
			Q		3X	1014 C				
SIGNETICS	DIP	B-1	07/75	VIS INS	10X	MM38510	10		0	
54181	24	-55/125	Q		20X	2008				
				BONDSTR	1.5GMS 38BDS	MM38510	10		0	
			Q			2011 D				
SIGNETICS	DIP	B-1	07/75	SOLDER	260C 95%	MM38510	3		0	
54181	24	-55/125	Q		5 SEC	2003				

LOGIC UNIT — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 10181	DIP 24	N -55/125 V	01/77	THRMSHT	-055C 125C	MM38510 1011 B	25		0	
					15CY					
				TEMPCYC	-065C 150C	MM38510 1010 C	25		0	
			V		10CY					
				HERMET			25		0	
			V			N.R.				
FAIRCHILD 10181	DIP 24	N -55/125 V	01/77	SOLDER	260C 95%	MM38510 2003	15		0	
					5 SEC					
				LEADFTG	8 OZ 90DEGS	MM38510 2004 B	15		0	
			V		3 ARCS					
				HERMET			15		0	
			V			N.R.				
FAIRCHILD 10181	DIP 24	N -55/125 V	01/77	TEMPCYC	-065C 150C	MM38510 1010 C	25		0	
					10CY					
				CNSTACC	30KG 6 AXES	MM38510 2001 E	25		0	
			V		1 MIN E					
				HERMET			25		0	
			V			N.R.				
FAIRCHILD 10181	DIP 24	N -55/125 V	01/77	MECHSHK	1.5KG .5MSEC	MM38510 2002 B	25		0	
					6 AXES					
				VBVRFQ	20HZ 2KHZ	MM38510 2007 A	25		0	
			V		20G					
				CNSTACC	30KG 6 AXES	MM38510 2001 E	25		0	
			V		1 MIN E					
				HERMET			25		0	
			V			N.R.				
FAIRCHILD 10181	DIP 24	N -55/125 V	01/77	TEMPCYC	-065C 150C	MM38510 1010 C	8		0	
					10CY					
				CNSTACC	30KG 6 AXES	MM38510 2001 E	8		0	
			V		1 MIN E					
				HERMET			8		0	
			V			N.R.				

MULTIPLEXER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 93L09	DIP 16	N -55/125 U	12/75	EM		N.R.	260		1	NFEF 679/1
				X-RAY		N.R.	259		0	
			U							
				EM		N.R.	259		0	
			U							

MULTIPLEXER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV 9309	FPK 16	B-2 -55/125 V	01/75	BONDSTR	1GMS 15BDS	MS-883 2011 D	10		0	
ADV MICRO DEV 9309	FPK 16	B-2 -55/125 V	01/75	SOLDER	260C 95%	MS-883 2003	15		0	
					5 SEC					
ADV MICRO DEV 9309	FPK 16	B-2 -55/125 V	02/75	LEADFTG	3 OZ 90DEGS	MS-883 2004 B	34		0	
					3 ARCS					
				FINE LK	HE 5.E-8	MS-883 1014 A	34		0	
			V		60 MIN					NFEF 1878/1
				GROSSLK	FLUOR 125C	MS-883 1014 C	34		1	
			V		3X					

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /F
ADV MICRO DEV 9309	FPK 16	B-2 -55/125	01/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
				THRMSHK	-055C 125C 15CY	MS-883 1011 B	15		0	
				TEMPCYC	-065C 150C 10CY	MS-883 1010 C	15		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	15		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
ADV MICRO DEV 9309	FPK 16	B-2 -55/125	02/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	34		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	34		0	
				MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	34		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	34		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	34		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	34		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	34		1	NPEF 1879/1
				EM		N.R.	33		0	
ADV MICRO DEV 9309	FPK 16	B-2 -55/125	01/75 V	SALTATM	035C 25CMS MSQ	MS-883 1009 A	15		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	01/75 V	BONDSTR	1GMS 15BDS	MS-883 2011 B	10		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	01/75 V	SOLDER	260C 95% 5 SEC	MS-883 2003	15		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	01/75 V	LEADFTG	3 OZ 90DEGS 3 ARCS	MS-883 2004 B	15		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	01/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
				THRMSHK	-055C 125C 15CY	MS-883 1011 B	15		0	
				TEMPCYC	-065C 150C 10CY	MS-883 1010 C	15		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	15		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	15		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	15		0	
				EM		N.R.	15		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	02/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	34		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	34		0	
				MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	34		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	34		0	
				CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	34		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	34		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	34		1	NPEF 1880/1
				EM		N.R.	33		0	
ADV MICRO DEV 9312	FPK 16	B-2 -55/125	01/75 V	SALTATM	035C 25CMS MSQ	MS-883 1009 A	15		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	VIS INS	10X 20X	MS-883 2008 A	22		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	BONDSTR	1GMS 11BDS	MS-883 2011 B	11		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	LEADFTG	8 OZ 90DEGS 3 ARCS	MS-883 2004 B	22		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	SOLDER	260C 95% 5 SEC	MS-883 2003	22		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	03/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
				THRMSHK	-055C 125C 15CY	MS-883 1011 B	22		0	
				TEMPCYC	-065C 150C 10CY	MS-883 1010 C	22		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	22		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
				MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	22		0	
				VBVRFQ	20HZ 2KHZ 20G	MS-883 2007 A	22		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 E	22		0	
				FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	22		0	
				GROSSLK	FLUOR 125C 3X	MS-883 1014 C	22		0	
ADV MICRO DEV 9322	DIP 16	B-2 -55/125	02/75 V	SALTATM	035C 25GMS MSQ	MS-883 1009 A	0		0	
ITT 54151	FPK 16	B-1 -55/12_ V	09/75	SALTATM	035C 50GMS MSQ	MS-883 1009 A	15		0	
ITT 54151	FPK 16	B-1 -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	15		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	15		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	15		0	
				EM		N.R.	15		0	
ITT 54151	FPK 16	B-1 -55/125 V	09/75	THRMSHK	-055C 125C 15CYC	MS-883 1011 B	15		0	
				TEMPCYC	-065C 150C 10CYC	MS-883 1010 C	15		0	
				MOIST	-010C 065C 98%RH	MS-883 1004	15		0	
				EM		N.R.	15		0	
ITT 54157	DIP 16	B-1 -55/125 V	09/75	SOLDER	260C 95%	MS-883 2003	105		0	
ITT 54157	DIP 16	B-1 -55/125 V	09/75	SALTATM	035C 30GMS MSQ	MS-883 1009 A	22		0	
ITT 54157	DIP 16	B-1 -55/125 V	09/75	MECHSHK	1.5KG .5MSEC 5 AXES	MS-883 2002 B	60		0	
				VBVRFQ	100HZ 2KHZ 20G	MS-883 2007 A	60		0	
				CNSTACC	20KG 6 AXES 1 MIN E	MS-883 2001 D	60		0	
				EM		N.R.	60		0	

MULTIPLEXER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	60		0	
54157	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	60		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	60		0	
			V		98%RH	1004				
				EM			60		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	105		0	
54157	16	-55/125	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	105		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	105		0	
			V		3X	1014 C				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		258		9	
74150	24	0/70C	V		100%RH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	104		0	
74150	24	0/70C	V		10CYC	1010 C				
				EM			104		3	
			V			N.R.				
ITT	E-DIP	N	09/75	VIS INS		MS-883	31		0	
74150	24	0/70C	V			2008				
				BONDSTR		MS-883	31		3	
			V			2011				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	10		0	
9309	16	N.R.	V			2003				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	75		0	
9309	16	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	75		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	75		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	159		0	
9312	16	N.R.	V		6 ARCS	2004 B				
				HERMET		MS-883	159		7	
			V			1014				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
9312	16	N.R.	V			2003				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	15		0	
9312	16	N.R.	V			2003				
ITT	DIP	B-1	09/75	SALTATM	035C 50GMS	MS-883	30		0	
9312	16	N.R.	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	16		0	
9312	16	N.R.	V		6 AXES	2002 B				
				VBRVRFQ	100HZ 2KHZ	MS-883	16		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	16		0	
			V		1 MIN E	2001 D				
				EM			16		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	47		0	
9312	16	N.R.	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	47		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	47		0	
			V		98%RH	1004				
				EM			47		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	47		0	
9312	16	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	47		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	47		0	
			V		3X	1014 C				
ITT	DIP	B-1	09/75	SOLDER	260C 95%	MS-883	10		0	
9322	16	N.R.	V			2003				

MULTIPLEXER — ENVIRONMENT A — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE FL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / THP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	72	0		
9322	16	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5E-8	MS-883	72	0		
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	72	0		
			V		3X	1014 C				
SIGNETICS	DIP	B-1	04/75	THRMSHK	-055C 125C	MM38510	29	0		
54157	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	29	0		
			Q		20G	2007 A				
				FINE LK	HE 5E-8	MM38510	29	0		
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	29	0		
			Q		3X	1014 C				
				EM	025C	MM38510	29	0		
			Q			N.R.				
SIGNETICS	DIP	B-1	05/75	THRMSHK	-055C 125C	MM38510	41	0		
9309	16	-55/125	Q		15CY	1011 B				
				VBVRFQ	20HZ 2KHZ	MM38510	41	0		
			Q		20G	2007 A				
				FINE LK	HE 5E-8	MM38510	41	0		
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	41	0		
			Q		3X	1014 C				
				EM	025C	MM38510	41	0		
			Q			N.R.				

MULTIPLEXER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / THP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
FAIRCHILD	FPK	N	01/77	SOLDER	260C 95%	MM38510	21	0		
100164	24	-55/125	V		5 SEC	2003				
				HERMET			21	0		
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	38	0		
10132	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	38	0		
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	38	0		
			V		1 MIN E	2001 E				
				HERMET			38			MFEF 685/1
			V			N.R.				
FAIRCHILD	DIP	N	01/77	THRMSHK	-055C 125C	MM38510	30	0		
10164	16	-55/125	V		15CY	1011 B				
				TEMPCYC	-065C 150C	MM38510	30	0		
			V		10CY	1010 C				
				HERMET			30	0		
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	30	0		
10164	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	30	0		
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	30	0		
			V		1 MIN E	2001 E				
				HERMET			30	0		
			V			N.R.				
FAIRCHILD	DIP	N	01/77	SOLDER	260C 95%	MM38510	15	0		
10164	16	-55/125	V		5 SEC	2003				
				LEADFTG	8 OZ 90DEGS	MM38510	15	0		
			V		3 ARCS	2004 B				
				HERMET			15	0		
			V			N.R.				
FAIRCHILD	DIP	N	01/77	MECHSHK	1.5KG .5MSEC	MM38510	23	0		
10164	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	20HZ 2KHZ	MM38510	23	0		
			V		20G	2007 A				
				CNSTACC	30KG 6 AXES	MM38510	23	0		
			V		1 MIN E	2001 E				
				HERMET			23	0		
			V			N.R.				

MULTIPLEXER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
FAIRCHILD 10104	DIP 16	N -55/125	01/77 V	THRMSHK	-055C 125C 15CY	MM38510 1011 B	24		0	
			V	TEMPCYC	-065C 150C 10CY	MM38510 1010 C	24		0	
			V	HERMET		N.R.	24		1	HFEF 683/1

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
ADV MICRO DEV 93L00	N.R 16	N.R. N.R.	08/75 U	VIS INS		N.R.	6205		0	
			U	FINE LK		N.R.	6205		0	
			U	GROSSLK		N.R.	6205		0	
			U	EM		N.R.	6205		55	
			U	EM		N.R.	6205		172	
			U	TEMPCYC		N.R.	6205		0	
			U	VIS INS		N.R.	6205		0	
NATIONAL 54L95	DIP 14	N -55/125	12/75 V	THRMSHK	000C 100C 15CY	MS-883 1011 A	4		0	
			V	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	4		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	4		0	
			V	EM		N.R.	4		0	
NATIONAL 54L95	DIP 14	N -55/125	07/76 V	THRMSHK	000C 100C 15CY	MS-883 1011 A	4		0	
			V	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	4		0	
			V	MOIST	-010C 065C 98%RH	MS-883 1004	4		0	
			V	EM		N.R.	4		0	
NATIONAL 54L95	DIP 14	N -55/125	12/75 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	4		0	
			V	VBVRFQ	20HZ 2KHZ 50G	MS-883 2007 B	4		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	4		0	
			V	EM		N.R.	4		0	
NATIONAL 54L95	DIP 14	N -55/125	07/76 V	MECHSHK	1.5KG .5MSEC 6 AXES	MS-883 2002 B	4		0	
			V	VBVRFQ	20HZ 2KHZ 50G	MS-883 2007 B	4		0	
			V	CNSTACC	30KG 6 AXES 1 MIN E	MS-883 2001 E	4		0	
			V	EM		N.R.	4		0	
NATIONAL 74L164	N.R 14	N.R. 0/70C	08/75 U	VIS INS		N.R.	3400		0	
			U	FINE LK		N.R.	3400		0	
			U	GROSSLK		N.R.	3400		0	
			U	EM		N.R.	3400		0	
			U	EM		N.R.	3400		122	
			U	TEMPCYC		N.R.	3400		0	
			U	VIS INS		N.R.	3400		0	

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	N.R	N.R.	08/75	VIS INS			89		0	
54L164	14	-55/125	U			N.R.				
				FINE LK			89		0	
			U			N.R.				
				GROSSLK			89		0	
			U			N.R.				
				EM			89		0	
			U			N.R.				
				EM			89		2	
			U			N.R.				
				VIS INS			89		0	
			U			N.R.				
T.I.	N.R	N.R.	08/75	VIS INS			1200		0	
74L95A	14	0/70C	U			N.R.				
				FINE LK			1200		0	
			U			N.R.				
				GROSSLK			1200		0	
			U			N.R.				
				EM			1200		6	
			U			N.R.				
				EM			1200		0	
			U			N.R.				
				TEMPCYC			1200		0	
			U			N.R.				
				VIS INS			1200		0	
			U			N.R.				

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	N.R	N.R.	08/75	VIS INS			13265		0	
9300	16	N.R.	U			N.R.				
				FINE LK			13265		0	
			U			N.R.				
				GROSSLK			13265		0	
			U			N.R.				
				EM			13265		55	
			U			N.R.				
				EM			13265		172	
			U			N.R.				
				TEMPCYC			13265		0	
			U			N.R.				
				VIS INS			13265		0	
			U			N.R.				
FAIRCHILD	N.R	N.R.	08/75	VIS INS			324		0	
9300	16	N.R.	U			N.R.				
				FINE LK			324		12	MFEF 1881/12
			U			N.R.				
				GROSSLF			324		19	MFEF 1882/19
			U			N.R.				
				EM			324		7	
			U			N.R.				
				EM			324		16	
			U			N.R.				
				TEMPCYC			324		0	
			U			N.R.				
				VIS INS			324		0	
			U			N.R.				
ITT	FPK	A-1	09/75	SOLDER	260C 95%	MS-883	64		0	
54164	14	-55/125	V			2003				
ITT	FPK	A-1	09/75	VIS INS		MS-883	32		0	
54164	14	-55/125	V			2008				
				BONDSTR		MS-883	32		0	
			V			2011				
ITT	FPK	A-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	22		0	
54164	14	-55/125	V		6 ARCS	2004 D				
				FINE LK	HE 5.E-8	MS-883	22		0	
			V		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	22		0	
			V		3%	1014 C				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	FPK	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	15		0	
5494	16	-55/125	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	15		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	15		0	
			V		1 MIN E	2001 D				
				EM			15		0	
			V			N.R.				
ITT	FPK	B-1	09/75	THRMSHK	-055C 125C	MS-883	15		0	
5494	16	-55/125	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	15		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	15		0	
			V		98ZRH	1004				
				EM			15		0	
			V			N.R.				
ITT	E-DIP	N	09/75	AUTOCLV	15PSIG 100C		104		1	
9300	16	N.R.	V		100ZRH	N.R.				
ITT	E-DIP	N	09/75	TEMPCYC	-065C 150C	MS-883	52		0	
9300	16	N.R.	V		10CYC	1010 C				
				EM			52		0	
			V			N.R.				
ITT	DIP	B-1	09/75	SOLDER	260C 95Z	MS-883	15		0	
9300	16	N.R.	V			2003				
ITT	E-DIP	N	09/75	SALTATM	035C 50CMS	MS-883	15		0	
9300	16	N.R.	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	SALTATM	035C 50CMS	MS-883	38		0	
9300	16	N.R.	V		MSQ	1009 A				
ITT	DIP	B-1	09/75	MECHSHK	1.5KG .5MSEC	MS-883	12		0	
9300	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	12		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	12		0	
			V		1 MIN E	2001 D				
				EM			12		0	
			V			N.R.				
ITT	E-DIP	N	09/75	THRMSHK	-055C 125C	MS-883	50		0	
9300	16	N.R.	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	50		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	50		0	
			V		98ZRH	1004				
				EM			50		0	
			V			N.R.				
ITT	DIP	B-1	09/75	THRMSHK	-055C 125C	MS-883	34		0	
9300	16	N.R.	V		15CYC	1011 B				
				TEMPCYC	-065C 150C	MS-883	34		0	
			V		10CYC	1010 C				
				MOIST	-010C 065C	MS-883	34		0	
			V		98ZRH	1004				
				EM			34		0	
			V			N.R.				
ITT	E-DIP	N	09/75	MECHSHK	1.5KG .5MSEC	MS-883	25		0	
9300	16	N.R.	V		6 AXES	2002 B				
				VBVRFQ	100HZ 2KHZ	MS-883	25		0	
			V		20G	2007 A				
				CNSTACC	20KG 6 AXES	MS-883	25		0	
			V		1 MIN E	2001 D				
				EM			25		0	
			V			N.R.				
ITT	DIP	B-1	09/75	LEADFTG	8 OZ 90DEG	MS-883	64		0	
9300	16	N.R.	V		6 ARCS	2004 B				
				FINE LK	HE 5.E-8	MS-883	64		0	
			V		60 MIN	1014 A				
				GROS	FLUOR 125C	MS-883	64		0	
			V		3X	1014 C				

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
NATIONAL	N.R	N.R.	08/75	VIS INS			95	0		
5495	14	-55/125	U			N.R.				
				FINE LK			95	2		MFEF-1883/2
			U			N.R.				
				GROSSLK			95	0		
			U			N.R.				
				EM			95	0		
			U			N.R.				
				EM			95	0		
			U			N.R.				
				TEMPCYC			95	0		
			U			N.R.				
				VIS INS			95	0		
			U			N.R.				
SIGNETICS	N.R	N.R.	08/75	VIS INS			71	0		
8203	24	N.R.	U			N.R.				
				FINE LK			71	0		
			U			N.R.				
				GROSSLK			71	0		
			U			N.R.				
				EM			71	0		
			U			N.R.				
				EM			71	18		
			U			N.R.				
				TEMPCYC			71	0		
			U			N.R.				
				VIS INS			71	0		
			U			N.R.				
SIGNETICS	E-DIP	N	12/75	X-RAY			6925	0		
8273	16	0/70C	U			N.R.				
				EM			6925	1		MFEF-680/1
			U			N.R.				
T.I.	N.R	N.R.	08/75	VIS INS			554	0		
54164	14	-55/125	U			N.R.				
				FINE LK			554	11		MFEF-1884/11
			U			N.R.				
				GROSSLK			554	2		MFEF-1886/2
			U			N.R.				
				EM			554	0		
			U			N.R.				
				EM			554	12		
			U			N.R.				
				TEMPCYC			554	0		
			U			N.R.				
				VIS INS			554	0		
			U			N.R.				
T.I.	N.R	N.R.	08/75	VIS INS			118	0		
54165	16	-55/125	U			N.R.				
				FINE LK			118	0		
			U			N.R.				
				GROSSLK			118	0		
			U			N.R.				
				EM			118	0		
			U			N.R.				
				EM			118	0		
			U			N.R.				
				TEMPCYC			118	0		
			U			N.R.				
				VIS INS			118	0		
			U			N.R.				
T.I.	N.R	N.R.	08/75	VIS INS			291	0		
54195	16	-55/125	U			N.R.				
				FINE LK			291	0		
			U			N.R.				
				GROSSLK			291	0		
			U			N.R.				
				EM			291	3		
			U			N.R.				
				EM			291	16		
			U			N.R.				
				TEMPCYC			291	0		
			U			N.R.				
				VIS INS			291	0		
			U			N.R.				

SHIFT REGISTER — ENVIRONMENTAL

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
T.I. 5491A	N.R 14	N.R. :-55/125	08/75 U	VIS INS		N.R.	8	0		
			U	FINE LK		N.R.	8	0		
			U	GROSSLK		N.R.	8	0		
			U	EN		N.R.	8	0		
			U	EM		N.R.	8	0		
			U	TEMPCYC		N.R.	8	0		
			U	VIS INS		N.R.	8	0		
T.I. 5495A	N.R 14	N.R. :-55/125	08/75 U	VIS INS		N.R.	499	0		
			U	FINE LK		N.R.	499	17	NFEF	1885/17
			U	GROSSLK		N.R.	499	6	NFEF	1367/6
			U	EN		N.R.	499	15		
			U	EM		N.R.	499	55		
			U	TEMPCYC		N.R.	499	0		
			U	VIS INS		N.R.	499	1		
			U	X-RAY		N.R.	499	9		
T.I. 5496	N.R 16	N.R. :-55/125	08/75 U	VIS INS		N.R.	51	0		
			U	FINE LK		N.R.	51	0		
			U	GROSSLK		N.R.	51	1	NFEF	1886/1
			U	LR		N.R.	51	0		
			U	EM		N.R.	51	0		
			U	TEMPCYC		N.R.	51	0		
			U	VIS INS		N.R.	51	0		
T.I. 74164	N.R 14	N.R. :0/70C	08/75 U	VIS INS		N.R.	3663	0		
			U	FINE LK		N.R.	3663	0		
			U	GROSSLK		N.R.	3663	0		
			U	EN		N.R.	3663	5		
			U	EM		N.R.	3663	124		
			U	TEMPCYC		N.R.	3663	0		
			U	VIS INS		N.R.	3663	0		
T.I. 7495	E-DIP 14	N.R. :0/70C	08/75 U	VIS INS		N.R.	264	0		
			U	EM		N.R.	264	0		
			U	EN		N.R.	264	1		
			U	TEMPCYC		N.R.	264	0		
			U	VIS INS		N.R.	264	0		

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
T.I.	N.R	N.R.	08/75	VIS-INS			1479		1	
7495A	14	0/70C	U			N.R.				
				FINE-LK			1479		0	
			U			N.R.				
				GROSSLK			1479		0	
			U			N.R.				
				EM			1479		16	
			U			N.R.				
				EM			1479		5	
			U			N.R.				
				TEMPCYC			1479		0	
			U			N.R.				
				VIS-INS			1479		0	
			U			N.R.				
VARIOUS	N.R	N.R.	08/75	VIS-INS			3148		0	
74165	16	0/70C	U			N.R.				
				FINE-LK			3148		0	
			U			N.R.				
				GROSSLK			3148		0	
			U			N.R.				
				EM			3148		5	
			U			N.R.				
				EM			3148		6	
			U			N.R.				
				TEMPCYC			3148		0	
			U			N.R.				
				VIS-INS			3148		0	
			U			N.R.				

SHIFT REGISTER — ENVIRONMENTAL — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: MOS — OPERATIONAL TYPE: CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
RCA	DIP	A-1	11/75	THRMSHK	-055C 125C	MM38510	58		0	
4014	16	-55/125	V		15CY	1011 (B			7	
				VBVRFQ	20HZ 2KHZ	MM38510	58		0	
			V		20G	2007 (A			0	
				VIS-INS			58		0	
			V			N.R.			0	
RCA	DIP	B-1	05/76	TEMPCYC	-065C 150C	MM38510	38		0	
4031A	16	-55/125	Q		10CY	1010 (C			0	
				CNSTACC	30KG 2=AXES	MM38510	30		0	
			Q		1 MIN/E	2001 (B			0	
				FINE-LK	HE 5.E-8	MM38510	38		0	
			Q		60 MIN	1014 (A			0	
				GROSSLK	FLUOR 125C	MM38510	38		0	
			Q		3X	1014 (C			0	
				VIS-INS		MM38510	38		0	
			Q			N.R.			0	
				S&D-EM	-055C 025C	MM38510	38		0	
			Q		125C	N.R.			0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD.	FAILURE SUMMARY //
VARIOUS 54177	DIP 14	B-1 -55/125	03/75 Q	VIB FTG SDF EN HERMET SDF EN THRMSHK SDF EN VIB FTG SDF EN HERMET SDF EN	30HZ 2.2G 3 AXES 025C -054C 100C -065C 160C 025C 30HZ 2.2G 3 AXES 025C -054C 100C 025C	N.R.	1080 1080 1079 1079 1079 1079 1079 1079 1079 1079		0 1 0 0 0 0 0 0 0 0	
VARIOUS 54121	DIP 14	B-10RJB -55/125	03/75 Q	VIB FTG SDF EN HERMET SDF EN THRMSHK SDF EN VIB FTG SDF EN HERMET SDF EN	30HZ 2.2G 3 AXES 025C -054C 100C -065C 160C 025C 30HZ 2.2G 3 AXES 025C -054C 100C 025C	N.R.	360 360 360 359 359 359 359 359 359 359		0 0 0 1 0 0 0 0 0 0	NFEF/03/1
VARIOUS 5400	DIP 14	B-10RJB -55/125	03/75 Q	VIB FTG SDF EN HERMET SDF EN THRMSHK SDF EN VIB FTG SDF EN HERMET SDF EN	30HZ 2.2G 3 AXES 025C -054C 100C -065C 160C 025C 30HZ 2.2G 3 AXES 025C -054C 100C 025C	N.R.	360 360 360 360 360 360 360 360 360 360		0 0 0 0 0 0 0 0 0 0	
VARIOUS 5402	DIP 14	B-10RJB -55/125	03/75 Q	VIB FTG SDF EN HERMET SDF EN THRMSHK SDF EN VIB FTG SDF EN HERMET SDF EN	30HZ 2.2G 3 AXES 025C -054C 100C -065C 160C 025C 30HZ 2.2G 3 AXES 025C -054C 100C 025C	N.R.	360 360 360 360 360 360 360 360 360 360		0 0 0 0 0 0 0 0 0 0	

MULTIPLEXER | BOARD LEVEL ENV. | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	B-1	03/75	VIB FTG	30HZ 2.2G		360		0	
54153	16	-55/125	Q		3 AXES	N.R.				
				SDF EM	025C -054C		360		0	
			Q		100C	N.R.				
				HERMET			360		0	
			Q			N.R.				
				SDF EM	025C -054C		360		0	
			Q		100C	N.R.				
				THRMSHK	-065C 160C		360		0	
			Q			N.R.				
				SDF EM	025C		360		0	
			Q			N.R.				
				HERMET			360		0	
			Q			N.R.				
				SDF EM	-054C 100C		360		0	
			Q		025C	N.R.				
VARIOUS	DIP	B-1	03/75	VIB FTG	30HZ 2.2G		360		0	
54151	16	-55/125	Q		3 AXES	N.R.				
				SDF EM	025C -054C		360		0	
			Q		100C	N.R.				
				HERMET			360		0	
			Q			N.R.				
				SDF EM	025C -054C		360		0	
			Q		100C	N.R.				
				THRMSHK	-065C 160C		360		0	
			Q			N.R.				
				SDF EM	025C		360		0	
			Q			N.R.				
				VIB FTG	30HZ 2.2G		360		0	
			Q		3 AXES	N.R.				
				SDF EM	025C		360		0	
			Q			N.R.				
				HERMET			360		0	
			Q			N.R.				
				SDF EM	-054C 100C		360		0	
			Q		025C	N.R.				
VARIOUS	DIP	B-1ORJB	03/75	VIB FTG	30HZ 2.2G		360		0	
5496	16	-55/125	Q		3 AXES	N.R.				
				SDF EM	025C -054C		360		1	
			Q		100C	N.R.				
				HERMET			359		0	
			Q			N.R.				
				SDF EM	025C -054C		359		1	
			Q		100C	N.R.				
				THRMSHK	-065C 160C		358		0	
			Q			N.R.				
				SDF EM	025C		358		0	
			Q			N.R.				
				VIB FTG	30HZ 2.2G		358		0	
			Q		3 AXES	N.R.				
				SDF EM	025C		358		0	
			Q			N.R.				
				HERMET			358		0	
			Q			N.R.				
				SDF EM	-054C 100C		358		0	
			Q		025C	N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
T.I. 54490	DIP 16	B-1 -55/125	02/75 Q	CNSTACC	50G 6AXES 1 MIN E	N.R.	120		0	
T.I. 54490	DIP 16	B-1 -55/125	02/75 Q	VIB RDM	REMARK	N.R.	120		0	
T.I. 54490	DIP 16	B-1 -55/125	02/75 Q	MECHSHK	50G 11MSEC 6 AXES	N.R.	120		0	
VARIOUS 5442	DIP 16	JB -55/125	02/75 Q	VIB RDM	REMARK	N.R.	48		0	
VARIOUS 5442	DIP 16	JB -55/125	02/75 Q	MECHSHK	50G 11MSEC 6 AXES	N.R.	48		0	
VARIOUS 5442	DIP 16	JB -55/125	02/75 Q	CNSTACC	50G 6 AXES 1 MIN E	N.R.	48		0	
VARIOUS 93101	FPK 16	B-1 -55/125	03/75 Q	THERVAC	-035C 060C 12CY	N.R.	5		0	
				FNCT EM		N.R.	5		0	
VARIOUS 93101	FPK 16	B-1 -55/125	02/75 Q	ACUS NO	25HZ 40KHZ 147.5DB 8MIN	MS-810B 515	5		0	
				FNCT EM		N.R.	5		0	
VARIOUS 93101	FPK 16	B-1 -55/125	02/75 Q	VIB RDM	5HZ 17HZ 3G	N.R.	5		0	
				VIB RDM	17HZ 74HZ 7G	N.R.	5		0	
				VIB RDM	74HZ 500HZ 10G	N.R.	5		0	
				VIB RDM	500HZ 3KHZ 7.5G	N.R.	5		0	
				FNCT EM		N.R.	5		0	
VARIOUS 93101	FPK 16	B-1 -55/125	02/75 Q	MECHSHK	1KG 200USEC 3 AXES	N.R.	5		0	
				FNCT EM		N.R.	5		0	
VARIOUS 93101	FPK 16	B-1 -55/125	02/75 Q	VIB RDM	14HZ 2KHZ	N.R.	5	6.00E 00	0	
				FNCT EM		N.R.	5		0	

DECODER — EQUIPMENT LEVEL ENV. — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	B-1	02/75	MECHSHK	40G 8 MSEC	MS-810B	5		0	
93101	16	-55/125	Q		6 AXES	516				
				FNCT EM			5		0	
			Q			N.R.				
VARIOUS	FPK	B-1	04/75	VIB RDM	50HZ 2KHZ		5		0	
93101	16	-55/125	Q		3G	N.R.				
				FNCT EM			5		0	
			Q			N.R.				
				TEMPCYC	-010C 050C		5		0	
			Q		10CY	N.R.				
				FNCT EM			5		0	
			Q			N.R.				
				TEMPCYC	-010C 050C		5		0	
			Q		56CY	N.R.				
				VIB RDM	50HZ 2KHZ		5		0	
			Q		3G	N.R.				
				FNCT EM			5		0	
			Q			N.R.				
				TEMPCYC	-010C 050C		5		0	
			Q		10CY	N.R.				
				FNCT EM			5		0	
			Q			N.R.				
				TEMPCYC	-010C 050C		5		0	
			Q		56CY	N.R.				
				VIB RDM	50HZ 2KHZ		5		0	
			Q		3G	N.R.				
				FNCT EM			5		0	
			Q			N.R.				

GATE — EQUIPMENT LEVEL ENV. — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	FPK	B-1	03/75	THERVAC	-035C 060C		8		0	
54L00	14	-55/125	Q		10CY	N.R.				
				FNCT EM			8		0	
			Q			N.R.				
NATIONAL	FPK	B-1	02/75	ACUS NO	25HZ 40KHZ	MS-810B	8		0	
54L00	14	-55/125	Q		147.5DB 8MIN	515				
				FNCT EM			8		0	
			Q			N.R.				
NATIONAL	FPK	B-1	02/75	VIB RDM	5HZ 17HZ		8		0	
54L00	14	-55/125	Q		3G	N.R.				
				VIB RDM	17HZ 74HZ		8		0	
			Q		7G	N.R.				
				VIB RDM	74HZ 500HZ		8		0	
			Q		10G	N.R.				
				VIB RDM	500HZ 3KHZ		8		0	
			Q		7.5G	N.R.				
				FNCT EM			8		0	
			Q			N.R.				
NATIONAL	FPK	B-1	02/75	MECHSHK	1KG 20USEC		8		0	
54L00	14	-55/125	Q		3 AXES	N.R.				
				FNCT EM			8		0	
			Q			N.R.				
NATIONAL	FPK	B-1	02/75	VIB RDM	14HZ 2KHZ		8	1.00E 01	0	
54L00	14	-55/125	Q			N.R.				
				FNCT EM			8		0	
			Q			N.R.				
NATIONAL	FPK	B-1	02/75	MECHSHK	40G 8 MSEC	MS-810B	8		0	
54L00	14	-55/125	Q		6 AXES	516				
				FNCT EM			8		0	
			Q			N.R.				

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 54L00	FPK 14	B-1 -55/125	04/75 Q	VIB RDM	50HZ 2KHZ 3G	N.R.	8		0	
			Q	FNCT EM		N.R.	8		0	
			Q	TEMPCYC	-010C 050C 1CY	N.R.	8		0	
			Q	FNCT EM		N.R.	8		0	
			Q	TEMPCYC	-010C 050C 56CY	N.R.	8		0	
			Q	VIB RDM	50HZ 2KHZ 3G	N.R.	8		0	
			Q	FNCT EM		N.R.	8		0	
			Q	TEMPCYC	-010C 050C 1CY	N.R.	8		0	
			Q	FNCT EM		N.R.	8		0	
			Q	TEMPCYC	-010C 050C 56CY	N.R.	8		0	
			Q	VIB RDM	50HZ 2KHZ 3G	N.R.	8		0	
			Q	FNCT EM		N.R.	8		0	

GATE

EQUIPMENT LEVEL ENV.

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5410	FPK 14	B-1 -55/125	03/75 Q	THERVAC	-035C 060C 12CY	N.R.	2		0	
			Q	FNCT EM		N.R.	2		0	
NATIONAL 5410	FPK 14	B-1 -55/125	02/75 Q	ACUS NO	25HZ 40KHZ 147.5DB 8MIN	MS-810B 515	2		0	
			Q	FNCT EM		N.R.	2		0	
NATIONAL 5410	FPK 14	B-1 -55/125	02/75 Q	VIB RDM	5HZ 17HZ 3G	N.R.	2		0	
			Q	VIB RDM	17HZ 74HZ 7G	N.R.	2		0	
			Q	VIB RDM	74HZ 500HZ 10G	N.R.	2		0	
			Q	VIB RDM	500HZ 3KHZ 7.5G	N.R.	2		0	
			Q	FNCT EM		N.R.	2		0	
NATIONAL 5410	FPK 14	B-1 -55/125	02/75 Q	MECHSHK	1KG 20USEC 3 AXES	N.R.	2		0	
			Q	FNCT EM		N.R.	2		0	
NATIONAL 5410	FPK 14	B-1 -55/125	02/75 Q	VIB RDM	14HZ 2KHZ	N.R.	2	3.00E 00	0	
			Q	FNCT EM		N.R.	2		0	
NATIONAL 5410	FPK 14	B-1 -55/125	02/75 Q	MECHSHK	40G 8 MSEC 6 AXES	MS-810B 516	2		0	
			Q	FNCT EM		N.R.	2		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5410	FPK 14	B-1 -55/125	04/75 Q	VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
				FNCT EM		N.R.	2		0	
			Q							
				TEMPCYC	-010C 050C 1CY	N.R.	2		0	
			Q							
				FNCT EM		N.R.	2		0	
			Q							
				TEMPCYC	-010C 050C 56CY	N.R.	2		0	
			Q							
				VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
			Q							
				FNCT EM		N.R.	2		0	
			Q							
				TEMPCYC	-010C 050C 1CY	N.R.	2		0	
			Q							
				FNCT EM		N.R.	2		0	
			Q							
				TEMPCYC	-010C 050C 56CY	N.R.	2		0	
			Q							
				VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
			Q							
				FNCT EM		N.R.	2		0	
			Q			N.R.				
VARIOUS 5400	DIP 14	JB -55/125	02/75 Q	VIB RDM	REMARK	N.R.	40		0	
VARIOUS 5400	DIP 14	JB -55/125	02/75 Q	MECHSHK	50G 11MSEC 6 AXES	N.R.	40		0	
VARIOUS 5400	DIP 14	JB -55/125	02/75 Q	CNSTACC	50G 6 AXES 1 MIN E	N.R.	40		0	
VARIOU. 5402	DIP 14	JB -55/125	02/75 Q	VIB RDM	REMARK	N.R.	32		0	
VARIOUS 5402	DIP 14	JB -55/125	02/75 Q	MECHSHK	50G 11MSEC 6 AXES	N.R.	32		0	
VARIOUS 5402	DIP 14	JB -55/125	02/75 Q	CNSTACC	50G 6 AXES 1 MIN E	N.R.	32		0	
VARIOUS 5425	DIP 14	JB -55/125	02/75 Q	VIB RDM	REMARK	N.R.	24		0	
VARIOUS 5425	DIP 14	JB -55/125	02/75 Q	MECHSHK	50G 11MSEC 6 AXES	N.R.	24		0	
VARIOUS 5425	DIP 14	JB -55/125	02/75 Q	CNSTACC	50G 6 AXES 1 MIN E	N.R.	24		0	
NATIONAL 5404	FPK 14	B-1 -55/125	03/75 Q	THERVAC	-035C 060C 12CY	N.R.	2		0	
				FNCT EM		N.R.	2		0	
			Q							
NATIONAL 5404	FPK 14	B-1 -55/125	02/75 Q	ACUS NO	25HZ 40KHZ 147.5DB 8MIN	MS-810B 515	2		0	
				FNCT EM		N.R.	2		0	
			Q							
NATIONAL 5404	FPK 14	B-1 -55/125	02/75 Q	VIB RDM	5HZ 17HZ 3G	N.R.	2		0	
				VIB RDM	17HZ 74HZ 7G	N.R.	2		0	
			Q							
				VIB RDM	74HZ 500HZ 10G	N.R.	2		0	
			Q							
				VIB RDM	500HZ 3KHZ 7.5G	N.R.	2		0	
			Q							
				FNCT EM		N.R.	2		0	
			Q							
NATIONAL 540.	FPK 14	B-1 -55/125	02/75 Q	MECHSHK	1KG 20USEC 3 AXES	N.R.	2		0	
				FNCT EM		N.R.	2		0	
			Q							
NATIONAL 5404	FPK 14	B-1 -55/125	02/75 Q	VIB RDM	14HZ 2KHZ	N.R.	2	3.00E 00	0	
				FNCT EM		N.R.	2		0	
			Q							

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL 5404	FPK 14	B-1 -55/125	02/75 Q	MECHSHK	40G 6 AXES	MS-810B 516	2		0	
				FNCT EM		N.R.	2		0	
NATIONAL 5404	FPK 14	B 1 - 5/125	04/ 5 Q	VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
				FNCT EM		N.R.	2		0	
				TEMPCYC	-010C 050C 1CY	N.R.	2		0	
				FNCT EM		N.R.	2		0	
				TEMPCYC	-010C 050C 56CY	N.R.	2		0	
				VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
				FNCT EM		N.R.	2		0	
				TEMPCYC	-010C 050C 1CY	N.R.	2		0	
				FNCT EM		N.R.	2		0	
				TEMPCYC	-010C 050C 56CY	N.R.	2		0	
				VIB RDM	50HZ 2KHZ 3G	N.R.	2		0	
				FNCT EM		N.R.	2		0	

ADDER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		185		0	
74H183	14	0/70C	I		10CY	N.R.				
				REVBIAS	100C		185	4.44E 03	0	
			I			N.R.				
				EM			185		3	
			I			N.R.				

ADDER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		1606		0	
74283	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		1606	3.85E 04	0	
			I			N.R.				
				EM			1606		20	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			350		0	
5483	16	-55/125	I			N.R.				
				S&F EM	025C 070C		350		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	350		0	
			I		15CY	1011 A				
				REVBIAS	125C		350	5.88E 04	0	
			I			N.R.				
				S&F EM	070C		350		6	MFEF 705/2,
			I			N.R.				706/4
VARIOUS	DIP	N	05/76	VIS INS			319		0	
5483	16	-55/125	I			N.R.				
				S&F EM	025C 070C		319		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	319		0	
			I		15CY	1011 A				
				REVBIAS	125C		319	5.36E 04	0	
			I			N.R.				
				S&F EM	070C		319		5	MFEF 707/2,
			I			N.R.				708/3
VARIOUS	DIP	N	07/76	VIS INS			1000		0	
5483	16	-55/125	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		7	MFEF 709/5,
			I			N.R.				710/1
VARIOUS	DIP	N	12/76	VIS INS			123		0	
5483	16	-55/125	I			N.R.				
				S&F EM	025C 070C		123		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	123		0	
			I		15CY	1011 A				
				REVBIAS	125C		123	2.07E 04	0	
			I			N.R.				
				S&F EM	070C		123		2	MFEF 711/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			2111		0	
7483	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2111		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2111		0	
			I		15CY	1011 A				
				REVBIAS	125C		2111	3.55E 05	0	
			I			N.R.				
				S&F EM	070C		2111		17	MFEF 712/3,
			I			N.R.				713/3,714/4,
										715/1,716/3

ADDER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			560		0	
7483	16	0/70C	I			N.R.				
				S&F EM	025C 070C		560		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	560		0	
			I		15CY	1011 A				
				REVBIAS	125C		560	9.41E 04	0	
			I			N.R.				
				S&F EM	070C		560		6	MFEF 717/4,
			I			N.R.				718/2
VARIOUS	DIP	N	06/76	VIS INS			500		0	
7483	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		7	MFEF 719/7
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			1509		0	
7483	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1509		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1509		0	
			I		15CY	1011 A				
				REVBIAS	125C		1509	2.54E 05	0	
			I			N.R.				
				S&F EM	070C		1509		39	MFEF 720/3,
			I			N.R.				721/36
VARIOUS	DIP	N	03/76	VIS INS			497		0	
7483	16	0/70C	I			N.R.				
				S&F EM	025C 070C		497		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	497		0	
			I		15CY	1011 A				
				REVBIAS	125C		497	8.35E 04	0	
			I			N.R.				
				S&F EM	070C		497		0	
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			1707		0	
74S40	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1707		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1707		0	
			I		15CY	1011 A				
				REVBIAS	125C		1707	2.87E 05	0	
			I			N.R.				
				S&F EM	070C		1707		7	MFEF 722/4,
			I			N.R.				723/3
VARIOUS	DIP	N	05/76	VIS INS			500		0	
74S40	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		8	MFEF 724/5
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	06/76	VIS INS			1000		0	
74S40	14	0/70C	I			N.R.				
				S&F EN	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EN	070C		1000		5	MFEF 725/5
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			593		0	
74S40	14	0/70C	I			N.R.				
				S&F EN	025C 070C		593		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	593		0	
			I		15CY	1011 A				
				REVBIAS	125C		593	9.96E 04	0	
			I			N.R.				
				S&F EN	070C		593		1	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74S40	14	0/70C	I			N.R.				
				S&F EN	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EN	070C		100		1	MFEF 726/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			50		0	
8T97	16	0/70C	I			N.R.				
				S&F EN	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EN	070C		50		2	MFEF 727/2
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			200		0	
8T97	16	0/70C	I			N.R.				
				S&F EN	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EN	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			175		0	
8T97	16	0/70C	I			N.R.				
				S&F EN	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EN	070C		175		0	
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			100		0	
8T98	16	0/70C	I			N.R.				
				S&F EN	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EN	070C		100		0	
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			849		0	
8T98	16	0/70C	I			N.R.				
				S&F EM	025C 070C		849		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	849		0	
			I		15CY	1011 A				
				REVBIAS	125C		849	1.43E 05	0	
			I			N.R.				
				S&F EM	070C		849		5	NPEP 728/5
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	FPK	N	08 75	VIS INS	30X	MM38510	449		0	
54H40	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	449	1.08E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	449		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	449		10	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	439		2	NPEP 1889/2
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	437		0	
			Q		3X	1014 C				
				EM	025C	MM38510	437		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	437	7.34E 04	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	437		2	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	435		0	
			Q		20X	2009				
SIGNETICS	DIP	N	08/75	VIS INS	30X	MM38510	1512		0	
54H40	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	1512	3.63E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	1512		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	1512		23	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	1489		9	NPEP 1850/9
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	1480		3	NPEP 1891/3
			Q		3X	1014 C				
				EM	025C	MM38510	1477		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	1477	2.48E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	1477		29	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	1445		48	
			Q		20X	2009				
VARIOUS	DIP	N	05/76	VIS INS			3075		0	
74H40	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3075		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3075		0	
			I		15CY	1011 A				
				REVBIAS	125C		3075	5.17E 05	0	
			I			N.R.				
				S&F EM	070C		3075		11	NPEP 729/7
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS	DIP	N	09/76	VIS INS			100		0	
74LS125	14	0/70C	I			N.R.				
				S&F EN	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EN	070C		100		2	MFEF 730/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74LS125	14	0/70C	I			N.R.				
				S&F EN	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EN	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74LS125	14	0/70C	I			N.R.				
				S&F EN	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EN	070C		100		0	
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
NATIONAL	E-DIP	N.R.	11/75	SDF EN	025C		1099		5	
7437	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		1094		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1094	1.84E 05	0	
			I			N.R.				
				SDF EN	025C		1094		3	
			I			N.R.				
NATIONAL	E-DIP	N	03/76	VIS INS			1124		0	
8095	16	0/70C	I			N.R.				
				S&F EN	025C 070C		1124		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1124		0	
			I		15CY	1011 A				
				REVBIAS	125C		1124	1.89E 05	0	
			I			N.R.				
				S&F EN	070C		1124		9	MFEF 731/9
			I			N.R.				
NATIONAL	E-DIP	N.R.	11/75	SDF EN	025C		16910		300	
8097	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		13910		0	
			I		5CYC	N.R.				
				REVBIAS	100C		13910	2.34E 06	0	
			I			N.R.				
				SDF EN	025C		13910		39	
			I			N.R.				
NATIONAL	E-DIP	N	06/76	VIS INS			233		0	
8097	16	0/70C	I			N.R.				
				S&F EN	025C 070C		233		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	233		0	
			I		15CY	1011 A				
				REVBIAS	125C		233	3.91E 04	0	
			I			N.R.				
				S&F EN	070C		233		45	
			I			N.R.				

BUFFER ENVIRONMENTAL BURN-IN RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
NATIONAL 8097	E-DIP 16	N 0/70C	07/76 I	VIS INS		N.R.	200		0	
			I	S&P EN	025C 070C	N.R.	200		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	200		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	200	3.36E 04	0	
			I	S&P EN	070C	N.R.	200		1	HFEF 732/1
NATIONAL 8097	E-DIP 16	N 0/70C	10/76 I	VIS INS		N.R.	200		0	
			I	S&P EN	025C 070C	N.R.	200		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	200		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	200	3.36E 04	0	
			I	S&P EN	070C	N.R.	200		5	HFEF 733/1
NATIONAL 8097	E-DIP 16	N 0/70C	10/76 I	VIS INS		N.R.	21		0	
			I	S&P EN	025C 070C	N.R.	21		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	21		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	21	3.53E 03	0	
			I	S&P EN	070C	N.R.	21		0	
NATIONAL 8097	E-DIP 16	N 0/70C	11/76 I	VIS INS		N.R.	300		0	
			I	S&P EN	025C 070C	N.R.	300		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	300		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	300	5.04E 04	0	
			I	S&P EN	070C	N.R.	300		2	HFEF 734/2
NATIONAL 8098	E-DIP 16	N 0/70C	06/76 I	VIS INS		N.R.	420		0	
			I	S&P EN	025C 070C	N.R.	420		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	420		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	420	7.06E 04	0	
			I	S&P EN	070C	N.R.	420		3	HFEF 735/1, 736/2
NATIONAL 8098	E-DIP 16	N 0/70C	07/76 I	VIS INS		N.R.	200		0	
			I	S&P EN	025C 070C	N.R.	200		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	200		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	200	3.36E 04	0	
			I	S&P EN	070C	N.R.	200		3	HFEF 737/1, 738/2
NATIONAL 8098	E-DIP 16	N 0/70C	07/76 I	VIS INS		N.R.	300		0	
			I	S&P EN	025C 070C	N.R.	300		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	300		0	
			I		15CY					
			I	REVBIAS	125C	N.R.	300	5.04E 04	0	
			I	S&P EN	070C	N.R.	300		2	HFEF 739/1, 740/1

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
NATIONAL	E-DIP	N	11/76	VIS INS			150		0	
8098	16	0/70C	1			N.R.				
				S&P EN	025C 070C		150		0	
			1			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			1		15CY	1011 A				
				REVBIAS	125C		150	2.52E-04	0	
			1			N.R.				
				S&P EN	070C		150		1	NFEP 741/1
			1			N.R.				
SIGNETICS	DIP	N	03/75	VIS INS	30X	MM38510	338		0	
5438	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	338	8.11E-03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	338		0	
			Q		100CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	338		2	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	336		2	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	334		0	
			Q		3X	1014 C				
				EN	025C	MM38510	334		1	
			Q			N.R.				
				PAR EXC	125C	MM38510	333	5.59E-04	0	
			Q			1015 D				
				S&D EN	-055C 025C	MM38510	333		10	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	323		1	
			Q		20X	2009				
SIGNETICS	E-DIP	N.R.	11/75	S&P EN	025C		6947		33	
7438	14	0/70C	1			N.R.				
				THRMSHK	000C 100C		6914		0	
			1		5CYC	N.R.				
				REVBIAS	100C		6914	1.16E-06	0	
			1			N.R.				
				S&P EN	025C		6914		17	
			1			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		160		0	
7437	14	0/70C	1		100CY	N.R.				
				REVBIAS	100C		160	3.84E-03	0	
			1			N.R.				
				EN			160		1	
			1			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			4449		0	
74125	14	0/70C	1			N.R.				
				S&P EN	025C 070C		4449		0	
			1			N.R.				
				THRMSHK	000C 100C	MS-883	4449		0	
			1		15CY	1011 A				
				REVBIAS	125C		4449	7.47E-05	0	
			1			N.R.				
				S&P EN	070C		4449		61	NFEP 742/61
			1			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			4141		0	
74125	14	0/70C	1			N.R.				
				S&P EN	025C 070C		4141		0	
			1			N.R.				
				THRMSHK	000C 100C	MS-883	4141		0	
			1		15CY	1011 A				
				REVBIAS	125C		4141	6.96E-05	0	
			1			N.R.				
				S&P EN	070C		4141		83	NFEP 743/4, 744/79
			1			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			981		0	
74126	14	0/70C	1			N.R.				
				S&P EN	025C 070C		981		0	
			1			N.R.				
				THRMSHK	000C 100C	MS-883	981		0	
			1		15CY	1011 A				
				REVBIAS	125C		981	1.65E-05	0	
			1			N.R.				
				S&P EN	070C		981		24	NFEP 745/4, 746/2 747/9
			1			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SEC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
VARIOUS	DIP	N	12/76	VIS INS			913:		0:	
74126	14	0/70C	I			N.R.				
				S&P EM	025C 070C		913:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	913:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		913:	1.53E 05	0:	
			I			N.R.				
				S&P EM	070C		913:		5:	SINFEP 748/5
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			596:		0:	
7428	14	0/70C	I			N.R.				
				S&P EM	025C 070C		596:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	596:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		596:	1.00E 05	0:	
			I			N.R.				
				S&P EM	070C		596:		3:	SINFEP 749/1, 750/2
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1200:		0:	
7428	14	0/70C	I			N.R.				
				S&P EM	025C 070C		1200:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		1200:	2.02E 05	0:	
			I			N.R.				
				S&P EM	070C		1200:		7:	SINFEP 751/3, 752/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			223:		0:	
7428	14	0/70C	I			N.R.				
				S&P EM	025C 070C		223:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	223:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		223:	3.75E 04	0:	
			I			N.R.				
				S&P EM	070C		223:		1:	
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			200:		0:	
7433	14	0/70C	I			N.R.				
				S&P EM	025C 070C		200:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		200:	3.36E 04	0:	
			I			N.R.				
				S&P EM	070C		200:		6:	SINFEP 753/1, 754/4
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			137:		0:	
7433	14	0/70C	I			N.R.				
				S&P EM	025C 070C		137:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	137:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		137:	2.30E 04	0:	
			I			N.R.				
				S&P EM	070C		137:		5:	SINFEP 755/5
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		2487:		11:	
7437	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2476:		0:	
			I		5CYC	N.R.				
				REVBIAS	100C		2476:	4.16E 05	0:	
			I			N.R.				
				SDF EM	025C		2476:		6:	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP N		04/76	VIS INS			1935		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1935		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1935		0	
			I		15CY	1011 A				
				REVBIAS	125C		1935	3.25E 05	0	
			I			N.R.				
				S&F EM	070C		1935		15	MFEF 756/4, 757/11
			I			N.R.				
VARIOUS	DIP N		07/76	VIS INS			1000		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		4	MFEF 758/4
			I			N.R.				
VARIOUS	DIP N		08/76	VIS INS			1000		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		10	MFEF 759/9
			I			N.R.				
VARIOUS	DIP N		10/76	VIS INS			1600		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1600		0	
			I		15CY	1011 A				
				REVBIAS	125C		1600	2.69E 05	0	
			I			N.R.				
				S&F EM	070C		1600		14	MFEF 760/14
			I			N.R.				
VARIOUS	DIP N		11/76	VIS INS			700		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		700		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	700		0	
			I		15CY	1011 A				
				REVBIAS	125C		700	1.18E 05	0	
			I			N.R.				
				S&F EM	070C		700		1	MFEF 761/1
			I			N.R.				
VARIOUS	DIP N		12/76	VIS INS			1164		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1164		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1164		0	
			I		15CY	1011 A				
				REVBIAS	125C		1164	1.96E 05	0	
			I			N.R.				
				S&F EM	070C		1164		11	MFEF 762/11
			I			N.R.				
VARIOUS	DIP N		12/76	VIS INS			30		0	
7437	14	0/70C	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	30		0	
			I		5CY	1010 B				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		0	
			I			N.R.				

BUFFER — ENVIRONMENTAL BURN-IN

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS 7437	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	250		0	
				S&F EM	025C 070C	N.R.	250		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	250		0	
			I	REVBIAS	125C	N.R.	250	4.20E 04	0	
			I	S&F EM	070C	N.R.	250		1	MFEF 763/1
VARIOUS 7438	DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	2412		37	
			I	THRMSHK	000C 100C 5CYC	N.R.	2375		0	
			I	REVBIAS	100C	N.R.	2375	3.99E 05	0	
			I	SDF EM	025C	N.R.	2375		7	
VARIOUS 7438	DIP 14	N 0/70C	10/76 I	VIS INS		N.R.	7200		0	
			I	S&F EM	025C 070C	N.R.	7200		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	7200		0	
			I	REVBIAS	125C	N.R.	7200	1.21E 06	0	
			I	S&F EM	070C	N.R.	7200		50	MFEF 764/4, 765/35, 766/1, 767/10
VARIOUS 7438	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	4248		0	
			I	S&F EM	025C 070C	N.R.	4248		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	4248		0	
			I	REVBIAS	125C	N.R.	4248	7.14E 05	0	
			I	S&F EM	070C	N.R.	4248		73	MFEF 768/73
VARIOUS 7438	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	1000		0	
			I	S&F EM	025C 070C	N.R.	1000		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	1000		0	
			I	REVBIAS	125C	N.R.	1000	1.68E 05	0	
			I	S&F EM	070C	N.R.	1000		2	MFEF 769/2
VARIOUS 7438	DIP 14	N 0/70C	05/76 I	VIS INS		N.R.	500		0	
			I	S&F EM	025C 0.0C	N.R.	500		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	500		0	
			I	REVBIAS	125C	N.R.	500	8.40E 04	0	
			I	S&F EM	070C	N.R.	500		7	MFEF 770/7
VARIOUS 7438	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	1540		0	
			I	S&F EM	025C 070C	N.R.	1540		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	1540		0	
			I	REVBIAS	125C	N.R.	1540	2.59E 05	0	
			I	S&F EM	070C	N.R.	1540		11	MFEF 771/1, 772/8, 773/2

BUFFER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	03/76	VIS INS			25537		0	
7440	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25537		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25537		0	
			I		15CY	1011 A				
				REVBIAS	125C		25538	4.29E 06	0	
			I			N.R.				
				S&F EM	070C		25538		387	MFEF 774/7,
			I			N.R.				775/219,
										776/91,
										777/69

COMPARATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			25		0	
74S85	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		1	MFEF 778/1
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			75		0	
74S85	16	0/70C	I			N.R.				
				S&F EM	025C 070C		75		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	75		0	
			I		15CY	1011 A				
				REVBIAS	125C		75	1.26E 04	0	
			I			N.R.				
				S&F EM	070C		75		2	MFEF 779/2
			I			N.R.				

COMPARATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		200		0	
74L85	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		200		0	
			I		5CYC	N.R.				
				REVBIAS	100C		200	3.36E 04	0	
			I			N.R.				
				SDF EM	025C		200		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74L85	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

COMPARATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DI.	N	08/76	VIS INS			520		0	
74LS85	16	0/70C	I			N.R.				
				S&F EM	025C 070C		520		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	520		0	
			I		15CY	1011 A				
				REVBIAS	125C		520	8.74E 04	0	
			I			N.R.				
				S&F EM	070C		520		9	MFEF 780/9
			I			N.R.				

COMPARATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N	05/76	VIS INS			125		0	
8160	16	0/70C	I			N.R.				
				S&F EM	025C 070C		125		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	125		0	
			I		15CY	1011 A				
				REVBIAS	125C		125	2.10E 04	0	
			I			N.R.				
				S&F EM	070C		125		1	MFEF 781/1
			I			N.R.				
NATIONAL	E-DIP	N	06/76	VIS INS			200		0	
8160	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		3	MFEF 782/3
			I			N.R.				
NATIONAL	E-DIP	N	12/76	VIS INS			49		0	
8160	16	0/70C	I			N.R.				
				S&F EM	025C 070C		49		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	49		0	
			I		15CY	1011 A				
				REVBIAS	125C		49	6.23E 03	0	
			I			N.R.				
				S&F EM	070C		49		0	
			I			N.R.				
NATIONAL	E-DIP	N	06/76	VIS INS			60		0	
8200	16	0/70C	I			N.R.				
				S&F EM	025C 070C		60		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	60		0	
			I		15CY	1011 A				
				REVBIAS	125C		60	1.01E 04	0	
			I			N.R.				
				S&F EM	070C		60		0	
			I			N.R.				
NATIONAL	E-DIP	N	10/76	VIS INS			100		0	
8200	16	0/70C	I			N.R				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		106		2	
7485	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		104		0	
			I		5CYC	N.R.				
				REVBIAS	100C		104	1.75E 04	0	
			I			N.R.				
				SDF EM	025C		104		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SR	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		619		0	
7485	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		619	1.49E 04	0	
			I			N.R.				
				EM			619		18	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			299		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		299		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	299		0	
			I		15CY	1011 A				
				REVBIAS	125C		299	5.02E 04	0	
			I			N.R.				
				S&F EM	070C		299		13	MFEF 783/5, 784/8
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			181		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		181		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	181		0	
			I		15CY	1011 A				
				REVBIAS	125C		181	3.04E 04	0	
			I			N.R.				
				S&F EM	070C		181		1	MFEF 785/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			200		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		1	MFEF 786/1
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			73		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		73		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	73		0	
			I		15CY	1011 A				
				REVBIAS	125C		73	1.23E 04	0	
			I			N.R.				
				S&F EM	070C		73		1	MFEF 787/1
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			546		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		546		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	546		0	
			I		15CY	1011 A				
				REVBIAS	125C		546	9.17E 04	0	
			I			N.R.				
				S&F EM	070C		546		2	MFEF 788/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			300		0	
7485	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		2	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP KNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	02/76	VIS INS			3684		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		3684		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3684		0	
			I		15CY	1011 A				
				REVBIAS	125C		3684	6.19E 05	0	
			I			N.R.				
				S&F EN	070C		3684		128	MFEF 789/2,
			I			N.R.				790/5,791/2,
										792/115,
										793/1,794/3
VARIOUS	DIP	N	02/76	VIS INS			1000		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EN	070C		1000		20	MFEF 795/20
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			497		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		497		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	497		0	
			I		15CY	1011 A				
				REVBIAS	125C		497	8.35E 04	0	
			I			N.R.				
				S&F EN	070C		497		10	MFEF 796/10
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			174		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		174		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	174		0	
			I		15CY	1011 A				
				REVBIAS	125C		174	2.92E 04	0	
			I			N.R.				
				S&F EN	070C		174		0	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1000		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EN	070C		1000		14	MFEF 797/1,
			I			N.R.				798/13
VARIOUS	DIP	N	08/76	VIS INS			125		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		125		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	125		0	
			I		15CY	1011 A				
				REVBIAS	125C		125	2.10E 04	0	
			I			N.R.				
				S&F EN	070C		125		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			515		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EN	025C 070C		515		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	515		0	
			I		15CY	1011 A				
				REVBIAS	125C		515	8.65E 04	0	
			I			N.R.				
				S&F EN	070C		515		2	MFEF 799/1,
			I			N.R.				800/1

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			800		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EM	025C 070C		800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	800		0	
			I		15CY	1011 A				
				REVBIAS	125C		800	1.34E 05	0	
			I			N.R.				
				S&F EM	070C		800		8	MFEF 801/8
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			500		0	
8324/9324	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		8	MFEF 802/8
			I			N.R.				

CUSTOM — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE PMOS,STATIC

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NITRON	DIP	N	08/77	BAKE	150C	MS-883	12809	3.07E 05	0	
	40	N.R.	B			1008 C				
				TEMPCYC	-065C 150C	MS-883	12809		0	
			U		10CY	1010 C				
				CNSTACC	20KG 1 AXIS	MS-883	12809		0	
			U		1 MIN E	2001 D				
				FINE LK	HE 5.E-7	MS-883	12809		93	MFEF 1892/93
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	12809		47	MFEF 1893/47
			"		3X	1014 C				
				FNCT EM	085C	MS-883	12669		999	
			U			N.R.				
				N.A.			0		67	
			U			N.R.				
NITRON	DIP	N	06/77	BAKE	150C	MS-883	3632	8.72E 04	0	
	40	N.R.	U			1008 C				
				TEMPCYC	-065C 150C	MS-883	3632		0	
			U		10CY	1010 C				
				CNSTACC	20KG 1 AXIS	MS-883	3632		0	
			U		1 MIN E	2001 D				
				FINE LK	HE 5.E-7	MS-883	3632		15	MFEF 1894/15
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	3632		11	MFEF 1895/11
			U		3X	1014 C				
				FNCT EM	085C	MS-883	3606		177	
			U			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	E-DIP	N.R.	11/75	SDF EM	025C		1146		7	
93L16	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1139		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1139	1.91E 05	0	
			I			N.R.				
				SDF EM	025C		1139		8	
			I			N.R.				
ADV MICRO DEV	E-DIP	N.R.	11/75	REVBIAS	100C		3830	6.43E 05	0	
93L16	16	0/70C	I			N.R.				
				SDF EM	025C		3830		48	
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		5877		56	
74L193	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		5821		0	
			I		5CYC	N.R.				
				REVBIAS	100C		5821	9.76E 05	0	
			I			N.R.				
				SDF EM	025C		5821		25	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		6355		181	
74L193	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		6174		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6174	1.04E 06	0	
			I			N.R.				
				SDF EM	025C		6174		12	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			200		0	
74L193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		5	HFEF 803/2,
			I			N.R.				804/3
VARIOUS	DIP	N	09/76	VIS INS			920		0	
74L193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		920		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	920		0	
			I		15CY	1011 A				
				REVBIAS	125C		920	1.55E 05	0	
			I			N.R.				
				S&F EM	070C		920		9	HFEF 805/9
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		5141		154	
74LS193	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		4987		0	
			I		5CYC	N.R.				
				REVBIAS	100C		4987	8.38E 05	0	
			I			N.R.				
				SDF EM	025C		4987		40	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			250		0	
74LS90	14	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		3	HFEF 806/1,
			I			N.R.				807/2
VARIOUS	DIP	N	09/76	VIS INS			100		0	
74LS92	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			405		0	
74LS93	14	0/70C	I			N.R.				
				S&F EM	025C 070C		405		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	405		0	
			I		15CY	1011 A				
				REVBIAS	125C		405	6.80E 04	0	
			I			N.R.				
				S&F EM	070C		405		3	MPEF 808/3
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	E-DIP	N	12/76	VIS INS			50		0	
9305	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
FAIRCHILD	E-DIP	N	12/76	VIS INS			50		0	
9305	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		499		14	
74160	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		485		0	
			I		5CYC	N.R.				
				REVBIAS	100C		485	8.15E 04	0	
			I			N.R.				
				SDF EM	025C		485		0	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		5066		81	
74161	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		4985		0	
			I		5CYC	N.R.				
				REVBIAS	100C		4985	8.37E 05	0	
			I			N.R.				
				SDF EM	025C		4985		25	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	REVBIAS	100C		775	1.30E 05	0	
7493	14	0/70C	I			N.R.				
				SDF EM	025C		775		15	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1100		7	
7493	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		1093		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1093	1.84E 05	0	
			I			N.R.				
				SDF EM	025C		1093		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		1971		33	
74160	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1938		0	
					5CYC	N.R.				
				REVBIAS	100C		1938	3.26E 05	0	
			I			N.R.				
				SDF EM	025C		1938		7	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		5149		87	
74161	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		5062		0	
			I		5CYC	N.R.				
				REVBIAS	100C		5062	8.50E 05	0	
			I			N.R.				
				SDF EM	025C		5062		14	
			I			N.R.				
VARIOUS	DIP	N	01/76	VIS INS			4447		0	
74161	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4447		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4447		0	
			I		15CY	1011 A				
				REVBIAS	125C		4447	7.47E 05	0	
			I			N.R.				
				S&F EM	070C		4447		544	MFEF 809/544
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3022		0	
74161	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3022		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3022		0	
			I		15CY	1011 A				
				REVBIAS	125C		3022	5.08E 05	0	
			I			N.R.				
				S&F EM	070C		3022		82	MFEF 810/9, 811/9,812/62
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			2666		0	
74161	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2666		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2666		0	
			I		15CY	1011 A				
				REVBIAS	125C		2666	4.48E 05	0	
			I			N.R.				
				S&F EM	070C		2666		75	MFEF 813/1, 814/4,815/2, 816/25,817/8
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			1046		0	
74161	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1046		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1046		0	
			I		15CY	1011 A				
				REVBIAS	125C		1046	1.76E 05	0	
			I			N.R.				
				S&F EM	070C		1046		5	MFEF 818/2, 819/3
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			225		0	
74191	16	0/70C	I			N.R.				
				S&F EM	025C 070C		225		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	225		0	
			I		15CY	1011 A				
				REVBIAS	125C		225	3.78E 04	0	
			I			N.R.				
				S&F EM	070C		225		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			800		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	800		0	
			I		15CY	1011 A				
				REVBIAS	125C		800	1.34E 05	0	
			I			N.R.				
				S&F EM	070C		800		5	MFEF 820/2, 821/3
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	07/76	VIS INS			1000		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		44	MFEF 822/9.
			I			N.R.				823/35
VARIOUS	DIP	N	09/76	VIS INS			1000		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		78	MFEF 824/75
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			225		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		225		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	225		0	
			I		15CY	1011 A				
				REVBIAS	125C		225	3.78E 04	0	
			I			N.R.				
				S&F EM	070C		225		8	MFEF 825/1.
			I			N.R.				826/2
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		22	MFEF 827/5.
			I			N.R.				828/17
VARIOUS	DIP	N	11/76	VIS INS			300		0	
74192	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		11	MFEF 829/10.
			I			N.R.				830/1
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		9627		68	
74193	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		9559		0	
			I		SCYC	N.R.				
				REVBIAS	100C		9559	1.61E 06	9	
			I			N.R.				
				SDF EM	025C		9559		13	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			4811		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4811		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4811		0	
			I		15CY	1011 A				
				RFVBIAS	125C		4811	8.08E 05	0	
			I			N.R.				
				S&F EM	070C		4811		23	MFEF 831/1.
			I			N.R.				832/1,833/1.
										834/5,835/15

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RSC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	04/76	VIS INS			2497		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2497		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2497		0	
			I		15CY	1011 A				
				REVBIAS	125C		2497	4.19E 05	0	
			I			N.R.				
				S&F EM	070C		2497		8	MFEF 836/8
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			913		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		913		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	913		0	
			I		15CY	1011 A				
				REVBIAS	125C		913	1.53E 05	0	
			I			N.R.				
				S&F EM	070C		913		30	MFEF 837/5, 838/11,839/7
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			2000		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		95	MFEF 840/1, 841/69,842/24
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1243		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1243		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1243		0	
			I		15CY	1011 A				
				REVBIAS	125C		1243	2.09E 05	0	
			I			N.R.				
				S&F EM	070C		1243		3	MFEF 843/3
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			2000		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		18	MFEF 844/1, 845/3,846/14
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			2000		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		21	MFEF 847/4, 848/16
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			2000		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		31	MFEF 849/10, 850/21

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	11/76	VIS INS			1479		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1479		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1479		0	
			I		15CY	1011 A				
				REVBIAS	125C		1479	2.48E 05	0	
			I			N.R.				
				S&F EM	070C		1479		34	MFEF 851/2, 852/3,853/28
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1075		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1075		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1075		0	
			I		15CY	1011 A				
				REVBIAS	125C		1075	1.81E 05	0	
			I			N.R.				
				S&F EM	070C		1075		4	MFEF 854/2, 855/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			520		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		520		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	520		0	
			I		15CY	1011 A				
				REVBIAS	125C		520	8.74E 04	0	
			I			N.R.				
				S&F EM	070C		520		2	MFEF 856/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			200		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			817		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		817		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	817		0	
			I		15CY	1011 A				
				REVBIAS	125C		817	1.37E 05	0	
			I			N.R.				
				S&F EM	070C		817		4	MFEF 857/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			4376		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4376		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4376		0	
			I		15CY	1011 A				
				REVBIAS	125C		4376	7.35E 05	0	
			I			N.R.				
				S&F EM	070C		4376		20	MFEF 858/2, 859/1,860/6 861/8,862/1
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1200		0	
74193	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200		0	
			I		15CY	1011 A				
				REVBIAS	125C		1200	2.02E 05	0	
			I			N.R.				
				S&F EM	070C		1200		11	MFEF 863/1, 864/8
			I			N.R.				

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	03/76	VIS INS			60.		0	
74297	14	0/70C	I			N.R.				
				S&F FM	025C 070C		60		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	60		0	
			I		15CY	1011 A				
				REVBIAS	125C		60	1.08E 04	0	
			I			N.R.				
				S&F FM	070C		60		3	MFEF 865/3
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			100		0	
74297	14	0/70C	I			N.R.				
				S&F FM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F FM	070C		100		4	MFEF 866/4
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			500		0	
74297	14	0/70C	I			N.R.				
				S&F FM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F FM	070C		500		13	MFEF 867/2, 868/10
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			500		0	
74297	14	0/70C	I			N.R.				
				S&F FM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F FM	070C		500		2	MFEF 869/2
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			59		0	
7490	14	0/70C	I			N.R.				
				S&F FM	025C 070C		59		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	59		0	
			I		15CY	1011 A				
				REVBIAS	125C		59	9.91E 03	0	
			I			N.R.				
				S&F FM	070C		59		1	MFEF 870/1
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			199		0	
7490	14	0/70C	I			N.R.				
				S&F FM	025C 070C		199		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	199		0	
			I		15CY	1011 A				
				REVBIAS	125C		199	3.34E 04	0	
			I			N.R.				
				S&F EM	070C		199		1	MFEF 871/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			200		0	
7490	14	0/70C	I			N.R.				
				S&F FM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F FM	070C		200		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP 14	N 0/70C	06/76 I	VIS INS		N.R.	250:		0:	
7490				S&F EM	025C 070C		250:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		250:	4.20E 04	0:	
			I			N.R.				
				S&F EM	070C		250:		3:	MFEF 872/3
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	10/76 I	VIS INS		N.R.	300:		0:	
7490				S&F FM	025C 070C		300:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		300:	5.04E 04	0:	
			I			N.R.				
				S&F EM	070C		300:		2:	MFEF 873/1, 874/1
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	200:		0:	
7490				S&F FM	025C 070C		200:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		200:	3.36E 04	0:	
			I			N.R.				
				S&F FM	070C		200:		0:	
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	12/76 I	VIS INS		N.R.	578:		0:	
7492				S&F FM	025C 070C		578:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	578:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		578:	9.71E 04	0:	
			I			N.R.				
				S&F EM	070C		578:		10:	MFEF 875/6, 876/1,877/3
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	06/76 I	VIS INS		N.R.	200:		0:	
7492				S&F EM	025C 070C		200:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		200:	3.36E 04	0:	
			I			N.R.				
				S&F EM	070C		200:		2:	MFEF 878/2
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	06/76 I	VIS INS		N.R.	500:		0:	
7492				S&F EM	025C 070C		500:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		500:	8.40E 04	0:	
			I			N.R.				
				S&F FM	070C		500:		4:	MFEF 879/1, 880/3
			I			N.R.				
VARIOUS	DIP 14	N 0/70C	07/76 I	VIS INS		N.R.	500:		0:	
7492				S&F FM	025C 070C		500:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		500:	8.40E 04	0:	
			I			N.R.				
				S&F FM	070C		500:		7:	MFEF 881/7
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			500		0	
7492	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F FM	070C		500		11	MFEF 882/11
			I			N.R.				
VARIOUS	DIP	N.P.	11/75	SDF EM	025C		557		6	
7493	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		551		0	
			I		5CYC	N.R.				
				REVBIAS	100C		551	9.26E 04	0	
			I			N.R.				
				SDF FM	025C		551		2	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1004		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1004		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1004		0	
			I		15CY	1011 A				
				REVBIAS	125C		1004	1.69E 05	0	
			I			N.R.				
				S&F FM	070C		1004		4	MFEF 883/2, 884/2
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			3000		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		3	MFEF 885/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			2650		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2650		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2650		0	
			I		15CY	1011 A				
				REVBIAS	125C		2650	4.45E 05	0	
			I			N.R.				
				S&F EM	070C		2650		6	MFEF 886/1, 887/2,888/4
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			3350		0	
7493	14	0/70C	I			N.R.				
				S&F FM	025C 070C		3350		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3350		0	
			I		15CY	1011 A				
				REVBIAS	125C		3350	5.63E 05	0	
			I			N.R.				
				S&F EM	070C		3350		36	MFEF 889/1, 890/7,891/28
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			99		0	
7493	14	0/70C	I			N.R.				
				S&F FM	025C 070C		99		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	99		0	
			I		15CY	1011 A				
				REVBIAS	125C		99	1.66E 04	0	
			I			N.R.				
				S&F FM	070C		99		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	11/76	VIS INS			202		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		202		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	202		0	
			I		15CY	1011 A				
				REVBIAS	125C		202	3.39E 04	0	
			I			N.R.				
				S&F FM	070C		202		3	MFEF 892/3
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			3000		0	
7493	14	0/70C	I			N.R.				
				S&F FM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		17	MFEF 893/4, 894/8,895/5
VARIOUS	DIP	N	12/76	VIS INS			2800		0	
7493	14	0/70C	I			N.R.				
				S&F FM	025C 070C		2800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2800		0	
			I		15CY	1011 A				
				REVBIAS	125C		2800	4.70E 05	0	
			I			N.R.				
				S&F FM	070C		2800		6	MFEF 896/6
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			1697		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1697		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1697		0	
			I		15CY	1011 A				
				REVBIAS	125C		1697	2.85E 05	0	
			I			N.R.				
				S&F EM	070C		1697		8	MFEF 897/8
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			8461		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		8461		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	8461		0	
			I		15CY	1011 A				
				REVBIAS	125C		8461	1.42E 06	0	
			I			N.R.				
				S&F EM	070C		8461		27	MFEF 898/6, 899/1,900/1, 901-905/19
VARIOUS	DIP	N	09/76	VIS INS			985		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		985		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	985		0	
			I		15CY	1011 A				
				REVBIAS	125C		985	1.65E 05	0	
			I			N.R.				
				S&F FM	070C		985		25	MFEF 906/1, 907/1,908/10
VARIOUS	DIP	N	10/76	VIS INS			63		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		63		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	63		0	
			I		15CY	1011 A				
				REVBIAS	125C		63	1.06E 04	0	
			I			N.R.				
				S&F EM	070C		63		7	MFEF 909/5, 910/2
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	11/76	VIS INS			118		0	
7493	14	0/70C	I			N.R.				
				S&F EM	025C 070C		118		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	118		0	
			I		15CY	1011 A				
				REVBIAS	125C		118	1.98E 04	0	
			I			N.R.				
				S&F EM	070C		118		8	MEF 911/1
			I			N.R.				

COUNTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	E-DIP	N	05/76	VIS INS			50		0	
4017A	16	-40/80C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		4	MFEF 912/1,
			I			N.R.				913/3

DECODER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		21		0	
74L42	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		21		0	
			I		5CYC	N.R.				
				REVBIAS	100C		21	3.53E 03	0	
			I			N.R.				
				SDF EM	025C		21		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		7309		285	
74L42	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		7024		0	
			I		5CYC	N.R.				
				REVBIAS	100C		7024	1.18E 06	0	
			I			N.R.				
				SDF EM	025C		7024		68	
			I			N.R.				

DECODER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			455		0	
74LS42	16	0/70C	I			N.R.				
				S&F EM	025C 070C		455		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	455		0	
			I		15CY	1011 A				
				REVBIAS	125C		455	7.64E 04	0	
			I			N.R.				
				S&F EM	070C		455		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	DIP	N	02/76	VIS INS			2080		0	
4006	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2080		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	2080		0	
			I		5CY	1010 B				
				REVBIAS	125C		2080	3.49E 05	0	
			I			N.R.				
				S&F EM	070C		2080		375	MFEF 914/375
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		3359		21	
7442	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		3338		0	
			I		5CYC	N.R.				
				REVBIAS	100C		3338	5.61E 05	0	
			I			N.R.				
				SDF EM	025C		3338		6	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			4120		0	
7442	16	/70C	I			N.R.				
				S&F EM	025C 070C		4120		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4120		0	
			I		15CY	1011 A				
				REVBIAS	125C		4120	6.92E 05	0	
			I			N.R.				
				S&F EM	070C		4120		55	MFEF 915/1, 916/22,917/22
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1576		0	
7442	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1576		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1576		0	
			I		15CY	1011 A				
				REVBIAS	125C		1576	2.65E 05	0	
			I			N.R.				
				S&F EM	070C		1576		18	MFEF 920/10, 921/2,922/2
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			100		0	
7442	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1000		0	
7442	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		13	MFEF 918/1, 919/12
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			800		0	
7442	16	0/70C	I			N.R.				
				S&F EM	025C 070C		800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	800		0	
			I		15CY	1011 A				
				REVBIAS	125C		800	1.34E 05	0	
			I			N.R.				
				S&F EM	070C		800		3	MFEF 923/1
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP REG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS		N.R.	1200		0	
7442	16	0/70C	I	SF EM	025C 070C	N.R.	1200		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	1200		0	
			I	REVBIAS	15CY 125C	N.R.	1200	2.02E 05	0	
			I	S&F EM	070C	N.R.	1200		19	MFEF 924/19
VARIOUS	DIP	N	05/76	VIS INS		N.R.	60		0	
9307	16	0/70C	I	S&F EM	025C 070C	N.R.	60		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	60		0	
			I	REVBIAS	15CY 125C	N.R.	60	2.28E 02	0	
			I	S&F EM	070C	N.R.	60		0	
VARIOUS	DIP	N	07/76	VIS INS		N.R.	159		0	
9307	16	0/70C	I	S&F EM	025C 070C	N.R.	159		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	159		0	
			I	REVBIAS	15CY 125C	N.R.	159	2.67E 04	0	
			I	S&F EM	070C	N.R.	159		7	MFEF 925/4, 926/3
VARIOUS	DIP	N	06/76	VIS INS		N.R.	5088		0	
9321	16	0/70C	I	S&F EM	025C 070C	N.R.	5088		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	5088		0	
			I	REVBIAS	15CY 125C	N.R.	5088	8.55E 05	0	
			I	S&F EM	070C	N.R.	5088		64	MFEF 927/12, 928/52
VARIOUS	DIP	N	08/76	VIS INS		N.R.	1500		0	
9321	16	0/70C	I	S&F EM	025C 070C	N.R.	1500		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	1500		0	
			I	REVBIAS	15CY 125C	N.R.	1500	2.52E 05	0	
			I	S&F EM	070C	N.R.	1500		8	MFEF 929/4, 930/4
VARIOUS	DIP	N	09/76	VIS INS		N.R.	2000		0	
9321	16	0/70C	I	S&F EM	025C 070C	N.R.	2000		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	2000		0	
			I	REVBIAS	15CY 125C	N.R.	2000	3.36E 05	0	
			I	S&F EM	070C	N.R.	2000		19	MFEF 931/1, 932/16
VARIOUS	DIP	N	12/76	VIS INS		N.R.	75		0	
9321	16	N.R.	I	S&F EM	025C 070C	N.R.	75		0	
			I	TEMPCYC	-055C 125C	MS-883 1010 B	75		0	
			I	REVBIAS	5CY 125C	N.R.	75	1.06E 04	0	
			I	S&F EM	070C	N.R.	75		3	MFEF 933/3

DECODER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	12/76	VIS INS			79		0	
9321	16	N.R.	I			N.R.				
				S&F EM	025C 070C		79		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	79		0	
			I		5CY	1010 B				
				REVBIAS	125C		79	1.33E 04	0	
			I			N.R.				
				S&F EM	070C		79		3	MFEF 934/2,
			I			N.R.				935/1

DEC-DEMUX — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		4320		0	
74S139	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		4320		0	
			I			N.R.				
				EM			4320		6	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			400		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		2	MFEF 936/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			200		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		18	MFEF 937/18
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			200		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		1	MFEF 938/1
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			200		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		1	MFEF 939/1
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			175		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EM	070C		175		2	MFEF 940/1
			I			N.R.				

DEC-DEMUX | ENVIRONMENTAL BURN-IN | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	11/76	VIS INS			130		0	
74S138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		130		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	130		0	
			I		15CY	1011 A				
				REVBIAS	125C		130	2.18E 04	0	
			I			N.R.				
				S&F FM	070C		130		114	MFEF 941/114
			I			N.R.				

DEC-DEMUX | ENVIRONMENTAL BURN-IN | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			849		0	
74LS138	16	0/70C	I			N.R.				
				S&F EM	025C 070C		849		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	849		0	
			I		15CY	1011 A				
				REVBIAS	125C		849	1.43E 05	0	
			I			N.R.				
				S&F EM	070C		849		14	MFEF 942/14
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			300		0	
74LS139	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		5	MFEF 943/5
			I			N.R.				

DEC-DEMUX | ENVIRONMENTAL BURN-IN | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		134		5	
74154	24	0/70C	I			N.R.				
				THRMSHK	000C 100C		129		0	
			I		5CYC	N.R.				
				REVBIAS	100C		129	2.17E 04	0	
			I			N.R.				
				SDF EM	025C		129		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1224		0	
74154	24	0/70C	I			N.R.				
				S&F EM	025C 070C		1224		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1224		0	
			I		15CY	1011 A				
				REVBIAS	125C		1224	2.06E 05	0	
			I			N.R.				
				S&F EM	070C		1224		25	MFEF 944/25
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			368		0	
74154	24	0/70C	I			N.R.				
				S&F FM	025C 070C		368		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	368		0	
			I		15CY	1011 A				
				REVBIAS	125C		368	6.18E 04	0	
			I			N.R.				
				S&F EM	070C		368		15	MFEF 945/1, 946/14
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			651		0	
74155	16	0/70C	I			N.R.				
				S&F EM	025C 070C		651		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	651		0	
			I		15CY	1011 A				
				REVBIAS	125C		651	1.09E 05	0	
			I			N.R.				
				S&F EM	070C		651		15	MFEF 947/13,
			I			N.R.				948/2
VARIOUS	DIP	N	07/76	VIS INS			386		0	
74155	16	0/70C	I			N.R.				
				S&F EM	025C 070C		386		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	386		0	
			I		15CY	1011 A				
				REVBIAS	125C		386	6.48E 04	0	
			I			N.R.				
				S&F EM	070C		386		3	MFEF 949/1,
			I			N.R.				950/2
VARIOUS	DIP	N	10/76	VIS INS			246		0	
74155	16	0/70C	I			N.R.				
				S&F EM	025C 070C		246		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	246		0	
			I		15CY	1011 A				
				REVBIAS	125C		246	4.13E 04	0	
			I			N.R.				
				S&F EM	070C		246		1	MFEF 951/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			200		0	
74155	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		1	MFEF 952/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			300		0	
74156	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		0	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			131		0	
74156	16	0/70C	I			N.R.				
				S&F EM	025C 070C		131		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	131		0	
			I		15CY	1011 A				
				REVBIAS	125C		131	2.20E 04	0	
			I			N.R.				
				S&F EM	070C		131		2	MFEF 953/2
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			226		0	
9311	24	N.R.	I			N.R.				
				S&F EM	025C 070C		226		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	226		0	
			I		5CY	1010 B				
				REVBIAS	125C		226	3.80E 04	0	
			I			N.R.				
				S&F EM	070C		226		2	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			105		0	
9311	24	N.R.	I			N.R.				
				S&F EM	025C 070C		105		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	105		0	
			I		5CY	1010 B				
				REVBIAS	125C		105	1.76E 04	0	
			I			N.R.				
				S&F EM	070C		105		1	MFEF 954/1
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			50		0	
74148	16	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		1	MFEF 955/1
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			155		0	
74148	16	0/70C	I			N.R.				
				S&F EM	025C 070C		155		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	155		0	
			I		15CY	1011 A				
				REVBIAS	125C		155	2.60E 04	0	
			I			N.R.				
				S&F EM	070C		155		2	MFEF 956/2
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			75		0	
9318	16	0/70C	I			N.R.				
				S&F EM	025C 070C		75		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	75		0	
			I		15CY	1011 A				
				REVBIAS	125C		75	1.26E 04	0	
			I			N.R.				
				S&F EM	070C		75		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			275		0	
9318	16	0/70C	I			N.R.				
				S&F EM	025C 070C		275		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	275		0	
			I		15CY	1011 A				
				REVBIAS	125C		275	4.62E 04	0	
			I			N.R.				
				S&F EM	070C		275		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			150		0	
9318	16	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		1	MFEF 957/1
			I			N.R.				

EXPANDER

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS 2102	FPK 14	C-2 -55/125	03/76 U	VIS INS	20X	N.R.	721		0	
			U	BARE	125C	MS-883 100B	721	1.73E 04	0	
			U	TEMPCYC	-055C 125C 10CY	MS-883 1010 B	721		0	
			U	CNSTACC		N.R.	721		2	
			U	FINE LK	HE 5.E-8 60 MIN	MS-883 1014 A	721		0	
			U	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	719		0	
			U	X-RAY	20X	MS-883 2012	719		0	
			U	EM		N.R.	719		0	
			U	REVBIAS	125C	N.R.	431	7.07E 04	0	
			U	EM		N.R.	431		17	
			U	EM -		N.R.	414		0	

FLIP FLOP

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS 74S112	DIP 16	N 0/70C	05/76 I	VIS INS		N.R.	498		0	
			I	S&F EM	025C 070C	N.R.	498		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	498		0	
			I	REVBIAS	125C	N.R.	498	8.37E 04	0	
			I	S&F EM	070C	N.R.	498		2	MFEF 958/1, 959/1
VARIOUS 74S112	DIP 16	N 0/70C	06/76 I	VIS INS		N.R.	119		0	
			I	S&F EM	025C 070C	N.R.	119		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	119		0	
			I	REVBIAS	125C	N.R.	119	2.00E 04	0	
			I	S&F EM	070C	N.R.	119		1	MFEF 960/1
VARIOUS 74S175	DIP 16	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	1002		16	
			I	THRMSHK	000C 100C 50CYC	N.R.	986		0	
			I	REVBIAS	100C	N.R.	986	1.66E 05	0	
			I	SDF EM	025C	N.R.	986		5	
VARIOUS 74S175	DIP 16	N 0/70C	04/76 I	VIS INS		N.R.	47		0	
			I	S&F EM	025C 070C	N.R.	47		0	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	47		0	
			I	REVBIAS	125C	N.R.	47	7.90E 03	0	
			I	S&F EM	070C	N.R.	47		1	MFEF 961/1

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS ISS			244		0	
74S175	16	0/70C	I			N.R.	244		0	
				S&F EM	025C 070C		244		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	244		0	
			I		15CY	1011 A				
				REVBIAS	125C		244	4.10E 04	0	
			I			N.R.				
				S&F EM	070C		244		1	MFEF 962/1
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS ISS			150		0	
74S175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		6	MFEF 963/3, 964/3
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS ISS			400		0	
74S175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		2	MFEF 965/2
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS ISS			175		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EM	070C		175		3	MFEF 966/2
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS ISS			3000		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		37	MFEF 967/2, 968/16,969/4 970/10
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS ISS			1000		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		7	MFEF 971/2, 972/5
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS ISS			723		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		723		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	723		0	
			I		15CY	1011 A				
				REVBIAS	125C		723	1.21E 05	0	
			I			N.R.				
				S&F EM	070C		723		22	MFEF 973/5
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	10/76	VIS INS			48		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		48		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	48		0	
			I		15CY	1011 A				
				REVBIAS	125C		48	8.06E 03	0	
			I			N.R.				
				S&F EM	070C		48		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			150		0	
74S74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		0	
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		15087		293	
74L74	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		14794		0	
			I		5CYC	N.R.				
				REVBIAS	100C		14794	2.49E 06	0	
			I			N.R.				
				SDF EM	025C		14794		29	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		3175		69	
74L123	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		3106		0	
			I		5CYC	N.R.				
				REVBIAS	100C		3106	5.22E 05	0	
			I			N.R.				
				SDF EM	025C		3106		18	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	REVBIAS	100C		1857	3.12E 05	0	
74L123	16	0/70C	I			N.R.				
				SDF EM	025C		1857		55	MFEF 974/5
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		2410		20	
74L74	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2390		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2390	4.02E 05	0	
			I			N.R.				
				SDF EM	025C		2390		15	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		2007		17	
74L73	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		1989		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1989	3.34E 05	0	
			I			N.R.				
				SDF EM	025C		1989		1	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		5001		75	
74L74	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		4926		0	
			I		5CYC	N.R.				
				REVBIAS	100C		4926	8.28E 05	0	
			I			N.R.				
				SDF EM	025C		4926		14	
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	E-DIP	N	08/76	VIS INS			35		0	
3061	14	0/70C	I			N.R.				
				S&F EM	025C 070C		35		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	35		0	
			I		15CY	1011 A				
				REVBIAS	125C		35	5.88E 03	0	
			I			N.R.				
				S&F EM	070C		35		0	
			I			N.R.				
MOTOROLA	E-DIP	N	09/76	VIS INS			100		0	
3061	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		5	
			I			N.R.				
SIGNETICS	DIP	N	02/75	VIS INS	30X	MM38510	1541		0	
54H103	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	1541	3.70E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	1541		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	1541		12	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	1529		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	1529		0	
			Q		3X	1014 C				
				EM	025C	MM38510	1529		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	1529	2.57E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	1529		65	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	1464		0	
			Q		20X	2009				
SIGNETICS	FPK	N	04/75	VIS INS	30X	MM38510	973		0	
54H103	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	973	2.34E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	973		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	973		16	
			Q		1 MIN E	2001 E				
				FINE LK	HF 5.E-8	MM38510	957		5	MFEF 1896/5
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	952		14	MFEF 1897/14
			Q		3X	1014 C				
				EM	025C	MM38510	938		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	938	1.58E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	938		33	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	905		0	
			Q		20X	2009				
SIGNETICS	E-DIP	N	05/76	VIS INS			25		0	
8H22	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	E-DIP	N	05/76	VIS INS			149		0	
8H22	16	0/70C	I			N.R.				
				S&F EM	025C 070C		149		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	149		0	
			I		15CY	1011 A				
				REVBIAS	125C		149	2.50E 04	0	
			I			N.R.				
				S&F EM	070C		149		5	MFEF 975/5
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1933		0	
74H102	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1933		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1933		0	
			I		15CY	1011 A				
				REVBIAS	125C		1933	3.25E 05	0	
			I			N.R.				
				S&F EM	070C		1933		63	MFEF 976/3, 977/43,978/1 979/15
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			900		0	
74H102	14	0/70C	I			N.R.				
				S&F EM	025C 070C		900		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	900		0	
			I		15CY	1011 A				
				REVBIAS	125C		900	1.51E 05	0	
			I			N.R.				
				S&F EM	070C		900		18	MFEF 980/7, 981/11
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74H72	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		1	MFEF 982/1
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		1060		27	
74H76	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1033		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1033	1.74E 05	0	
			I			N.R.				
				SDF EM	025C		1033		5	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			25		0	
74H76	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		5348		15	
74LS74	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		5333		0	
			I		5CYC	N.R.				
				RFVBIAS	100C		5333	8.96E 05	0	
			I			N.R.				
				SDF EM	025C		5333		12	
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		3663		225	
74LS76	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		3438		0	
			I		5CYC	N.R.				
				REVBIAS	100C		3438	5.78E 05	0	
			I			N.R.				
				SDF EM	025C		3438		47	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1513		85	
74LS174	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1428		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1428	2.40E 05	0	
			I			N.R.				
				SDF EM	025C		1428		19	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		12403		246	
74LS175	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		12157		0	
			I		5CYC	N.R.				
				REVBIAS	100C		12157	2.04E 06	0	
			I			N.R.				
				SDF EM	025C		12157		51	
			I			N.R.				
T.I.	F-DIP	N.R.	11/75	SDF EM	025C		2920		55	
74LS74	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2865		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2865	4.81E 05	0	
			I			N.R.				
				SDF EM	025C		2865		2	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		2153		85	
74LS76	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		2068		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2068	3.47E 05	0	
			I			N.R.				
				SDF EM	025C		2068		12	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1000		0	
74LS112	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F FM	070C		1000		9	MFEF 983/1,
			I			N.R.				984/8
VARIOUS	DIP	N	09/76	VIS INS			550		0	
74LS112	16	0/70C	I			N.R.				
				S&F EM	025C 070C		550		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	550		0	
			I		15CY	1011 A				
				REVBIAS	125C		550	9.24E 04	0	
			I			N.R.				
				S&F EM	070C		550		31	MFEF 985/31
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			235		0	
74LS123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		235		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	235		0	
			I		15CY	1011 A				
				REVBIAS	125C		235	3.95F 04	0	
			I			N.R.				
				S&F FM	070C		235		4	
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS 74LS123	DIP 16	N 0/70C	09/76 I	VIS INS		N.R.	1125		0	
				S&F FM	025C 070C		1125		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	1125		0	
			I	REVBIAS	125C		1125	1.89E 05	0	
				S&F EM	070C	N.R.				
			I				1125		2	MFEF 986/2
VARIOUS 74LS123	DIP 16	N 0/70C	09/76 I	VIS INS		N.R.	463		0	
				S&F EM	025C 070C		463		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	463		0	
			I	REVBIAS	125C		463	7.78E 04	0	
				S&F EM	070C	N.R.				
			I				463		5	MFEF 987/5
VARIOUS 74LS123	DIP 16	N 0/70C	12/76 I	VIS INS		N.R.	359		0	
				S&F EM	025C 070C		359		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	359		0	
			I	REVBIAS	125C		359	6.03E 04	0	
				S&F EM	070C	N.R.				
			I				359		2	MFEF 988/2
VARIOUS 74LS174	DIP 16	N 0/70C	09/76 I	VIS INS		N.R.	675		0	
				S&F EM	025C 070C		675		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	675		0	
			I	REVBIAS	125C		675	1.13E 05	0	
				S&F EM	070C	N.R.				
			I				675		1	MFEF 989/1
VARIOUS 74LS175	DIP 16	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	6896		198	
				THRMSHK	000C 100C		6698		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6698		0	
			I	SDF EM	025C	N.R.				
			I				6698		23	
VARIOUS 74LS175	DIP 16	N 0/70C	09/76 I	VIS INS		N.R.	1350		0	
				S&F EM	025C 070C		1350		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	1350		0	
			I	REVBIAS	125C		1350	2.27E 05	0	
				S&F EM	070C	N.R.				
			I				1350		10	MFEF 990/10
VARIOUS 74LS175	DIP 16	N 0/70C	10/76 I	VIS INS		N.R.	1000		0	
				S&F EM	025C 070C		1000		0	
			I	THRMSHK	000C 100C	N.R.				
					15CY	MS-883 1011 A	1000		0	
			I	REVBIAS	125C		1000	1.68E 05	0	
				S&F FM	070C	N.R.				
			I				1000		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			449		0	
74LS2[illegible]	16	0/70C	I			N.R.				
				S&F EM	025C 070C		449		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	449		0	
			I		15CY	1011 A				
				REVBIAS	125C		449	7.54E 04	0	
			I			N.R.				
				S&F EM	070C		449		4	MFEF 991/4
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			220		0	
74LS273	20	0/70C	I			N.R.				
				S&F EM	025C 070C		220		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	220		0	
			I		15CY	1011 A				
				REVBIAS	125C		220	3.70E 04	0	
			I			N.R.				
				S&F EM	070C		220		1	MFEF 992/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			743		0	
74LS273	20	0/70C	I			N.R.				
				S&F EM	025C 070C		743		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	743		0	
			I		15CY	1011 A				
				REVBIAS	125C		743	1.25E 05	0	
			I			N.R.				
				S&F EM	070C		743		2	MFEF 993/1
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			100		0	
74LS73	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		7	MFEF 994/6, 995/1
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			100		0	
74LS73	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		7	MFEF 996/1, 997/6
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			2411		0	
74LS74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2411		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2411		0	
			I		15CY	1011 A				
				REVBIAS	125C		2411	4.05E 05	0	
			I			N.R.				
				S&F EM	070C		2411		17	MFEF 998/17
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			997		0	
74LS74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		997		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	997		0	
			I		15CY	1011 A				
				REVBIAS	125C		997	1.67E 05	0	
			I			N.R.				
				S&F EM	070C		997		17	MFEF 999/17
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
74LS74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		5	MFEF 1000/1, 1001/5
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
74LS74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		13	MFEF 1002/13
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			300		0	
74LS74	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		8	MFEF 1003/1, 1004/7
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		989		59	
74LS76	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		930		0	
			I		5CYC	N.R.				
				REVBIAS	10.C		930	1.56E 05	0	
			I			N.R.				
				SDF EM	025C		930		60	
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	E-DIP	N	07/76	VIS INS			25		0	
2600	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				
ADV MICRO DEV	F-DIP	N	09/76	VIS INS			100		0	
2600	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ADV MICRO DEV	DIP	N	10/76	VIS INS			30		0	
2600	16	N.R.	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	30		0	
			I		5CY	1010 B				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		2	MFEF 1005/2
			I			N.R.				
ADV MICRO DEV	E-DIP	N	12/76	VIS INS			100		0	
2600	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100		0	
			I			N.R.				
				S&F EM	070C		100		2	MFEF 1006/1
			I			N.R.				
ADV MICRO DEV	E-DIP	N	05/76	VIS INS			998		0	
26123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		998		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	998		0	
			I		15CY	1011 A				
				REVBIAS	125C		998	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		998		3	MFEF 1007/2, 1008/1
			I			N.R.				
ADV MICRO DEV	E-DIP	N	12/76	VIS INS			797		0	
26123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		797		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	797		0	
			I		15CY	1011 A				
				REVBIAS	125C		797	1.34E 05	0	
			I			N.R.				
				S&F EM	070C		797		7	MFEF 1009/4
			I			N.R.				
ADV MICRO DEV	E-DIP	N.R.	11/75	SDF EM	025C		7000		30	
9602	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		6970		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6970	1.17E 06	0	
			I			N.R.				
				SDF EM	025C		6970		0	
			I			N.R.				
ADV MICRO DEV	E-DIP	N.R.	11/75	REVBIAS	100C		15000	2.52E 06	0	
9602	16	0/70C	I			N.R.				
				SDF FM	025C		15000		57	
			I			N.R.				
ITT	DIP	N.R.	01/75	TEMPCYC	-055C 125C		968		0	
54121	14	-55/125	I		10CY	N.R.				
				REVBIAS	100C		968	2.32E 04	0	
			I			N.R.				
				FM			968		10	
			I			N.R.				
MOTOROLA	E-DIP	N	05/76	VIS INS			999		0	
4024	14	0/70C	I			N.R.				
				S&F EM	025C 070C		999		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	999		0	
			I		15CY	1011 A				
				REVBIAS	125C		999	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		999		1	MFEF 1010/1
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RAYTHEON	FPK	C-2	03/76	VIS INS	20X		1328		0	
200	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	1328	3.19E 04	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	1328		0	
			U		10CY	1010 B				
				CNSTACC			1328		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	1328		4	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	1324		5	
			U		3X	1014 C				
				X-RAY	28X	MS-883	1319		5	
			U			2012				
				EM			1314		0	
			U			N.R.				
				REVBIAS	125C		785	1.29E 05	0	
			U			N.R.				
				EM			785		35	
			U			N.R.				
				EM			750		0	
			U			N.R.				
SIGNETICS	DIP	N	04/75	VIS INS	30X	MM38510	356		0	
5476	16	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	356	6.14E 03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	356		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	356		6	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	350		1	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	349		0	
			Q		3X	1014 C				
				EM	025C	MM38510	349		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	349	5.87E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	349		13	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	336		0	
			Q		20X	2009				
SIGNETICS	DIP	N	05/75	VIS INS	30X	MM38510	1042		0	
5476	16	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	1042		0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	1042		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	1042		29	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	1013		7	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	1006		6	MFEF 1898/6
			Q		3X	1014 C				
				EM	025C	MM38510	1000		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	1000	1.68E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	1000		25	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	975		2	
			Q		20X	2009				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		1397		16	
74121	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		1381		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1381	2.32E 05	0	
			I			N.R.				
				SDF EM	025C		1381		2	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		7152		94	
74123	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		7058		0	
			I		5CYC	N.R.				
				REVBIAS	100C		7058	1.19E 06	0	
			I			N.R.				
				SDF EM	025C		7058		54	
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
SIGNETICS	E-DIP	N.R.	11/75	REVBIAS	100C		625	1.05E 05	0	
74123	16	0/70C	I			N.R.				
				SDF EM	025C		625		5	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		433		7	
74174	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		426		0	
			I		5CYC	N.R.				
				REVBIAS	100C		426	1.16E 04	0	
			I			N.R.				
				SDF EM	025C		426		2	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		6171		108	
7473	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		6063		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6063	1.02E 06	0	
			I			N.R.				
				SDF EM	025C		6063		20	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		2450		11	
7474	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2439		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2439	4.10E 05	0	
			I			N.R.				
				SDF EM	025C		2439		9	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		240		0	
74122	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		240		0	
			I		5CYC	N.R.				
				REVBIAS	100C		240		0	
			I			N.R.				
				SDF EM	025C		240		0	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		15		0	
74174	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		15	3.60E 02	0	
			I			N.R.				
				EM			15		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		133		1	
74107	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		132		0	
			I		5CYC	N.R.				
				REVBIAS	100C		132	2.22E 04	0	
			I			N.R.				
				SDF EM	025C		132		1	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			25		0	
74107	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		3	MFEF 1011/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			54		0	
74107	14	0/70C	I			N.R.				
				S&F EM	025C 070C		54		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	54		0	
			I		15CY	1011 A				
				REVBIAS	125C		54	9.07E 03	0	
			I			N.R.				
				S&F EM	070C		54		0	
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	12/76	VIS INS			570		0	
74107	14	0/70C	I			N.R.				
				S&F EM	025C 070C		570		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	570		0	
			I		15CY	1011 A				
				REVBIAS	125C		570	9.58E 04	0	
			I			N.R.				
				S&F EM	070C		570		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			46		0	
74107	14	0/70C	I			N.R.				
				S&F EM	025C 070C		46		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	46		0	
			I		15CY	1011 A				
				REVBIAS	125C		46	7.73E 03	0	
			I			N.R.				
				S&F EM	070C		46		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1695		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1695		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1695		0	
			I		15CY	1011 A				
				REVBIAS	125C		1695	2.85E 05	0	
			I			N.R.				
				S&F EM	070C		1695		15	MFEF 1012/15
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			4472		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4472		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4472		0	
			I		15CY	1011 A				
				REVBIAS	125C		4472	7.51E 05	0	
			I			N.R.				
				S&F EM	070C		4472		39	MFEF 1013/18, 1014/6, 1015/11, 1016/2
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1500		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1500		0	
			I		15CY	1011 A				
				REVBIAS	125C		1500	2.52E 05	0	
			I			N.R.				
				S&F EM	070C		1500		21	MFEF 1017/2, 1018/19
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			6000		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		6000		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	6000		0	
			I		5CY	1010 B				
				REVBIAS	125C		6000	1.01E 06	0	
			I			N.R.				
				S&F EM	070C		6000		50	MFEF 1019/2, 1020/45
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			2992		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2992		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	2992		0	
			I		5CY	1010 B				
				REVBIAS	125C		2992	5.03E 05	0	
			I			N.R.				
				S&F EM	070C		2992		30	MFEF 1021/23 1022/1,1023/6
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			3500		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3500		0	
			I		15CY	1011 A				
				REVBIAS	125C		3500	5.88E 05	0	
			I			N.R.				
				S&F EM	070C		3500		20	MFEF 1024/4,
			I			N.R.				1025/16
VARIOUS	DIP	N	02/76	VIS INS			310		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		310		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	310		0	
			I		15CY	1011 A				
				REVBIAS	125C		310	5.21E 04	0	
			I			N.R.				
				S&F EM	070C		310		4	MFEF 1026/4
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			506		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		506		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	506		0	
			I		15CY	1011 A				
				REVBIAS	125C		506	8.50E 04	0	
			I			N.R.				
				S&F EM	070C		506		2	MFEF 1027/2
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			3318		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3318		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3318		0	
			I		15CY	1011 A				
				REVBIAS	125C		3318	5.57E 05	0	
			I			N.R.				
				S&F EM	070C		3318		189	MFEF 1028/27,
			I			N.R.				1029/9,
										1030/146,
										1031/4,1032/1:
										1033/2
VARIOUS	DIP	N	12/76	VIS INS			2400		0	
74121	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2400		0	
			I		15CY	1011 A				
				REVBIAS	125C		2400	4.03E 05	0	
			I			N.R.				
				S&F EM	070C		2400		11	MFEF 1035/1,
			I			N.R.				1035/10
VARIOUS	DIP	N	05/76	VIS INS			150		0	
74122	14	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		1	MFEF 1036/1
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			8155		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		8155		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	8155		0	
			I		15CY	1011 A				
				REVBIAS	125C		8155	1.37E 06	0	
			I			N.R.				
				S&F EM	070C		8155		24	MFEF 1037/4,
			I			N.R.				1038/3,1039/1:
										1040/7,1041/2:
										1042/3,1043/1:

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VARIOUS	DIP	N	04/76	VIS INS			998		0	
74123	16	0/70C	I			N.R.	998		0	
				S&F EM	025C 070C		998		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	998		0	
			I		15CY	1011 A				
				REVBIAS	125C		998	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		998		4	MFEF 1044/1, 1045/3
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			521		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		521		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	521		0	
			I		15CY	1011 A				
				REVBIAS	125C		521	8.75E 04		
			I			N.R.				
				S&F EM	070C		521		3	MFEF 1046/3
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			2500		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2500		0	
			I		15CY	1011 A				
				REVBIAS	125C		2500	4.20E 05	0	
			I			N.R.				
				S&F EM	070C		2500		19	MFEF 1047/9, 1048/10
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			137		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		137		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	137		0	
			I		15CY	1011 A				
				REVBIAS	125C		137	2.30E 04	0	
			I			N.R.				
				S&F EM	070C		137		3	MFEF 1049/2, 1050/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			197		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		197		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	197		0	
			I		15CY	1011 A				
				REVBIAS	125C		197	3.31E 04	0	
			I			N.R.				
				S&F EM	070C		197		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			1075		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1075		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1075		0	
			I		15CY	1011 A				
				REVBIAS	125C		1075	1.81E 05	0	
			I			N.R.				
				S&F EM	070C		1075		3	MFEF 1051/3
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			157		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		157		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	157		0	
			I		15CY	1011 A				
				REVBIAS	125C		157	2.64E 04	0	
			I			N.R.				
				S&F EM	070C		157		28	MFEr 1052/28
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			4996		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4996		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4996		0	
			I		15CY	1011 A				
				REVBIAS	125C		4996	8.39E 05	0	
			I			N.R.				
				S&F EM	070C		4996		111	MFEF 1053/20,
			I			N.R.				1054/9,
										1055-1056/79
VARIOUS	DIP	N	11/76	VIS INS			2000		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		27	MFEF 1057/23,
			I			N.R.				1058/4
VARIOUS	DIP	N	12/76	VIS INS			2000		0	
74123	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		990	MFEF 1059/3,
			I			N.R.				1060/984,
										1061/3
				N.A.			0		272	MFEF 1062/272
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			9849		0	
74173	16	0/70C	I			N.R.				
				S&F EM	025C 070C		9849		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	9849		0	
			I		15CY	1011 A				
				REVBIAS	125C		9849	1.65E 06	0	
			I			N.R.				
				S&F EM	070C		9849		444	MFEF 1063/1,
			I			N.R.				1064/88,
										1065/353
VARIOUS	DIP	N	12/76	VIS INS			400		0	
74173	16	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		5	MFEF 1066/2,
			I			N.R.				1067/3
VARIOUS	DIP	N	08/76	VIS INS			45		0	
74173	16	0/70C	I			N.R.				
				S&F EM	025C 070C		45		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	45		0	
			I		15CY	1011 A				
				REVBIAS	125C		45	7.56E 03	0	
			I			N.R.				
				S&F EM	070C		45		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			75		0	
74173	16	0/70C	I			N.R.				
				S&F EM	025C 070C		75		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	75		0	
			I		15CY	1011 A				
				REVBIAS	125C		75	1.26E 04	0	
			I			N.R.				
				S&F EM	070C		75		0	
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	03/76	VIS INS			738		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		738		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	738		0	
			I		15CY	1011 A				
				REVBIAS	125C		738	1.24E 05	0	
			I			N.R.				
				S&F EM	070C		738		15	MFEF 1068/2,
			I			N.R.				1069/7,1070/6
VARIOUS	DIP	N	04/76	VIS INS			1230		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1230		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1230		0	
			I		15CY	1011 A				
				REVBIAS	125C		1230	2.07E 05	0	
			I			N.R.				
				S&F EM	070C		1230		2	MFEF 1071/2
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			1250		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1250		0	
			I		15CY	1011 A				
				REVBIAS	125C		1250	2.10E 05	0	
			I			N.R.				
				S&F EM	070C		1250		8	MFEF 1072/2,
			I			N.R.				1073/6
VARIOUS	DIP	N	05/76	VIS INS			40		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		40		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	40		0	
			I		15CY	1011 A				
				REVBIAS	125C		40	6.72E 03	0	
			I			N.R.				
				S&F EM	070C		40		0	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			1200		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200		0	
			I		15CY	1011 A				
				REVBIAS	125C		1200	2.02E 05	0	
			I			N.R.				
				S&F EM	070C		1200		10	MFEF 1074/1,
			I			N.R.				1075/9
VARIOUS	DIP	N	12/76	VIS INS			565		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		565		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	565		0	
			I		15CY	1011 A				
				REVBIAS	125C		565	9.49E 04	0	
			I			N.R.				
				S&F EM	070C		565		6	MFEF 1076/3,
			I			N.R.				1077/3
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74174	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		3	MFEF 1078/3
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		15759		149	
74175	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		15610		0	
			I		5CYC	N.R.				
				REVBIAS	100C		15610		0	
			I			N.R.				
				SDF EM	025C		15610		83	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			5133		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5133		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5135		0	
			I		15CY	1011 A				
				REVBIAS	125C		5133	8.62E 05	0	
			I			N.R.				
				S&F EM	070C		5133		70	MFEF 1079/55,
			I			N.R.				1080/2,
										1081/12
VARIOUS	DIP	N	03/76	VIS INS			200		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			5749		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5749		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5749		0	
			I		15CY	1011 A				
				REVBIAS	125C		5749	9.66E 05	0	
			I			N.R.				
				S&F EM	070C		5749		122	MFEF 1082/9,
			I			N.R.				1083/39,
										1084/5,1085/2,
										1086/1,
										1087-1090/65
VARIOUS	DIP	N	03/76	VIS INS			1500		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1500		0	
			I		15CY	1011 A				
				REVBIAS	125C		1500	2.52E 05	0	
			I			N.R.				
				S&F EM	070C		1500		7	MFEF 1091/5,
			I			N.R.				1092/2
VARIOUS	DIP	N	05/76	VIS INS			2558		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2558		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2558		0	
			I		15CY	1011 A				
				REVBIAS	125C		2558	4.30E 05	0	
			I			N.R.				
				S&F EM	070C		2558		20	MFEF 1093/11,
			I			N.R.				1094/9
VARIOUS	DIP	N	07/76	VIS INS			3000		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		49	MFEF 1095/5,
			I			N.R.				1096/11,
										1097/33

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			3000		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		104	MFEF 1098/29, 1099/74
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			130		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		130		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	130		0	
			I		15CY	1011 A				
				REVBIAS	125C		130	2.18E 04	0	
			I			N.R.				
				S&F EM	070C		130		18	MFEF 1100/10, 1101/5
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			3375		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3375		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3375		0	
			I		15CY	1011 A				
				REVBIAS	125C		3375	5.67E 05	0	
			I			N.R.				
				S&F EM	070C		3375		11	MFEF 1102/2, 1103/9
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			20		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		20		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	20		0	
			I		15CY	1011 A				
				REVBIAS	125C		20	3.36E 03	0	
			I			N.R.				
				S&F EM	070C		20		1	MFEF 1104/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			300		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		1	MFEF 1105/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			2450		0	
74175	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2450		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2450		0	
			I		15CY	1011 A				
				REVBIAS	125C		2450	4.12E 05	0	
			I			N.R.				
				S&F EM	070C		2450		16	MFEF 1106/2, 1107/14
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			50		0	
7470	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	07/76	VIS INS			7050		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		7050		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	7050		0	
			I		15CY	1011 A				
				REVBIAS	125C		7050	1.18E 06	0	
			I			N.R.				
				S&F EM	070C		7050		44	MFEF 1108/1,
			I			N.R.				1109/13,
										1110-1112/30
VARIOUS	DIP	N	05/76	VIS INS			2996		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2996		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2996		0	
			I		15CY	1011 A				
				REVBIAS	125C		2996		0	
			I			N.R.				
				S&F EM	070C		2996		12	MFEF 1113/3,
			I			N.R.				1114/9
VARIOUS	DIP	N	05/76	VIS INS			3017		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3017		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3017		0	
			I		15CY	1011 A				
				REVBIAS	125C		3017	5.07E 05	0	
			I			N.R.				
				S&F EM	070C		3017		21	MFEF 1115/21
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			4447		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4447		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4447		0	
			I		15CY	1011 A				
				REVBIAS	125C		4447	7.47E 05	0	
			I			N.R.				
				S&F EM	070C		4447		12	MFEF 1116/1,
			I			N.R.				1117/11
VARIOUS	DIP	N	08/76	VIS INS			3000		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		11	MFEF 1118/2,
			I			N.R.				1119/5
VARIOUS	DIP	N	09/76	VIS INS			4000		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4000			
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4000		0	
			I		15CY	1011 A				
				REVBIAS	125C		4000	6.72E 05	0	
			I			N.R.				
				S&F EM	070C		4000		5	MFEF 1120/5
			I			N.R				
VARIOUS	DIP	N	12/76	VIS INS			75		0	
7473	14	0/70C	I			N.R.				
				S&F EM	025C 070C		75		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	75		0	
			I		5CY	1010 B				
				REVBIAS	125C		75	1.26E 04	0	
			I			N.R.				
				S&F EM	070C		75		0	
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCP CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL		SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C			20008		170	
7474	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		19838		0	
			I		5CYC		N.R.				
				REVBIAS	100C			19838	3.33E 06	0	
			I				N.R.				
				SDF EM	025C			19838		81	
			I				N.R.				
VARIOUS	DIP	N	04/76	VIS INS				6998		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		6998		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	6998		0	
			I		15CY		1011 A				
				REVBIAS	125C			6998	1.18E 06	0	
			I				N.R.				
				S&F EM	070C			6998		34	MFEF 1121/2,
			I				N.R.				1122/1,1123/4
VARIOUS	DIP	N	04/76	VIS INS				3047		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		3047		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	3047		0	
			I		15CY		1011 A				
				REVBIAS	125C			3047	5.12E 05	0	
			I				N.R.				
				S&F EM	070C			3047		14	MFEF 1124/10,
			I				N.R.				1125/4
VARIOUS	DIP	N	09/76	VIS INS				10250		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		10250		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	10250		0	
			I		15CY		1011 A				
				REVBIAS	125C			10250	1.72E 06	0	
			I				N.R.				
				S&F EM	070C			10250		52	MFEF 1126/31,
			I				N.R.				1127/2,1128/1
											1129/18
VARIOUS	DIP	N	10/76	VIS INS				5000		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		5000		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	5000		0	
			I		15CY		1011 A				
				REVBIAS	125C			5000	8.40E 05	0	
			I				N.R.				
				S&F EM	070C			5000		21	MFEF 1130/2,
			I				N.R.				1131/1,
											1132/18
VARIOUS	DIP	N	12/76	VIS INS				31410		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		31410		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	31410		0	
			I		15CY		1011 A				
				REVBIAS	125C			31410	5.28E 06	0	
			I				N.R.				
				S&F EM	070C			31410		214	MFEF 1133/21,
			I				N.R.				1134/22,
											1135/4,1136/9
											1137/1,
											1138-1141/157
VARIOUS	DIP	N	09/76	VIS INS				36845		0	
7474	14	0/70C	I				N.R.				
				S&F EM	025C	070C		36843		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	36845		0	
			I		15CY		1011 A				
				REVBIAS	125C			36845	6.19E 06	0	
			I				N.R.				
				S&F EM	070C			36845		133	MFEF 1142/3,
			I				N.R.				1143/11,
											1144/1,1145/4
											1146-1154/114

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		34133		354	
7476	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		33779		0	
			I		5CYC	N.R.				
				REVBIAS	100C		33779	5.67E 06	0	
			I			N.R.				
				SDF EM	025C		33779		91	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			1500		0	
7476	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1500		0	
			I		15CY	1011 A				
				REVBIAS	125C		1500	2.52E 05	0	
			I			N.R.				
				S&F EM	070C		1500		15	MFEF 1155/1, 1156/6,1157/8
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3000		0	
7476	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		15	MFEF 1158/1, 1159/14
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1496		0	
7476	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1496		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1496		0	
			I		15CY	1011 A				
				REVBIAS	125C		1496	2.51E 05	0	
			I			N.R.				
				S&F EM	070C		1496		31	MFEF 1160/4, 1161/27
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			662		0	
7476	16	0/70C	I			N.R.				
				S&F EM	025C 070C		662		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	662		0	
			I		15CY	1011 A				
				REVBIAS	125C		662	1.11E 05	0	
			I			N.R.				
				S&F EM	070C		662		22	MFEF 1162/1, 1163/18
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			4482		0	
7476	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4482		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4482		0	
			I		15CY	1011 A				
				REVBIAS	125C		4482	7.53E 05	0	
			I			N.R.				
				S&F EM	070C		4482		13	MFEF 1164/1, 1165/2,1166/4, 1167/6
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1000		0	
8601/9601	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		3	MFEF 1168/3
			I			N.R.				

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			995		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		995		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	995		0	
			I		15CY	1011 A				
				REVBIAS	125C		995	1.67E 05	0	
			I			N.R.				
				S&F EM	070C		995		16	MFEF 1169/1,
			I			N.R.				1170/15
VARIOUS	DIP	N	05/76	VIS INS			820		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		820		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	820		0	
			I		15CY	1011 A				
				REVBIAS	125C		820	1.38E 05	0	
			I			N.R.				
				S&F EM	070C		820		9	MFEF 1171/9
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			644		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		644		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	644		0	
			I		15CY	1011 A				
				REVBIAS	125C		644	1.08E 05	0	
			I			N.R.				
				S&F EM	070C		644		27	MFEF 1172/3,
			I			N.R.				1173/24
VARIOUS	DIP	N	09/76	VIS INS			5991		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5991		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5991		0	
			I		15CY	1011 A				
				REVBIAS	125C		5991	1.01E 06	0	
			I			N.R.				
				S&F EM	070C		5991		60	MFEF 1174/60
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			411		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		411		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	411		0	
			I		15CY	1011 A				
				REVBIAS	125C		411	6.90E 04	0	
			I			N.R.				
				S&F EM	070C		411		33	MFEF 1175/25,
			I			N.R.				1176/8
VARIOUS	DIP	N	07/76	VIS INS			2000		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		8	MFEF 1177/7,
			I			N.R.				1178/1
VARIOUS	DIP	N	27/76	VIS INS			2000		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		11	MFEF 1179/3,
			I			N.R.				1180-1182/8

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	10/76	VIS INS			1890		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1890		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1890		0	
			I		15CY	1011 A				
				REVBIAS	125C		1890	3.18E 05	0	
			I			N.R.				
				S&F EM	070C		1890		28	MFEF 1183/11,
			I			N.R.				1184/17
VARIOUS	DIP	N	10/76	VIS INS			1200		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200		0	
			I		15CY	1011 A				
				REVBIAS	125C		1200	2.02E 05	0	
			I			N.R.				
				S&F EM	070C		1200		8	MFEF 1185/3,
			I			N.R.				1186/5
VARIOUS	DIP	N	12/76	VIS INS			2110		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2110		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2110		0	
			I		15CY	1011 A				
				REVBIAS	125C		2110	3.54E 05	0	
			I			N.R.				
				S&F EM	070C		2110		24	MFEF 1189/1,
			I			N.R.				1190/23
VARIOUS	DIP	N	12/76	VIS INS			1499		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1499		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1499		0	
			I		15CY	1011 A				
				REVBIAS	125C		1499	2.52E 05	0	
			I			N.R.				
				S&F EM	070C		1499		7	MFEF 1187/2,
			I			N.R.				1188/4
VARIOUS	DIP	N	12/76	VIS INS			2000		0	
9602	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		75	MFEF 1191/62,
			I			N.R.				1192/13

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL, SUHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	C-2	03/76	VIS INS	20X		24760		0	
F213	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	24760	5.94E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	24760		0	
			U		10CY	1010 B				
				CNSTACC			24760		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	24760		215	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	24545		27	
			U		3X	1014 C				
				X-RAY	28X	MS-883	24518		466	
			U			2012				
				EM			24052		0	
			U			N.R.				
				REVBIAS	125C		22131	3.63E 06	0	
			U			N.R.				
				EM			22131		990	
			U			N.R.				
				N.A.			0		229	
			U			N.R.				
				EM			20912		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		19985		0	
F260	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	19985	4.80E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	19985		0	
			U		10CY	1010 B				
				CNSTACC			19985		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	19985		2	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	19983		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	19983		0	
			U			2012				
				EM			19983		408	
			U			N.R.				
				REVBIAS	125C		17929	2.94E 06	0	
			U			N.R.				
				EM			17929		990	
			U			N.R.				
				N.A.			0		276	
			U			N.R.				
				EM			16663		0	
			U			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	E-DIP	N	05/76	VIS INS			50		0	
14013	14	-40/80C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
MOTOROLA	E-DIP	N	05/76	VIS INS			109		0	
14528	16	-40/80C	I			N.R.				
				S&F EM	025C 070C		109		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	109		0	
			I		15CY	1011 A				
				REVBIAS	125C		109	1.83E 04	0	
			I			N.R.				
				S&F EM	070C		109		20	MIL-STD-1193/20
			I			N.R.				

FLIP FLOP — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	E-DIP	N	05/76	VIS INS			50		0	
4013A	14	-40/80C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	F-DIP	N	06/76	VIS INS			112		0	
82S41	14	0/70C	I			N.R.				
				S&F EM	025C 070C		112		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	112		0	
			I		15CY	1011 A				
				REVBIAS	125C		112	1.88E 04	0	
			I			N.R.				
				S&F EM	070C		112		3	MFEF 1194/2
			I			N.R.				
SIGNETICS	E-DIP	N	11/76	VIS INS			25		0	
82S41	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		2	MFEF 1195/2
			I			N.R.				
SIGNETICS	E-DIP	N	03/76	VIS INS			500		0	
82S42	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		5	MFEF 1196/1, 1197/4
			I			N.R.				
SIGNETICS	E-DIP	N	12/76	VIS INS			158		0	
82S42	14	0/70C	I			N.R.				
				S&F EM	025C 070C		158		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	158		0	
			I		15CY	1011 A				
				REVBIAS	125C		158	2.65E 04	0	
			I			N.R.				
				S&F EM	070C		158		3	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3294		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3294		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3294		0	
			I		15CY	1011 A				
				REVBIAS	125C		3294	5.53E 05	0	
			I			N.R.				
				S&F EM	070C		3294		9	MFEF 1198/2, 1199/7
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			300		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		1	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			2325		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2325		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2325		0	
			I		15CY	1011 A				
				REVBIAS	125C		2325	3.91E 05	0	
			I			N.R.				
				S&F EM	070C		2325		12	MFEF 1200/12
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			249		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		249		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	249		0	
			I		15CY	1011 A				
				REVBIAS	125C		249	4.18E 04	0	
			I			N.R.				
				S&F EM	070C		249		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1300		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1300		0	
			I		15CY	1011 A				
				REVBIAS	125C		1300	2.18E 05	0	
			I			N.R.				
				S&F EM	070C		1300		2	MFEF 1201/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			5000		0	
74S00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5000		0	
			I		15CY	1011 A				
				REVBIAS	125C		5000	8.40E 05	0	
			I			N.R.				
				S&F EM	070C		5000		10	MFEF 1202/8, 1203/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			100		0	
74S02	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
						N.R.				

GATE ENVIRONMENTAL BURN-IN RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	11/76	VIS INS			390		0	
74S02	14	0/70C	I			N.R.				
				S&F EM	025C 070C		390		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	390		0	
			I		15CY	1011 A				
				REVBIAS	125C		390	6.55E 04	0	
			I			N.R.				
				S&F EM	070C		390		7	MFEF 1204/7
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			225		0	
74S03	14	0/70C	I			N.R.				
				S&F EM	025C 070C		225		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	225		0	
			I		15CY	1011 A				
				REVBIAS	125C		225	3.75E 04	0	
			I			N.R.				
				S&F EM	070C		225		5	MFEF 1205/5
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			391		0	
74S10	14	0/70C	I			N.R.				
				S&F EM	025C 070C		391		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	391		0	
			I		15CY	1011 A				
				REVBIAS	125C		391	6.57E 04	0	
			I			N.R.				
				S&F EM	070C		391		24	MFEF 1206/24
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			200		0	
74S10	14	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		1	MFEF 1207/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			725		0	
74S11	14	0/70C	I			N.R.				
				S&F EM	025C 070C		725		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	725		0	
			I		15CY	1011 A				
				REVBIAS	125C		725	1.22E 05	0	
			I			N.R.				
				S&F EM	070C		725		1	MFEF 1208/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			150		0	
74S11	14	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74S11	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

CATF ENVIRONMENTAL BURN-IN RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	10/75	VIS INS			29		0	
74S11	14	0/70C	I			N.R.				
				S&F EM	025C 070C		29		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	29		0	
			I		15CY	1011 A				
				REVBIAS	125C		29	4.87E 03	0	
			I			N.R.				
				S&F EM	070C		29		4	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			120		0	
74S133	16	0/70C	I			N.R.				
				S&F EM	025C 070C		120		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	120		0	
			I		15CY	1011 A				
				REVBIAS	125C		120	2.02E 04	0	
			I			N.R.				
				S&F EM	070C		120		3	MFEF 1209/2,
			I			N.R.				1210/1
VARIOUS	DIP	N	06/75	VIS INS			62		0	
74S133	16	0/70C	I			N.R.				
				S&F EM	025C 070C		62		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	62		0	
			I		15CY	1011 A				
				REVBIAS	125C		62	1.04E 04	0	
			I			N.R.				
				S&F EM	070C		62		2	MFEF 1211/2
			I			N.R.				
VARIOUS	DIP	N	10/75	VIS INS			100		0	
74S133	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		2	MFEF 1212/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			100		0	
74S51	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		25	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			125		0	
74S51	14	0/70C	I			N.R.				
				S&F EM	025C 070C		125		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	125		0	
			I		15CY	1011 A				
				REVBIAS	125C		125	2.10E 04	0	
			I			N.R.				
				S&F EM	070C		125		6	MFEF 1213/6
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			130		0	
74S86	14	0/70C	I			N.R.				
				S&F EM	025C 070C		130		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	130		0	
			I		15CY	1011 A				
				REVBIAS	125C		130	2.18E 04	0	
			I			N.R.				
				S&F EM	070C		130		1	MFEF 1214/1
			I			N.R.				

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	06/76	VIS INS			353		0	
74S86	14	0/70C	I			N.R.				
				S&F EM	025C 070C		353		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	353		0	
			I		15CY	1011 A				
				REVBIAS	125C		353	5.93E 04	0	
			I			N.R.				
				S&F EM	070C		353		4	MFEF 1215/1,
			I			N.R.				1216/3

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		8897		33	
74L02	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		8864		0	
			I		5CYC	N.R.				
				REVBIAS	100C		8864	1.49E 06	0	
			I			N.R.				
				SDF EM	025C		8864		10	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		15032		65	
74L00	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		14967		0	
			I		5CYC	N.R.				
				REVBIAS	100C		14967	2.51E 06	0	
			I			N.R.				
				SDF EM	025C		14967		73	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		130		2	
74L20	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		128		0	
			I		5CYC	N.R.				
				REVBIAS	100C		128	2.15E 04	0	
			I			N.R.				
				SDF EM	025C		128		0	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		50		1	
74L51	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		49		0	
			I		5CYC	N.R.				
				REVBIAS	100C		49	8.23E 03	0	
			I			N.R.				
				SDF EM	025C		49		0	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1487		313	
74L54	14	0/70C	I			N.R.				
				THRMSHK	000C 110C		1174		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1174	1.97E 05	0	
			I			N.R.				
				SDF EM	025C		1174		14	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		141		1	
74L86	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		140		0	
			I		5CYC	N.R.				
				REVBIAS	100C		140	2.35E 04	0	
			I			N.R.				
				SDF EM	025C		140		0	
			I			N.R.				

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		13682		66	
74L10	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		13616		0	
			I		5CYC	N.R.				
				REVBIAS	100C		13616	2.29E 06	0	
			I			N.R.				
				SDF EM	025C		13616		39	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		4453		20	
74L51	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		4433		0	
			I		5CYC	N.R.				
				REVBIAS	100C		4433	7.45E 05	0	
			I			N.R.				
				SDF EM	025C		4433		6	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			50		0	
74L86	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	E-DIP	N	07/76	VIS INS			30		0	
3003	14	0/70C	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	30		0	
			I		15CY	1011 A				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		0	
			I			N.R.				
MOTOROLA	E-DIP	N	06/76	VIS INS			30		0	
3026	14	0/70C	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	[illegible]		0	
			I		15CY	1011 A				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		0	
			I			N.R.				
SIGNETICS	FPK	N	03/75	VIS INS	30X	MM38510	650		0	
54H01	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	650	1.56E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	650		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	650		12	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	638		3	MFEF 1899/3
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	635		3	MFEF 1900/3
			Q		3X	1014 C				
				EM	025C	MM38510	632		0	
			Q			W.R.				
				PAR EXC	125C	MM38510	632	1.06E 05	0	
			Q			1015 D.				
				S&D EM	-055C 025C	MM38510	632		134	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	498		0	
			Q		20X	2009				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	DIP	N	04/75	VIS INS	30X	MM38510	732		0	
54H50	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	732	1.76E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	732		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	732		14	
			Q		.1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	718		1	MFEF 1901/1
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	717		0	
			Q		3X	1014 C				
				EM	025C	MM38510	717		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	717	1.20E 05	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	717		31	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	686		0	
			Q		20X	2009				
SIGNETICS	DIP	N	02/75	VIS INS	30X	MM38510	502		0	
54H51	14	-55/125	Q		75X	2010 B				
				BAKE	150C	MM38510	502	1.20E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	502		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	502		9	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	493		77	MFEF 1902/77
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	416		19	MFEF 1903/19
			Q		3X	1014 C				
				EM	025C	MM38510	397		0	
			Q			N.R.				
				PAR EXC	125C	MM38510	397	6.67E 04	0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	397		2	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	395		0	
			Q		20X	2009				
SIGNETICS	DIP	N	05/76	VIS INS			30		0	
8H70	14	N.R.	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	30		0	
			I		5CY	1010 B				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		0	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		87		0	
74H11	14	0/70C	I		10CY	N.R.				
				REVBIAS	100C		87	2.09E 03	0	
			I			N.R.				
				EM			87		1	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		448		0	
74H21	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		448		0	
			I		5CYC	N.R.				
				REVBIAS	100C		448	7.53E 04	0	
			I			N.R.				
				SDF EM	025C		448		0	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		73		0	
74H50	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		73		0	
			I		5CYC	N.R.				
				REVBIAS	100C		73	1.23E 04	0	
			I			N.R.				
				SDF EM	025C		73		0	
			I			N.R.				

GATE ENVIRONMENT: BURN-IN RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /1
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		125		0	
74H55	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		125		0	
			I		5CYC	N.R.				
				REVBIAS	100C		125	2.10E 04	0	
			I			N.R.				
				SDF EM	025C		125		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1679		0	
74H00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1679		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1679		0	
			I		15CY	1011 A				
				REVBIAS	125C		1679	2.82E 05	0	
			I			N.R.				
				S&F EM	070C		1679		4	MFEF 1217/1, 1218/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			514		0	
74H00	14	0/70C	I			N.R.				
				S&F EM	025C 070C		514		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	514		0	
			I		15CY	1011 A				
				REVBIAS	125C		514	8.64E 04	0	
			I			N.R.				
				S&F EM	070C		514		1	MFEF 1219/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			50		0	
74H01	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			200		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			995		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		995		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	995		0	
			I		15CY	1011 A				
				REVBIAS	125C		995	1.67E 05	0	
			I			N.R.				
				S&F EM	070C		995		3	MFEF 1220/3
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			500		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			568		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		568		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	568		0	
			I		15CY	1011 A				
				REVBIAS	125C		568	9.54E 04	0	
			I			N.R.				
				S&F EM	070C		568		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			82		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		82		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	82		0	
			I		15CY	1011 A				
				REVBIAS	125C		82	1.38E 04	0	
			I			N.R.				
				S&F EM	070C		82		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			250		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			400		0	
74H08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74H10	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1200		0	
74H11	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200		0	
			I		15CY	1011 A				
				REVBIAS	125C		1200	2.02E 05	0	
			I			N.R.				
				S&F EM	070C		1200		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			747		0	
74H20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		747		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	747		0	
			I		15CY	1011 A				
				REVBIAS	125C		747	1.25E 05	0	
			I			N.R.				
				S&F EM	070C		747		1	MFEF 1221/1
			I			N.R.				

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BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			600		0	
74H20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	600		0	
			I		15CY	1011 A				
				REVBIAS	125C		600	1.01E 05	0	
			I			N.R.				
				S&F EM	070C		600		1	MFEF 1222/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			400		0	
74H20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		1	MFEF 1223/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74H20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			100		0	
74H20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74H21	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		1	MFEF 1224/1
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			335		0	
74H22	14	0/70C	I			N.R.				
				S&F EM	025C 070C		335		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	335		0	
			I		15CY	1011 A				
				REVBIAS	125C		335	5.63E 04	0	
			I			N.R.				
				S&F EM	070C		335		3	MFEF 1225/3
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			418		0	
74H22	14	0/70C	I			N.R.				
				S&F EM	025C 070C		418		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	418		0	
			I		15CY	1011 A				
				REVBIAS	125C		418	7.02E 04	0	
			I			N.R.				
				S&F EM	070C		418		16	MFEF 1226/15, 1227/1
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			350		0	
74H22	14	0/70C	I			N.R.				
				S&F EM	025C 070C		350		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	350		0	
			I		15CY	1011 A				
				REVBIAS	125C		350	5.88E 04	0	
			I			N.R.				
				S&F EM	070C		350		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			69		0	
74H22	14	0/70C	I			N.R.				
				S&F EM	025C 070C		69		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	69		0	
			I		15CY	1011 A				
				REVBIAS	125C		69	1.16E 04	0	
			I			N.R.				
				S&F EM	070C		69		3	MFEF 1228/3
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			120		0	
74H30	14	0/70C	I			N.R.				
				S&F EM	025C 070C		120		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	120		0	
			I		15CY	1011 A				
				REVBIAS	125C		120	2.02E 04	0	
			I			N.R.				
				S&F EM	070C		120		4	MFEF 1229/4
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			50		0	
74H51	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			400		0	
74H51	14	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			25		0	
74H52	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			150		0	
74H54	14	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		30	
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	10/76	VIS INS			500		0	
74H54	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		4	MFEF 1230/4
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		137		0	
74H55	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		137		0	
			I		5CYC	N.R.				
				REVBIAS	100C		137	2.30E 04	0	
			I			N.R.				
				SDF EM	025C		137		0	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			99		0	
74H55	14	0/70C	I			N.R.				
				S&F EM	025C 070C		99		0	
			I			N.R.				
				THRMSHK	100C	MS-883	99		0	
			I		15CY	1011 A				
				REVBIAS	125C		99	1.66E 04	0	
			I			N.R.				
				S&F EM	070C		99		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			98		0	
74H55	14	0/70C	I			N.R.				
				S&F EM	025C 070C		98		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	98		0	
			I		15CY	1011 A				
				REVBIAS	125C		98	1.65E 04	0	
			I			N.R.				
				S&F EM	070C		98		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			361		0	
74H55	14	0/70C	I			N.R.				
				S&F EM	025C 070C		361		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	361		0	
			I		15CY	1011 A				
				REVBIAS	125C		361	6.06E 04	0	
			I			N.R.				
				S&F EM	070C		361		2	MFEF 1231/2
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		6554		21	
74LS08	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		6533		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6533	1.10E 06	0	
			I			N.R.				
				SDF EM	025C		6533		10	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		38364		110	
74LS00	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		38254		0	
			I		5CYC	N.R.				
				REVBIAS	100C		38254	6.43E 06	0	
			I			N.R.				
				SDF EM	025C		38254		213	
			I			N.R.				

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T.I.	E-DIP	N.R.	11/75	SDF AM	025C			875		4	
74LS02	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		871		0	
			I		5CYC		N.R.				
				REVBIAS	100C			871	1.46E 05	0	
			I				N.R.				
				SDF EM	025C			871		1	
			I				N.R.				
VARIOUS	DIP	N.R.	11/75	SDF FM	025C			1311		29	
74LS00	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		1282		0	
			I		5CYC		N.R.				
				REVBIAS	100C			1282	2.45E 05	0	
			I				N.R.				
				SDF EM	025C			1282		10	
			I				N.R.				
VARIOUS	DIP	N	09/76	VIS INS				1120		0	
74LS00	14	0/70C	I				N.R.				
				S&F EM	025C	070C		1120		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	1120		0	
			I		15CY		1011 A				
				REVBIAS	125C			1120	2.02E 05	0	
			I				N.R.				
				S&F EM	070C			1120		27	MFEF 1232/27
			I				N.R.				
VARIOUS	DIP	N	09/76	VIS INS				1000		0	
74LS00	14	0/70C	I				N.R.				
				S&F EM	025C	070C		1000		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	1000		0	
			I		15CY		1011 A				
				REVBIAS	125C			1000	1.48E 05	0	
			I				N.R.				
				S&F EM	070C			1000		6	MFEF 1233/6
			I				N.R.				
VARIOUS	DIP	N	10/76	VIS INS				529		0	
74LS00	14	0/70C	I				N.R.				
				S&F EM	025C	070C		529		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	529		0	
			I		15CY		1011 A				
				REVBIAS	125C			529	8.89E 04	0	
			I				N.R.				
				S&F EM	070C			529		0	
			I				N.R.				
VARIOUS	DIP	N	09/76	VIS INS				1260		0	
74LS02	14	0/70C	I				N.R.				
				S&F EM	025C	070C		1260		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	1260		0	
			I		15CY		1011 A				
				REVBIAS	125C			1260	2.17E 05	0	
			I				N.R.				
				S&F EM	070C			1260		4	MFEF 1234/1, 1235/2
			I				N.R.				
VARIOUS	DIP	N	08/76	VIS INS				350		0	
74LS03	14	0/70C	I				N.R.				
				S&F EM	025C	070C		350		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	350		0	
			I		15CY		1011 A				
				REVBIAS	125C			500	8.40E 04	0	
			I				N.R.				
				S&F EM	070C			350		0	
			I				N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			1385		0	
74LS08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1385		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1385		0	
			I		15CY	1011 A				
				REVBIAS	125C		1385	2.33E 05	0	
			I			N.R.				
				S&F EM	070C		1385		4	MFEF 1236/4
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			615		0	
74LS08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		615		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	615		0	
			I		15CY	1011 A				
				REVBIAS	125C		615	1.03E 05	0	
			I			N.R.				
				S&F EM	070C		615		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1300		0	
74LS08	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1300		0	
			I		15CY	1011 A				
				REVBIAS	125C		1300	2.18E 05	0	
			I			N.R.				
				S&F EM	070C		1300		3	MFEF 1237/3
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			259		0	
74LS20	14	0/70C	I			N.R.				
				S&F EM	025C 070C		259		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	259		0	
			I		15CY	1011 A				
				REVBIAS	125C		259	4.35E 04	0	
			I			N.R.				
				S&F EM	070C		259		1	MFEF 1238/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			455		0	
74LS27	14	0/70C	I			N.R.				
				S&F EM	025C 070C		455		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	455		0	
			I		15CY	1011 A				
				REVBIAS	125C		455	7.64E 04	0	
			I			N.R.				
				S&F EM	070C		455		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			105		0	
74LS30	14	0/70C	I			N.R.				
				S&F EM	025C 070C		105		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	105		0	
			I		15CY	1011 A				
				REVBIAS	125C		105	1.76E 04	0	
			I			N.R.				
				S&F EM	070C		105		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1000		0	
74LS32	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.66E 05	0	
			I			N.R.				
				S&F EM	070C		1000		24	MFEF 1239/24

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/70	VIS INS			800		0	
74LS32	14	0/70C	I			N.R.				
				S&F EM	025C 070C		800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	600		0	
			I		15CY	1011 A				
				REVBIAS	125C		800	1.34E 05	0	
			I			N.R.				
				S&F EM	070C		800		6	MFEF 1240/6
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			250		0	
74LS86	14	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		4	MFEF 1241/4
			I			N.R.				

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	E-DIP	N.R.	11/75	SDF EM	025C		5000		19	
7400	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		4961		0	
			I		5CYC	N.R.				
				REVBIAS	100C		4961	8.37E 05	0	
			I			N.R.				
				SDF EM	025C		4981		11	
			I			N.R.				
ITT	DIP	JB	05/75	VIS INS			100		0	
5420	14	-55/125	Q			N.R.				
				BAKE	150C	MS-883	100	2.40E 03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	100		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	100		0	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-7	MS-883	100		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	100		0	
			Q		3X	1014 C				
				S&D EM	025C		100		0	
			Q			N.R.				
				REVBIAS	125C	MS-883	100	1.68E 04	0	
			Q			1015 A				
				S&D EM	025C		100		0	
			Q			N.R.				
				S&D EM	125C		100		0	
			Q			N.R.				
				S&D EM	-055C		100		0	
			Q			N.R.				
ITT	E-DIP	N	05/77	BAKE	150C	MS-883	495	1.19E 04	0	
7400	14	0/70C	Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	495		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	495		0	
			Q		1 MIN E	2001 E				
				D&F EM	025C	MS-883	495		46	
			Q			N.R.				
				PAR EXC	125C	MS-883	449	7.18E 04	0	
			Q			1015 D				
				D&F EM	025C 125C	MS-883	449		94	
			Q		-055C	N.R.				
				VIS INS	3X	MS-883	355		0	
			Q		10X	2009				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / THP RNC	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	E-DIP	X	05/77	THRMSHK	-065C 150C	MS-883	50		0	
7400	14	0/70C	Q		15CY	1011 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				MOIST	-010C 065C	MS-883	50		0	
			Q		98%RH	1004				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1748/1
			Q		-055C	N.R.				
				PAR EXC	005C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		0	
			Q		-055C	N.R.				
ITT	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
7400	14	0/70C	Q		1000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	005C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	125C	MS-883	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
MOTOROLA	DIP	N	03/75	S&D EM	025C		125		0	
5420	14	-55/125	Q			N.R.				
				AUTOCLV	15PSIGSTEAM		125		0	
			Q			N.R.				
				S&D EM	025C		125		3	MFEF 1749/3
			Q			N.R.				
				THRMSHK	000C 100C	MS-883	122		0	
			Q		5CY	1011 A				
				S&D EM	025C		122		0	
			Q			N.R.				
				REVBIAS	125C	MS-883	122	1.17E 04	0	
			Q			1015 A				
				S&D EM	025C		122		1	MFEF 1750/1
			Q			N.R.				
NATIONAL	E-DIP	N	05/77	BAKE	150C	MS-883	495	1.19E 04	0	
5400	14	-55/125	Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	495		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	495		0	
			Q		1 MIN E	2001 E				
				D&F EM	025C	MS-883	495		6	
			Q			N.R.				
				PAR EXC	125C	MS-883	489	7.82E 04	0	
			Q			1015 D				
				D&F EM	025C 125C	MS-883	489		76	
			Q		-055C	N.R.				
				VIS INS	3X	MS-883	413		0	
			Q		10X	2009				
NATIONAL	E-DIP	X	05/77	THRMSHK	-065C 150C	MS-883	50		0	
5400	14	-55/125	Q		15CY	1011 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				MOIST	-010C 065C	MS-883	50		0	
			Q		98%RH	1004				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	005C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	D.TE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
5400	14	-55/125	Q		1000CY	1010 B	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:	
			Q			1001 F	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:	
			Q			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	125C	MS-883	50:	5.00E 04	0:	
			Q			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		3150:		6:	
7411	14	0/70C	I			N.R.	:		:	
				THRMSHK	000C 100C		3144:		0:	
			I		5CYC	N.R.	:		:	
				REVBIAS	100C		3144:	5.28E 05	0:	
			I			N.R.	:		:	
				SDF EM	025C		3144:		24:	
			I			N.R.	:		:	
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		162:		8:	
7413	14	0/70C	I			N.R.	:		:	
				THRMSHK	000C 100C		154:		0:	
			I		5CYC	N.R.	:		:	
				REVBIAS	100C		154:	2.59E 04	0:	
			I			N.R.	:		:	
				SDF EM	025C		154:		0:	
			I			N.R.	:		:	
SIGNETICS	E-DIP	N	05/77	BAKE	150C	MS-883	495:	1.19E 04	0:	
5400	14	-55/125	Q			1008 C	:		:	
				TEMPCYC	-065C 150C	MS-883	495:		0:	
			Q		10CY	1010 C	:		:	
				CNSTACC	30KG 1 AXIS	MS-883	495:		0:	
			Q		1 MIN E	2001 E	:		:	
				D&F EM	025C	MS-883	495:		8:	
			Q			N.R.	:		:	
				PAR EXC	125C	MS-883	487:	7.79E 04	0:	
			Q			1015 D	:		:	
				D&F EM	025C 125C	MS-883	487:		111:	
			Q		-055C	N.R.	:		:	
				VIS INS	3X	MS-883	376:		0:	
			Q		10X	2009	:		:	
SIGNETICS	E-DIP	X	05/77	THRMSHK	-065C 150C	MS-883	50:		0:	
5400	14	-55/125	Q		15CY	1011 C	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				MOIST	-010C 065C	MS-883	50:		0:	
			Q		98ZRH	1004	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:	
			Q			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	-055C	MS-883	50:	5.00E 04	0:	
			Q			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
SIGNETICS	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
5400	14	-55/125	Q		1000CY	1010 B	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				LOPRESS	1.09T 025C	MS-883	50:	2.40E 03	0:	
			Q			1001 F	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	005C	MS-883X	50:	5.00E 04	0:	
			Q			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	
				PAR EXC	125C	MS-883	50:	5.00E 04	0:	
			O			1005 D	:		:	
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.	:		:	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
SIGNETICS 5450	DIP 14	N -55/125	05/75 Q	VIS INS	30X	MM38510 2010 B	359		0	
					75X					
				BAKE	150C	MM38510 1008 C	359	8.62E 03	0	
			Q							
				TEMPCYC	-065C 150C	MM38510 1010 C	359		0	
			Q		10CY					
				CNSTACC	30KG 1 AXIS	MM38510 2001 E	359		5	
			Q		1 MIN E					
				FINE LK	HE 5.E-8	MM38510 1014 A	354		1	
			Q		60 MIN					
				GROSSLK	FLUOR 125C	MM38510 1014 C	353		2	
					3X					
				EM	025C	MM38510 N.R.	351		0	
			Q							
				PAR EXC	125C	MM38510 1015 D	351	5.90E 04	0	
			Q							
				S&D EM	-055C 025C	MM38510 N.R.	351		5	
			Q		125C					
				VIS INS	3X	MM38510 2009	346		1	
			Q		20X					
SIGNETICS 5451	DIP 14	N -55/125	07/75 Q	VIS INS	30X	MM38510 2010 B	749		0	
					75X					
				BAKE	150C	MM38510 1008 C	749	1.80E 04	0	
			Q							
				TEMPCYC	-065C 150C	MM38510 1010 C	749		0	
			Q		10CY					
				CNSTACC	30KG 1 AXIS	MM38510 2001 E	749		26	
			Q		1 MIN E					
				FINE LK	HE 5.E-8	MM38510 1014 A	723		3	
			Q		60 MIN					
				GROSSLK	FLUOR 125C	MM38510 1014 C	720		9	
			Q		3X					
				EM	025C	MM38510 N.R.	711		0	
			Q							
				PAR EXC	125C	MM38510 1015 D	711	1.19E 05	0	
			Q							
				S&D EM	-055C 025C	MM38510 N.R.	711		10	
			Q		125C					
				VIS INS	3X	MM38510 2009	701		0	
			Q		20X					
SIGNETICS 7400	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	652		19	
				THRMSHK	000C 100C		633		0	
			I		5CYC	N.R.				
				REVBIAS	100C		633	1.06E 05	0	
			I			N.R.				
				SDF EM	025C		633		2	
			I			N.R.				
SIGNETICS 7408	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	21793		221	
				THRMSHK	000C 100C		21572		0	
			I		5CYC	N.R.				
				RFVBIAS	100C		21572	3.62E 06	0	
			I			N.R.				
				SDF EM	025C		21572		53	
			I			N.R.				
SIGNETICS 7409	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	4055		26	
				THRMSHK	000C 100C		4029		9	
			I		5CYC	N.R.				
				REVBIAS	100C		4029	6.77E 05	0	
			I			N.R.				
				SDF EM	025C		4029		10	
			I			N.R.				
SIGNETICS 7410	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	6097		93	
				THRMSHK	000C 100C		6004		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6004	1.01E 06	9	
			I			N.R.				
				SDF EM	025C		6004		20	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
SIGNETICS 7411	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	495		73	
			I	THRMSHK	000C 100C 5CYC	N.R.	422		0	
			I	REVBIAS	100C	N.R.	422	7.09E 04	0	
			I	SDF EM	025C	N.R.	422		3	
SIGNETICS 74132	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	4668		86	
			I	THRMSHK	000C 100C 5CYC	N.R.	4582		0	
			I	REVBIAS	100C	N.R.	4582	7.70E 05	0	
			I	SDF EM	025C	N.R.	4582		16	
SIGNETICS 7413	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	1700		13	
			I	THRMSHK	000C 100C 5CYC	N.R.	1687		0	
			I	REVBIAS	100C	N.R.	1687	2.83E 05	0	
			I	SDF EM	025C	N.R.	1687		2	
SIGNETICS 7420	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	3400		48	
			I	THRMSHK	000C 100C 5CYC	N.R.	3352		0	
			I	REVBIAS	100C	N.R.	3352	5.63E 05	0	
			I	SDF EM	025C	N.R.	3352		9	
SIGNETICS 7421	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	812		7	
			I	THRMSHK	000C 100C 5CYC	N.R.	805		0	
			I	REVBIAS	100C	N.R.	805	1.35E 05	0	
			I	SDF EM	025C	N.R.	805		0	
SIGNETICS 7430	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	1385		11	
			I	THRMSHK	000C 100C 5CYC	N.R.	1374		0	
			I	REVBIAS	100C	N.R.	1374	2.31E 05	0	
			I	SDF EM	025C	N.R.	1374		9	
SIGNETICS 7450	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	1498		3	
			I	THRMSHK	000C 100C 5CYC	N.R.	1495		0	
			I	REVBIAS	100C	N.R.	1495	2.51E 05	0	
			I	SDF EM	025C	N.R.	1495		3	
SIGNETICS 7451	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	2963		13	
			I	THRMSHK	000C 100C 5CYC	N.R.	2950		0	
			I	REVBIAS	100C	N.R.	2950	4.96E 05	0	
			I	SDF EM	025C	N.R.	2950		11	
SIGNETICS 7454	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	268		1	
			I	THRMSHK	000C 100C 5CYC	N.R.	267		0	
			I	REVBIAS	100C	N.R.	267	4.49E 04	0	
			I	SDF EM	025C	N.R.	267		1	

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SIGNETICS 7486	E-DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C		234		3	
				THRMSHK	000C 100C	N.R.	231		0	
			I		5CYC	N.R.				
				REVBIAS	100C		231	3.88E 04	0	
			I			N.R.				
				SDF EM	025C		231		0	
			I			N.R.				
SIGNETICS 8815	E-DIP 14	N.R. 0/70C	11/75 I	REVBIAS	100C		650	1.09E 05	0	
				SDF EM	025C		650		3	
			I			N.R.				
SIGNETICS 8815	E-DIP 14	N 0/70C	05/76 I	VIS INS			25		0	
				S&F EM	025C 070C	N.R.	25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		9	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				
T.I. 5420	DIP 14	B-1 -55/125	05/75 Q	VIS INS		N.R.	100		2	
				BAKE	150C	MS-883	98	2.35E 03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	98		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	98		0	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-7	MS-883	98		0	
			Q		60 MIN	1014 A				
				GROSS LK	FLUOR 125C	MS-883	98		0	
			Q		3X	1014 C				
				S&D EM	025C		98		1	MPEF 1782/1
			Q			N.R.				
				REVBIAS	125C	MS-883	97	1.63E 04	0	
			Q			1015 A				
				S&D EM	025C		97		0	
			Q			N.R.				
				S&D EM	125C		97		0	
			Q			N.R.				
				S&D EM	-055C		97		0	
			Q			N.R.				
T.I. 7400	E-DIP 14	N 0/70C	05/77 Q	BAKE	150C	MS-883	495	1.19E 04	0	
						1008 C				
				TEMPCYC	-065C 150C	MS-883	495		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	495		0	
			Q		1 MIN E	2001 E				
				D&F EM	025C	MS-883	495		6	
			Q			N.R.				
				PAR EXC	125C	MS-883	489	7.82E 04	0	
			Q			1015 D				
				D&F EM	025C 125C	MS-883	469		93	
			Q		-055C	N.R.				
				VIS INS	3X	MS-883	396		0	
			Q		10X	2009				
T.I. 7400	E-DIP 14	X 0/70C	05/77 Q	THRMSHK	-065C 150C	MS-883	50		0	
					15CY	1011 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				MOIST	-010C 065C	MS-883	50		0	
			Q		98%RH	1004				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	005C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				

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T.I.	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
7400	14	0/70C	Q		1000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	005C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	125C	MS-883	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		371		1	
7425	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		370		0	
			I		5CYC	N.R.				
				REVBIAS	100C		370	6.22E 04	0	
			I			N.R.				
				SDF EM	025C		370		1	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		45		1	
7427	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		44		0	
			I		5CYC	N.R.				
				RFVBIAS	100C		44	7.39E 03	0	
			I			N.R.				
				SDF EM	025C		44		1	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		27875		403	
7400	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		27472		0	
			I		5CYC	N.R.				
				REVBIAS	100C		27472	4.62E 06	0	
			I			N.R.				
				SDF EM	025C		27472		147	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			13000		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		13000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	13000		0	
			I		15CY	1011 A				
				RFVBIAS	125C		13000	2.18E 06	0	
			I			N.R.				
				S&F EM	070C		13000		65	MFEF 1242/7,
			I			N.R.				1243/37,
										1244/21
VARIOUS	DIP	N	12/76	VIS INS			5500		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5500		0	
			I		15CY	1011 A				
				RFVBIAS	125C		5500	9.24E 05	0	
			I			N.R.				
				S&F EM	070C		5500		47	MFEF 1245/9,
			I			N.R.				1246/21,
										1247/16
VARIOUS	DIP	N	12/76	VIS INS			21		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		21		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	21		0	
			I		15CY	1011 A				
				RFVBIAS	125C		21	3.53E 03	0	
			I			N.R.				
				S&F EM	070C		21		0	
			I			N.R.				

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VARIOUS	DIP	N	10/76	VIS INS			17323		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		17323		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	17323		0	
			I		15CY	1011 A				
				REVBIAS	125C		17323	2.91E 06	0	
			I			N.R.				
				S&F EM	070C		17323		71	MFEF 1248/14,
			I			N.R.				1249/14,
										1250/38.
										1251/9
VARIOUS	DIP	N	11/76	VIS INS			42970		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		42970		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	42970		0	
			I		15CY	1011 A				
				REVBIAS	125C		42970	7.22E 06	0	
			I			N.R.				
				S&F EM	070C		42970		990	MFEF 1252/48,
			I			N.R.				1253/113,
										1254/8,1255/8:
										1256/10,
				N.A.			0		144	1257/5
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			7535		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		7535		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	7535		0	
			I		15CY	1011 A				
				REVBIAS	125C		7535	1.27E 06	0	
			I			N.R.				
				S&F EM	070C		7535		79	MFEF 1258/8,
			I			N.R.				1259/5,
										1260/66
VARIOUS	DIP	N	11/76	VIS INS			20000		0	
7400	14	0/70C	I			N.R.				
				S&F EM	025C 070C		20000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	20000		0	
			I		15CY	1011 A				
				REVBIAS	125C		20000	3.36E 06	0	
			I			N.R.				
				S&F EM	070C		20000		70	MFEF 1261/1,
			I			N.R.				1262/9,1263/2:
										1264/40,
										1265/5,1266/3:
										1267/4,1268/6:
VARIOUS	DIP	N	08/76	VIS INS			5400		0	
7401	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5400		0	
			I		15CY	1011 A				
				REVBIAS	125C		5400	9.07E 05	0	
			I			N.R.				
				S&F EM	070C		5400		39	MFEF 1269/39
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		20002		178	
7402	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		19803		0	
			I		5CYC	N.R.				
				REVBIAS	100C		19803	3.33E 06	0	
			I			N.R.				
				SDF EM	025C		19803		106	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			140		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		140		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	140		0	
			I		15CY	1011 A				
				REVBIAS	125C		140	2.35E 04	0	
			I			N.R.				
				S&F EM	070C		140		0	
			I			N.R.				

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VARIOUS	DIP	N	12/76	VIS INS			5000		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5000		0	
			I		15CY	1011 A				
				REVBIAS	125C		5000	8.40E 05	0	
			I			N.R.				
				S&F EM	070C		5000		33	MFEF 1270/9,
			I			N.R.				1271/4,
										1272/20
VARIOUS	DIP	N	07/76	VIS INS			8559		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		8559		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	8559		0	
			I		15CY	1011 A				
				REVBIAS	125C		8559	1.44E 06	0	
			I			N.R.				
				S&F EM	070C		8559		4	MFEF 1273/2,
			I			N.R.				1274/2
VARIOUS	DIP	N	04/76	VIS INS			43981		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		43981		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	43981		0	
			I		15CY	1011 A				
				REVBIAS	125C		43981	7.39E 06	0	
			I			N.R.				
				S&F EM	070C		43981		303	MFEF 1275/13,
			I			N.R.				1276/30,
										1277/34,
										1278/226
VARIOUS	DIP	N	12/76	VIS INS			27643		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		27643		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	27642		0	
			I		15CY	1011 A				
				REVBIAS	125C		27643	4.64E 06	0	
			I			N.R.				
				S&F EM	070C		27643		990	MFEF 1279/117,
			I			N.R.				1280/15,
										1281/258,
										1282/33,
				N.A.			0		771	1283/22,
			I			N.R.				1284/1361
VARIOUS	DIP	N	05/76	VIS INS			1943		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1943		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1943		0	
			I		15CY	1011 A				
				REVBIAS	125C		1943	3.26E 05	0	
			I			N.R.				
				S&F EM	070C		1943		28	MFEF 1285/9,
			I			N.R.				1286/19
VARIOUS	DIP	N	09/76	VIS INS			4440		0	
7402	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4440		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4440		0	
			I		15CY	1011 A				
				REVBIAS	125C		4440	7.46E 05	0	
			I			N.R.				
				S&F EM	070C		4440		11	MFEF 1287/11
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		51515		603	
7408	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		50912		0	
			I		5CYC	N.R.				
				REVBIAS	100C		50912	8.55E 06	0	
			I			N.R.				
				SDF EM	025C		50912		301	
			I			N.R.				

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VARIOUS	DIP	N	10/76	VIS INS			18600		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		18600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	18600		0	
			I		15CY	1011 A				
				REVBIAS	125C		18600	3.12E 06	0	
			I			N.R.				
				S&F EM	070C		18600		65	MFEF 1288/1,
			I			N.R.				1289/12,
										1290/2,1291/3
										1292/35,
										1293/7
VARIOUS	DIP	N	11/76	VIS INS			8477		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		8477		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	8477		0	
			I		15CY	1011 A				
				REVBIAS	125C		8477	1.42E 06	0	
			I			N.R.				
				S&F EM	070C		8477		31	MFEF 1294/2,
			I			N.R.				1295/25,
										1296/1,1297/3
VARIOUS	DIP	N	05/76	VIS INS			1800		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1800		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1800		0	
			I		15CY	1011 A				
				REVBIAS	125C		1800	3.02E 05	0	
			I			N.R.				
				S&F EM	070C		1800		2	MFEF 1298/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			4000		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4000		0	
			I		15CY	1011 A				
				REVBIAS	125C		4000	6.72E 05	0	
			I			N.R.				
				S&F EM	070C		4000		17	MFEF 1299/4,
			I			N.R.				1300/13
VARIOUS	DIP	N	08/76	VIS INS			4000		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4000		0	
			I		15CY	1011 A				
				REVBIAS	125C		4000	6.72E 05	0	
			I			N.R.				
				S&F EM	070C		4000		74	MFEF 1301/7,
			I			N.R.				1302/62
VARIOUS	DIP	N	11/76	VIS INS			2648		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2648		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2648		0	
			I		15CY	1011 A				
				REVBIAS	125C		2648	4.45E 05	0	
			I			N.R.				
				S&F EM	070C		2648		57	MFEF 1303/2,
			I			N.R.				1304/2,
										1305/49

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			1352		0	
7408	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1352		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1352		0	
			I		15CY	1011 A				
				REVBIAS	125C		1352	2.27E 05	0	
			I			N.R.				
				S&F EM	070C		1352		12	MFEF 1306/12
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1170		0	
7409	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1170		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1170		0	
			I		15CY	1011 A				
				REVBIAS	125C		1170	1.97E 05	0	
			I			N.R.				
				S&F EM	070C		1170		3	MFEF 1307/2
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		13233		284	
7410	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		12949		0	
			I		5CYC	N.R.				
				REVBIAS	100C		12949	2.18E 06	0	
			I			N.R.				
				SDF EM	025C		12949		63	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			5400		0	
7410	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5400		0	
			I		15CY	1011 A				
				REVBIAS	125C		5400	9.07E 05	0	
			I			N.R.				
				S&F EM	070C		5400		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			5500		0	
7410	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5500		0	
			I		15CY	1011 A				
				REVBIAS	125C		5500	9.24E 05	0	
			I			N.R.				
				S&F EM	070C		5500		11	MFEF 1308/1,
			I			N.R.				1309/2,1310/6
VARIOUS	DIP	N	10/76	VIS INS			1467		0	
7410	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1467		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1467		0	
			I		15CY	1011 A				
				RELVBIAS	125C		1467	2.46E 05	0	
			I			N.R.				
				S&F EM	070C		1467		22	MFEF 1311/6,
			I			N.R.				1312/12
VARIOUS	DIP	N	06/76	VIS INS			34928		0	
7410	14	0/70C	I			N.R.				
				S&F EM	025C 070C		34928		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	34928		0	
			I		15CY	1011 A				
				REVBIAS	125C		34928	5.87E 06	0	
			I			N.R.				
				S&F EM	070C		34928		27	MFEF 1313/2,
			I			N.R.				1314/1,1315/8
										1316/2,1317/8
										1318-1325/62

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. EFF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	05/76	VIS INS		N.R.	611		0	
7411	14	0/70C	I							
				S&F EM	025C 070C	N.R.	611		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	611		0	
			I		15CY					
				REVBIAS	125C	N.R.	611	1.03E 05	0	
			I							
				S&F EM	070C	N.R.	611		7	MFEF 1326/2, 1327/5
			I							
VARIOUS	DIP	N	07/76	VIS INS		N.R.	1000		0	
7411	14	0/70C	I							
				S&F EM	025C 070C	N.R.	1000		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	1000		0	
			I		15CY					
				REVBIAS	125C	N.R.	1000	1.68E 05	0	
			I							
				S&F EM	070C	N.R.	1000		4	MFEF 1328/4
			I							
VARIOUS	DIP	N	05/76	VIS INS		N.R.	1999		0	
7412	14	0/70C	I							
				S&F EM	025C 070C	N.R.	1999		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	1999		0	
			I		15CY					
				REVBIAS	125C	N.R.	1999	3.36E 05	0	
			I							
				S&F EM	070C	N.R.	1999		8	MFEF 1329/1, 1330/7
			I							
VARIOUS	DIP	N	05/76	VIS INS		N.R.	25		0	
74132	14	0/70C	I							
				S&F EM	025C 070C	N.R.	25		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	25		0	
			I		15CY					
				REVBIAS	125C	N.R.	25	4.20E 03	0	
			I							
				S&F EM	070C	N.R.	25		0	
			I							
VARIOUS	DIP	N	02/76	VIS INS		N.R.	150		0	
74136	14	0/70C	I							
				S&F EM	025C 070C	N.R.	150		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	150		0	
			I		15CY					
				REVBIAS	125C	N.R.	150	2.52E 0[illegible]	0	
			I							
				S&F EM	070C	N.R.	150		0	
			I							
VARIOUS	DIP	N	04/76	VIS INS		N.R.	348		0	
74136	14	0/70C	I							
				S&F EM	025C 070C	N.R.	348		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	348		0	
			I		15CY					
				REVBIAS	125C	N.R.	348	5.65E 04	0	
			I							
				S&F EM	070C	N.R.	348		[illegible]	[illegible]EF 1331/4
			I							
VARIOUS	DIP	N	05/76	VIS INS		N.R.	500		0	
74136	14	0/70C	I							
				S&F EM	025C 070C	N.R.	500		0	
			I							
				THRMSHK	000C 100C	MS-883 1011 A	500		0	
			I		15CY					
				REVBIAS	125C	N.R.	500	8.40E 04	0	
			I							
				S&F EM	070C	N.R.	500		19	MFEF 1332/8, 1333/11

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	10/76	VIS INS			50		0	
74136	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			1550		0	
74136	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1550		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1550		0	
			I		15CY	1011 A				
				REVBIAS	125C		1550	2.60E 05	0	
			I			N.R.				
				S&F EM	070C		1550		1	MFEF 1334/1
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			32		0	
74136	14	0/70C	I			N.R.				
				S&F EM	025C 070C		32		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	32		0	
			I		15CY	1011 A				
				REVBIAS	125C		32	5.38E 03	0	
			I			N.R.				
				S&F EM	070C		32		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			50		0	
74136	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			175		0	
74136	14	0/70C	I			N.R.				
				S&F EM	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EM	070C		175		1	MFEF 1335/1
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		6165		108	
7413	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		6057		0	
			I		5CYC	N.R.				
				REVBIAS	100C		6057	1.02E 06	0	
			I			N.R.				
				SDF EM	025C		6057		22	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1000		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		42	MFEF 1336/5, 1337/37
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			2000		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		2	MFEF 1338/2
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			2300		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2300		0	
			I		15CY	1011 A				
				REVBIAS	125C		2300	3.86E 05	0	
			I			N.R.				
				S&F EM	070C		2300		6	MFEF 1340/1, 1341/5
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			1319		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1319		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1319		0	
			I		15CY	1011 A				
				REVBIAS	125C		1319	2.22E 05	0	
			I			N.R.				
				S&F EM	070C		1319		9	MFEF 1342/6
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			2000		0	
13	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		9	MFEF 1343/1, 1344/8
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1200		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1200		0	
			I		15CY	1011 A				
				REVBIAS	125C		1200	2.02E 05	0	
			I			N.R.				
				S&F EM	070C		1200		12	MFEF 1345/12
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			87		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		87		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	87		0	
			I		15CY	1011 A				
				REVBIAS	125C		87	1.46E 04	0	
			I			N.R.				
				S&F EM	070C		87		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			2300		0	
7413	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2300		0	
			I		15CY	1011 A				
				REVBIAS	125C		2300	3.86E 05	0	
			I			N.R.				
				S&F EM	070C		2300		26	MFEF 1346/26
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	12/76	VIS INS			1100		0	
7413	14	0/70C	I			N.R.	7			
				S&F EM	025C 070C		1100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1100		0	
			I		15CY	1011 A				
				REVBIAS	125C		1100	1.85E 05	0	
			I			N.R.				
				S&F EM	070C		1100		11	MFEF 1347/11
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		1462		1	
7420	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		1461		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1461	2.45E 05	0	
			I			N.R.				
				SDF EM	025C		1461		4	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		2850		65	
7420	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2785		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2785	4.68E 05	0	
			I			N.R.				
				SDF EM	025C		2785		6	
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			1676		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1676		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1676		0	
			I		15CY	1011 A				
				REVBIAS	125C		1676	2.82E 05	0	
			I			N.R.				
				S&F EM	070C		1676		5	MFEF 1348/1, 1349/4
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			466		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		466		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	466		0	
			I		15CY	1011 A				
				REVBIAS	125C		466	7.83E 04	0	
			I			N.R.				
				S&F EM	070C		466		1	MFEF 1350/1
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1658		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1658		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1658		0	
			I		15CY	1011 A				
				REVBIAS	125C		1658	2.79E 05	0	
			I			N.R.				
				S&F EM	070C		1658		5	MFEF 1351/1, 1352/1, 1353/3
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1419		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1419		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1419		0	
			I		15CY	1011 A				
				REVBIAS	125C		1419	2.38E 05	0	
			I			N.R.				
				S&F EM	070C		1419		2	MFEF 1354/1, 1355/1
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			3000		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		16	MFEF 1356/16
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1101		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1101		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1101		0	
			I		15CY	1011 A				
				REVBIAS	125C		1101	1.85E 05	0	
			I			N.R.				
				S&F EM	070C		1101		3	MFEF 1357/3
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			2000		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		3	MFEF 1358/3
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1175		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1175		0	
			I		15CY	1011 A				
				REVBIAS	125C		1175	1.97E 05	0	
			I			N.R.				
				S&F EM	070C		1175		2	MFEF 1359/2
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			194		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		194		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	194		0	
			I		15CY	1011 A				
				REVBIAS	125C		194	3.26E 04	0	
			I			N.R.				
				S&F EM	070C		194		7	MFEF 1360/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			8279		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		8279		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	8279		0	
			I		15CY	1011 A				
				REVBIAS	125C		8279	1.39E 06	0	
			I			N.R.				
				S&F EM	070C		8279		23	MFEF 1361/1, 1362/21, 1363/1
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			5236		0	
7420	14	0/70C	I			N.R.				
				S&F EM	025C 070C		5236		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5236		0	
			I		15CY	1011 A				
				REVBIAS	125C		5236	8.80E 05	0	
			I			N.R.				
				S&F EM	070C		5236		113	MFEF 1364/1, 1365/5,1366/1: 1367/22, 1368-1371/51
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	03/75	S&D EM	025C		125		0	
7420	14	0/70C	Q			N.R.				
				AUTOCLV	15PSIGSTEAM		125		0	
			Q			N.R.				
				S&D EM	025C		125		4	MFEF 1751/4
			Q			N.R.				
				THRMSHK	000C 100C	MS-883	121		0	
			Q		5CY	1011 A				
				S&D EM	025C		121		0	
			Q			N.R.				
				REVBIAS	125C	MS-883	121	1.16E 04	0	
			Q			1015 A				
				S&D EM	025C		121		0	
			Q			N.R.				
VARIOUS	DIP	X	05/75	VIS INS			100		0	
7420	14	0/70C	Q			N.R.				
				BAKE	150C	MS-883	100	2.40E 03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	100		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	100		0	
			Q		1 MIN E	2001 E				
				S&D EM	025C		100		0	
			Q			N.R.				
				REVBIAS	125C	MS-883	100	1.68E 04	0	
			Q			1015 A				
				S&D EM	025C		100		0	
			Q			N.R.				
				S&D EM	070C		100		0	
			Q			N.R.				
				S&D EM	000C		100		2	MFEF 1783/1.
			Q			N.R.				1784/1
VARIOUS	DIP	N	03/76	VIS INS			106		0	
7425	14	0/70C	I			N.R.				
				S&F EM	025C 070C		106		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	106		0	
			I		15CY	1011 A				
				REVBIAS	125C		106	1.78E 04	0	
			I			N.R.				
				S&F EM	070C		106		2	MFEF 1372/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			1000		0	
7425	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		2	MFEF 1373/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			500		0	
7425	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		3	MFEF 1374/3
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			50		0	
7427	14	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		2	MFEF 1375/2
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP 16	N 0/70C	04/76 I	VIS INS		N.R.	413		0	
				S&F EM	025C 070C	N.R.	413		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	413		0	
				REVBIAS	125C	N.R.	413	6.94E 04	0	
				S&F EM	070C	N.R.	413		9	MFEF 1376/2, 1377/7
VARIOUS	DIP 16	N 0/70C	05/76 I	VIS INS		N.R.	1498		0	
				S&F EM	025C 070C	N.R.	1498		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	1498		0	
				REVBIAS	125C	N.R.	1498	2.52E 05	0	
				S&F EM	070C	N.R.	1498		9	MFEF 1378/1, 1379/8
VARIOUS	DIP 16	N 0/70C	06/76 I	VIS INS		N.R.	257		0	
				S&F EM	025C 070C	N.R.	257		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	257		0	
				REVBIAS	125C	N.R.	257	4.32E 04	0	
				S&F EM	070C	N.R.	257		11	MFEF 1380/11
VARIOUS	DIP 16	N 0/70C	06/76 I	VIS INS		N.R.	3399		0	
				S&F EM	025C 070C	N.R.	3399		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	3399		0	
				REVBIAS	125C	N.R.	3399	5.71E 05	0	
				S&F EM	070C	N.R.	3399		19	MFEF 1381/19
VARIOUS	DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	1568		13	
				THRMSHK	000C 100C 5CYC	N.R.	1555		0	
				REVBIAS	100C	N.R.	1555	2.61E 05	0	
				SDF EM	025C	N.R.	1555		4	
VARIOUS	DIP 14	N 0/70C	05/76 I	VIS INS		N.R.	10023		0	
				S&F EM	025C 070C	N.R.	10023		0	
				THRMSHK	000C 100C 15CY	MS-883 1011 A	10023		0	
				REVBIAS	125C	N.R.	10023	1.68E 06	0	
				S&F EM	070C	N.R.	10023		42	MFEF 1382/4, 1383/6,1384/3: 1385/30
VARIOUS	DIP 14	N.R. 0/70C	11/75 I	SDF EM	025C	N.R.	8191		63	
				THRMSHK	000C 100C 5CYC	N.R.	8128		0	
				REVBIAS	100C	N.R.	8128	1.37E 06	0	
				SDF EM	025C	N.R.	8128		19	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	M	10/76	VIS INS			5070		0	
7432	14	0/70C	I			N.R.	5070		0	
				S&F EM	025C 070C		5070		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5070		0	
			I		15CY	1011 A				
				REVBIAS	125C		5070	8.52E 05	0	
			I			N.R.				
				S&F EM	070C		5070		17	MFEF 1386/5, 1387/1, 1388/8
			I			N.R.				
VARIOUS	DIP	A	05/76	VIS INS			2606		0	
7432	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2606		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2606		0	
			I		15CY	1011 A				
				REVBIAS	125C		2606	4.38E 05	0	
			I			N.R.				
				S&F EM	070C		2606		16	MFEF 1389/5, 1390/8
			I			N.R.				
VARIOUS	DIP	X	10/76	VIS INS			370		0	
7432	14	0/70C	I			N.R.				
				S&F EM	025C 070C		370		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	370		0	
			I		15CY	1011 A				
				REVBIAS	125C		370	6.22E 04	0	
			I			N.R.				
				S&F EM	070C		370		5	MFEF 1391/3, 1392/2
			I			N.R.				
VARIOUS	DIP	X	11/76	VIS INS			600		0	
7432	14	0/70C	I			N.R.				
				S&F EM	025C 070C		600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	600		0	
			I		15CY	1011 A				
				REVBIAS	125C		600	1.01E 05	0	
			I			N.R.				
				S&F EM	070C		600		6	MFEF 1393/4, 1394/2
			I			N.R.				
VARIOUS	DIP	X	12/76	VIS INS			59		0	
7432	14	0/70C	I			N.R.				
				S&F EM	025C 070C		59		0	
			I			N.R.				
				THRMSHK	000C 150C	MS-883	59		0	
			I		15CY	1011 A				
				REVBIAS	125C		59	9.91E 03	0	
			I			N.R.				
				S&F EM	070C		59		1	
			I			N.R.				
VARIOUS	DIP	X	12/76	VIS INS			2700		0	
7432	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2700		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2700		0	
			I		15CY	1011 A				
				REVBIAS	125C		2700	4.54E 05	0	
			I			N.R.				
				S&F EM	070C		2700		26	MFEF 1395/26
			I			N.R.				
VARIOUS	DIP	M	11,76	VIS INS			23014		0	
7451	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3014		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	23014		0	
			I		15CY	1011 A				
				REVBIAS	125C		23014	3.87E 06	0	
			I			N.R.				
				S&F EM	070C		23014		59	MFEF 1396/4, 1397/5, 1398/1, 1399/2, 1400/8, 1401-1403/29
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			6757		0	
7451	14	0/70C	I			N.R.				
				S&F EM	025C 070C		6757		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	6757		0	
			I		15CY	1011 A				
				RFVBIAS	125C		6757	1.14E 06	0	
			I			N.R.				
				S&F EM	070C		6758		292	MFEF 1404/13,
			I			N.R.				1405/250,
										1406/1,1407/8:
										1408/2
	DIP	N	10/76	VIS INS			3975		0	
	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3975		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3975		0	
			I		15CY	1011 A				
				REVBIAS	125C		3975	6.68E 05	0	
			I			N.R.				
				S&F EM	070C		3975		46	MFEF 1409/3,
			I			N.R.				1410/42
VARIOUS	DIP	N	11/76	VIS INS			9445		0	
7454	14	0/70C	I			N.R.				
				S&F EM	025C 070C		9445		0	
			I			R.				
				THRMSHK	000C 100C	MS-883	9445		0	
			I		15CY	1011 A				
				REVBIAS	125C		9445	1.59E 06	0	
			I			N.R.				
				S&F EM	070C		9445		90	MFEF 1411/2,
			I			N.R.				1412/14,
										1413/69,
										1414/2
VARIOUS	DIP	N	12/76	VIS INS			275		0	
7454	14	0/70C	I			N.R.				
				S&F EM	025C 070C		275		C	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	275		0	
			I		15CY	1011 A				
				REVBIAS	125C		275	4.62E 04	0	
			I			N.R.				
				S&F EM	070C		275		6	MFEF 1415/3
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			500		0	
7454	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		29	MFEF 1416/26,
			I			N.R.				1417/3
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		554		5	
7486	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		539		0	
			I		5CYC	N.R.				
				REVBIAS	100C		539	9.06E 04	0	
			I			N.R.				
				SDF EM	025C		539		17	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			100		0	
7486	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.08E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	P'G/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			3369		0	
7486	14	0/70C	I			N.R.				
				S&F FM	025C 070C		3369		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3369		0	
			I		15CY	1011 A				
				REVBIAS	125C		3369	5.66E 05	0	
			I			N.R.				
				S&F FM	070C		3369		6	MFEF 1418/2,
			I			N.R.				1419/30
VARIOUS	DIP	N	12/76	VIS INS			2657		0	
7486	14	0/70C	I			N.R.				
				S&F FM	025C 070C		2657		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2657		0	
			I		15CY	1011 A				
				REVBIAS	125C		2657	4.46E 05	0	
			I			N.R.				
				S&F FM	070C		2657		17	MFEF 1420/7,
			I			N.R.				1421/4, 1422/1,
										1423/5
VARIOUS	DIP	N	06/76	VIS INS			150		0	
7486	14	0/70C	I			N.R.				
				S&F FM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F FM	070C		150		1	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			660		0	
7486	14	0/70C	I			N.R.				
				S&F FM	025C 070C		660		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	660		0	
			I		15CY	1011 A				
				REVBIAS	125C		660	1.11E 05	0	
			I			N.R.				
				S&F FM	070C		660		17	MFEF 1424/1,
			I			N.R.				1425/8, 1426/3
VARIOUS	DIP	N	07/76	VIS INS			50		0	
8241	14	0/70C	I			N.R.				
				S&F FM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F FM	070C		50		1	MFEF 1427/1
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			3990		0	
	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3990		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3990		0	
			I		15CY	1011 A				
				REVBIAS	125C		3990	6.70E 05	0	
			I			N.R.				
				S&F FM	070C		3990		54	MFEF 1428/11,
			I			N.R.				1429/30,
										1430/5, 1431/9
VARIOUS	DIP	N	12/76	VIS INS			4212		0	
	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4212		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4212		0	
			I		15CY	1011 A				
				REVBIAS	125C		4212	7.08E 05	0	
			I			N.R.				
				S&F FM	070C		4212		22	MFEF 1432/1,
			I			N.R.				1433/6, 143./3
										1435/12

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
MOTOROLA	DIP	S	10/76	VIS INS			100		0	
1601/1602	16	-40/80C	I			N.R.	100		0	
				S&F FM	025C 070C					
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	100		0	
			I		5CY	1010 B				
				RFVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		1	MFEF 1436/1
			I			N.R.				

GATE — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL, SUHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	FPK	C-2	03/76	VIS INS	20X		2590		0	
C100	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	2590	6.22E 04	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	2590		0	
			U		10CY	1010 B				
				CNSTACC			2590		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	2590		7	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	2583		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	2583		12	
			U			2012				
				EM			2583		0	
			U			N.R.				
				REVBIAS	125C		2399	3.93E 05	0	
			U			N.R.				
				EM			2399		65	
			U			N.R.				
				EM			2334		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		30083		0	
G140	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	30083	7.22E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	30083		0	
			U		10CY	1010 B				
				CNSTACC			30083		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	30082		35	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	30048		1	
			U		3X	1014 C				
				X-RAY	28X	MS-883	30048		328	
			U			2012				
				EM			29720		9	
			U			N.R.				
				REVBIAS	125C		29261	4.80E 06	0	
			U			N.R.				
				EM			29261		323	
			U			N.R.				
				EM			28938		0	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL, SUHL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE, SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	FPK	C-2	03/76	VIS INS	20X		27791		13	
G191	14	N.R.	U			N.R.				
				BAKE	125C	MS-883	27778	6.67E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	27778		0	
			U		10CY	1010 B				
				CNSTACC			27778		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	27778		108	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	27670		14	
			U		3X	1014 C				
				X-RAY	28X	MS-883	27656		298	
			U			2012				
				EM			27358		0	
			U			N.R.				
				REVBIAS	125C		22967	3.77E 06	0	
			U			N.R.				
				EM			22967		294	
			U			N.R.				
				EM			22673		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		6241		0	
G211	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	6241	1.50E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	6241		0	
			U		10CY	1010 B				
				CNSTACC			6241		2	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	6239		8	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	6231		30	
			U		3X	1014 C				
				X-RAY	28X	MS-883	6201		69	
			U			2012				
				EM			6132		0	
			U			N.R.				
				REVBIAS	125C		4781	7.84E 05	0	
			U			N.R.				
				EM			4791		36	
			U			N.R.				
				EM			4745		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		16583		9	
G221	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	16574	3.98E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	16574		0	
			U		10CY	1010 B				
				CNSTACC			16574		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	16574		78	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	16496		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	16496		408	
			U			2012				
				EM			16088		0	
			U			N.R.				
				REVBIAS	125C		16304	2.57E 06	0	
			U			N.R.				
				EM			16304		256	
			U			N.R.				
				EM			16048		0	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL, SUHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	C-2	03/76	VIS INS	20X		9801		0	
G251	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	9801	2.35E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	9801		0	
			U		10CY	1010 B				
				CNSTACC			9801		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	9801		9	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	9792		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	9792		46	
			U			2012				
				EM			9746		1	
			U			N.R.				
				REVBIAS	125C		9562	1.57E 06	0	
			U			N.R.				
				EM			9562		86	
			U			N.R.				
				EM			9476		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		27283		0	
G252	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	27283	6.55E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	37283		0	
			U		10CY	1010 B				
				CNSTACC			27283		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	27283		25	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	27258		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	27258		311	
			U			2012				
				EM			26947		1	
			U			N.R.				
				REVBIAS	125C		22019	3.61E 06	0	
			U			N.R.				
				EM			22019		423	
			U			N.R.				
				EM			21596		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		5532		0	
G260	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	5532	1.33E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	5532		0	
			U		10CY	1010 B				
				CNSTACC			5532		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	5532		20	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	5512		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	5512		139	
			U			2012				
				EM			5373		0	
			U			N.R.				
				REVBIAS	125C		4672	7.66E 05	0	
			U			N.R.				
				EM			4672		118	
			U			N.R.				
				EM			4554		0	
			U			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL, SCHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	C-2	03/76	VIS INS	20X		2730		0	
G261	14	-55/125	C			N.R.				
				BAKE	125C	MS-883	2730	6.55E 04	0	
			C			1008 B				
				TEMPCYC	-055C 125C	MS-883	2730		0	
			C		10CY	1010 B				
				CNSTACC			2730		0	
			C			N.R.				
				FINE LK	HE 5.E-8	MS-883	2730		19	
			C		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	2711		0	
			C		3X	1014 C				
				X-RAY	28X	MS-883	2711		8	
			C			2012				
				EM			2703		0	
			C			N.R.				
				REVBIAS	125C		2655	4.35E 05	0	
			C			N.R.				
				EM			2655		25	
			C			N.R.				
				EM			2630		0	
			C			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		17969		0	
G310	14	-55/125	C			N.R.				
				BAKE	125C	MS-883	17969	4.31E 05	0	
			C			1008 B				
				TEMPCYC	-055C 125C	MS-883	17969		0	
			C		10CY	1010 B				
				CNSTACC			17969		0	
			C			N.R.				
				FINE LK	HE 5.E-8	MS-883	17969		60	
			C		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	17909		0	
			C		3X	1014 C				
				X-RAY	28X	MS-883	17909		307	
			C			2012				
				EM			17656		14	
			C			N.R.				
				REVBIAS	125C		19057		0	
			C			N.R.				
				EM			19057		504	
			C			N.R.				
				EM			18553		0	
			C			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		28988		0	
G311	14	-55/125	C			N.R.				
				BAKE	125C	MS-883	28988	6.96E 05	0	
			C			1008 B				
				TEMPCYC	-055C 125C	MS-883	28988		0	
			C		10CY	1010 B				
				CNSTACC			28988		0	
			C			N.R.				
				FINE LK	HE 5.E-8	MS-883	28988		65	
			C		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	28923		3	
			C		3X	1014 C				
				X-RAY	28X	MS-883	28920		247	
			C			2012				
				EM			28673		381	
			C			N.R.				
				REVBIAS	125C		24.70	3.98E 06	0	
			C			N.R.				
				EM			24270		329	
			C			N.R.				
				EM			23948		0	
			C			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL, SUHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	C-2	03/76	VIS INS	20X		8580		0	
G40	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	8580	2.06E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	8580		0	
			U		10CY	1010 B				
				CNSTACC			8580		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	8580		10	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	8570		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	8570		97	
			U			2012				
				EM			8473		0	
			U			N.R.				
				REVBIAS	125C		8528		0	
			U			N.R.				
				EM			8528		182	
			U			N.R.				
				EM			8346		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		15958		0	
G41	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	15958	3.83E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	15958		0	
			U		10CY	1010 B				
				CNSTACC			15958		0	
			U			N.R.				
				FINE LK	HE 5.E_8	MS-883	15958		128	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	15830		16	
			U		3X	1014 C				
				X-RAY	28X	MS-883	15814		533	
			U			2012				
				EM			15281		0	
			U			N.R.				
				REVBIAS	125C		20638	3.38E 06	0	
			U			N.R.				
				EM			20638		297	
			U			N.R.				
				EM			20341		0	
			U			N.R.				
VARIOUS	FPK	C-2	03/76	VIS INS	20X		14006		13	
G60	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	13993	3.36E 05	0	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	13993		0	
			U		10CY	1010 B				
				CNSTACC			13993		0	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	13993		9	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	13984		0	
			U		3X	1014 C				
				X-RAY	28X	MS-883	13984		0	
			U			2012				
				EM			13984		189	
			U			N.R.				
				REVBIAS	125C		12303	2.02E 06	0	
			U			N.R.				
				EM			12303		59	
			U			N.R.				
				EM			12244		0	
			U			N.R.				

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE TTL, SUHL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	C-2	03/76	VIS INS	20X		96:		0:	
G91	14	-55/125	U			N.R.				
				BAKE	125C	MS-883	96:	2.30E 03	0:	
			U			1008 B				
				TEMPCYC	-055C 125C	MS-883	96:		0:	
			U		10CY	1010 B				
				CNSTACC			96:		0:	
			U			N.R.				
				FINE LK	HE 5.E-8	MS-883	96:		0:	
			U		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	96:		0:	
			U		3X	1014 C				
				X-RAY	28X	MS-883	96:		2:	
			U			2012				
				EM			94:		3:	
			U			N.R.				

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
RCA	DIP	N	03/75	S&D EM	025C		125:		1:	MFEF 1752/1
4011A	14	-55/125	Q			N.R.				
				AUTOCLV	15PSIG STEAM		124:		0:	
			Q			N.R.				
				S&D EM	025C		124:		1:	MFEF 1753/1
			Q			N.R.				
				THRMSHK	000C 100C	MS-883	123:		0:	
			Q		5CY	1011 A				
				S&D EM	025C		123:		0:	
			Q			N.R.				
				REVBIAS	125C	MS-883	123:	1.18E 04	0:	
			Q			1015 A				
				S&D EM	025C		123:		2:	MFEF 1754/1,
			Q			N.R.				1755/1
RCA	E-DIP	N	03/75	S&D EM	025C		125:		4:	MFEF 1756/2,
4011A	14	-40/80C	Q			N.R.				1757/2
				AUTOCLV	15PSIGSTEAM		121:		0:	
			Q			N.R.				
				S&D EM	025C		121:		4:	MFEF 1758/4
			Q			N.R.				
				THRMSHK	000C 100C	MS-883	117:		0:	
			Q		5CY	1011 A				
				S&D EM	025C		117:		0:	
			Q			N.R.				
				RFVBIAS	125C	MS-883	117:	1.12E 04	0:	
			Q			1015 A				
				S&D EM	025C		117:		32:	MFEF 1759/2,
			Q			N.R.				1760/30
RCA	FPK	JB	05/75	VIS INS			100:		0:	
4011A	14	-55/125	Q			N.R.				
				BAKE	150C	MS-883	100:	2.40E 03	0:	
			Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	100:		0:	
			Q		10CY	1010 C				
				CNSTACC	30KG I AXIS	MS-883	100:		0:	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-7	MS-883	100:		0:	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MS-883	100:		0:	
			Q		3X	1014 C				
				S&D EM	025C		100:		1:	MFEF 1761/1
			Q			N.R.				
				REVBIAS	125C	MS-883	99:	1.66E 04	0:	
			Q			1015 A				
				S&D EM	025C		99:		3:	MFEF 1762/1,
			Q			N.R.				1763/2
				S&D EM	125C		96:		0:	
			Q			N.R.				
				S&D EM	-055C		96:		0:	
			Q			N.R.				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
RCA	DIP	B-1	05/75	VIS INS		N.R.	100		0	
4011A	14	-55/125	Q	BAKE	150C	MS-883 1008 C	100	2.40E 03	0	
			Q	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	100		0	
			Q	CNSTACC	30KG 1 AXIS :1 MIN E	MS-883 2001 E	100		0	
			Q	FINE LK	HE 5.E-7 :60 MIN	MS-883 1014 A	100		4	MFEF 1904/4
			Q	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	96		8	MFEF 1905/8
			Q	S&D EM	025C	N.R.	87		2	MFEF 1764/1, 1765/1
			Q	REVBIAS	125C	MS-883 1015 A	85	1.43E 04	0	
			Q	S&D EM	025C	N.R.	85		5	MFEF 1766/2, 1767/3
			Q	S&D EM	125C	N.R.	80		0	
			Q	S&D EM	-055C	N.R.	80		2	MFEF 1768/1, 1769/1
RCA	DIP	N	05/75	VIS INS		N.R.	100		0	
4011A	14	-55/125	Q	BAKE	150C	MS-883 1008 C	100	2.40E 03	0	
			Q	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	100		0	
			Q	CNSTACC	30KG 1 AXIS :1 MIN E	MS-883 2001 E	100		0	
			Q	FINE LK	HE 5.E-7 :60 MIN	MS-883 1014 A	100		5	MFEF 1775/5
			Q	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	95		10	MFEF 1770/4, 1771/6
			Q	S&D EM	025C	N.R.	85		0	
			Q	REVBIAS	125C	MS-883 1015 A	85	1.43E 04	2	MFEF 1772/2
			Q	S&D EM	025C	N.R.	83		2	MFEF 1773/2
			Q	S&D EM	070C	N.R.	81		2	MFEF 1774/2
			Q	S&D EM	000C	N.R.				
RCA	DIP	X	05/75	VIS INS		N.R.	100		0	
4011A	14	-55/125	Q	BAKE	150C	MS-883 1008 C	100	2.40E 03	0	
			Q	TEMPCYC	-065C 150C 10CY	MS-883 1010 C	100		0	
			Q	CNSTACC	30KG 1 AXIS :1 MIN E	MS-883 2001 E	100		0	
			Q	FINE LK	HE 5.E-7 :60 MIN	MS-883 1014 A	100		2	MFEF 1906/2
			Q	GROSSLK	FLUOR 125C 3X	MS-883 1014 C	98		0	
			Q	S&D EM	025C	N.R.	98		0	
			Q	REVBIAS	125C	MS-883 1015 A	98	1.65E 04	0	
			Q	S&D EM	025C	N.R.	98		1	
			Q	S&D EM	125C	N.R.	97		0	
			Q	S&D EM	-055C	N.R.	97		0	

GATE

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS

OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
RCA	E-DIP	X	05/75	VIS INS			85		0	
4011A	14	-40/80C	Q			N.R.				
				BAKE	150C	MS-883	85	2.04E 03	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	85		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	85		0	
			Q		1 MIN E	2001 E				
				S&D EM	025C		85		11	MFEP 1776/4, 1777/7
			Q			N.R.				
				REVBIAS	125C	MS-883	74		0	
			Q			1015 A				
				S&D EM	025C		74		7	MFEP 1776/1, 1779/6
			Q			N.R.				
				S&D EM	070C		67		3	MFEP 1780/1, 1781/2
			Q			N.R.				
				S&D EM	000C		64		0	
			Q			N.R.				

GENERATOR

ENVIRONMENTAL BURN-IN

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	05/76	VIS INS			600		0	
82S62	14	0/70C	I			N.R.				
				S&F EM	023C 070C		600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	600		0	
			I		15CY	1011 A				
				REVBIAS	125C		600	1.01E 05	0	
			I			N.R.				
				S&F EM	070C		600		2	MFEP 1437/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			200		0	
82S62	14	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		2	MFEP 1438/2
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			300		0	
82S62	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1000		0	
82S62	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		2	MFEP 1439/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			250		0	
82S62	14	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR / TMP	CL / RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL 8220	E-DIP 14	N 0/70C	I	07/76	VIS INS		N.R.	50		0	
			I		S&F EM	025C 070C	N.R.	50		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	50		0	
			I		REVBIAS	125C	N.R.	50	8.40E 03	0	
			I		S&F EM	070C	N.R.	50		0	
NATIONAL 8220	E-DIP 14	N 0/70C	I	10/76	VIS INS		N.R.	1938		0	
			I		S&F EM	025C 070C	N.R.	1938		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	1938		0	
			I		REVBIAS	125C	N.R.	1938	3.26E 05	0	
			I		S&F EM	070C	N.R.	1938		14	MFEF 1440/1, 1441/11
NATIONAL 8220	E-DIP 14	N 0/70C	I	06/76	VIS INS		N.R.	500		0	
			I		S&F EM	025C 070C	N.R.	500		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	500		0	
			I		REVBIAS	125C	N.R.	500	8.40E 04	0	
			I		S&F EM	070C	N.R.	500		5	MFEF 1442/5
NATIONAL 8220	E-DIP 14	N 0/70C	I	12/76	VIS INS		N.R.	425		0	
			I		S&F EM	025C 070C	N.R.	425		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	425		0	
			I		REVBIAS	125C	N.R.	425	7.14E 04	0	
			I		S&F EM	070C	N.R.	425		1	MFEF 1443/1
NATIONAL 8220	E-DIP 14	N 0/70C	I	12/76	VIS INS		N.R.	100		0	
			I		S&F EM	025C 070C	N.R.	100		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	100		0	
			I		REVBIAS	125C	N.R.	100	1.68E 04	0	
			I		S&F EM	070C	N.R.	100		0	
NATIONAL 8220	E-DIP 14	N 0/70C	I	12/76	VIS INS		N.R.	53		0	
			I		S&F EM	025C 070C	N.R.	53		0	
			I		THRMSHK	000C 100C 15CY	MS-883 1011 A	53		0	
			I		REVBIAS	125C	N.R.	53	8.90E 03	0	
			I		S&F EM	070C	N.R.	53		3	MFEF 1444/1

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC-REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
SIGNETICS 54182	DIP 16	M -55/125	07/75 Q	VIS INS	30X	MM38510 2010 B	663		0	
			Q	BAKE	175X 150C	MM38510 1008 C	663	1.55E 04	0	
			Q	TEMPCYC	-065C 150C 10CY	MM38510 1010 C	663		0	
			Q	CNSTACC	30KG 1 AXIS 1 MIN E	MM38510 2001 E	663		2	
			Q	FINE LK	HE 5.E-8 60 MIN	MM38510 1014 A	636		2	
			Q	GROSSLK	FLUOR 125C 3X	MM38510 1014 C	647		5	
			Q	EM	025C	MM38510 N.R.	642		0	
			Q	PAR EXC	125C	MM38510 1015 D	638	1.07E 05	0	
			Q	S&D EM	-065C 025C 125C	MM38510 N.R.	638		15	
			Q	VIS INS	20X 3X	MM38510 2009	623		0	
VARIOUS 74180	DIP 14	N,R. 0/70C	11/75 I	SDF EM	025C	N.R.	290		2	
			I	THRNSHK	000C 100C 5CYC	N.R.	288		0	
			I	REVBIAS	100C	N.R.	288	4.84E 04	0	
			I	SDF EM	025C	N.R.	288		0	
VARIOUS 74180	DIP 14	M 0/70C	03/76 I	VIS INS		N.R.	997		0	
			I	S&F EM	025C 070C	N.R.	997		0	
			I	TEMPCYC	-055C 125C 15CY	MS-883 1010 B	997		0	
			I	REVBIAS	125C	N.R.	997	1.67E 05	0	
			I	S&F EM	070C	N.R.	997		5	IMPEF 1445/71, 1446/72
VARIOUS 74180	DIP 14	M 0/70C	03/76 I	VIS INS		N.R.	3993		0	
			I	S&F EM	025C 070C	N.R.	3993		0	
			I	THRNSHK	000C 100C 15CY	MS-883 1011 A	3993		0	
			I	REVBIAS	125C	N.R.	3993	6.71E 05	0	
			I	S&F EM	070C	N.R.	3993		28	IMPEF 1447/4, 1448/22
VARIOUS 74180	DIP 14	M 0/70C	03/76 I	VIS INS		N.R.	500		0	
			I	S&F EM	025C 070C	N.R.	500		0	
			I	THRNSHK	000C 100C 15CY	MS-883 1011 A	500		0	
			I	REVBIAS	125C	N.R.	500	8.40E 04	0	
			I	S&F EM	070C	N.R.	500		1	IMPEF 1449/71
VARIOUS 74180	DIP 14	M 0/70C	03/76 I	VIS INS		N.R.	2000		0	
			I	S&F EM	025C 070C	N.R.	2000		0	
			I	THRNSHK	000C 100C 15CY	MS-883 1011 A	2000		0	
			I	REVBIAS	125C	N.R.	2000	3.36E 05	0	
			I	S&F EM	070C	N.R.	2000		13	IMPEF 1450/1, 1451/11

GENERATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS	DIP	N	12/76	VIS INS			1044		0	
74180	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1044		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1044		0	
			I		15CY	1011 A				
				REVBIAS	125C		1044	1.75E-05	0	
			I			N.R.				
				S&F EM	070C		1044		9	MFEF 1452/1,
			I			N.R.				1453/6

GENERATOR — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE PMOS STATIC

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
NITRON	DIP	N	05/77	BAKE	150C	MS-883	3217	7.72E-04	0	
	40	N.R.	U			1008 C				
				TEMPCYC	-065C 150C	MS-883	3217		0	
			U		10CY	1010 C				
				CNSTACC	20KG 1 AXIS	MS-883	3217		0	
			U		1 MIN E	2001 D				
				FINE LK	HE 5.E-7	MS-883	3217		6	MFEF 1907/6
			U		60 MIN	1014 A				
				CROSSLK	FLUOR 125C	MS-883	3217		15	MFEF 1908/15
			U		3X	1014 C				
				FBCT EM	085C	MS-883	3196		243	
			U			N.R.				

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS	DIP	N	12/76	VIS INS			7996		0	
74S04	14	0/70C	I			N.R.				
				S&F EM	025C 070C		7996		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	7995		0	
			I		15CY	1011 A				
				REVBIAS	125C		7996	1.34E-06	0	
			I			N.R.				
				S&F EM	070C		7996		118	MFEF 1434/7,
			I			N.R.				1455/46,
										1456/25,
										1457/57
VARIOUS	DIP	N	08/76	VIS INS			25		0	
74S05	14	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E-03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
T.I. 74L04	E-DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	6261		4	
			I	THERMSHK	000C 100C	N.R.	6221		0	
			I	REVBIAS	5CYC 100C	N.R.	6221	1.04E 05	0	
			I	SDF EM	025C	N.R.	6221		0	
VARIOUS 74L04	DIP 14	N.R. 0/70C	11/75	SDF EM	025C	N.R.	9119		84	
			I	THERMSHK	000C 100C	N.R.	9035		0	
			I	REVBIAS	5CYC 100C	N.R.	9035	1.32E 08	0	
			I	SDF EM	025C	N.R.	9035		22	
VARIOUS 74L04	DIP 14	N 0/70C	12/76	VIS INS		N.R.	687		0	
			I	SLF EM	025C 070C	N.R.	687		0	
			I	THERMSHK	000C 100C	MS-883 1011 A	687		0	
			I	REVBIAS	15CY 125C	N.R.	687	1.15E 05	0	
			I	SLF EM	070C	N.R.	687		12	NFEP 1458/2, 1459/9

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
SIGNETICS 8H90	DIP 14	N 0/70C	12/76	VIS INS		N.R.	3102		0	
			I	SLF EM	025C 070C	N.R.	3102		0	
			I	THERMSHK	000C 100C	MS-883 1011 A	3102		0	
			I	REVBIAS	15CY 125C	N.R.	3102	9.21E 05	0	
			I	SLF EM	070C	N.R.	3102		67	NFEP 1458/5, 1459/1, 1462/20, 1463/4
VARIOUS 74H04	DIP 14	N 0/70C	12/76	VIS INS		N.R.	4125		0	
			I	SLF EM	025C 070C	N.R.	4125		0	
			I	THERMSHK	000C 100C	MS-883 1011 A	4125		0	
			I	REVBIAS	15CY 125C	N.R.	4125	6.93E 05	0	
			I	SLF EM	070C	N.R.	4125		95	NFEP 1458/4, 1463/20, 1464/21
VARIOUS 74H05	DIP 14	N 0/70C	06/76	VIS INS		N.R.	1835		0	
			I	SLF EM	025C 070C	N.R.	1835		0	
			I	THERMSHK	000C 100C	MS-883 1011 A	1835		0	
			I	REVBIAS	15CY 125C	N.R.	1835	3.08E 05	0	
			I	SLF EM	070C	N.R.	1835		66	NFEP 1457/19, 1458-1459/17

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS	DIP	N	10/76	VIS INS			2747		0	
74H05	14	0/70C	I	S&F EM	025C 070C	N.R.	2747		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	2747	4.61E 05	0	
			I	S&F EM	070C	N.R.	2747		16	MFEF 1470/16
VARIOUS	DIP	N	12/76	VIS INS			81		0	
74H05	14	0/70C	I	S&F EM	025C 070C	N.R.	81		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	81	1.36E 04	0	
			I	S&F EM	070C	N.R.	81		5	MFEF 1471/4
VARIOUS	DIP	N	12/76	VIS INS			191		0	
74H05	14	0/70C	I	S&F EM	025C 070C	N.R.	191		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	191	3.21E 04	0	
			I	S&F EM	070C	N.R.	191		0	
VARIOUS	DIP	N	12/76	VIS INS			525		0	
74H05	14	0/70C	I	S&F EM	025C 070C	N.R.	525		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	525	8.82E 04	0	
			I	S&F EM	070C	N.R.	525		15	MFEF 1472/1, 1473/14
VARIOUS	DIP	N	12/76	VIS INS			551		0	
74H05	14	0/70C	I	S&F EM	025C 070C	N.R.	551		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	551	9.24E 03	0	
			I	S&F EM	070C	N.R.	551		0	

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY: BIPOLAR — OPERATIONAL TYPE: LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY //
VARIOUS	DIP	N	08/76	VIS INS			1410		0	
74LS04	14	0/70C	I	S&F EM	025C 070C	N.R.	1410		0	
			I	THRMSHK	000C 100C	N.R.				
			I	REVBIAS	15CY 125C	MS-883 1011 A	1410	2.37E 05	0	
			I	S&F EM	070C	N.R.	1410		19	MFEF 1474/19

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	11/76	VIS INS			400		0	
74LS04	14	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		19	MFEP 1475/19
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			500		0	
74LS04	14	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		0	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			300		0	
74LS05	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		0	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			100		0	
74LS14	14	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		1	MFEP 1476/1
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			655		0	
74LS14	14	0/70C	I			N.R.				
				S&F EM	025C 070C		655		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	655		0	
			I		15CY	1011 A				
				REVBIAS	125C		655	1.10E 05	0	
			I			N.R.				
				S&F EM	07		655		11	MFEP 1477/11
			I			N.R.				

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		2505		6	
7404	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		2499		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2499	4.20E 05	0	
			I			N.R.				
				SDF EM	025C		2499		4	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		9048		23	
7404	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		9026		0	
			I		5CYC	N.R.				
				REVBIAS	100C		9026	1.52E 06	0	
			I			N.R.				
				SDF EM	025C		9026		9	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP ENG	DATE/ SRC	TEST TYPE	STRESS LEVEL		SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C			3092		14	
7405	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		3078		0	
			I		5CYC		N.R.				
				REVBIAS	100C			3078	5.17E 05	0	
			I				N.R.				
				SDF EM	025C			3078		8	
			I				N.R.				
T.I.	E-DIP	N	01/75	THRMSHK	000C	100C		175		0	
7404	14	0/70C	I		5CYC		N.R.				
				REVBIAS	070C			175	2.94E 04	0	
			I				N.R.				
				S&F EM	070C			175		1	
			I				N.R.				
				VIS INS				174		0	
			I				N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C			18		0	
7414	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		18		0	
			I		5CYC		N.R.				
				REVBIAS	100C			18	3.02E 03	0	
			I				N.R.				
				SDF EM	025C			18		0	
			I				N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C			24064		159	
7404	14	0/70C	I				N.R.				
				THRMSHK	000C	100C		23905		0	
			I		5CYC		N.R.				
				REVBIAS	100C			23905	4.02E 06	0	
			I				N.R.				
				SDF EM	025C			23905		60	
			I				N.R.				
VARIOUS	DIP	N	03/76	VIS INS				5056		0	
7404	14	0/70C	I				N.R.				
				S&F EM	025C	070C		5056		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	5056		0	
			I		15CY		1011 A				
				REVBIAS	125C			5056	8.49E 05	0	
			I				N.R.				
				S&F EM	070C			5056		23	MFEF 1478/23
			I				N.R.				
VARIOUS	DIP	N	03/76	VIS INS				5000		0	
7404	14	0/70C	I				N.R.				
				S&F EM	025C	070C		5000		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	5000		0	
			I		15CY		1011 A				
				REVBIAS	125C			5000	8.40E 05	0	
			I				N.R.				
				S&F EM	070C			5000		14	MFEF 1479/1, 1487/13
			I				N.R.				
VARIOUS	DIP	N	04/76	VIS INS				2697		0	
7404	14	0/70C	I				N.R.				
				S&F EM	025C	070C		2697		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	2697		0	
			I		15CY		1011 A				
				REVBIAS	125C			2697	4.53E 05	0	
			I				N.R.				
				S&F EM	070C			2697		12	MFEF 1481/2, 1482/10
			I				N.R.				
VARIOUS	DIP	N	05/76	VIS INS				5150		0	
7404	14	0/70C	I				N.R.				
				S&F EM	025C	070C		5150		0	
			I				N.R.				
				THRMSHK	000C	100C	MS-883	5150		0	
			I		15CY		1011 A				
				REVBIAS	125C			5150	8.65E 05	0	
			I				N.R.				
				S&F EM	070C			5150		169	MFEF 1483/1, 1484/168
			I				N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			1952		0	
7404	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1952		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1952		0	
			I		15CY	1011 A				
				REVBIAS	125C		1952	3.28E 05	0	
			I			N.R.				
				S&F EM	070C		1952		11	MFEF 1485/11
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			15000		0	
7404	14	0/70C	I			N.R.				
				S&F EM	025C 070C		15000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	15000		0	
			I		15CY	1011 A				
				REVBIAS	125C		15000	2.52E 06	0	
			I			N.R.				
				S&F EM	070C		15000		56	MFEF 1486/55, 1487/1
VARIOUS	DIP	N	08/76	VIS INS			42480		0	
7404	14	0/70C	I			N.R.				
				S&F EM	025C 070C		42480		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	42480		0	
			I		15CY	1011 A				
				REVBIAS	125C		42480	7.14E 06	0	
			I			N.R.				
				S&F EM	070C		42480		150	MFEF 1488/3, 1489/95, 1490/9, 1491/14, 1492-1497/26
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			433		0	
7404	14	0/70C	I			N.R.				
				S&F EM	025C 070C		433		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	433		0	
			I		15CY	1011 A				
				REVBIAS	125C		433	7.27E 04	0	
			I			N.R.				
				S&F EM	070C		433		22	MFEF 1498/17, 1499/1,1500/3
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			4095		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		4095		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4095		0	
			I		15CY	1011 A				
				REVBIAS	125C		4095	6.88E 05	0	
			I			N.R.				
				S&F EM	070C		4095		9	MFEF 1501/2, 1502/7
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			1245		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1245		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1245		0	
			I		15CY	1011 A				
				REVBIAS	125C		1245	2.09E 05	0	
			I			N.R.				
				S&F EM	070C		1245		5	MFEF 1503/5
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			421		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		421		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	421		0	
			I		15CY	1011 A				
				REVBIAS	125C		421	7.07E 04	0	
			I			N.R.				
				S&F EM	070C		421		2	MFEF 1504/2
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNC	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			900		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		900		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	900		0	
			I		15CY	1011 A				
				REVBIAS	125C		900	1.51E 05	0	
			I			N.R.				
				S&F EM	070C		900		3	MFEF 1505/3
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			199		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		199		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	199		0	
			I		15CY	1011 A				
				REVBIAS	125C		199	3.34E 04	0	
			I			N.R.				
				S&F EM	070C		199		2	MFEF 1506/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			15000		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		15000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	15000		0	
			I		15CY	1011 A				
				REVBIAS	125C		15000	2.52E 06	0	
			I			N.R.				
				S&F EM	070C		15000		81	MFEF 1507/11, 1508/19; 1509/44
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			6499		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		6499		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	6499		0	
			I		15CY	1011 A				
				REVBIAS	125C		6499	1.09E 06	0	
			I			N.R.				
				S&F EM	070C		6499		282	MFEF 1510/65, 1511/170, 1512/38, 1513/8
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			428		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		428		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	428		0	
			I		15CY	1011 A				
				REVBIAS	125C		428	7.19E 04	0	
			I			N.R.				
				S&F EM	070C		428		0	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			14893		0	
7405	14	0/70C	I			N.R.				
				S&F EM	025C 070C		14893		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	14893		0	
			I		15CY	1011 A				
				REVBIAS	125C		14893	1.98E 06	0	
			I			N.R.				
				S&F EM	070C		14893		74	MFEF 1514/35, 1515/15, 1516-1517/24
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		469		1	
7414	14	0/70C	I			N.R.				
				THRMSHK	000C 130C		469		0	
			I		5CYC	N.R.				
				REVBIAS	100C		468	7.86E 04	0	
			I			N.R.				
				SDF FM	025C		468		0	
			I			N.R.				

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	02/76	VIS INS			700		0	
7414	14	0/70C	I			N.R.				
				S&F EM	025C 070C		700		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	700		0	
			I		15CY	1011 A				
				REVBIAS	125C		700	1.18E 05	0	
			I			N.R.				
				S&F EM	070C		700		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1068		0	
7414	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1068		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1068		0	
			I		15CY	1011 A				
				REVBIAS	125C		1068	1.79E 05	0	
			I			N.R.				
				S&F EM	070C		1068		14	MFEF 1518/12, 1519/2
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			250		0	
7414	14	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		2	MFEF 1520/2
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			575		0	
7414	14	0/70C	I			N.R.				
				S&F EM	025C 070C		575		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	575		0	
			I		15CY	1011 A				
				REVBIAS	125C		575	9.66E 04	0	
			I			N.R.				
				S&F EM	070C		575		2	MFEF 1521/2
			I			N.R.				

INVERTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N	05/77	BAKE	150C	MS-883	495	1.19E 04	0	
4007	14	-40/80C	Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	495		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	495		0	
			Q		1 MIN E	2001 E				
				D&F EM	025C	MS-883	495		22	
			Q			N.R.				
				REVBIAS	125C	MS-883	473	7.57E 04	0	
			Q			1015 A				
				D&F EM	025C 125C	MS-883	473		143	
			Q		-055C	N.R.				
				VIS INS	3X	MS-883	330		0	
			Q		10X	2009				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL	E-DIP	X	05/77	THRMSHK	-065C 150C	MS-883	50		0	
4007	14	-40/80C	Q		15CY	1011 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				MOIST	-010C 065C	MS-883	50		0	
			Q		98%RH	1004				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1785/1
			Q		-055C	N.R.				
				REVBIAS	005C	MS-883X	49	4.90E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	49		0	
			Q		-055C	N.R.				
				REVBIAS	-055C	MS-883	49	4.90E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	49		24	MFEF 1786/24
			Q		-055C	N.R.				
NATIONAL	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
4007	14	-40/80C	Q		1000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				REVBIAS	005C	MS-883X	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				REVBIAS	125C	MS-883	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		4	MFEF 1787/4
			Q		-055C	N.R.				
RCA	E-DIP	N	05/77	BAKE	150C	MS-883	495	1.19E 04	0	
4007A	14	-40/80C	Q			1008 C				
				TEMPCYC	-065C 150C	MS-883	495		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MS-883	495		0	
			Q		1 MIN E	2001 E				
				D&F EM	025C	MS-883	495		59	
			Q			N.R.				
				REVBIAS	125C	MS-883	436	6.98E 04	0	
			Q			1015 A				
				D&F EM	025C 125C	MS-883	436		101	
			Q		-055C	N.R.				
				VIS INS	3X	MS-883	335		0	
			Q		10X	2009				
RCA	E-DIP	X	05/77	THRMSHK	-065C 150C	MS-883	50		0	
4007A	14	-40/80C	Q		15CY	1011 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				MOIST	-010C 065C	MS-883	50		0	
			Q		98%RH	1004				
				S&F EM	025C 125C	MS-883	50		3	MFEF 1788/3
			Q		-055C	N.R.				
				REVBIAS	005C	MS-883X	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				REVBIAS	-055C	MS-883	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		6	MFEF 1789/6
			Q		-055C	N.R.				
RCA	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
4007A	14	-40/80C	Q		10000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				LOPRESS	1.09T 025C	MS-883	50	2.40E 03	0	
			Q			1001 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				REVBIAS	005C	MS-883X	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				REVBIAS	125C	MS-883	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		4	MFEF 1790/1,
			Q		-055C	N.R.				1791/2, 1792/1

LATCH — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ADV MICRO DEV	E-DIP	N.R.	11/75	SDF EM	025C		855		8	
93L14	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		847		0	
			I		5CYC	N.R.				
				REVBIAS	100C		847	1.42E 05	0	
			I			N.R.				
				SDF EM	025C		847		2	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		681		7	
74L75	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		674		0	
			I		5CYC	N.R.				
				REVBIAS	100C		674	1.13E 05	0	
			I			N.R.				
				SDF EM	025C		674		4	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1445		53	
74L75	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1412		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1412	2.37E 05	0	
			I			N.R.				
				SDF EM	025C		1412		2	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		5217		53	
74L75	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		5164		0	
			I		5CYC	N.R.				
				REVBIAS	100C		5164	8.68E 05	0	
			I			N.R.				
				SDF EM	025C		5164		5	
			I			N.R.				

LATCH — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			510		0	
74LS279	16	0/70C	I			N.R.				
				S&F EM	025C 070C		510		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	510		0	
			I		15CY	1011 A				
				REVBIAS	125C		510	8.57E 04	0	
			I			N.R.				
				S&F EM	070C		510		2	MFEF 1522/2
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			167		0	
74LS279	16	0/70C	I			N.R.				
				S&F EM	025C 070C		167		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	167		0	
			I		15CY	1011 A				
				REVBIAS	125C		167	2.81E 04	0	
			I			N.R.				
				S&F EM	070C		167		2	MFEF 1523/2
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			75		0	
74LS75	16	0/70C	I			N.R.				
				S&F EM	025C 070C		75		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	75		0	
			I		15CY	1011 A				
				REVBIAS	125C		75	1.26E 04	0	
			I			N.R.				
				S&F EM	070C		75		1	MFEF 1524/1
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	DIP	N	04/75	VIS INS	30X	MM38510	1228		0	
5475	16	-55/125	Q	75X		2010 B				
				BAKE	150C	MM38510	1228	2.95E 04	0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	1228		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	1228		2	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	1226		12	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	1214		15	
			Q		3X	1014 C				
				EM	025C	MM38510	1199		4	
			Q			N.R.				
				PAR EXC	125C	MM38510	1195		0	
			Q			1015 D				
				S&D EM	-055C 025C	MM38510	1195		82	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	1013		0	
			Q		20X	2009				
SIGNETICS	FPK	N	01/75	VIS INS	30X	MM38510	643		0	
5477	14	-55/125	Q	75X		2010 B				
				BAKE	150C	MM38510	643		0	
			Q			1008 C				
				TEMPCYC	-065C 150C	MM38510	643		0	
			Q		10CY	1010 C				
				CNSTACC	30KG 1 AXIS	MM38510	643		39	
			Q		1 MIN E	2001 E				
				FINE LK	HE 5.E-8	MM38510	604		0	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MM38510	604		4	
			Q		3X	1014 C				
				EM	025C	MM38510	600		1	
			Q			N.R.				
				PAP EXC	125C	MM38510	599	1.01E 05	0	
			Q			1015 D				
				S&D EM	-055C 0025C	MM38510	599		6	
			Q		125C	N.R.				
				VIS INS	3X	MM38510	593		0	
			Q		20X	2009				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		555		1	
74279	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		554		0	
			I		5CYC	N.R.				
				REVBIAS	100C		554	9.31E 04	0	
			I			N.R.				
				SDF EM	025C		554		0	
			I			N.R.				
T.I.	E-DIP	N	05/76	VIS INS			693		0	
9308	24	0/70C	I			N.R.				
				S&F EM	025C 070C		693		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	693		0	
			I		15CY	1011 A				
				REVBIAS	125C		693	1.16E 05	0	
			I			N.R.				
				S&F EM	070C		693		9	MFEF 1525/8,
			I			N.R.				1526/1
T.I.	DIP	N	06/76	VIS INS			1000		0	
9308	24	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	1000		0	
			I		5CY	1010 B				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		7	MFEF 1727/7

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ THP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	05/76	VIS INS			60		0	
74100	24	0/70C	I			N.R.				
				S&F EM	025C 070C		60		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	60		0	
			I		5CY	1010 B				
				REVBIAS	125C		60	1.01E 04	0	
			I			N.R.				
				S&F EM	070C		60		1	MFEF 1528/1
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			2383		0	
74100	24	0/70C	I			N.R.				
				S&F EM	025C 070C		2383		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2383		0	
			I		15CY	1011 A				
				REVBIAS	125C		2383	4.00E 05	0	
			I			N.R.				
				S&F EM	070C		2383		13	MFEF 1529/12, 1530/1
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			60		0	
74116	24	0/70C	I			N.R.				
				S&F EM	025C 070C		60		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	60		0	
			I		15CY	1011 A				
				REVBIAS	125C		60	1.01E 04	0	
			I			N.R.				
				S&F EM	070C		60		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			114		0	
74116	24	0/70C	I			N.R.				
				S&F EM	025C 070C		114		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	114		0	
			I		15CY	1011 A				
				REVBIAS	125C		114	1.92E 04	0	
			I			N.R.				
				S&F EM	070C		114		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1525		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1525		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1525		0	
			I		15CY	1011 A				
				REVBIAS	125C		1525	2.56E 05	0	
			I			N.R.				
				S&F EM	070C		1525		6	MFEF 1531/2, 1532/1, 1533/3
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			500		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		5	MFEF 1534/1, 1535/4
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			2484		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2484		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2484		0	
			I		15CY	1011 A				
				REVBIAS	125C		2484	4.17E 05	0	
			I			N.R.				
				S&F EM	070C		2484		7	MFEF 1536/7
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	04/76	VIS INS			2000		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		5	MFEF 1537/1,
			I			N.R.				1538/4
VARIOUS	DIP	N	05/76	VIS INS			3000		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3000		0	
			I		15CY	1011 A				
				REVBIAS	125C		3000	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		3000		25	MFEF 1539/16,
			I			N.R.				1540/9
VARIOUS	DIP	N	06/76	VIS INS			9000		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		9000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	9000		0	
			I		15CY	1011 A				
				REVBIAS	125C		9000	1.51E 06	0	
			I			N.R.				
				S&F EM	070C		9000		46	MFEF 1541/2,
			I			N.R.				1542/5,1543/4;
										1544/1,
										1545/13,
										1546-1547/21
VARIOUS	DIP	N	08/76	VIS INS			5000		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5000		0	
			I		15CY	1011 A				
				REVBIAS	125C		5000	8.40E 05	0	
			I			N.R.				
				S&F EM	070C		5000		18	MFEF 1548/18
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			5000		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5000		0	
			I		15CY	1011 A				
				REVBIAS	125C		5000	8.40E 05	0	
			I			N.R.				
				S&F EM	070C		5000		34	MFEF 1549/3,
			I			N.R.				1550/9,
										1551/19
VARIOUS	DIP	N	02/76	VIS INS			224		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		224		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	224		0	
			I		15CY	1011 A				
				REVBIAS	125C		224	3.76E 04	0	
			I			N.R.				
				S&F EM	070C		224		7	MFEF 1552/7
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			7426		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		7426		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	7426		0	
			I		15CY	1011 A				
				REVBIAS	125C		7426	1.25E 06	0	
			I			N.R.				
				S&F EM	070C		7426		35	MFEF 1553/1,
			I			N.R.				1554/8,
										1555/12,
										1556-1558/14

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	10/76	VIS INS			2618		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2618		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2618		0	
			I		15CY	1011 A				
				REVBIAS	125C		2618	4.40E 05	0	
			I			N.R.				
				S&F EM	070C		2618		12	NFEF 1559/1,
			I			N.R.				1560/6,1561/1,
										1562/4
VARIOUS	DIP	N	05/76	VIS INS			677		0	
7475	16	0/70C	I			N.R.				
				S&F EM	025C 070C		677		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	677		0	
			I		15CY	1011 A				
				REVBIAS	125C		677	1.14E 05	0	
			I			N.R.				
				S&F EM	070C		677		48	NFEF 1563/32,
			I			N.R.				1564/16
VARIOUS	DIP	N	02/76	VIS INS			9046		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		9046		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	9046		0	
			I		15CY	1011 A				
				REVBIAS	125C		9046	1.52E 06	0	
			I			N.R.				
				S&F EM	070C		9046		250	NFEF 1565/12,
			I			N.R.				1566/107,
										1567/3,
										1568/121
VARIOUS	DIP	N	07/76	VIS INS			470		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		470		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	470		0	
			I		15CY	1011 A				
				REVBIAS	125C		470	7.90E 04	0	
			I			N.R.				
				S&F EM	070C		470		7	NFEF 1569/7
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			200		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			6500		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		6500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	6500		0	
			I		15CY	1011 A				
				REVBIAS	125C		6500	1.09E 06	0	
			I			N.R.				
				S&F EM	070C		6500		133	NFEF 1570/9,
			I			N.R.				1571/56,
										1572/38
VARIOUS	DIP	N	07/76	VIS INS			850		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		850		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	850		0	
			I		15CY	1011 A				
				REVBIAS	125C		850	1.43E 05	0	
			I			N.R.				
				S&F EM	070C		850		28	NFEF 1573/25,
			I			N.R.				1574/2

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	07/76	VIS INS			2000		0	
314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		12	MFEF 1575/9,
			I			N.R.				1576/3
VARIOUS	DIP	N	07/76	VIS INS			102		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		102		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	102		0	
			I		15CY	1011 A				
				REVBIAS	125C		102	1.71E 04	0	
			I			N.R.				
				S&F EM	070C		102		25	MFEF 1577/23,
			I			N.R.				1578/2
VARIOUS	DIP	N	08/76	VIS INS			2999		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2999		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2999		0	
			I		15CY	1011 A				
				REVBIAS	125C		2999	5.04E 05	0	
			I			N.R.				
				S&F EM	070C		2999		26	MFEF 1579/2,
			I			N.R.				1580/13,
										1581/9
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
9314	16	N.R.	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	1000		0	
			I		5CY	1010 B				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		20	MFEF 1582/3,
			I			N.R.				1583/6,
										1584/11
VARIOUS	DIP	N	11/76	VIS INS			3057		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3057		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3057		0	
			I		15CY	1011 A				
				REVBIAS	125C		3057	5.14E 05	0	
			I			N.R.				
				S&F EM	070C		3057		35	MFEF 1585/1,
			I			N.R.				1586/25,
										1587/9
VARIOUS	DIP	N	11/76	VIS INS			130		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		130		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	130		0	
			I		15CY	1011 A				
				REVBIAS	125C		130	2.18E 04	0	
			I			N.R.				
				S&F EM	070C		130		13	MFEF 1588/13
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			4600		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4600		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4600		0	
			I		15CY	1011 A				
				REVBIAS	125C		4600	7.73E 05	0	
			I			N.R.				
				S&F EM	070C		4600		67	MFEF 1589/6,
			I			N.R.				1590/30,
										1591/4,
										1592/21

LATCH — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			2000		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		19	MFEF 1593/2,
			I			N.R.				1594/17
VARIOUS	DIP	N	12/76	VIS INS			3380		0	
9314	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3380		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3380		0	
			I		15CY	1011 A				
				REVBIAS	125C		3380	5.68E 05	0	
			I			N.R.				
				S&F EM	070C		3380		40	MFEF 1595/4,
			I			N.R.				1596/36
VARIOUS	DIP	N	05/76	VIS INS			300		0	
9334	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		3	MFEF 1597/1,
			I			N.R.				1598/2
VARIOUS	DIP	N	06/76	VIS INS			300		0	
9334	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		2	MFEF 1599/1,
			I			N.R.				1600/1

LOGIC UNIT — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	02/76	VIS INS			300		0	
74H87	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		6	MFEF 1601/6
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1020		0	
74H87	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1020		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1020		0	
			I		15CY	1011 A				
				REVBIAS	125C		1020	1.71E 05	0	
			I			N.R.				
				S&F EM	070C		1020		39	MFEF 1602/1,
			I			N.R.				1603/1
										1604,29,
										1605/8

LOGIC UNIT — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1019		12	
74181	24	0/70C	I			N.R.				
				THRMSHK	000C 100C		1007		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1007	1.69E 05	0	
			I			N.R.				
				SDF EM	025C		1007		6	
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			348		0	
74181	24	0/70C	I			N.R.				
				S&F EM	025C 070C		348		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	348		0	
			I		5CY	1010 B				
				REVBIAS	125C		348	5.85E 04	0	
			I			N.R.				
				S&F EM	070C		348		3	MFEF 1606/3
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			30		0	
8260	24	0/70C	I			N.R.				
				S&F EM	025C 070C		30		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	30		0	
			I		15CY	1011 A				
				REVBIAS	125C		30	5.04E 03	0	
			I			N.R.				
				S&F EM	070C		30		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			150		0	
9340	24	N.R.	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	150		0	
			I		5CY	1010 B				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		7	MFEF 1607/4, 1608/3
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			1157		0	
9340	24	N.R.	I			N.R.				
				S&F EM	025C 070C		1157		0	
			I			N.R.				
				TEMPCYC	-055C 125C	MS-883	1157		0	
			I		5CY	1010 B				
				REVBIAS	125C		1157	1.94E 05	0	
			I			N.R.				
				S&F EM	070C		1157		12	MFEF 1609/3, 1610/7
			I			N.R.				

MULTIPLEXER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			200		0	
74S153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		5	MFEF 1611/1, 1612/4
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			175		0	
74S153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EM	070C		175		87	MFEF 1613/1, 1614/85, 1615/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			175		0	
74S157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		175		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	175		0	
			I		15CY	1011 A				
				REVBIAS	125C		175	2.94E 04	0	
			I			N.R.				
				S&F EM	070C		175		2	MFEF 1616/1, 1617/1
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			124		0	
74S157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		124		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	124		0	
			I		15CY	1011 A				
				REVBIAS	125C		124	2.08E 04	0	
			I			N.R.				
				S&F EM	070C		124		2	MFEF 1618/2
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			50		0	
74S157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		50		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	50		0	
			I		15CY	1011 A				
				REVBIAS	125C		50	8.40E 03	0	
			I			N.R.				
				S&F EM	070C		50		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			36		0	
74S157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		36		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	36		0	
			I		15CY	1011 A				
				REVBIAS	125C		36	6.05E 03	0	
			I			N.R.				
				S&F EM	070C		36		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			296		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		296		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	296		0	
			I		15CY	1011 A				
				REVBIAS	125C		296	4.97E 04	0	
			I			N.R.				
				S&F EM	070C		296		7	MFEF 1619/7
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			500		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		8	MFEF 1620/8
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	06/76	VIS INS			250		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		8	MFEF 1621/8
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			250		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				RFVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		54	MFEF 1622/54
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			250		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		11	MFEF 1623/11
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			250		0	
74S158	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		1	MFEF 1624/1
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			3288		0	
74S257	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3288		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3288		0	
			I		15CY	1011 A				
				REVBIAS	125C		3288	5.52E 05	0	
			I			N.R.				
				S&F EM	070C		3288		24	MFEF 1625/1, 1626/16, 1627/2,1628/5
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			3086		0	
74S257	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3086		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3086		0	
			I		15CY	1011 A				
				REVBIAS	125C		3086	5.18E 05	0	
			I			N.R.				
				S&F EM	070C		3086		25	MFEF 1629/25
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			513		0	
74S257	16	0/70C	I			N.R.				
				S&F EM	025C 070C		513		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	513		0	
			I		15CY	1011 A				
				REVBIAS	125C		513	8.62E 04	0	
			I			N.R.				
				S&F EM	070C		513		11	MFEF 1630/11
			I			N.R.				

MULTIPLEXER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	11/76	VIS INS			228		0	
74S258	16	0/70C	I			N.R.				
				S&F EM	025C 070C		228		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	228		0	
			I		15CY	1011 A				
				REVBIAS	125C		228	3.83E 04	0	
			I			N.R.				
				S&F EM	070C		228		7	MFEF 1631/2,
			I			N.R.				1632/1,1633/4

MULTIPLEXER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LOW POWER TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		2442		59	
74L153	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		2393		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2383	4.90E 05	0	
			I			N.R.				
				SDF EM	025C		2383		10	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		24098		261	
74L157	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		23837		0	
			I		5CYC	N.R.				
				REVBIAS	100C		23837	4.90E 06	0	
			I			N.R.				
				SDF EM	025C		23837		85	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		94		0	
74L98	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		94		0	
			I		5CYC	N.R.				
				REVBIAS	100C		94		0	
			I			N.R.				
				SDF EM	025C		94		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		9663		57	
74L157	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		9606		0	
			I		5CYC	N.R.				
				REVBIAS	100C		9606	1.61E 06	0	
			I			N.R.				
				SDF EM	025C		9606		21	
			I			N.R.				

MULTIPLEXER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		1270		7	
74LS153	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1263		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1263	2.12E 05	0	
			I			N.R.				
				SDF EM	025C		1263		15	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		10		0	
74LS153	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		10	2.40E 02	0	
			I			N.R.				
				EM			10		0	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			100		0	
74LS153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			2750		0	
74LS157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2750		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2750		0	
			I		15CY	1011 A				
				REVBIAS	125C		2750	4.62E 05	0	
			I			N.R.				
				S&F EM	070C		2750		31	MFEF 1634/31
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			820		0	
74LS257	16	0/70C	I			N.R.				
				S&F EM	025C 070C		820		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	820		0	
			I		15CY	1011 A				
				REVBIAS	125C		820	1.38E 05	0	
			I			N.R.				
				S&F EM	070C		820		17	MFEF 1635/17
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			100		0	
74LS258	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			300		0	
74LS258	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		11	MFEF 1636/11
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NATIONAL	E-DIP	N.R.	11/75	SDF EM	025C		15589		132	
8121	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		15457		0	
			I		5CYC	N.R.				
				REVBIAS	100C		15457	2.60E 06	0	
			I			N.R.				
				SDF EM	025C		15457		22	
			I			N.R.				
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		495		1	
74153	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		494		0	
			I		5CYC	N.R.				
				REVBIAS	100C		494	8.30E 04	0	
			I			N.R.				
				SDF EM	025C		494		1	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SR	TEST TYPE	STRESS LEVEL	SPEC REF.	NO. TEST	DEVICE HOURS	NO FAIL	FAILURE SUMMARY
SIGNETICS	E-DIP	N.R.	01/75	SDF EM	025C		57		17	
74157	16	0/70C				N.R.				
				THRMSHK	000C 100C		2235		0	
			I		5CYC	N.R.				
				REVBIAS	100C		2235	3.75E 05	0	
			I			N.R.				
				SDF EM	025C		2235		7	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		199		0	
74151	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		199	4.78E 03	0	
			I			N.R.				
				EM			199		2	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		128		0	
74153	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		128	3.07E 03	0	
			I			N.R.				
				EM			128		6	
			I			N.R.				
T.I.	E-DIP	N.R.	01/75	TEMPCYC	-055C 125C		30		0	
74298	16	0/70C	I		10CY	N.R.				
				REVBIAS	100C		30	7.20E 02	0	
			I			N.R.				
				EM			30		0	
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			100		0	
74150	24	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			205		0	
74150	24	0/70C	I			N.R.				
				S&F EM	025C 070C		205		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	205		0	
			I		15CY	1011 A				
				REVBIAS	125C		205	3.44E 04	0	
			I			N.R.				
				S&F EM	070C		205		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		258		0	
74151	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		258		0	
			I		5CYC	N.R.				
				REVBIAS	100C		258	4.33E 04	0	
			I			N.R.				
				SDF EM	025C		258		0	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1427		0	
74151	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1427		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1427		0	
			I		15CY	1011 A				
				REVBIAS	125C		1427	2.40E 05	0	
			I			N.R.				
				S&F EM	070C		1427		9	MFEP 1637/1, 1638/8
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			997		0	
74151	16	0/70C	I			N.R.				
				S&F EM	025C 070C		997		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	997		0	
			I		15CY	1011 A				
				REVBIAS	125C		997	1.67E 05	0	
			I			N.R.				
				S&F EM	070C		997		11	MFEP 1639/11
			I			N.R.				

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	04/76	VIS INS			3860		0	
74151	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3860		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3860		0	
			I		15CY	1011 A				
				REVBIAS	125C		3860	6.48E 05	0	
			I			N.R.				
				S&F EM	070C		3860		23	MFEF 1640/7, 1641/16
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		8495		70	
74153	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		8425		0	
			I		5CYC	N.R.				
				REVBIAS	100C		8425	1.42E 06	0	
			I			N.R.				
				SDF EM	025C		8425		22	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			560		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		560		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	560		0	
			I		15CY	1011 A				
				REVBIAS	125C		560	9.41E 04	0	
			I			N.R.				
				S&F EM	070C		560		2	MFEF 1642/1, 1643/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			2133		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2133		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2133		0	
			I		15CY	1011 A				
				REVBIAS	125C		2133	3.58E 05	0	
			I			N.R.				
				S&F EM	070C		2133		6	MFEF 1644/1, 1645/5
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			400		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		400		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	400		0	
			I		15CY	1011 A				
				REVBIAS	125C		400	6.72E 04	0	
			I			N.R.				
				S&F EM	070C		400		6	MFEF 1646/1, 1647/3
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			507		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		507		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	507		0	
			I		15CY	1011 A				
				REVBIAS	125C		507	8.52E 04	0	
			I			N.R.				
				S&F EM	070C		507		0	
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			1000		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		2	MFEF 1648/1
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			1000		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		4	MFEF 1649/4
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1000		0	
74153	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
			I		15CY	1011 A				
				REVBIAS	125C		1000	1.68E 05	0	
			I			N.R.				
				S&F EM	070C		1000		3	MFEF 1650/3
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		682		5	
74157	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		677		0	
			I		5CYC	N.R.				
				REVBIAS	100C		677	1.14E 05	0	
			I			N.R.				
				SDF EM	025C		677		1	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1410		0	
74157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1410		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1410		0	
			I		15CY	1011 A				
				REVBIAS	125C		1410	2.37E 05	0	
			I			N.R.				
				S&F EM	070C		1410		18	MFEF 1651/6, 1652/12
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			3005		0	
74157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3005		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3005		0	
			I		15CY	1011 A				
				REVBIAS	125C		3005	5.05E 05	0	
			I			N.R.				
				S&F EM	070C		3005		24	MFEF 1653/12, 1654/7, 1655/1 1656/4
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			500		0	
74157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		3	MFEF 1657/3
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			1535		0	
74157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1535		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1535		0	
			I		15CY	1011 A				
				REVBIAS	125C		1535	2.58E 05	0	
			I			N.R.				
				S&F EM	070C		1535		9	MFEF 1658/9
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			832		0	
74157	16	0/70C	I			N.R.				
				S&F EM	025C 070C		832		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	832		0	
			I		15CY	1011 A				
				REVBIAS	125C		832	1.40E 05	0	
			I			N.R.				
				S&F EM	070C		832		10	MFEF 1659/2, 1660/7
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			250		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		1	
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			5132		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		5132		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	5132		0	
			I		15CY	1011 A				
				REVBIAS	125C		5132	8.62E 05	0	
			I			N.R.				
				S&F EM	070C		5132		63	MFEF 1661/8, 1662/31, 1663/2
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			298		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		298		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	298		0	
			I		15CY	1011 A				
				REVBIAS	125C		298	5.01E 04	0	
			I			N.R.				
				S&F EM	070C		298		6	MFEF 1664/6
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			189		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		189		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	189		0	
			I		15CY	1011 A				
				REVBIAS	125C		189	3.18E 04	0	
			I			N.R.				
				S&F EM	070C		189		5	MFEF 1665/5
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			300		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		309		0	
			I			N.R.				
VARIOUS	DIP	N	09/76	VIS INS			1511		0	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1511		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1511		0	
			I		15CY	1011 A				
				REVBIAS	125C		1511	2.54E 05	0	
			I			N.R.				
				S&F EM	070C		1511		8	MFEF 1666/8
			I			N.R.				

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MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			870:		0:	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		870:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	870:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		870:	1.46E 05	0:	
			I			N.R.				
				S&F EM	070C		870:		2:	MFEF 1667/2
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			130:		0:	
8309/9309	16	0/70C	I			N.R.				
				S&F EM	025C 070C		130:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	130:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		130:	2.18E 04	0:	
			I			N.R.				
				S&F EM	070C		130:		0:	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			549:		0:	
8312/9312	16	0/70C	I			N.R.				
				S&F EM	025C 070C		549:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	549:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		549:	9.22E 04	0:	
			I			N.R.				
				S&F EM	070C		549:		29:	MFEF 1668/18, 1669/6,1670/1:
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1961:		0:	
	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1961:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1961:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		1961:	3.29E 05	0:	
			I			N.R.				
				S&F EM	070C		1961:		10:	MFEF 1671/10
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			300:		0:	
	16	0/70C	I			N.R.				
				S&F EM	025C 070C		300:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		300:	5.04E 04	0:	
			I			N.R.				
				S&F EM	070C		300:		0:	
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			1117:		0:	
	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1117:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1117:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		1117:	1.85E 05	0:	
			I			N.R.				
				S&F EM	070C		1117:		6:	MFEF 1672/3, 1673/3
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			950:		0:	
	16	0/70C	I			N.R.				
				S&F EM	025C 070C		950:		0:	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	950:		0:	
			I		15CY	1011 A				
				REVBIAS	125C		950:	1.60E 05	0:	
			I			N.R.				
				S&F EM	070C		950:		0:	
			I			N.R.				

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MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP 16	N 0/70C	04/76 I	VIS INS		N.R.	348:		0:	
			I	S&F EM	025C 070C	N.R.	348:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	348:		0:	
			I	REVBIAS	125C	N.R.	348:	5.85E 04	0:	
			I	S&F EM	070C	N.R.	348:		3:	MFEF 1674/2, 1675/1
VARIOUS	DIP 16	N 0/70C	06/76 I	VIS INS		N.R.	383:		0:	
			I	S&F EM	025C 070C	N.R.	383:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	383:		0:	
			I	REVBIAS	125C	N.R.	383:	6.43E 04	0:	
			I	S&F EM	070C	N.R.	383:		5:	MFEF 1676/5
VARIOUS	DIP 16	N 0/70C	07/76 I	VIS INS		N.R.	281:		0:	
			I	S&F EM	025C 070C	N.R.	281:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	281:		0:	
			I	REVBIAS	125C	N.R.	281:	4.72E 04	0:	
			I	S&F EM	070C	N.R.	281:		3:	MFEF 1677/2
VARIOUS	DIP 16	N 0/70C	08/76 I	VIS INS		N.R.	988:		0:	
			I	S&F EM	025C 070C	N.R.	988:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	988:		0:	
			I	REVBIAS	125C	N.R.	988:	1.66E 05	0:	
			I	S&F EM	070C	N.R.	988:		4:	MFEF 1678/4
VARIOUS	DIP 16	N 0/70C	09/76 I	VIS INS		N.R.	4398:		0:	
			I	S&F EM	025C 070C	N.R.	4398:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	4398:		0:	
			I	REVBIAS	125C	N.R.	4398:	7.39E 05	0:	
			I	S&F EM	070C	N.R.	4398:		50:	MFEF 1679/4, 1680/46
VARIOUS	DIP 16	N 0/70C	10/76 I	VIS INS		N.R.	2239:		0:	
			I	S&F EM	025C 070C	N.R.	2239:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	2239:		0:	
			I	REVBIAS	125C	N.R.	2239:	3.76E 05	0:	
			I	S&F EM	070C	N.R.	2239:		18:	MFEF 1681/3, 1682/10, 1683/5
VARIOUS	DIP 16	N 0/70C	12/76 I	VIS INS		N.R.	995:		0:	
			I	S&F EM	025C 070C	N.R.	995:		0:	
			I	THRMSHK	000C 100C 15CY	MS-883 1011 A	995:		0:	
			I	REVBIAS	125C	N.R.	995:	1.67E 05	0:	
			I	S&F EM	070C	N.R.	995:		4:	MFEF 1684/1, 1685/3

MULTIPLEXER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP 16	N 0/70C	12/76 I	VIS INS		N.R.	404		0	
			I	S&F EM	025C 070C	N.R.	404		9	
			I	THRMSHK	000C 100C	MS-883 1011 A	404		0	
			I	REVBIAS	15CY 125C	N.R.	404	6.79E 04	0	
			I	S&F EM	070C	N.R.	404		10	MFEF 1686/2, 1687/7
VARIOUS	DIP 16	N 0/70C	12/76 I	VIS INS		N.R	300		0	
			I	S&F EM	025C 070C	N.R.	300		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	300		0	
			I	REVBIAS	15CY 125C	N.R.	300	5.04E 04	0	
			I	S&F EM	070C	N.R.	300		1	MFEF 1688/1

SHIFT REGISTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	N.R.	11/75 I	SDF EM	025C	N.R.	6004		72	
74LS195	16	0/70C	I	THRMSHK	000C 100C	N.R.	5932		0	
			I	REVBIAS	5CYC 100C	N.R.	5932	9.97E 05	0	
			I	SDF EM	025C	N.R.	5932		25	
VARIOUS	DIP	N	09/76 I	VIS INS		N.R.	1850		0	
74LS164	14	0/70C	I	S&F EM	025C 070C	N.R.	1850		0	
			I	THRMSHK	000C 100C	MS-883 1011 A	1850		0	
			I	REVBIAS	15CY 125C	N.R.	1850	3.11E 05	0	
			I	S&F EM	070C	N.R.	1850		9	MFEF 1689/9

SHIFT REGISTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SIGNETICS	DIP	N	03/75	VIS INS	30X	MIL-STD-883	426		0	
54164	14	-55/125	C		25X	2010 B				
				BAKE	150C	MIL-STD-883	426	1.02E 04	0	
			C			1008 C				
				TEMPCYC	-065C 150C	MIL-STD-883	426		0	
			Q		10CY	1010 C				
				CONSTACC	30KG 1 AXIS	MIL-STD-883	426		0	
			Q		A MIN E	2001 E				
				FINE LK	HE 5.E-8	MIL-STD-883	426		6	
			Q		60 MIN	1014 A				
				GROSSLK	FLUOR 125C	MIL-STD-883	420		2	
			Q		3X	1014 C				
				EM	025C	MIL-STD-883	418		0	
			Q			N.R.				
				PAR EXC	125C	MIL-STD-883	418	7.02E 04	0	
			Q			1015 B				
				S&D EM	-055C 025C	MIL-STD-883	418		14	
			Q		125C	N.R.				
				VIS INS	30X	MIL-STD-883	404		0	
			Q		20X	2009				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
SIGNETICS	E-DIP	N.R.	11/75	SDF EM	025C		1704		9	
74195	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1695		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1695	2.85E 05	0	
			I			N.R.				
				SDF EM	025C		1695		19	
			I			N.R.				
SIGNETICS	B-DIP	N.R.	11/75	SDF EM	025C		2		2	
7495	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		130		0	
			I		5CYC	N.R.				
				REVBIAS	100C		130	2.18E 04	0	
			I			N.R.				
				SDF EM	025C		130		1	
			I			N.R.				
T.I.	E-DIP	N.R.	11/75	SDF EM	025C		28		0	
74198	24	0/70C	I			N.R.				
				THRMSHK	000C 100C		28		0	
			I		5CY	N.R.				
				REVBIAS	100C		28	4.70E 03	0	
			I			N.R.				
				SDF EM	025C		28		0	
			I			N.R.				
VARIOUS	DIP	N.R.	11/75	SDF EM	025C		916		252	
74164	14	0/70C	I			N.R.				
				THRMSHK	000C 100C		664		0	
			I		5CYC	N.R.				
				REVBIAS	100C		664	1.12E 05	0	
			I			N.R.				
				SDF EM	025C		664		0	
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			1138		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1138		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1138		0	
			I		15CY	1011 A				
				REVBIAS	125C		1138	1.91E 05	0	
			I			N.R.				
				S&F EM	070C		1138		4	MFEF 1690/1,
			I			N.R.				1691/3
VARIOUS	DIP	N	06/76	VIS INS			2902		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2902		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2902		0	
			I		15CY	1011 A				
				REVBIAS	125C		2902	4.88E 05	0	
			I			N.R.				
				S&F EM	070C		2902		[illegible]	MFEF 1692/1,
			I			N.R.				1693/4,
										1694/12
VARIOUS	DIP	N	06/76	VIS INS			2000		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2000		0	
			I		15CY	1011 A				
				REVBIAS	125C		2000	3.36E 05	0	
			I			N.R.				
				S&F EM	070C		2000		8	MFEF 1695/1,
			I			N.R.				1696/6

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ITL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			941		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		941		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	941		0	
					15CY	1011 A				
			I	REVBIAS	125C		941	1.58E 05	0	
						N.R.				
			I	S&F EM	070C		941		7	MFEF 1697/2, 1698/2
						N.R.				
			I							
VARIOUS	DIP	N	09/76	VIS INS			440		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		440		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	440		0	
					15CY	1011 A				
			I	REVBIAS	125C		440	7.39E 04	0	
						N.R.				
			I	S&F EM	070C		440		22	MFEF 1699/22
						N.R.				
			I							
VARIOUS	DIP	N	10/76	VIS INS			657		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		657		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	657		0	
					15CY	1011 A				
			I	REVBIAS	125C		657	1.10E 05	0	
						N.R.				
			I	S&F EM	070C		657		1	MFEF 1700/1
						N.R.				
			I							
VARIOUS	DIP	N	03/76	VIS INS			3115		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		3115		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3115		0	
					15CY	1011 A				
			I	REVBIAS	125C		3115	5.23E 05	0	
						N.R.				
			I	S&F EM	070C		3115		157	MFEF 1701/1, 1702/60
						N.R.				
			I							
VARIOUS	DIP	N	08/76	VIS INS			2247		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		2247		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2247		0	
					15CY	1011 A				
			I	REVBIAS	125C		2247	3.77E 05	0	
						N.R.				
			I	S&F EM	070C		2247		15	MFEF 1703/3, 1704/12
						N.R.				
			I							
VARIOUS	DIP	N	12/76	VIS INS			1000		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		1000		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1000		0	
					15CY	1011 A				
			I	REVBIAS	125C		1000	1.68E 05	0	
						N.R.				
			I	S&F EM	070C		1000		3	MFEF 1705/3
						N.R.				
			I							
VARIOUS	DIP	N	12/76	VIS INS			119		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		119		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	119		0	
					15CY	1011 A				
			I	REVBIAS	125C		119	2.00E 04	0	
						N.R.				
			I	S&F EM	070C		119		0	
						N.R.				

SHIFT REGISTER — ENVIRONMENTAL BURN-IN — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	12/76	VIS INS			160		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		160		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	160		0	
			I		15CY	1011 A				
				REVBIAS	125C		160	2.69E 04	0	
			I			N.R.				
				S&F EM	070C		160		4	MFEF 1706/3
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			510		0	
74164	14	0/70C	I			N.R.				
				S&F EM	025C 070C		510		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	510		0	
			I		15CY	1011 A				
				REVBIAS	125C		510	8.57E 04	0	
			I			N.R.				
				S&F EM	070C		510		13	MFEF 1707/9, 1708/4
			I			N.R.				
VARIOUS	N.R	N	02/76	VIS INS			2010		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		2010		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	2010		0	
			I		15CY	1011 A				
				REVBIAS	125C		2010	3.38E 05	0	
			I			N.R.				
				S&F EM	070C		2010		3	MFEF 1709/2, 1710/1
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			1517		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1517		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1517		0	
			I		15CY	1011 A				
				REVBIAS	125C		1517	2.55E 05	0	
			I			N.R.				
				S&F EM	070C		1517		11	MFEF 1711/2, 1712/9
			I			N.R.				
VARIOUS	DIP	N	04/76	VIS INS			618		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		618		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	618		0	
			I		15CY	1011 A				
				REVBIAS	125C		618	1.04E 05	0	
			I			N.R.				
				S&F EM	070C		618		5	MFEF 1713/5
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3999		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3999		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3999		0	
			I		15CY	1011 A				
				REVBIAS	125C		3999	6.72E 05	0	
			I			N.R.				
				S&F EM	070C		3999		8	MFEF 1714/8
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			3998		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		3998		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	3998		0	
			I		15CY	1011 A				
				REVBIAS	125C		3998	6.72E 05	0	
			I			N.R.				
				S&F FM	070C		3998		53	MFEF 1715/1, 1716/52
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	08/76	VIS INS			500		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	500		0	
			I		15CY	1011 A				
				REVBIAS	125C		500	8.40E 04	0	
			I			N.R.				
				S&F EM	070C		500		1	MFEF 1717/1
			I			N.R.				
VARIOUS	DIP	N	08/76	VIS INS			4500		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		4500		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	4500		0	
			I		15CY	1011 A				
				REVBIAS	125C		4500	7.56E 05	0	
			I			N.R.				
				S&F EM	070C		4500		31	MFEF 1718/7,
			I			N.R.				1719/22
VARIOUS	DIP	N	12/76	VIS INS			450		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		450		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	450		0	
			I		15CY	1011 A				
				REVBIAS	125C		450	7.56E 04	0	
			I			N.R.				
				S&F EM	070C		450		0	
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			150		0	
74165	16	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		0	
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			1303		0	
74194	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1303		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1303		0	
			I		15CY	1011 A				
				REVBIAS	125C		1303	2.19E 05	0	
			I			N.R				
				S&F EM	070C		1303		12	MFEF 1720/2,
			I			N.R.				1721/10
VARIOUS	DIP	N	12/76	VIS INS			1911		0	
74194	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1911		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1911		0	
			I		15CY	1011 A				
				REVBIAS	125C		1911	3.21E 05	0	
			I			N.R.				
				S&F EM	070C		1911		26	MFEF 1722/3,
			I			N.R.				1723/2
VARIOUS	DIP	N.R.	11/75	SDF FM	025C		1364		117	
74195	16	0/70C	I			N.R.				
				THRMSHK	000C 100C		1247		0	
			I		5CYC	N.R.				
				REVBIAS	100C		1247	2.09E 05	0	
			I			N.R.				
				SDF FM	025C		1247		5	
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
VARIOUS	DIP	N	05/76	VIS INS			1598		0	
74195	16	0/70C	I			N.R.				
				S&F EM	025C 070C		1598		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	1598		0	
			I		15CY	1011 A				
				REVBIAS	125C		1598	2.68E 05	0	
			I			N.R.				
				S&F EM	070C		1598		38	MFEF 1724/20,
			I			N.R.				1725/13,
										1726/5
VARIOUS	DIP	N	05/76	VIS INS			960		0	
7495	14	0/70C	I			N.R.				
				S&F EM	025C 070C		960		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	960		0	
			I		15CY	1011 A				
				RFVBIAS	125C		960	1.61E 05	0	
			I			N.R.				
				S&F EM	070C		960		10	MFEF 1727/3,
			I			N.R.				1728/2,1729/5
VARIOUS	DIP	N	07/76	VIS INS			300		0	
7495	14	0/70C	I			N.R.				
				S&F EM	025C 070C		300		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	300		0	
			I		15CY	1011 A				
				REVBIAS	125C		300	5.04E 04	0	
			I			N.R.				
				S&F EM	070C		300		2	MFEF 1730/2
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			481		0	
7495	14	0/70C	I			N.R.				
				S&F EM	025C 070C		481		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	481		0	
			I		15CY	1011 A				
				REVBIAS	125C		481	8.08E 04	0	
			I			N.R.				
				S&F EM	070C		481		21	MFEF 1731/1,
			I			N.R.				1732/3
VARIOUS	DIP	N	07/76	VIS INS			900		0	
7495	14	0/70C	I			N.R.				
				S&F EM	025C 070C		900		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	900		0	
			I		15CY	1011 A				
				REVBIAS	125C		900	1.51E 05	0	
			I			N.R.				
				S&F EM	070C		900		30	MFEF 1733/30
			I			N.R.				
VARIOUS	DIP	N	12/76	VIS INS			194		0	
7495	14	0/70C	I			N.R.				
				S&F FM	025C 070C		194		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	194		0	
			I		15CY	1011 A				
				REVBIAS	125C		194	3.26E 04	0	
			I			N.R.				
				S&F EM	070C		194		4	MFEF 1734/4
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			250		0	
7496	16	0/70C	I			N.R.				
				S&F EM	025C 070C		250		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	250		0	
			I		15CY	1011 A				
				REVBIAS	125C		250	4.20E 04	0	
			I			N.R.				
				S&F EM	070C		250		5	MFEF 1735/5
			I			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	DIP	N	09/76	VIS INS			100		0	
7496	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		2	MFEF 1736/2
			I			N.R.				
VARIOUS	DIP	N	10/76	VIS INS			200		0	
7496	16	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		0	
			I			N.R.				
VARIOUS	DIP	N	11/76	VIS INS			350		0	
7496	16	0/70C	I			N.R.				
				S&F EM	025C 070C		350		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	350		0	
			I		15CY	1011 A				
				REVBIAS	125C		350	5.88E 04	0	
			I			N.R.				
				S&F FM	070C		350		7	MFEF 1737/6
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			345		0	
7496	16	0/70C	I			N.R.				
				S&F EM	025C 070C		345		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	345		0	
			I		15CY	1011 A				
				REVBIAS	125C		345	5.80E 04	0	
			I			N.R.				
				S&F EM	070C		345		6	MFEF 1738/2, 1739/4
			I			N.R.				
VARIOUS	DIP	N	02/76	VIS INS			105		0	
8202	24	0/70C	I			N.R.				
				S&F EM	025C 070C		105		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	105		0	
			I		15CY	1011 A				
				REVBIAS	125C		105	1.76E 04	0	
			I			N.R.				
				S&F EM	070C		105		1	MFEF 1740/1
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			200		0	
8202	24	0/70C	I			N.R.				
				S&F EM	025C 070C		200		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	200		0	
			I		15CY	1011 A				
				REVBIAS	125C		200	3.36E 04	0	
			I			N.R.				
				S&F EM	070C		200		2	MFEF 1741/2
			I			N.R.				
VARIOUS	DIP	N	03/76	VIS INS			136		0	
8202	24	0/70C	I			N.R.				
				S&F EM	025C 070C		136		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	136		0	
			I		15CY	1011 A				
				REVBIAS	125C		136	2.28E 04	0	
			I			N.R.				
				S&F EM	070C		136		2	MFEF 1742/1, 1743/1
			I			N.R.				

PART NO	PINS	TMP RNG	SPC	TYPE	LEVEL	REF.	TEST	HOURS	FLD	SUMMARY #
VARIOUS	DIP	N	05/76	VIS INS			150		0	
8202	24	0/70C	I			N.R.				
				S&F EM	025C 070C		150		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	150		0	
			I		15CY	1011 A				
				REVBIAS	125C		150	2.52E 04	0	
			I			N.R.				
				S&F EM	070C		150		1	MFEF 1744/1
			I			N.R.				
VARIOUS	DIP	N	06/76	VIS INS			149		0	
8202	24	0/70C	I			N.R.				
				S&F EM	025C 070C		149		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	149		0	
			I		15CY	1011 A				
				REVBIAS	125C		149	2.50E 04	0	
			I			N.R.				
				S&F EM	070C		149		0	
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			51		0	
8203	24	0/70C	I			N.R.				
				S&F EM	025C 070C		51		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	51		0	
			I		15CY	1011 A				
				REVBIAS	125C		51	8.57E 03	0	
			I			N.R.				
				S&F EM	070C		51		3	MFEF 1745/2, 1746/1
			I			N.R.				
VARIOUS	DIP	N	05/76	VIS INS			100		0	
8274	16	0/70C	I			N.R.				
				S&F EM	025C 070C		100		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	100		0	
			I		15CY	1011 A				
				REVBIAS	125C		100	1.68E 04	0	
			I			N.R.				
				S&F EM	070C		100		3	MFEF 1747/3
			I			N.R.				
VARIOUS	DIP	N	07/76	VIS INS			25		0	
9300	16	0/70C	I			N.R.				
				S&F EM	025C 070C		25		0	
			I			N.R.				
				THRMSHK	000C 100C	MS-883	25		0	
			I		15CY	1011 A				
				REVBIAS	125C		25	4.20E 03	0	
			I			N.R.				
				S&F EM	070C		25		0	
			I			N.R.				

DECODER | STEP STRESS TEST | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. RFF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
MOTOROLA	DIP	N	03/76	BAKE	230C		5:	3.60E 02	0:	
10561	16	-55/125	Q		IL 70 MA	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	240C		5:	3.60E 02	0:	
			Q		IL 70 MA	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	250C		5:	3.60E 02	0:	
			Q		IL 70 MA	N.R.				
				EM			5:		0:	
			Q			N.R.				
				BAKE	260C		5:	3.60E 02	0:	
			Q		IL 70 MA	N.R.				
				STAT EM			5:		0:	
			O			N.R.				
				BAKE	270C		5:	3.60E 02	0:	
			Q		IL 70 MA	N.R.				
				STAT EM			5:		0:	
			O			N.R.				
				BAKE	280C		5:	3.60E 02	0:	
			Q		IL-70 MA	N.R.				
				STAT EM			5:		2:	MFEF 1793/2
			Q			N.R.				
				BAKE	290C		3:	2.88E 02	0:	
			Q		IL 70 MA	N.R.				
				STAT EM			3:		0:	
						N.R.				
MOTOROLA	DIP	N	03/76	BAKE	230C		5:	3.60E 02	0:	
10561	16	-55/125	Q		IL 50 MA	N.R.				
				STAT EM			5:		0:	
			O			N.R.				
				BAKE	240C		5:	3.60E 02	0:	
			Q		IL 50 MA	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	250C		5:	3.60E 02	0:	
			Q		IL 50 MA	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	260C		5:	3.60E 02	0:	
			Q		IL 50 MA	N.R.				
				STAT EM			5:		1:	MFEF 1794/1
			Q			N.R.				
				BAKE	270C		4:	2.88E 02	0:	
			O		IL 50 MA	N.R.				
				STAT EM			4:		0:	
			Q			N.R.				
				BAKE	280C		4:	2.88E 02	0:	
			Q		IL 50 MA	N.R.				
				STAT EM			4:		0:	
			Q			N.R.				
				BAKF	290C		4:	2.88E 02	0:	
			Q		IL 50 MA	N.R.				
				STAT EM			4:		0:	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAKE	300C		10:	7.20E 02	0:	
10561	16	-55/125	Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				BAKE	310C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			O			N.R.				
				STGLIFE	325C		10:	2.87E 03	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				BAKE	340C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	06/76	STGLIFE	250C		5:	3.60E 02	0:	
9S138	16	-55/125	Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	270C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	300C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	320C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	345C		5:	3.60E 02	0:	
			O			N.P.				
				STAT EM			5:		0:	
			Q			N.R.				
FAIRCHILD	DIP	N	06/76	REVBIAS	225C		5:	3.60E 02	0:	
9S138	5	-55/125	Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				REVBIAS	240C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				REVBIAS	255C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				REVBIAS	265C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				REVBIAS	275C		5:	3.60E 02	0:	
			O			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				REVBIAS	285C		5:	3.60E 02	0:	
			O			N.R.				
				STAT EM			5:		0:	
			O			N.R.				
T.I.	DIP	N	06/76	STGLIFE	250C		5:	3.60E 02	0:	
54S138	16	-55/125	Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	270C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	300C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	320C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				STGLIFE	345C		5:	3.60E 02	0:	
			Q			N.R.				
				STAT EM			5:		0:	
			Q			N.R.				

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BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	N	06/76	REVBIAS	225C		5	3.60E 02	0	
54S138	16	-55/125	Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	240C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	255C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	265C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	275C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	285C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				

DEC-DEMUX | STEP STRESS TEST | RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR | OPERATIONAL TYPE LS TTL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	N	06/76	STGLIFE	250C		5	3.60E 02	0	
54LS138	16	-55/125	Q			N.R.				
				STAT EM			5		1	MFEF 1795/1
			Q			N.R.				
				STGLIFE	270C		4	2.88E 02	0	
			Q			N.R.				
				STAT EM			4		0	
			Q			N.R.				
				STGLIFE	300C		4	2.88E 02	0	
			Q			N.R.				
				STAT EM			4		0	
			Q			N.R.				
				STGLIFE	320C		4	2.88E 02	0	
			Q			N.R.				
				STAT EM			4		0	
			Q			N.R.				
				STGLIFF	345C		4	2.88E 02	0	
			Q			N.R.				
				STAT EM			4		0	
			Q			N.R.				
T.I.	DIP	N	06/76	REVBIAS	235C		5	3.60E 02	0	
54LS138	16	-55/125	Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	250C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	270C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	290C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	288C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 9S00	DIP 14	N -55/125	06/76 Q	STGLIFE	250C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	270C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	300C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	320C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	345C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
FAIRCHILD 9S00	DIP 14	N -55/125	06/76 Q	REVBIAS	225C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				REVBIAS	240C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				REVBIAS	255C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				REVBIAS	265C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				REVBIAS	275C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				REVBIAS	285C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
T.I. 54S00	DIP 14	N -55/125	06/76 Q	STGLIFE	250C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	270C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	300C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	320C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	
				STGLIFE	345C	N.R.	5	3.60E 02	0	
				STAT EM		N.R.	5		0	

GATE

STEP STRESS TEST

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BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE SCHOTTKY TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	DIP	N	06/76	REVBIAS	225C		5	3.60E 02	0	
54S00	14	-55/125	Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	240C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	255C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	265C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	275C		5	3.60F 02	0	
			Q			N.R.				
				STAT EM			5		0	
			Q			N.R.				
				REVBIAS	285C		5	3.60E 02	0	
			Q			N.R.				
				STAT EM			5		1	MFEF 1796/1
			Q			N.R.				

GATE

STEP STRESS TEST

RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR

OPERATIONAL TYPE HIGH SPEED TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
VARIOUS	FPK	N	03/76	OP CNST	100C		10	7.20E 02	0	
54H01	14	-55/125	G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				
				OP CNST	125C		10	1.68E 03	0	
			G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	1.44E 03	0	
			G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	1.85E 03	0	
			G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	3.12E 03	0	
			G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	1.87E 03	0	
			G			N.R.				
				STAT EM	025C		10		0	
			G			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 9LS00	DIP 14	N -55/125	06/76 Q	STCLIFE	250C	N.R.	10:	7.20E 02	0:	
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	270C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STCLIFE	300C		10:	7.20E 2	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	320C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	345C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
FAIRCHILD 9LS00	DIP 14	N -55/125	06/76 Q	REVBIAS	235C	N.R.	10:	7.20E 02	0:	
				STAT EM			10:		0:	
			Q			N.R.				
				REVBIAS	250C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				REVBIAS	270C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				REVBIAS	280C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				REVBIAS	288C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
FAIRCHILD 9LS00	DIP 14	N -55/125	06/76 Q	OP DYN	235C	N.R.	10:	7.20E 02	0:	
				STAT EM			10:		0:	
			Q			N.R.				
				OP DYN	250C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				OP DYN	270C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				OP DYN	280C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				OP DYN	288C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
T.I. 54LS00	DIP 14	N -55/125	06/76 Q	STGLIFE	250C	N.R.	10:	7.20E 02	0:	
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	270C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	300C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	320C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				
				STGLIFE	345C		10:	7.20E 02	0:	
			Q			N.R.				
				STAT EM			10:		0:	
			Q			N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE LS TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
T.I.	DIP	X	06/76	REVBIAS	235C		10	7.20E 02	0	
54LS00	14	-55/125	Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				REVBIAS	250C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				REVBIAS	270C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				REVBIAS	280C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				REVBIAS	288C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
T.I.	DIP	X	06/76	OP DYS	235C		10	7.20E 02	0	
54LS00	14	-55/125	Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				OP DYS	250C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				OP DYS	270C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				OP DYS	290C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				
				OP DYS	288C		10	7.20E 02	0	
			Q			N.R.				
				STAT FM			10		0	
			Q			N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG / PINS	SCR CL / TMP RNG	DATE / SPL	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
ITT	FPP	C-1	09/75	ACC RB	200C		20	3.20E 02	0	
5410	14	-55/125	Q			N.R.				
				ACC RB	225C		20	3.20E 02	0	
			C			N.R.				
				ACC RB	250C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	260C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	270C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	300C		20	3.20E 02	1	MFEF 1797/1
			Q			N.R.				
ITT	E-DIP	X	05/77	PAR EXC	005C	MS-883X	50	5.00E 04	0	
7400	14	0/70C	Q			1005 D				
				S&F FM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883X	50	5.00E 04	0	
			O			1005 D				
				S&F FM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				

GATF STEP STRESS TEST RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
ITT	F-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
7400	14	0/70C	Q		2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	50		0	
			Q		2000CY	1010 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	50		0	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	50		25	MFEF 1798/25
			Q		-055C	N.R.				
ITT	E-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25		0	
7400	14	0/70C	Q		20G	2007 A				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		50G	2007 B				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		70G	2007 C				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
ITT	E-DIP	X	05/77	PAR FXC	125C	MS-883	50	5.00E 04	0	
7400	14	0/70C	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1799/1
			Q		-055C	N.R.				
				PAR FXC	150C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		0	
			Q		-055C	N.R.				
				PAR EXC	175C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		2	MFEF 1800/2
			O		-055C	N.R.				
				PAR EXC	200C	MS-883X	47	4.70E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	47		47	MFEF 1801/47
			Q		-055C	N.R.				
NATIONAL	E-DIP	X	05/77	PAR EXC	005C	MS-883X	50	5.00E 04	0	
5400	14	-55/125	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
NATIONAL	F-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
5400	14	-55/125	Q		2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1802/1
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	49		0	
			Q		2000CY	1010 C				
				S&F EM	025C 125C	MS-883	49		3	MFEF 1803/3
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	46		0	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	46		25	MFEF 1804/25
			Q		-055C	N.R.				
NATIONAL	F-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25		0	
5400	14	-55/125	O		20G	2007 A				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		50G	2007 B				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			O		70G	2007 C				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
NATIONAL	E-DIP	X	05/77	PAR EXC	125C	MS-883	50	5.00E 04	0	
5400	14	-55/125	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	150C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EX	175C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F FM	025C 125C	MS-883	50		1	MFEF 1805/1
			Q		-055C	N.R.				
				PAR EXC	200C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		49	MFEF 1806/49
			Q		-055C	N.R.				
NATIONAL	FPK	C-1	08/75	ACC RB	200C		20	3.20E 02	0	
5410	14	-55/125	Q			N.R.				
				ACC RB	225C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	250C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	260C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	270C		20	3.20E 02	0	
			Q			N.R.				
				ACC RB	300C		20	3.20E 02	0	
			Q			N.R.				
SIGNETICS	E-DIP	X	05/77	PAR EXC	005C	MS-883X	50	5.00E 04	0	
5400	14	-55/125	Q			1005 D				
				S&F FM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
SIGNETICS	E-DIP	X	05/77	PAR EXC	125C	MS-883	50	5.00E 04	0	
5400	14	-55/125	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	150C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1807/1
			Q		-055C	N.R.				
				PAR EXC	175C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		1	MFEF 1808/1
			Q		-055C	N.R.				
				PAR EXC	200C	MS-883X	48	4.80E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	48		48	MFEF 1809/48
			Q		-055C	N.R.				
SIGNETICS	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
5400	14	-55/125	Q		2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	50		0	
			Q		2000CY	1010 C				
				S&F FM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	50		0	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	50		12	MFEF 1810/11, 1811/1
			Q		-055C	N.R.				
SIGNETICS	E-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25		0	
5400	14	-55/125	Q		20G	2007 A				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		50G	2007 B				
				S&F FM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		70G	2007 C				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE TTL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
T.I.	E-DIP	X	05/77	PAR EXC	005C	MS-883A	50	5.00E 04	0	
7400	14	0/70C	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	-055C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
T.I.	F-DIP	X	05/77	PAR EXC	125C	MS-883	50	5.00E 04	0	
7400	14	0/70C	Q			1005 D				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				PAR EXC	150C	MS-883X	50	5.00E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	50		1	
			Q		-055C	N.R.				
				PAR EXC	175C	MS-883X	49	4.90E 04	0	
			Q			1005 D				
				S&F EM	025C 125C	MS-883	49		39	MFEF 1812/39
			Q		-055C	N.R.				
T.I.	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
7400	14	0/70C	Q		2000CY	1010 F				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	50		0	
			Q		2000CY	1010 C				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	50		0	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	50		1	MFEF 1813/1
			Q		-055C	N.R.				
T.I.	E-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25		0	
7400	14	0/70C	Q		20G	2007 A				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		50G	2007 B				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		70G	2007 C				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY BIPOLAR — OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD	DIP	N	03/76	BAKE	250C		20	1.44E 03	0	
95101	16	0/70C	Q			N.R.				
				STAT EM			20		0	
			Q			N.R.				
				BAKE	275C		20	1.44E 03	0	
			Q			N.R.				
				STAT EM			20		0	
			Q			N.R.				
				BAKE	300C		20	1.44E 03	0	
			Q			N.R.				
				STAT EM			20		0	
			Q			N.R.				
				BAKE	325C		20	1.44E 03	0	
			Q			N.R.				
				STAT EM			20		0	
			Q			N.R.				
				BAKE	340C		20	1.44E 03	0	
			Q			N.R.				
				STAT EM			20		0	
			Q			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
FAIRCHILD 95101	DIP 16	N 0/70C	03/76 Q	BAKE 215C	IL 25MA FO 4	N.R.	9	6.48E 02	0	
				STAT EM			9		0	
			Q			N.R.				
				BAKE 225C			9	6.48E 02	0	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			9		0	
			Q			N.R.				
				BAKE 250C			9	6.48E 02	0	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			9		0	
			Q			N.R.				
				BAKE 275C			9	6.48E 02	0	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			9		0	
			Q			N.R.				
				BAKE 290C			9	6.48E 02	0	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			9		0	
			Q			N.R.				
FAIRCHILD 95101	DIP 16	N 0/70C	03/76 Q	BAKE 215C	IL 44MA FO 3	N.R.	5	3.60E 02	0	
				STAT EM			5		0	
			Q			N.R.				
				BAKE 225C			5	3.60E 02	0	
			Q		IL 44MA FO 3	N.R.				
				STAT EM			5		0	
			Q			N.R.				
				BAKE 250C			5	3.60E 02	0	
			Q		IL 44MA FO 3	N.R.				
				STAT EM			5		0	
			Q			N.R.				
				BAKE 275C			5	3.60E 02	0	
			Q		IL 44MA FO 3	N.R.				
				STAT EM			5		0	
			Q			N.R.				
				BAKE 290C			5	3.60E 02	0	
			Q		IL 44MA FO 3	N.R.				
				STAT EM			5		3	MFEF 1814/3
			Q			N.R.				
FAIRCHILD 95101	DIP 16	N 0/70C	03/76 Q	BAKE 215C	IL MA65 FO 2	N.R.	5	3.60E 02	0	
				STAT EM			5		0	
			Q			N.R.				
				BAKE 225C			5	3.60E 02	0	
			Q		IL 65MA FO 2	N.R.				
				STAT EM			5		0	
			Q			N.R.				
				BAKE 250C			5	3.60E 02	0	
			Q		IL 65MA FO 2	N.R.				
				STAT EM			5		0	
			Q			N.R.				
				BAKE 275C			5	3.60E 02	0	
			Q		IL 65MA FO 2	N.R.				
				STAT EM			5		1	MFEF 1815/1
			Q			N.R.				
				BAKE 290C			4	2.88E 02	0	
			Q		IL 65MA FO 2	N.R.				
				STAT EM			4		4	MFEF 1816/4
			Q			N.R.				
MOTOROLA 10501	DIP 16	N -55/125	03/76 Q	BAKE 300C		N.R.	10	7.20E 02	0	
				STAT EM			10		0	
			Q			N.R.				
				BAKE 310C			10	7.20E 02	0	
			Q			N.R.				
				STAT EM			10		0	
			Q			N.R.				
				STGLIFE 325C			10	2.87E 03	0	
			Q			N.R.				
				STAT EM			10		0	
			Q			N.R.				
				BAKE 340C			10	2.70E 02	0	
			Q			N.R.				
				STAT EM			10		0	
			Q			N.R.				

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
MOTOROLA 10501	DIP 16	N -55/125	03/76 Q	BAKE	230C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	240C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		5	MPEF 1817/5
			Q							
MOTOROLA 10506	DIP 16	N -55/125	03/76 Q	BAKE	300C	N.R.	10	7.20E 02	0	
			Q	STAT EM		N.R.	10		0	
			Q	BAKE	310C	N.R.	10	7.20E 02	0	
			Q	STAT EM		N.R.	10		0	
			Q	STCLIFE	325C	N.R.	10	2.87E 03	0	
			Q	STAT EM		N.R.	10		0	
			Q	BAKE	340C	N.R.	10	7.20E 02	0	
			Q	STAT EM		N.R.	10		0	
			Q							
MOTOROLA 10506	DIP 16	N -55/125	03/76 Q	BAKE	230C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	240C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	250C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	260C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	270C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	280C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	290C IL 70 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q							
MOTOROLA 10506	DIP 16	N -55/125	03/76 Q	BAKE	230C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	240C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	250C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	260C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	270C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	280C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	
			Q	BAKE	290C IL 50 MA	N.R.	5	3.60E 02	0	
			Q	STAT EM		N.R.	5		0	

BASIC TECHNOLOGY BIPOLAR OPERATIONAL TYPE ECL

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	DIP	N	03/76	BAKE	250C		20:	1.44E 03	0:	
1662	16	-40/80C	Q			N.R.				
				STAT FM			20:		0:	
			O			N.R.				
				BAKE	275C		20:	1.44E 03	0:	
			Q			N.R.				
				STAT FM			20:		0:	
			Q			N.R.				
				BAKE	300C		20:	1.44E 03	0:	
			Q			N.R.				
				STAT EM			20:		0:	
			Q			N.R.				
				BAKE	325C		20:	1.44E 03	0:	
			O			N.R.				
				STAT EM			20:		0:	
			Q			N.R.				
				BAKE	340C		20:	1.44E 03	0:	
			Q			N.R.				
				STAT EM			20:		0:	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAKE	215C		8:	5.76E 02	0:	
1662	16	-40/80C	Q		IL 25MA FO 4	N.R.				
				STAT EM			8:		0:	
			Q			N.R.				
				BAKE	225C		8:	5.76E 02	0:	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			8:		0:	
			Q			N.R.				
				BAKE	250C		8:	5.76E 02	0:	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			8:		0:	
			Q			N.R.				
				BAKE	275C		8:	5.76E 02	0:	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			8:		0:	
			Q			N.R.				
				BAKE	290C		8:	5.76E 02	0:	
			Q		IL 25MA FO 4	N.R.				
				STAT EM			8:		0:	
			Q			N.R.				
MOTOROLA	DIP	N	03/76	BAKE	215C		7:	5.04E 02	0:	
1662	16	-40/80C	Q		IL 50MA FO 3	N.R.				
				STAT EM			7:		0:	
			Q			N.R.				
				BAKE	225C		7:	5.04E 02	0:	
			Q		IL 50MA FO 3	N.R.				
				STAT EM			7:		0:	
			Q			N.R.				
				BAKE	250C		7:	5.04E 02	0:	
			Q		IL 50MA FO 3	N.R.				
				STAT EM			7:		0:	
			Q			N.R.				
				BAKE	275C		7:	5.04E 02	0:	
			Q		IL 50MA FO 3	N.R.				
				STAT EM			7:		0:	
			Q			N.R.				
				BAKE	290C		7:	5.04E 02	0:	
			Q		IL 50MA FO 3	N.R.				
				STAT EM			7:		0:	
			O			N.R.				
MOTOROLA	DIP	N	03/76	BAKE	215C		5:	3.60E 02	0:	
1662	16	-40/80C	Q		IL=70MA FO 2	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	225C		5:	3.60E 02	0:	
			Q		IL 70MA FO 2	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	250C		5:	3.60E 02	0:	
			Q		IL 70MA FO 2	N.R.				
				STAT EM			5:		0:	
			Q			N.R.				
				BAKE	275C		5:	3.60E 02	0:	
			Q		IL 70MA FO 2	N.R.				
				STAT FM			5:		0:	
			Q			N.R.				
				BAKE	290C		5:	3.60E 02	0:	
			Q		IL 70MA FO 2	N.R.				
				STAT EM			5:		3:	MFEE 1818/1, 1819/2
			O			N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY / #
HARRIS	DIP	N	03/76	STAT EM	025C		15		0	
4002A	14	-55/125	G			N.R.				
				OP CNST	100C		15	1.44E 03	0	
			G			N.R.				
				STAT EM	025C		15		0	
			G			N.R.				
				OP CNST	100C		15	1.08E 03	0	
			G			N.R.				
				STAT EM	025C		15		0	
			G			N.R.				
				OP CNST	125C		15	1.08E 03	0	
			G			N.R.				
				STAT EM	025C		15		0	
			G			N.R.				
				OP CNST	125C		15	1.44E 03	0	
			G			N.R.				
				STAT EM	025C		15		0	
			G			N.R.				
				OP CNST	150C		15	1.32E 03	0	
			G			N.R.				
				STAT EM	025C		15		0	
			G			N.R.				
				OP CNST	150C		15	1.32E 03	0	
			G			N.R.				
				STAT EM	025C		15		1	MFEF 697/1
			G			N.R.				
HARRIS	DIP	N	03/76	OP CNST	100C		14	7.84E 02	0	
4002A	14	-55/125	G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	100C		14	1.46E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	125C		14	2.35E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	125C		14	2.35E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	150C		14	2.59E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	150C		14	2.60E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
				OP CNST	150C		14	2.34E 03	0	
			G			N.R.				
				STAT EM	025C		14		0	
			G			N.R.				
MOTOROLA	DIP	N	03/76	STAT EM	025C		5		0	
14002	14	-40/80C	G			N.R.				
				OP CNST	100C		5	5.65E 02	0	
			G			N.R.				
				STAT EM	025C		5		0	
			G			N.R.				
				OP CNST	125C		5	9.50E 02	0	
			G			N.R.				
				STAT EM	025C		5		0	
			G			N.R.				
				OP CNST	150C		5	4.65E 02	0	
			G			N.R.				
				STAT EM	025C		5		0	
			G			N.R.				
				OP CNST	175C		5	3.12E 03	0	
			G			N.R.				
				STAT EM	025C		5		0	
			G			N.R.				

GATE STEP STRESS TEST RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /A
RCA	DIP	N	03/76	STAT FM	025C		5		0	
4002A	14	-55/125	G			N.R.				
				BAKE	125C		5	3.60E 02	0	
			G			N.R.				
				STAT FM	025C		5		0	
			G			N.R.				
				BAKE	200C		5	2.40E 02	0	
			G			N.R.				
				STAT FM	025C		5		0	
			G			N.R.				
				BAKE	300C		5	2.40E 02	0	
			G			N.R.				
				STAT FM	025C		5		1	MFEF n99/1
			C			N.R.				
RCA	DIP	N	03/76	STAT FM	025C		15		0	
4002A	14	-55/125	G			N.R.				
				REVBIAS	100C		15	7.20E 02		SFEF n99/1
			C			N.R.				
				REVBIAS	100C		14	6.72E 02	1	MFEF n99/1
			C			N.R.				
				REVBIAS	125C		13	6.24E 02	1	MFEF n99/1
			G			N.R.				
				REVBIAS	125C		12	7.68E 02	1	MFEF n99/1
			C			N.R.				
				REVBIAS	150C		11	9.60E 02	0	
			G			N.R.				
				REVBIAS	175C		11	4.94E 02	1	MFEF n99/1
			C			N.R.				
				REVBIAS	200C		10	7.20E 02	0	
			G			N.R.				
				REVBIAS	225C		10	2.40E 02	1	MFEF n99/1
			G			N.R.				
				REVBIAS	225C		9	2.16E 02	2	MFEF n99/2
			G			N.R.				
RCA	DIP	N	03/76	STAT FM	025C		10		0	
4002A	14	-55/125	G			N.R.				
				OP CNST	100C		10	7.20E 02	0	
			G			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				OP CNST	125C		10	1.68E 03	0	
			G			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	1.44E 03	0	
			G			N.R.				
				STAT FM	025C		10		0	
			C			N.R.				
				OP CNST	150C		10	1.85E 03	0	
			G			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	2.42E 03	0	
			C			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				OP CNST	150C		10	2.57E 03	0	
			C			N.R.				
				STAT FM	025C		10		0	
			C			N.R.				
RCA	S-DIP	N	03/76	STAT FM	025C		10		0	
4002A	14	0/70C	G			N.R.				
				BAKE	125C		10	7.20E 02	0	
			G			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				BAKE	150C		10	7.20E 02	0	
			C			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				
				BAKE	200C		10	9.60E 02	0	
			G			N.R.				
				STAT FM	025C		10		0	
			G			N.R.				

GATE — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
SOLID STATE SC 4002A	DIP 14	N -55/125	03/76 C	STAT FM	025C	N.R.	5:		0:	
				OP CNST	100C		5:	5.65E 02	0:	
			G			N.R.				
				STAT FM	025C		5:		0:	
			C			N.R.				
				OP CNST	125C		5:	9.50E 02	0:	
			C			N.R.				
				STAT FM	025C		5:		0:	
			C			N.R.				
				OP CNST	150C		5:	4.65E 02	0:	
			C			N.R.				
				STAT FM	025C		5:		2:	MFEF 701/2
			C			N.R.				
				OP CNST	175C		3:	1.44E 02	0:	
			G			N.R.				
				STAT FM	025C		3:		1:	MFEF 701/1
			C			N.R.				
				OP CNST	175C		2:	9.60E 01	0:	
			C			N.R.				
				STAT FM	025C		2:		1:	MFEF 701/1
			G			N.R.				
				OP CNST	175C		1:	5.27E 02		
			G			N.R.				
				STAT FM	025C		1:		0:	
			C			N.R.				
SOLITRON DEV 4002A	DIP 14	N -55/125	03/76 C	STAT FM	025C	N.R.	5:		0:	
				REVBIAS	100C		5:	5.65E 02	0:	
			G			N.R.				
				STAT FM	025C		5:		0:	
			G			N.R.				
				RFVBIAS	125C		5:	9.50E 02	0:	
			G			N.R.				
				STAT FM	025C		5:		0:	
			G			N.R.				
				RFVBIAS	150C		5:	4.35E 02	0:	
			G			N.R.				
				STAT FM	025C		5:		1:	MFEF 702/1
			G			N.R.				
				RFVBIAS	175C		4:	4.08E 02	0:	
			C			N.R.				
				STAT FM	025C		4:		1:	MFEF 702/1
			G			N.R.				
				REVBIAS	175C		3:	1.58E 03	0:	
			G			N.R.				
				STAT FM	025C		3:		1:	MFEF 702/1
			G			N.R.				

INVERTER — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
HUGHES 4007	DIP 14	N -55/125	06/76 C	STAT FM	025C	N.R.	21:		0:	
				STAT FM	-055C		21:		0:	
			G			N.R.				
				STAT FM	125C		21:		0:	
			G			N.R.				
				OP CNST	075C		21:	3.53E 03	0:	
			C			N.R.				
				STAT FM	025C		21:		0:	
			G			N.R.				
				OP CNST	125C		21:	3.53E 03	0:	
			G			N.R.				
				STAT FM	025C		21:		1:	MFEF 1820/1
			G			N.R.				
				OP CNST	200C		20:	3.36E 03	0:	
			G			N.R.				
				STAT FM	025C		20:		6:	MFEF 1821/2, 1822/3, 1823/1
			G			N.R.				

INVERTER — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS/SOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
HUGHES	DIP	N	06/76	STAT EM	-055C 025C		24		2	MFEF 1824/2
4007	14	-55/125	G		125C	N.R.				
				OP CNST	075C		22	3.70E 03	0	
			G			N.R.				
				STAT EM	025C		22		0	
			G			N.R.				
				OP CNST	125C		22	3.70E 03	0	
			G			N.R.				
				STAT EM	025C		22		0	
			G			N.R.				
				OP CNST	200C		22	3.70E 03	0	
			G			N.R.				
				STAT EM	025C		22		7	MFEF 1825/5, 1826/2
			G			N.R.				
HUGHES	DIP	N	06/76	STAT EM	025C		30		0	
4007	14	-55/125	G			N.R.				
				STAT EM	-055C		30		0	
			G			N.R.				
				STAT EM	125C		30		0	
			G			N.R.				
				PAR EXC	075C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		1	MFEF 1827/1
			G			N.R.				
				PAR EXC	125C		29	4.87E 03	0	
			G			N.R.				
				STAT EM	025C		29		0	
			G			N.R.				
				PAR EXC	200C		29	4.87E 03	0	
			G			N.R.				
				STAT EM	025C		29		14	MFEF 1828/2, 1829/12
			G			N.R.				
HUGHES	DIP	N	06/76	STAT EM	-055C 025C		30		1	MFEF 1830/1
4007	14	-55/125	G		125C	N.R.				
				BAKE	125C		29	4.87E 03	0	
			G			N.R.				
				STAT EM	025C		29		2	MFEF 1831/2
			G			N.R.				
				BAKE	200C		27	4.54E 03	0	
			G			N.R.				
				STAT EM	025C		27		8	MFEF 1832/6, 1833/1,1834/1
			G			N.R.				
				BAKE	300C		21	3.53E 03	0	
			G			N.R.				
				STAT EM	025C		21		1	MFEF 1835/1
			G			N.R.				
NRMEC	DIP	N	06/76	STAT EM	025C		24		0	
4007	14	-55/125	G			N.R.				
				STAT EM	-055C		24		0	
			G			N.R.				
				STAT EM	125C		24		0	
			G			N.R.				
				OP CNST	075C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		0	
			G			N.R.				
				OP CNST	125C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		0	
			G			N.R.				
				OP CNST	200C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		24	MFEF 1836/24
			G			N.R.				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS/SOS

MANUFACTURER PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NRMEC	DIP	N	06/76	STAT EM	025C		21		0	
4007	14	-55/125	G			N.R.				
				STAT EM	-055C		21		0	
			G			N.R.				
				STAT EM	125C		21		0	
			G			N.R.				
				OP CNST	075C		21	3.53E 03	0	
			G			N.R.				
				STAT EM	025C		21		0	
			G			N.R.				
				OP CNST	125C		21	3.53E 03	0	
			G			N.R.				
				STAT EM	025C		21		0	
			G			N.R.				
				OP CNST	200C		21	3.53E 03	0	
			G			N.R.				
				STAT EM	025C		21		21	MFEF 1837/21
			G			N.R.				
NRMEC	DIP	N	06/76	STAT EM	025C		30		0	
4007	14	-55/125	G			N.R.				
				STAT EM	-055C		30		0	
			G			N.R.				
				STAT EM	125C		30		0	
			G			N.R.				
				PAR EXC	075C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		0	
			G			N.R.				
				PAR EXC	125C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		3	MFEF 1838/3
			G			N.R.				
				PAR EXC	200C		27	4.54E 03	0	
			G			N.R.				
				STAT EM	025C		27		21	MFEF 1839/21
			G			N.R.				
NRMEC	DIP	N	06/76	STAT EM	025C		30		0	
4007	14	-55/125	G			N.R.				
				STAT EM	-055C		30		0	
			G			N.R.				
				STAT EM	125C		30		0	
			G			N.R.				
				BAKE	125C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		0	
			G			N.R.				
				BAKE	200C		30	5.04E 03	9	
			G			N.R.				
				STAT EM	025C		30		0	
			G			N.R.				
				BAKE	300C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		1	MFEF 1840/1
			G			N.R.				
WESTINGHOUSE	DIP	N	06/76	STAT EM	025C		24		0	
4007	16	-55/125	G			N.R.				
				STAT EM	-055C		24		0	
			G			N.R.				
				STAT EM	125C		24		0	
			G			N.R.				
				OP CNST	075C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		0	
			G			N.R.				
				OP CNST	125C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		0	
			G			N.R.				
				OP CNST	200C		24	4.03E 03	0	
			G			N.R.				
				STAT EM	025C		24		10	MFEF 1841/4, 1842/4, 1843/2
			G			N.R.				

BASIC TECHNOLOGY MOS OPERATIONAL TYPE CMOS/SOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
WESTINGHOUSE 4007	DIP 16	N -55/125	06/76 G	STAT EM	025C	N.R.	15		0	
				STAT EM	-055C	N.R.	15		0	
				STAT EM	125C	N.R.	15		0	
				OP CNST	125C	N.R.	15	2.52E 03	0	
				STAT EM	025C	N.R.	15		0	
				OP CNST	200C	N.R.	15	2.52E 03	0	
				STAT EM	025C	N.R.	15		1	MFEF 1844/1
WESTINGHOUSE 4007	DIP 16	N -55/125	06/76 G	STAT EM	025C	N.R.	21		0	
				STAT EM	-055C	N.R.	21		0	
				STAT EM	125C	N.R.	21		0	
				OP CNST	075C	N.R.	21	3.53E 03	0	
				STAT EM	025C	N.R.	21		0	
				OP CNST	125C	N.R.	21	3.53E 03	0	
				STAT EM	025C	N.R.	21		0	
				OP CNST	200C	N.R.	21	3.53E 03	0	
				STAT EM	025C	N.R.	21		0	
WESTINGHOUSE 4007	DIP 16	N -55/125	06/76 G	STAT EM	-055C 025C 125C	N.R.	36		5	MFEF 1846/2, 1850/2,1845/1
				PAR EXC	075C	N.R.	31	5.21E 03	0	
				STAT EM	025C	N.R.	31		4	MFEF 1846/2, 1849/2
				PAR EXC	125C	N.R.	27	4.54E 03	0	
				STAT EM	025C	N.R.	27		0	
				PAR EXC	200C	N.R.	27	4.54E 03	0	
				STAT EM	025C	N.R.	27		9	MFEF 1847/9
WESTINGHOUSE 4007	DIP 16	N -55/125	06/76 G	STAT EM	025C	N.R.	27		0	
				STAT EM	-055C	N.R.	27		0	
				STAT EM	125C	N.R.	27		0	
				PAR EXC	125C	N.R.	27	4.54E 03	0	
				STAT EM	025C	N.R.	27		0	
				PAR EXC	200C	N.R.	27	4.54E 03	0	
				STAT EM	025C	N.R.	27		9	MFEF 1851/3, 1852/5,1853/1

INVERTER — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS/SOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
WESTINGHOUSE	DIP	N	06/76	STAT EM	025C				0	
4007	16	-55/125	G			N.R.				
				STAT EM	-055C		30		0	
			G			N.R.				
				STAT EM	125C		30		0	
			G			N.R.				
				BAKE	125C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		0	
			G			N.R.				
				BAKE	200C		30	5.04E 03	0	
			G			N.R.				
				STAT EM	025C		30		1	MFEF 1854/1
			G			N.R.				
				BAKE	300C		29	4.87E 03	0	
			G			N.R.				
				STAT EM	025C		27		5	MFEF 1855/4, 1856/1
			G			N.R.				

INVERTER — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
MOTOROLA	DIP	C-1	08/75	ACC RB	200C		20	3.20E 02	5	MFEF 1857/5, 1858/8, 1859/2
14007	14	-55/125	Q			N.R.				
				ACC RB	225C		15	2.40E 02	8	1860/1, 1861/1
			Q			N.R.				
				ACC RB	250C		7	1.12E 02	2	
			Q			N.R.				
				ACC RB	275C		5	8.00E 01	2	
			Q			N.R.				
NATIONAL	E-DIP	X	05/77	REVBIAS	005C	MS-883X	50	5.00E 04	0	
4007	14	-40/80C	Q			1005 A				
				S&F EM	025C 125C	MS-883	50		0	
			C		-055C	N.R.				
				REVBIAS	-055C	MS-883X	50	5.00E 04	0	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
NATIONAL	E-DIP	X	05/77	TEMPCYC	-055C 125C	MS-883	50		0	
4007	14	-40/80C	Q		2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50		0	
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	50		0	
			C		2000CY	1010 C				
				S&F EM	025C 125C	MS-883	50		9	MFEF 1862/9
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	41		0	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	41		34	MFEF 1863/34
			Q		-055C	N.R.				
NATIONAL	E-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25		0	
4007	14	-40/80C	Q		20G	2007 A				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		50G	2007 B				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25		0	
			Q		70G	2007 C				
				S&F EM	025C 125C	MS-883	25		0	
			Q		-055C	N.R.				

INVERTER — STEP STRESS TEST — RELIABILITY ANALYSIS CENTER

BASIC TECHNOLOGY MOS — OPERATIONAL TYPE CMOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP PNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY #
NATIONAL	E-DIP	X	05/77	REVBIAS	125C	MS-883	50:	5.00E 04	0:	
4007	14	-40/80C	Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		4:	MFEF 1864/4
			Q		-055C	N.R.				
				REVBIAS	150C	MS-883X	46:	4.60E 04	0:	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	46:		45:	MFEF 1865/45
			Q		-055C	N.R.				
NATIONAL	DIP	C-1	07/76	ACC RB	200C		20:	3.20E 02	4:	MFEF 1866/4
4007A	14	-55/125	Q			N.R.				
				ACC RB	225C		16:	2.56E 02	0:	
			Q			N.R.				
				ACC RB	250C		16:	2.56E 02	0:	
			Q			N.R.				
				ACC RB	270C		16:	2.56E 02	0:	
			Q			N.R.				
RCA	DIP	C-1	08/75	ACC RB	200C		20:	3.20E 02	0:	
4007	14	-55/125	Q			N.R.				
				ACC RB	225C		20:	3.20E 02	1:	MFEF 1867/1
			Q			N.R.				
				ACC RB	250C		19:	3.04E 02	0:	
			Q			N.R.				
				ACC RB	275C		19:	3.04E 02	1:	MFEF 1868/1
			Q			N.R.				
RCA	E-DIP	X	05/77	REVBIAS	005C	MS-883X	50:	5.00E 04	0:	
4007A	14	-40/80C	Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.				
				RFVBIAS	-055C	MS-883X	50:	5.00E 04	0:	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.				
RCA	E-DIP	Y	05/77	TEMPCYC	-055C 125C	MS-883	50:		0:	
4007A	14	-40/80C	Q		2000CY	1010 B				
				S&F EM	025C 125C	MS-883	50:		2:	MFEF 1869/1, 1870/1
			Q		-055C	N.R.				
				TEMPCYC	-065C 150C	MS-883	48:		0:	
			Q		2000CY	1010 C				
				S&F EM	025C 125C	MS-883	48:		0:	
			Q		-055C	N.R.				
				TEMPCYC	-065C 200C	MS-883	48:		0:	
			Q		2000CY	1010 D				
				S&F EM	025C 125C	MS-883	48:		10:	MFEF 1871/10
			Q		-055C	N.R.				
RCA	E-DIP	X	05/77	VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
4007A	14	-40/80C	Q		20G	2007 A				
				S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q		50G	2007 B				
				S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.				
				VBVRFQ	20HZ 2KHZ	MS-883	25:		0:	
			Q		70G	2007 C				
				S&F EM	025C 125C	MS-883	25:		0:	
			Q		-055C	N.R.				
RCA	E-DIP	X	05/77	REVBIAS	125C	MS-883	50:	5.00E 04	0:	
4007A	14	-40/80C	Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.				
				REVBIAS	150C	MS-883X	50:	5.00E 04	0:	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		0:	
			Q		-055C	N.R.				
				REVBIAS	175C	MS-883X	50:	5.00E 04	0:	
			Q			1005 A				
				S&F EM	025C 125C	MS-883	50:		10:	MFEF 1872/10
			Q		-055C	N.R.				

BASIC TECHNOLOGY MOS, SILICON GATE OPERATIONAL TYPE CMOS/SOS

MANUFACTURER / PART NO	PKG/ PINS	SCR CL/ TMP RNG	DATE/ SRC	TEST TYPE	STRESS LEVEL	SPEC. REF.	NO. TEST	DEVICE HOURS	NO. FLD	FAILURE SUMMARY /#
NRMEC 4007	DIP 14	N -55/125	06/76 G	STAT EM	025C	N.R.	21		0	
			G	STAT EM	-055C	N.R.	21		0	
			G	STAT EM	125C	N.R.	21		0	
			G	OP CNST	075C	N.R.	21	3.53E 03	0	
			G	STAT EM	025C	N.R.	21		0	
			G	OP CNST	125C	N.R.	21	3.53E 03	0	
			G	STAT EM	025C	N.R.	21		0	
			G	OP CNST	200C	N.R.	21	3.53E 03	0	
			G	STAT EM	025C	N.R.	21		18	MFEF 1873/18
NRMEC 4007	DIP 14	N -55/125	06/76 G	STAT EM	025C	N.R.	24		0	
			G	STAT EM	-055C	N.R.	24		0	
			G	STAT EM	125C	N.R.	24		0	
			G	OP CNST	075C	N.R.	24	4.03E 03	0	
			G	STAT EM	025C	N.R.	24		0	
			G	OP CNST	125C	N.R.	24	4.03E 03	0	
			G	STAT EM	025C	N.R.	24		0	
			G	OP CNST	200C	N.R.	24	4.03E 03	0	
			G	STAT EM	025C	N.R.	24		24	MFEF 1874/24
NRMEC 4007	DIP 14	N -55/125	06/76 G	STAT EM	025C	N.R.	30		0	
			G	STAT EM	-055C	N.R.	30		0	
			G	STAT EM	125C	N.R.	30		0	
			G	PAR EXC	075C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.R.	30		0	
			G	PAR EXC	125C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.R.	30		0	
			G	PAR EXC	200C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.K.	30		21	MFEF 1875/21
NRMEC 4007	DIP 14	N -55/125	06/76 G	STAT EM	025C	N.R.	30		0	
			G	STAT EM	-055C	N.R.	30		0	
			G	STAT EM	125C	N.R.	30		0	
			G	BAKE	125C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.R.	30		0	
			G	BAKE	200C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.R.	30		0	
			G	BAKE	300C	N.R.	30	5.04E 03	0	
			G	STAT EM	025C	N.R.	30		3	MFEF 1876/3

MDR-15

Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART-2

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Summer 1980

Reliability Analysis Center
ROME AIR DEVELOPMENT CENTER

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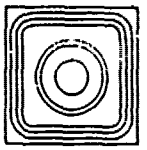

Reliability Analysis Center

A DoD Information Analysis Center

Microcircuit Device Reliability

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA PART-2

Summer 1980

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IIT Research Institute

Under Contract to:

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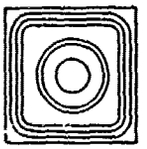

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Figure 1: Illustration of Failure Indicator Hierarchy Structure 4

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Section 3

DIGITAL FAILURE ANALYSIS DATA -
SUMMARIZED DATA

Section 3

DIGITAL FAILURE ANALYSIS DATA - SUMMARIZED DATA

The data tabulated within Section 3 represent the summation of reported digital SSI/MSI microcircuit verified failures which have occurred during various levels of device/board/equipment level testing as derived from a) the detailed environmental/screening and burn-in test data of Section 2, and b) numerous life test results, field experiences, and relevant failure analysis reports. The tables included herein have been compiled to help illustrate the relative distribution of those factors most commonly contributing to device failure in digital microcircuits. The data have been grouped according to the hierarchy of failure phenomena (failure indicator, failure mode, failure defect, failure defect cause, failure activating stress) in order to highlight the effects of operational type and package type at each level of the failure event.

The distributions of Failure Indicators are represented by Tables 34 through 52, while Failure Mode distributions may be found in Tables 53 through 69, Failure Defect Description distributions in Tables 70 through 86, Failure Defect Cause distributions in Tables 87 through 102, and Failure Activating Stress distributions in Tables 103 through 120. Operational Types are presented according to their generic (Bipolar, MOS) and specific (TTL, STTL, LTTL, CMOS, etc.) logic characteristics, while Package Types represent the same failure data categorized in terms of package enclosure (Hermetic, Nonhermetic) and package construction (dual in-line, DIP; flatpack, FPK; and CAN).

The failure representations of Tables 70 through 120 are straightforward in format, illustrating the information for each data classification in terms of the quantity failed and the percent of the overall device quantity total for that category. The Failure Indicator and Failure Mode tables (numbered 34-69) are based upon a structured format which defines the quantity totals, percent of totals, normalized quantity totals, and normalized percent contribution at each level of detail. Figure 1 (Page 4) is provided as a reference to supplement the forthcoming explanation on the derivations of the quantity totals and percent defective values.

DEVICE TECHNOLOGY: BIPOLAR

(Column 1) FAILURE INDICATOR	(Column 2) QUANTITY TOTALS	(Column 3) PERCENT	(Column 4) NORMALIZED QUANTITY	(Column 5) NORMALIZED PERCENT
OPEN (Level 1)	8	≤ 1 (A)	8	≤ 1 (D)
VERIFIED OPEN (Level 2)	8	100 (B)	6	100 (E)
UNKNOWN (Level 3)	2	25 (C)	2	33 (F)
INPUT (Level 3)	2	25 (C)	1	17 (F)
OUTPUT (Level 3)	1	13 (C)	2	33 (F)
SUPPLY (Level 3)	2	25 (C)	1	17 (F)
OTHER (Level 3)	1	13 (C)		
SHORT (Level 1)	28	≤ 1 (A)	28	≤ 1 (D)
VERIFIED SHORT (Level 2)	26	93 (B)	19	90 (E)
UNKNOWN (Level 3)	7	27 (C)	14	74 (F)
INPUT (Level 3)	14	54 (C)	4	21 (F)
OUTPUT (Level 3)	4	15 (C)	1	5 (F)
SUPPLY (Level 3)	1	4 (C)		
INTERMITTENT SHORT (Level 2)	2	7 (B)	2	10 (E)
INPUT (Level 3)	2	100 (C)	2	100 (F)
DEGRADED (Level 1)	9795	67 (A)	9742	83 (D)
UNKNOWN (Level 2)	53	1 (B)	14	22 (E)
LEAKAGE (Level 2)	17	≤ 1 (B)		
UNKNOWN (Level 3)	3	18 (C)	11	79 (F)
INPUT (Level 3)	11	65 (C)	3	21 (F)
OUTPUT (Level 3)	3	18 (C)		
PARAMETER OUT-OF-TOLERANCE (Level 2)	9725	99 (B)	49	78 (E)
UNKNOWN (Level 3)	9676	99 (C)	18	37 (F)
OUTPUT VOLT. (Level 3)	18	< 1 (C)	7	14 (F)
INPUT VOLT. (Level 3)	7	< 1 (C)	19	39 (F)
SWITCHING CHAR. (Level 3)	19	< 1 (C)	1	2 (F)
SUPPLY CURRENT. (Level 3)	1	< 1 (C)	4	8 (F)
PROPAGATION DELAY (Level 3)	4	< 1 (C)		
FUNCTIONAL ANOMALY (Level 1)	2942	20 (A)	157	1 (D)
UNKNOWN (Level 2)	2785	95 (B)	19	15 (E)
NON-FUNC.,INOP, CATAS (Level 2)	19	1 (B)	17	13 (E)
IMPROPER OUTPUT (Level 2)	41	1 (B)		
UNKNOWN (Level 3)	24	59 (C)	2	12 (F)
IMPROPER LOGIC STATE (Level 3)	2	5 (C)	6	35 (F)
IMPROPER SWITCHING (Level 3)	6	15 (C)	6	35 (F)
FLUCTUATING/OSCILLATING (Level 3)	6	15 (C)	3	18 (F)
CROSSTALK (Level 3)	3	7 (C)		
OUTPUT LATCHING (Level 2)	97	3 (B)	92	72 (E)
UNKNOWN (Level 3)	5	5 (C)	42	46 (F)
LATCHED HI (Level 3)	42	43 (C)	50	54 (F)
LATCHED LOW (Level 3)	50	52 (C)		
MECHANICAL ANOMALY (Level 1)	1785	12 (A)	1785	15 (D)

Column 1 of Figure 1 represents the verbal description of the failure indicator, as supplied by the reporting agency at up to three levels of detail. For example, OPEN is comprised of VERIFIED OPEN, which in turn breaks down into UNKNOWN, INPUT, OUTPUT, etc. Similarly, SHORT is comprised of VERIFIED SHORT and INTERMITTENT SHORT, while VERIFIED SHORT breaks down into UNKNOWN, INPUT, OUTPUT, etc. and INTERMITTENT SHORT breaks down into INPUT.

Column 2 represents the quantity totals for each level, with each Level 1 category being defined as the sum of the Level 2 quantities beneath it, and each Level 2 category being defined as the sum of the Level 3 quantities beneath it. From Figure 1, the quantity total for SHORT (Level 1) is the sum of the quantity totals for VERIFIED SHORT (Level 2) and INTERMITTENT SHORT (Level 2), whereas the quantity total for VERIFIED SHORT (Level 2) is the sum of the quantity totals for UNKNOWN, INPUT, OUTPUT, SUPPLY (all Level 3) and INTERMITTENT SHORT is the sum of the quantity totals for INPUT (Level 3).

Column 3 relates the percent contribution of each level with respect to the total quantity failed for the next higher level of structure. Calculation of the percent values at the (A) points of Figure 1 is based upon the quantity totals of each Level 1 indicator divided by the sum of the quantity totals of all of the Level 1 indicators. For example, the quantity totals for DEGRADED (9795) divided by the sum of the quantity totals for OPEN (8), SHORT (28), DEGRADED (9795), FUNCTIONAL ANOMALY (2942) and MECHANICAL ANOMALY (1785), then multiplied by 100, yields the result that 67% of all failure events reporting failure indicators were due to a degraded condition. Carrying the example further, 99% of those devices reported as degraded exhibited a PARAMETER OUT-OF-TOLERANCE condition (9725÷(53+17+9725), then multiply by 100) . This type of calculation represents the percents found at the (B) points. Finally, of those devices reported as degraded due to out-of-tolerance parameters, less than 1% (<1) failed due to out-of-tolerance output voltage (18÷(9676+18+7+19+1+4), then multiply by 100) . These calculations represent the point (C) values.

Column 4, the NORMALIZED QUANTITY values, require some care in interpretation. The intent of a normalized value is to eliminate unknown entities

from the calculation process, thus providing a more realistic representation of the relative distributions of the remaining known entities. For a complex hierarchy structure, however, unknowns can appear at a number of levels. For the FAILURE INDICATOR tables, an UNKNOWN can be located at Level 2 or 3, while for the FAILURE MODE tables, an UNKNOWN may appear at Level 2, 3 or 4. Returning to Figure 1, the NORMALIZED QUANTITY for each level represents the sum of the known entities on the next lowest level only. Therefore, the FUNCTIONAL ANOMALY (Level 1) normalized quantity is based on the known Level 2 entities of NON-FUNC., INOP, CATAS, IMPROPER OUTPUT, and OUTPUT LATCHING and, thus, equals the sum of the QUANTITY TOTALS (from Column 2) for each of these categories (19+41+97=157). The Level 2 totals are the sum of the known Level 3 quantities within that cateogry. That is, the IMPROPER OUTPUT normalized quantity of 17 is the sum of the IMPROPER LOGIC STATE ("2" from Column 4), IMPROPER SWITCHING ("6" from Column 4), FLUCTUATING/OSCILLATING ("6" from Column 4) and CROSSTALK ("3" from Column 4) normalized quantities. Notice that, for all of the UNKNOWN category levels, no entries appear in Columns 4 and 5. The Level 1 normalized quantities are not based on the sum of the Level 2 normalized quantities due to the normalization process itself. Eliminating the UNKNOWN normalized quantities at Level 3 will affect the normalized sums indicated at Level 2, but the UNKNOWN Level 3 entity is a known entity in relation to the appropriate Level 1 normalized quantity. To clarify with an example from Figure 1, although the UNKNOWN Level 3 quantity is normalized out of the Level 2 IMPROPER OUTPUT normalized quantity totals, this Level 3 UNKNOWN must still be considered as an IMPROPER OUTPUT quantity (Level 2) when considered in summing the normalized quantity for FUNCTIONAL ANOMALY (Level 1). Similarly, the Level 3 UNKNOWN under OUTPUT LATCHING (Level 2) must still be considered as OUTPUT LATCHING in relation to the normalized quantity for FUNCTIONAL ANOMALY (Level 1).

Column 5 represents the NORMALIZED PERCENT contributions for each level of structure based upon the normalized quantity values of Column 4. The point (D) percentages represent the NORMALIZED QUANTITY of a specific Level 1 category, divided by the sum of all of the normalized quantities, then multiplied by 100. From Figure 1, the normalized quantity of 9742 for DEGRADED divided by the sum of normalized quantities for OPEN (8), SHORT (28), DEGRADED (9742),

and FUNCTIONAL ANOMALY (157) means that failures reported as degraded represent 83% of all failures where an indicator was referenced. Level 2 normalized percents (reference points (E) on Figure 1) are based on the sum of the known indicator entities of Level 3 within each category (from Column 4). For example, IMPROPER OUTPUT represents a normalized 13% of FUNCTIONAL ANOMALY failures as derived from the calculation of 17 divided by the sum of 19 plus 17 plus 92, the result of which is multiplied by 100 to convert to percent. The value of 19+17+92 represents the Level 2 normalized quantity and is not indicated within the table, i.e., the Level 1 normalized quantity may or may not be indicated as the sum of the Level 2 normalized quantities, depending on the presence of a Level 2 UNKNOWN quantity. Finally, the normalized percents of point (F) equal the selected Level 3 normalized quantity divided by the normalized quantity indicated at Level 2 of the appropriate group, multiplied by 100. Again, as an example, IMPROPER SWITCHING represents 35% of all failures reported as having defined IMPROPER OUTPUT malfunctions based on the calculation of 6 (IMPROPER SWITCHING normalized quantity) divided by 17 (IMPROPER OUTPUT normalized quantity), then multiplied by 100.

During the examination of these failure event distributions (especially the failure indicator distributions, which were heavily biased in favor of one IC user's screening program), the reader must keep in mind that these summarized results represent only those data which were reported subject to the constraints of the extent of failure analysis performed and the quantity of data supplied by each data source. In other words, where a detailed failure analysis has pinpointed a failure indicator of VERIFIED OPEN, INPUT, a less rigorous analysis may report this indicator as DEGRADED or FUNCTIONAL ANOMALY. Therefore, the relative distributions provided herein should not be strictly defined in terms of individual user expectations when comparing his results with these tables. Similarly, the presentation of failure defect description distributions (Tables 70 through 86) may be questionable in the absence of a direct reference to the appropriate failure defect cause or failure mode within the device (i.e., a cracked package seal or a cracked internal bond wire). The inclusion of these tables may be justified, however, in terms of their intuitive value for comparing process-related defects, such as masking faults or mismarked packages, with actual physics-of-failure causes (voids caused by electromigration) and activating stresses (broken wires/package due to mechanical or thermomechanical stresses).

The use of these tables, particularly the failure indicator tables, will be most beneficial to those people who perform Failure Modes and Effects Criticality Analysis (FMECA) in the evaluation of systems design. Also, the implementors of screening and environmental testing programs for microcircuits will want to take note of the relevant failure phenomena as a function of operational type and package type in order to establish the most efficient and cost effective test sequence.

TABLE 34 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	8	< 1	8	< 1
VERIFIED OPEN	8	100	6	100
UNKNOWN	2	25		
INPUT	2	25	2	33
OUTPUT	1	13	1	17
SUPPLY	2	25	2	33
OTHER	1	13	1	17
SHORT	26	< 1	26	< 1
VERIFIED SHORT	26	93	19	90
UNKNOWN	7	27		
INPUT	14	54	14	74
OUTPUT	4	15	4	21
SUPPLY	1	4	1	5
INTERMITTENT SHORT	2	7	2	10
INPUT	2	100	2	100
DEGRADED	9795	67	9742	83
UNKNOWN	53	1		
LEAKAGE	17	< 1	14	22
UNKNOWN	3	18		
INPUT	11	65	11	79
OUTPUT	3	18	3	21
PARAMETER OUT-OF-TOLERANCE	9725	99	49	78
UNKNOWN	9676	99		
OUTPUT VOLT.	18	< 1	18	37
INPUT VOLT.	7	< 1	7	14
SWITCHING CHAR.	19	< 1	19	39
SUPPLY CURRENT.	1	< 1	1	2
PROPAGATION DELAY	4	< 1	4	8
FUNCTIONAL ANOMALY	2942	20	157	1
UNKNOWN	2785	95		
NON-FUNC.,INOP. CATAS	19	1	19	15
IMPROPER OUTPUT	41	1	17	13
UNKNOWN	24	59		
IMPROPER LOGIC STATE	2	5	2	12
IMPROPER SWITCHING	6	15	6	35
FLUCTUATING/OSCILLATING	6	15	6	35
CROSSTALK	3	7	3	18
OUTPUT LATCHING	97	3	92	72
UNKNOWN	5	5		
LATCHED HI	42	43	42	46
LATCHED LOW	50	52	50	54
MECHANICAL ANOMALY	1785	12	1785	15

TABLE 35 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	44	7	44	10
INTERMITTENT SHORT	44	100	44	100
COMBINATION	44	100	44	100
DEGRADED	341	54	338	78
UNKNOWN	3	1		
LEAKAGE	148	43	80	79
UNKNOWN	68	46		
INPUT	74	50	74	93
OUTPUT	1	1	1	1
OTHER	5	3	5	6
PARAMETER OUT-OF-TOLERANCE	190	56	21	21
UNKNOWN	169	89		
OUTPUT VOLT.	20	11	20	95
GAIN CHAR.	1	1	1	5
FUNCTIONAL ANOMALY	225	36	32	7
UNKNOWN	193	86		
NON-FUNC., INOP, CATAS	26	12	28	90
IMPROPER OUTPUT	1	< 1		
UNKNOWN	1	100		
OUTPUT LATCHING	3	1	3	10
LATCHED HI	2	67	2	67
LATCHED LOW	1	33	1	33
MECHANICAL ANOMALY	20	3	20	5

TABLE 36 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	1	50	1	50
LEAKAGE	1	100		
UNKNOWN	1	100		
FUNCTIONAL ANOMALY	1	50	1	50
IMPROPER OUTPUT	1	100	1	100
IMPROPER SWITCHING	1	100	1	100

TABLE 37 FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	5	< 1	5	< 1
VERIFIED OPEN	5	100	5	100
INPUT	1	20	1	20
OUTPUT	1	20	1	20
SUPPLY	2	40	2	40
OTHER	1	20	1	20
SHORT	16	< 1	16	< 1
VERIFIED SHORT	16	89	13	87
UNKNOWN	3	19		
INPUT	8	50	8	62
OUTPUT	4	25	4	31
SUPPLY	1	6	1	8
INTERMITTENT SHORT	2	11	2	13
INPUT	2	100	2	100
DEGRADED	8455	67	8433	83
UNKNOWN	22	< 1		
LEAKAGE	2	< 1	2	10
INPUT	2	100	2	100
PARAMETER OUT-OF-TOLERANCE	8431	100	19	90
UNKNOWN	8412	100		
INPUT VOLT.	7	< 1	7	37
SWITCHING CHAR.	12	< 1	12	63
FUNCTIONAL ANOMALY	2600	21	93	1
UNKNOWN	2507	96		
NON-FUNC.,INOP, CATAS	7	< 1	2	10
IMPROPER OUTPUT	30	1	12	17
UNKNOWN	18	60		
IMPROPER SWITCHING	3	10	3	25
FLUCTUATING/OSCILLATING	6	20	6	50
CROSSTALK	3	10	3	25
OUTPUT LATCHING	56	2	51	73
UNKNOWN	5	9		
LATCHED HI	22	39	22	43
LATCHED LOW	29	52	29	57
MECHANICAL ANOMALY	1581	12	1581	16

TABLE 38 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

FAILURE INDICATORS	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	3	< 1	3	< 1
VERIFIED SHORT	3	100	1	100
UNKNOWN	2	67		
INPUT	1	33	1	100
DEGRADED	589	78	573	91
UNKNOWN	16	3		
LEAKAGE	11	2	10	71
UNKNOWN	1	9		
INPUT	8	73	6	60
OUTPUT	2	18	2	20
PARAMETER OUT-OF-TOLERANCE	562	95	4	29
UNKNOWN	558	99		
OUTPUT VOLT.	1	< 1	1	25
SWITCHING CHAR.	2	< 1	2	50
SUPPLY CURRENT	1	< 1	1	25
FUNCTIONAL ANOMALY	225	17	14	2
UNKNOWN	214	99		
NON-FUNC./INOP. DATAS	8	4	3	62
IMPROPER OUTPUT	2	1		
UNKNOWN	1	100		
OUTPUT LATCHING	5	4	5	38
LATCHED HI	4	80	4	80
LATCHED LOW	1	20	1	20
MECHANICAL ANOMALY	20	3	20	3

TABLE 39 . FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

FAILURE INDICATORS	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	2	< 1	2	1
VERIFIED SHORT	2	100	1	100
UNKNOWN	1	50		
INPUT	1	50	1	100
DEGRADED	381	83	381	97
LEAKAGE	1	< 1	1	20
OUTPUT	1	100	1	100
PARAMETER OUT-OF-TOLERANCE	380	100	4	80
UNKNOWN	376	99		
PROPAGATION DELAY	4	1	4	100
FUNCTIONAL ANOMALY	67	15	2	1
UNKNOWN	65	97		
NON-FUNC./INOP. DATAS	1	1	1	50
IMPROPER OUTPUT	1	1	1	50
IMPROPER LOGIC STATE	1	100	1	100
MECHANICAL ANOMALY	9	2	9	2

TABLE 40 : FAILURE INDICATOR DISTRIBUTIONS
VICF TECHNOLOGY: LTTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	2	4	2	6
VERIFIED OPEN	2	100		
UNKNOWN	2	100		
SHORT	4	8	4	12
VERIFIED SHORT	4	100	3	100
UNKNOWN	1	25		
INPUT	3	75	3	100
DEGRADED	18	34	15	44
UNKNOWN	3	17		
LEAKAGE	1	6	1	20
INPUT	1	100		100
PARAMETER OUT-OF-TOLERANCE	14	78	4	80
UNKNOWN	10	71		
SWITCHING CHAR.	4	29	4	100
FUNCTIONAL ANOMALY	27	51	11	32
UNKNOWN	16	59		
NON-FUNC.,INOP, CATAS	1	4	1	14
IMPROPER OUTPUT	5	19	1	14
UNKNOWN	4	80		
IMPROPER LOGIC STATE	1	20	1	100
OUTPUT LATCHING	5	19	5	71
LATCHED HI	2	40	2	40
LATCHED LOW	3	60	3	60
MECHANICAL ANOMALY	2	4	2	6

TABLE 41 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	1	< 1	1	< 1
VERIFIED OPEN	1	100	1	100
INPUT	1	100	1	100
SHORT	1	< 1	1	< 1
VERIFIED SHORT	1	100	1	100
INPUT	1	100	1	100
DEGRADED	322	58	320	65
UNKNOWN	2	1		
PARAMETER OUT-OF-TOLERANCE	320	99		
UNKNOWN	320	100		
FUNCTIONAL ANOMALY	74	13	19	4
UNKNOWN	55	74		
NON-FUNC.,INOP, CATAS	1	1	1	6
IMPROPER OUTPUT	3	4	2	11
UNKNOWN	1	33		
IMPROPER SWITCHING	2	67	2	[illegible]
OUTPUT LATCHING	15	20	15	83
LATCHED HI	7	47	7	47
LATCHED LOW	8	53	8	53
MECHANICAL ANOMALY	153	28	153	31

TABLE 42 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	17	94	17	100
PARAMETER OUT-OF-TOLERANCE	17	100	17	100
OUTPUT VOLT.	17	100		
FUNCTIONAL ANOMAL.	1	6		
UNKNOWN	1	100		

TABLE 43 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	12	20	2	11
UNKNOWN	10	83		
LEAKAGE	1	8		
UNKNOWN	1	100		
PARAMETER OUT-OF-TOLERANCE	1	8	1	100
SWITCHING CHAR.	1	100	1	100
FUNCTIONAL ANOMALY	47	80	17	89
UNKNOWN	30	64		
NON-FUNC.,INOP, CATAS	1	2	1	6
OUTPUT LATCHING	16	34	16	94
LATCHED HI	7	44	7	44
LATCHED LOW	9	56	9	56

TABLE 44 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	1	14	1	50
PARAMETER OUT-OF-TOLERANCE	1	100		
UNKNOWN	1	100		
FUNCTIONAL ANOMALY	6	86	1	50
UNKNOWN	5	83		
OUTPUT LATCHING	1	17	1	100
LATCHED LOW	1	100	1	100

TABLE 45 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DEGRADED	151	39	148	74
UNKNOWN	3	2		
LEAKAGE	63	42	3	21
UNKNOWN	60	95		
INPUT	2	3	2	67
OUTPUT	1	2	1	33
PARAMETER OUT-OF-TOLERANCE	85	56	11	79
UNKNOWN	74	87		
OUTPUT VOLT.	11	13	11	100
FUNCTIONAL ANOMALY	219	56	31	16
UNKNOWN	188	86		
NON-FUNC., INOP, CATAS	28	13	28	93
IMPROPER OUTPUT	1	< 1		
UNKNOWN	1	100		
OUTPUT LATCHING	2	1	2	7
LATCHED HI	2	100	2	100
MECHANICAL ANOMALY	20	5	20	10

TABLE 46 : FAILURE INDICATOR DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	44	19	44	19
INTERMITTENT SHORT	44	100	44	100
COMBINATION	44	100	44	100
DEGRADED	189	81	189	81
LEAKAGE	85	45	77	89
UNKNOWN	8	9		
INPUT	72	85	72	94
OTHER	5	6	5	6
PARAMETER OUT-OF-TOLERANCE	104	55	10	11
UNKNOWN	94	90		
OUTPUT VOLT.	9	9	9	90
GAIN CHAR.	1	1	1	10

TABLE 47 . FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC N/R

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
OPEN	1	2	1	2
VERIFIED OPEN	1	100		
UNKNOWN	1	100		
SHORT	3	7	3	7
VERIFIED SHORT	3	100		
UNKNOWN	3	100		
DEGRADED	2	4	2	4
LEAKAGE	1	50	1	50
OUTPUT	1	100	1	100
PARAMETER OUT-OF-TOLERANCE	1	50	1	50
OUTPUT VOLT.	1	100	1	100
MECHANICAL ANOMALY	39	82	39	87

TABLE 48 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC DIP

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	54	5	54	5
VERIFIED SHORT	9	17	8	15
UNKNOWN	1	11		
INPUT	5	56	5	63
OUTPUT	2	22	2	25
SUPPLY	1	11	1	13
INTERMITTENT SHORT	45	83	45	85
INPUT	1	2	1	2
COMBINATION	44	98	44	98
DEGRADED	719	67	716	72
UNKNOWN	3	< 1		
LEAKAGE	90	13	77	62
UNKNOWN	13	14		
INPUT	72	80	72	94
OTHER	5	6	5	6
PARAMETER OUT-OF-TOLERANCE	626	87	48	38
UNKNOWN	578	92		
OUTPUT VOLT.	36	6	36	75
INPUT VOLT.	3	< 1	3	6
SWITCHING CHAR.	4	1	4	8
PROPAGATION DELAY	4	1	4	8
GAIN CHAR.	1	< 1	1	2
FUNCTIONAL ANOMALY	121	11	45	5
UNKNOWN	76	63		
NON-FUNC., INOP, CATAS	22	18	22	61
IMPROPER OUTPUT	10	8	3	8
UNKNOWN	7	70		
FLUCTUATING/OSCILLATING	3	30	3	100
OUTPUT LATCHING	13	11	11	31
UNKNOWN	2	15		
LATCHED HI	9	69	9	82
LATCHED LOW	2	15	2	18
MECHANICAL ANOMALY	181	17	181	18

TABLE 49 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC CAN

FAILURE INDICATOR	QUANTITY TOTALS		PERCENT		NORMALIZED QUANTITY		NORMALIZED PERCENT	
DEGRADED	8		100		8		100	
LEAKAGE	8		100		8		100	
INPUT		8		100		8		100

TABLE 50 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: HERMETIC FPK

FAILURE INDICATOR	QUANTITY TOTALS		PERCENT		NORMALIZED QUANTITY		NORMALIZED PERCENT	
OPEN	8		11		8		13	
VERIFIED OPEN	8		100		6		100	
UNKNOWN		2		25				
INPUT		2		25		2		33
OUTPUT		1		13		1		17
SUPPLY		2		25		2		33
OTHER		1		13		1		17
SHORT	3		4		3		5	
VERIFIED SHORT	2		67		2		67	
INPUT		1		50		1		50
OUTPUT		1		50		1		50
INTERMITTENT SHORT	1		33		1		33	
INPUT		1		100		1		100
DEGRADED	7		9		5		8	
UNKNOWN	2		29					
LEAKAGE	2		29					
UNKNOWN		2		100				
PARAMETER OUT-OF-TOLERANCE	3		43		3		100	
INPUT VOLT.		1		33		1		33
SWITCHING CHAR.		2		67		2		67
FUNCTIONAL ANOMALY	28		37		16		26	
UNKNOWN	12		43					
NON-FUNC., INOP., CATAS	4		14		4		25	
IMPROPER OUTPUT	5		18		5		31	
IMPROPER LOGIC STATE		1		20		1		20
IMPROPER SWITCHING		2		40		2		40
FLUCTUATING/OSCILLATING		2		40		2		40
OUTPUT LATCHING	7		25		7		44	
LATCHED HI		6		86		6		86
LATCHED LOW		1		14		1		14
MECHANICAL ANOMALY	30		39		30		48	

TABLE 51 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: NONHERMETIC N/R

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
MECHANICAL ANOMALY	2	100	2	100

TABLE 52 : FAILURE INDICATOR DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

FAILURE INDICATOR	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SHORT	3	< 1	3	< 1
VERIFIED SHORT	3	100	1	100
UNKNOWN	2	67		
INPUT	1	33	1	100
DEGRADED	9325	69	9325	86
LEAKAGE	55	1		
UNKNOWN	55	100		
PARAMETER OUT-OF-TOLERANCE	9270	99	6	100
UNKNOWN	9264	100		
OUTPUT VOLT.	2	< 1	2	33
INPUT VOLT.	4	< 1	4	67
FUNCTIONAL ANOMALY	2636	20	19	< 1
UNKNOWN	2617	99		
NON-FUNC., INOP, CATAS	17	1	12	94
IMPROPER OUTPUT	2	< 1	1	6
UNKNOWN	1	50		
IMPROPER LOGIC STATE	1	50	1	100
MECHANICAL ANOMALY	1512	11	1512	14

TABLE 53 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	196	26	192	26
UNKNOWN	4	2		
BULK ASPECTS	24	12	19	19
UNKNOWN	5	21		
DIFFUSION	17	71	17	89
EPITAXIAL LAYER	1	4	1	5
CRYSTAL	1	4	1	5
METALIZATION	101	52	33	34
UNKNOWN	68	67		
OXIDE STEP/CUTOUT	13	13	13	39
CONTACT WINDOW	5	5	5	15
MULTI-LAYER INTERFACE	1	1	1	3
BOND PAD	14	14	14	42
OXIDE/DIELECTRIC	51	26	30	31
UNKNOWN	21	41		
GATE OXIDE/DIELECTRIC	22	43	22	73
FIELD OXIDE/DIELECTRIC	8	16	8	27
GLASSIVATION	4	2	4	4
SURFACE	12	6	12	12
INTERCONNECTS	114	15	114	15
WIRE	102	89	102	93
WIREBOND	12	11	8	7
UNKNOWN	4	33		
WIREBOND AT DIE PAD	7	58		
UNKNOWN	7	100		
WIREBOND AT LEAD FRAME	1	8	1	13
LEAD FRAME HEEL	1	100	1	100
PACKAGE	432	58	431	58
UNKNOWN	1	< 1		
PACKAGE SEAL	233	54	233	54
PACKAGE LID	4	1	4	1
PACKAGE BODY	146	34	146	34
LEAD FRAME/EXTERNAL LEADS	46	11	46	11
DIE ATTACH BOND	2	< 1	2	< 1

TABLE 5A : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	558	86	558	86
BULK ASPECTS	8	1	1	< 1
UNKNOWN	7	88		
DIFFUSION	1	13	1	100
METALIZATION	4	1		
UNKNOWN	4	100		
OXIDE/DIELECTRIC	256	46	252	46
UNKNOWN	4	2		
GATE OXIDE/DIELECTRIC	252	98	252	100
GLASSIVATION	69	12	69	13
SURFACE	221	40	221	41
INTERCONNECTS	70	11	70	11
WIRE	54	77	54	77
WIREBOND	16	23	16	23
WIREBOND AT DIE PAD	16	100		
UNKNOWN	16	100		
PACKAGE	19	3	19	3
PACKAGE SEAL	18	95	18	95
LEAD FRAME/EXTERNAL LEADS	1	5	1	5

TABLE 55 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	1	50	1	50
OXIDE/DIELECTRIC	1	100	1	100
GATE OXIDE/DIELECTRIC	1	100	1	100
PACKAGE	1	50	1	50
PACKAGE SEAL	1	100	1	100

TABLE 56 . FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	103	22	100	21
UNKNOWN	3	3		
BULK ASPECTS	15	15	11	24
UNKNOWN	4	27		
DIFFUSION	9	60	9	82
EPITAXIAL LAYER	1	7	1	9
CRYSTAL	1	7	1	9
METALIZATION	45	44	8	18
UNKNOWN	37	82		
CONTACT WINDOW	4	9	4	50
MULTI-LAYER INTERFACE	1	2	1	13
BOND PAD	3	7	3	38
OXIDE/DIELECTRIC	27	26	13	29
UNKNOWN	14	52		
GATE OXIDE/DIELECTRIC	10	37	10	77
FIELD OXIDE/DIELECTRIC	3	11	3	23
GLASSIVATION	2	2	2	4
SURFACE	11	11	11	24
INTERCONNECTS	95	20	95	20
WIRE	87	92	87	93
WIREBOND	8	8	7	7
UNKNOWN	1	13		
WIREBOND AT DIE PAD	7	88		
UNKNOWN	7	100		
PACKAGE	281	59	281	59
PACKAGE SEAL	91	32	90	32
PACKAGE LID	3	1	3	1
PACKAGE BODY	145	52	145	52
LEAD FRAME/EXTERNAL LEADS	44	16	44	15

TABLE 57 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	20	71	20	74
METALIZATION	16	80	8	80
UNKNOWN	8	50		
CONTACT WINDOW	1	6	1	13
BOND PAD	7	44	7	88
OXIDE/DIELECTRIC	3	15	1	10
UNKNOWN	2	67		
FIELD OXIDE/DIELECTRIC	1	33	1	100
GLASSIVATION	1	5	1	10
INTERCONNECTS	3	11	3	11
WIRE	2	67	2	67
WIREBOND	1	33	1	33
WIREBOND AT LEAD FRAME	1	100	1	100
LEAD FRAME HEEL	1	100	1	100
PACKAGE	5	18	4	15
UNKNOWN	1	20		
PACKAGE SEAL	2	40	2	50
LEAD FRAME/EXTERNAL LEADS	1	20	1	25
DIE ATTACH BOND	1	20	1	25

TABLE 58 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	4	80	4	80
BULK ASPECTS	2	50	2	67
DIFFUSION	2	100	2	100
METALIZATION	1	25		
UNKNOWN	1	100		
OXIDE/DIELECTRIC	1	25	1	33
FIELD OXIDE/DIELECTRIC	1	100	1	100
PACKAGE	1	20	1	20
PACKAGE LID	1	100	1	100

TABLE 59 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	22	71	21	68
UNKNOWN	1	5		
BULK ASPECTS	2	9	2	17
DIFFUSION	2	100	2	100
METALIZATION	11	50	4	33
UNKNOWN	7	64		
BOND PAD	4	36	4	100
OXIDE/DIELECTRIC	8	36	6	50
UNKNOWN	2	25		
GATE OXIDE/DIELECTRIC	4	50	4	67
FIELD OXIDE/DIELECTRIC	2	25	2	33
INTERCONNECTS	7	23	7	23
WIRE	7	100	7	100
PACKAGE	2	6	2	6
PACKAGE BODY	1	50	1	50
DIE ATTACH BOND	1	50	1	50

TABLE 60 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	12	11	12	11
BULK ASPECTS	1	6		
UNKNOWN	1	100		
METALIZATION	13	76		
UNKNOWN	13	100		
OXIDE/DIELECTRIC	3	18	1	100
UNKNOWN	2	67		
GATE OXIDE/DIELECTRIC	1	33	1	100
INTERCONNECTS	4	3	4	3
WIRE	4	100	4	100
PACKAGE	136	87	136	87
PACKAGE SEAL	136	100	136	100

TABLE 61 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	19	83	19	83
METALIZATION	13	68	13	68
OXIDE STEP/CUTOUT	13	100	13	100
OXIDE/DIELECTRIC	6	32	6	32
GATE OXIDE/DIELECTRIC	6	100	6	100
PACKAGE	4	17	4	17
PACKAGE SEAL	4	100	4	100

TABLE 62 : FAILURE MODE DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIF	10	59	10	59
BULK ASPECTS	4	40	4	57
DIFFUSION	4	100	4	100
METALIZATION	2	20		
UNKNOWN	2	100		
OXIDE/DIELECTRIC	2	20	1	14
UNKNOWN	1	50		
FIELD OXIDE/DIELECTRIC	1	50	1	100
GLASSIVATION	1	10	1	14
SURFACE	1	10	1	14
INTERCONNECTS	5	29	5	29
WIRE	2	40	2	100
WIREBOND	3	60		
UNKNOWN	3	100		
PACKAGE	2	12	2	12
PACKAGE LID	1	50	1	50
LEAD FRAME EXTERNAL LEADS	1	50	1	50

TABLE 63 : FAILURE MODE DISTRIBUTION
DEVICE TECHNOLOGY: PMOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	44	88	44	88
METALLIZATION OPEN/HIGH	1	100	1	100
INTERCONNECTS	2	50	1	20
WIREBOND	2	100	1	100
WIREBOND AT DIE PAD OPEN/HIGH	1	100	1	100

TABLE 64 : FAILURE MODE DISTRIBUTION
DEVICE TECHNOLOGY: NMOS

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	332	60	332	60
OXIDE DEFECTS	228	69	228	69
SURFACE	112	34	112	34
INTERCONNECTS	55	10	55	10
WIRE	54	98	54	98
WIREBOND	1	2	1	2
WIREBOND AT DIE PAD OPEN/HIGH	1	100	1	100
VIA PATH	19	3	19	3
METAL 1 VIA	18	95	18	95
LEAD FRAME INTERNAL LEAD	1	5	1	5

TABLE [illegible] FAILURE MODE DISTRIBUTION
DEVICE TECHNOLOGY: [illegible]

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	222	96	222	96
DIE ASPECTS [illegible]	5 5	2 100		
OXIDE DIELECTRIC GATE OXIDE DIELECTRIC	44 44	20 100	44 44	20 100
PASSIVATION	66	33	66	31
SURFACE	109	49	109	49
INTER CONNECTS	14	6	14	6
METALLIZATION	14	100	14	100
METALLIZATION AT DIE PAD [illegible]	14 14	100 100		

TABLE [illegible] FAILURE MODE DISTRIBUTION
PACKAGE: HERMETIC S/B

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	2	4	2	4
DIE ASPECTS [illegible]	1 1	50 100	1 1	50 100
METALLIZATION [illegible] INTERFACE	1 1	50 100	1 1	50 100
INTERCONNECTS	1	2	1	2
WIRE	1	100	1	100
PACKAGE	43	93	43	93
PACKAGE SEAL	41	93	41	93
LEAD FRAME EXTERNAL LEADS	3	7	3	7

TABLE 67 . FAILURE MODE DISTRIBUTIONS
PACKAGE: HERMETIC DIP

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	329	67	329	67
UNKNOWN	1	< 1		
BULK ASPECTS	8	2	2	1
UNKNOWN	6	75	2	100
DIFFUSION	2	25		
METALIZATION	36	11	23	8
UNKNOWN	13	36	13	57
OXIDE STEP/CUTOUT	13	36	1	4
MULTI-LAYER INTERFACE	1	3	9	39
BOND PAD	9	25		
OXIDE/DIELECTRIC	81	25	74	25
UNKNOWN	7	9	70	95
GATE OXIDE/DIELECTRIC	70	86	4	5
FIELD OXIDE/DIELECTRIC	4	5		
GLASSIVATION	70	21	70	23
SURFACE	133	40	133	44
INTERCONNECTS	19	4	19	4
WIRE	5	26	5	26
WIREBOND	14	74	14	74
WIREBOND AT DIE PAD	14	100		
UNKNOWN	14	100		
PACKAGE	142	29	142	29
PACKAGE SEAL	136	96	136	96
PACKAGE LID	3	2	3	2
PACKAGE BODY	1	1	1	1
LEAD FRAME/EXTERNAL LEADS	2	1	2	1

TABLE 68 : FAILURE MODE DISTRIBUTIONS
PACKAGE: HERMETIC FPK

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	26	38	26	38
BULK ASPECTS	1	4		
UNKNOWN	1	100		
METALIZATION	13	50	1	8
UNKNOWN	12	92		
CONTACT WINDOW	1	8	1	100
OXIDE/DIELECTRIC	9	35	9	69
GATE OXIDE/DIELECTRIC	8	89	8	89
FIELD OXIDE/DIELECTRIC	1	11	1	11

TABLE 68 : FAILURE MODE DISTRIBUTIONS
PACKAGE: HERMETIC DIP (CONTINUED)

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
SURFACE	3	17	3	23
INTERCONNECTS	9	13	9	13
WIRE	8	89	8	100
WIREBOND	1	11		
UNKNOWN	1	100		
PACKAGE	37	49	36	49
PACKAGE SEAL	32	86	32	89
PACKAGE BODY	1	3	1	3
LEAD FRAME/EXTERNAL LEADS	1	3	1	3

TABLE 69 . FAILURE MODE DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

FAILURE MODES	QUANTITY TOTALS	PERCENT	NORMALIZED QUANTITY	NORMALIZED PERCENT
DIE	107	26	107	26
BULK ASPECTS	5	5	2	2
UNKNOWN	3	60		
DIFFUSION	2	40	2	100
METALIZATION	6	1		
UNKNOWN	6	100		
OXIDE/DIELECTRIC	1	1	1	1
GATE OXIDE/DIELECTRIC	1	100	1	100
SURFACE	95	89	95	97
INTERCONNECTS	127	30	127	30
WIRE	119	94	119	94
WIREBOND	8	6	8	6
WIREBOND AT DIE PAD	8	100		
UNKNOWN	8	100		
PACKAGE	184	44	184	44
PACKAGE BODY	144	78	144	78
LEAD FRAME/EXTERNAL LEADS	40	22	40	22

TABLE 70 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	109	13
CHANNEL	4	< 1
CHIPOUT	1	< 1
CRACKED	154	19
ETCH FAULT	1	< 1
HILLOCK	2	< 1
IMPURITIES	2	< 1
LIFTED	2	< 1
LOOSE	1	< 1
MASK FAULT	31	4
MISALIGNED/MISPLACED	6	1
MISSING	1	< 1
OHMIC	3	< 1
OPEN (NOC)	22	3
PARTICLE BRIDGE	4	< 1
PINHOLE	18	2
SCRATCH	1	< 1
SHORT (NOC)	68	8
SMEAR	1	< 1
VOIDS	18	2
ZAPPED-EVAPORATED	4	< 1
FAULT (NOC)	258	32
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	4	< 1
CORRODED	5	1
MELTED-FUSED	71	9
DIFFUSION FAULT	6	1
REVERSED	2	< 1
HOLE	1	< 1
TUNNELED	1	< 1
MISMARKED	2	< 1

TABLE 71 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	54	8
CHANNEL	95	15
CRACKED	6	1
IMPURITIES	19	3
LIFTED	15	2
MASK FAULT	191	30
OPEN (NOC)	1	< 1
PARTICLE BRIDGE	2	< 1
PINHOLE	2	< 1
SHORT (NOC)	9	1
FAULT (NOC)	237	37
PUNCH THROUGH	6	1
DIFFUSION FAULT	1	< 1
EXPOSED	4	1

TABLE 72 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
CRACKED	1	50
PINHOLE	1	50

TABLE 73 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	107	21
CHANNEL	3	1
CHIPOUT	1	< 1
CRACKED	152	30
HILLOCK	2	< 1
LIFTED	2	< 1
MASK FAULT	10	2
MISALIGNED/MISPLACED	3	1
MISSING	1	< 1
OHMIC	1	< 1
OPEN (NOC)	10	2
PARTICLE BRIDGE	2	< 1
PINHOLE	5	1
SCRATCH	1	< 1
SHORT (NOC)	36	7
SMEAR	1	< 1
VOIDS	5	1
ZAPPED-EVAPORATED	2	< 1
FAULT (NOC)	101	20
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	2	< 1
CORRODED	1	< 1
MELTED-FUSED	48	9
DIFFUSION FAULT	4	1
REVERSED	1	< 1
HOLE	1	< 1
TUNNELED	1	< 1

TABLE 74 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	2	6
ETCH FAULT	1	3
IMPURITIES	1	3
LOOSE	1	3
MASK FAULT	10	28
OPEN (NOC)	1	3
PINHOLE	2	6
SHORT (NOC)	3	8
FAULT (NOC)	11	31
DISCOLORED	1	3
MELTED-FUSED	3	8

TABLE 75 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
MASK FAULT	4	44
ZAPPED-EVAPORATED	1	11
FAULT (NOC)	2	22
DIFFUSION FAULT	1	11
MISMARKED	1	11

TABLE 76 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
MASK FAULT	5	12
MISALIGNED/MISPLACED	1	2
OPEN (NOC)	6	15
PINHOLE	4	10
SHORT (NOC)	13	32
FAULT (NOC)	1	2
CORRODED	4	10
MELTED-FUSED	5	12
DIFFUSION FAULT	1	2
MISMARKED	1	2

TABLE 77 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
CHANNEL	1	1
CRACKED	1	1
OPEN (NOC)	2	1
SHORT (NOC)	2	1
ZAPPED-EVAPORATED	1	1
FAULT (NOC)	136	87
MELTED-FUSED	14	9

TABLE 78 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
OHMIC	1	4
PINHOLE	5	22
VOIDS	13	57
FAULT (NOC)	4	17

TABLE 79 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
IMPURITIES	1	3
MASK FAULT	2	6
MISALIGNED/MISPLACED	2	6
OHMIC	1	3
OPEN (NOC)	3	9
PARTICLE BRIDGE	2	6
PINHOLE	1	3
SHORT (NOC)	14	44
FAULT (NOC)	3	9
DISCOLORED	1	3
MELTED-FUSED	1	3
REVERSED	1	3

TABLE 80 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
PARTICLE BRIDGE	1	17
SHORT (NOC)	4	67
FAULT (NOC)	1	17

TABLE 81 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	54	14
CHANNEL	95	24
CRACKED	6	2
IMPURITIES	15	4
LIFTED	1	< 1
MASK FAULT	181	46
OPEN (NOC)	1	< 1
PARTICLE BRIDGE	1	< 1
PINHOLE	2	1
SHORT (NOC)	2	1
FAULT (NOC)	21	5
PUNCH THROUGH	6	2
DIFFUSION FAULT	1	< 1
EXPOSED	4	1

TABLE 82 : FAILURE DEFECT DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
IMPURITIES	4	2
LIFTED	14	6
MASK FAULT	10	4
SHORT (NOC)	3	1
FAULT (NOC)	215	87

TABLE 83 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC N/R

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	1	2
CRACKED	1	2
OPEN (NOC)	1	2
FAULT (NOC)	42	91
DIFFUSION FAULT	1	2

TABLE 84 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC DIP

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	2	< 1
CHIPOUT	1	< 1
CRACKED	8	2
IMPURITIES	20	4
LIFTED	14	3
MASK FAULT	28	6
OHMIC	1	< 1
OPEN (NOC)	2	< 1
PARTICLE BRIDGE	1	< 1
PINHOLE	9	2
SHORT (NOC)	13	3
VOIDS	13	3
ZAPPED-EVAPORATED	3	1
FAULT (NOC)	357	73
FLASHOVER-ARC	6	1
PUNCH THROUGH	1	< 1
DISCOLORED	1	< 1
MELTED-FUSED	3	1
DIFFUSION FAULT	2	< 1
REVERSED	1	< 1
TUNNELED	1	< 1
EXPOSED	4	1
MISMARKED	1	< 1

TABLE 85 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: HERMETIC FPK

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	1	1
CHANNEL	3	4
CRACKED	1	1
OPEN (NOC)	6	8
PARTICLE BRIDGE	2	3
PINHOLE	1	1
SHORT (NOC)	3	4
ZAPPED-EVAPORATED	1	1
FAULT (NOC)	33	46
PUNCH THROUGH	6	8
DISCOLORED	1	1
CORRODED	4	6
MELTED-FUSED	9	13
MISMARKED	1	1

TABLE 86 : FAILURE DEFECT DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

DEFECT DESCRIPTION	QUANTITY TOTALS	PERCENT
BROKEN	158	38
CHANNEL	95	23
CRACKED	147	35
LIFTED	3	1
OPEN (NOC)	1	< 1
SHORT (NOC)	2	< 1
VOIDS	5	1
FAULT (NOC)	2	< 1
MELTED-FUSED	2	< 1

TABLE 87 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	54	20
ELECTROLYSIS	3	1
ELECTROMIGRATION	20	7
INTERMETALLIC FORMATION	6	2
THERMAL DIFFUSION	1	< 1
WORKMANSHIP	93	34
PROCESS FLAW	92	34
TROUBLESHOOTING	5	2

TABLE 88 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	109	26
ELECTROLYSIS	4	1
INTERMETALLIC FORMATION	15	4
IONIC DRIFT	96	23
WORKMANSHIP	2	< 1
PROCESS FLAW	197	47

TABLE 89 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
PROCESS FLAW	1	100

TABLE 90 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	45	36
ELECTROLYSIS	3	2
ELECTROMIGRATION	1	1
INTERMETALLIC FORMATION	6	5
THERMAL DIFFUSION	1	1
WORKMANSHIP	20	16
PROCESS FLAW	44	35
TROUBLESHOOTING	4	3

TABLE 91 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
ELECTROMIGRATION	1	4
WORKMANSHIP	5	18
PROCESS FLAW	22	79

TABLE 92 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	1	2
WORKMANSHIP	59	89
PROCESS FLAW	6	9

TABLE 93 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	4	21
WORKMANSHIP	6	32
PROCESS FLAW	8	42
TROUBLESHOOTING	1	5

TABLE 94 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
PROCESS FLAW	1	100

TABLE 95 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
ELECTROMIGRATION	18	95
PROCESS FLAW	1	5

TABLE 96 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	4	25
WORKMANSHIP	3	19
PROCESS FLAW	9	56

TABLE 97 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	8	4
ELECTROLYSIS	4	2
INTERMETALLIC FORMATION	1	< 1
IONIC DRIFT	19	9
WORKMANSHIP	2	1
PROCESS FLAW	187	85

TABLE 98 : FAILURE DEFECT CAUSE DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	101	50
INTERMETALLIC FORMATION	14	7
IONIC DRIFT	77	38
PROCESS FLAW	10	5

TABLE 99 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC N/R

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	1	14
CORROSION	1	14
ELECTROLYSIS	3	43
WORKMANSHIP	1	14
PROCESS FLAW	1	14

TABLE 100 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC DIP

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	110	31
DENDRITE GROWTH	1	< 1
ELECTROLYSIS	4	1
ELECTROMIGRATION	20	6
INTERMETALLIC FORMATION	14	4
IONIC DRIFT	96	27
THERMAL DIFFUSION	1	< 1
WORKMANSHIP	70	20
PROCESS FLAW	41	11
TROUBLESHOOTING	1	< 1

TABLE 101 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: HERMETIC FPK

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	7	50
WORKMANSHIP	2	14
PROCESS FLAW	5	36

TABLE 102 : FAILURE DEFECT CAUSE DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

DEFECT CAUSE	QUANTITY TOTALS	PERCENT
CONTAMINATION	39	80
INTERMETALLIC FORMATION	7	14
WORKMANSHIP	1	2
PROCESS FLAW	2	4

TABLE 103 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	225	36
ELECTROSTATIC DISCHARGE	19	3
CURRENT STRESS	14	2
HUMIDITY	11	2
MECHANICAL STRESS	4	1
PRESSURE	7	1
TEMPERATURE	83	13
THERMO-MECHANICAL STRESS	214	34
VOLTAGE STRESS	33	5
VOLTAGE AND CURRENT STRESS	21	3

TABLE 104 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: MOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	10	1
ELECTROSTATIC DISCHARGE	7	1
HUMIDITY	67	6
TEMPERATURE	551	49
THERMO-MECHANICAL STRESS	51	5
VOLTAGE STRESS	205	18
VOLTAGE AND CURRENT STRESS	224	20

TABLE 105 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: BIPOLAR (NOC)

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
HUMIDITY	1	50
TEMPERATURE	1	50

TABLE 106 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: TTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	123	28
ELECTROSTATIC DISCHARGE	3	1
CURRENT STRESS	7	2
HUMIDITY	9	2
PRESSURE	7	2
TEMPERATURE	53	12
THERMO-MECHANICAL STRESS	212	48
VOLTAGE STRESS	21	5
VOLTAGE AND CURRENT STRESS	7	2

TABLE 107 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: STTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	11	39
ELECTROSTATIC DISCHARGE	13	46
MECHANICAL STRESS	1	4
TEMPERATURE	2	7
VOLTAGE AND CURRENT STRESS	1	4

TABLE 108 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: LSTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	1	17
TEMPERATURE	5	83

TABLE 109 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: LTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	27	64
ELECTROSTATIC DISCHARGE	2	5
HUMIDITY	1	2
TEMPERATURE	3	7
VOLTAGE STRESS	9	21

TABLE 110 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: HTTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	21	81
CURRENT STRESS	2	8
MECHANICAL STRESS	1	4
VOLTAGE STRESS	2	8

TABLE 111 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: ECL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
CURRENT STRESS	5	12
MECHANICAL STRESS	2	5
TEMPERATURE	19	46
THERMO-MECHANICAL STRESS	2	5
VOLTAGE AND CURRENT STRESS	13	32

TABLE 112 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: DTL

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	42	95
ELECTROSTATIC DISCHARGE	1	2
VOLTAGE STRESS	1	2

TABLE 113 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: PMOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTROSTATIC DISCHARGE	4	100

TABLE 114 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	10	1
ELECTROSTATIC DISCHARGE	3	< 1
HUMIDITY	67	9
TEMPERATURE	315	44
THERMO-MECHANICAL STRESS	51	7
VOLTAGE STRESS	205	29
VOLTAGE AND CURRENT STRESS	59	8

TABLE 115 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
DEVICE TECHNOLOGY: CMOS/SOS

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
TEMPERATURE	236	59
VOLTAGE AND CURRENT STRESS	165	41

TABLE 116 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC N/R

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
MECHANICAL STRESS	1	33
TEMPERATURE	1	33
VOLTAGE STRESS	1	33

TABLE 117 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC DIP

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	18	3
ELECTROSTATIC DISCHARGE	5	1
CURRENT STRESS	5	1
HUMIDITY	4	1
MECHANICAL STRESS	1	< 1
PRESSURE	3	1
TEMPERATURE	307	55
THERMO-MECHANICAL STRESS	10	2
VOLTAGE STRESS	27	5
VOLTAGE AND CURRENT STRESS	182	32

TABLE 118 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC CAN

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTROSTATIC DISCHARGE	8	100

TABLE 119 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: HERMETIC FPK

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	29	59
ELECTROSTATIC DISCHARGE	1	2
CURRENT STRESS	3	6
HUMIDITY	2	4
TEMPERATURE	3	6
VOLTAGE STRESS	10	20
VOLTAGE AND CURRENT STRESS	1	2

TABLE 120 : FAILURE ACTIVATING STRESS DISTRIBUTIONS
PACKAGE: NONHERMETIC DIP

ACTIVATING STRESS	QUANTITY TOTALS	PERCENT
ELECTRICAL OVERSTRESS	2	< 1
HUMIDITY	71	13
MECHANICAL STRESS	1	< 1
PRESSURE	4	1
TEMPERATURE	141	26
THERMO-MECHANICAL STRESS	255	48
VOLTAGE AND CURRENT STRESS	59	11

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA

Section 4

DIGITAL FAILURE ANALYSIS DATA - DETAILED LISTINGS

Section 4

DIGITAL FAILURE ANALYSIS DATA - DETAILED LISTINGS

The data presented within the computerized listings of this section were compiled from a multitude of reported failure events for digital SSI/MSI microcircuits. These failures have occurred under a variety of environmental conditions and during numerous categories of testing, including screening/environmental, life, and equipment-level testing, as well as actual field experience. Each failure event has been assigned a unique file number (MFEF report number) and is listed sequentially according to this number. Additionally, the MFEF report number serves as a cross-reference to the data listed in the Part 1, Section 2 environmental/screening computerized listings, thus linking the detailed failure analysis results with the detailed test results which culminated in device failure.

Within each microcircuit failure event record, the reader will find relevant information about the specific phenomena of failure, including the failure report date, the data source characteristics (source designation, device/board/equipment level test, test type, etc.), the failed device characteristics (device function, part number/manufacturer/date code, device technology, screen class, package characteristics, etc.), and the failure analysis results (in terms of quantity failed, time-to-detection and failure indicator/mode/defect description/defect cause/activating stress). Finally, any information which is felt to clarify the conditions contributing to device failure has been included in a REMARKS field, thus giving the reader maximum insight into each failure event.

The reader is encouraged to familiarize himself with the format of the listings by reviewing the usage guide which follows, as well as the failure event structure/term lists of Appendix B, in order to more fully comprehend how he may best utilize the information in Section 4.

USAGE GUIDE
DIGITAL FAILURE ANALYSIS DATA

The description given below applies to the computer listings of Section 4. The circled numbers on the tabulation form below refer to the explanatory text which follows. A few minutes spent familiarizing oneself with the information supplied below will aid in the user's comprehension of the data contained herein.

---

(1) MFEF REPORT NUMBER: 2 (2) MFEF REPORT DATE: 7604

(3) DATA SOURCE: FE-0001 (4) SOURCE: BOARD LEVEL DATA-TYPE: CHECKOUT (5) APPLICATION ENV: GF (6)
DEVICE FUNCTION: FLIP-FLOP (7) CIRCUIT TYPE: MONOSTABLE (8)
PART NUMBER: 9601 (9) PART MANUFACTURER: ITT SEMICONDUCTOR (10) DATE CODE: 7534 (11)
DEVICE TECHNOLOGY: TTL (12) SCREEN CLASS: M/R (13) COMPLEXITY: 8 G (14)
PACKAGE HERMETIC FPK (15) NUMBER OF PINS: 14 (16)
QUANTITY FAILED: 1 (17) TIME TO DETECTION: 0 (18)

(19) FAILURE INDICATOR: OPEN OUTPUT (20) FAILURE MODE: WIREBOND
(21) DEFECT DESCRIPTION: BROKEN (22) DEFECT CAUSE: CONTAMINATION
(23) ACTIVATING STRESS A: M/R
(24) ACTIVATING STRESS B: M/R

(25) REMARKS: NO OUTPUT AT PIN 6. OPEN WIREBOND DUE TO CHLORINATED CONTAMINATION.

(1) MFEF REPORT NUMBER. Failure events are listed sequentially by MFEF Report Number. Each unique failure event is assigned its own number, where a failure event is defined as a detailed description of the physical/electrical failure attributes of a specific part number, including the failure indicator, failure mode, failure defect, failure defect cause, and failure activating stress(es), where such information is reported. This is the number which appears as item (18) in the Digital Evaluation-Detailed Listings of Section 2 of this publication.

(2) MFEF REPORT DATE. This date is reported in the format of year/month (e.g. 7804) and is assigned according to the following order of priority: A.) Date device failed; or B.) Date device was reported as failed; or C.) Date that failure report was submitted/written.

(3) DATA SOURCE. Indicates the unique data source from which each failure event was reported. The first two alphabetic characters of the code represent the intended/applied environment of the appropriate device/equipment. The final four integers of the code are assigned sequentially within each coded environment to maintain the identity of the data source. Data source prefixes are defined as follows:

AF	Airborne, Fighter (Environment Unknown)
AIF	Airborne, Inhabited, Fighter
AIT	Airborne, Inhabited, Transport
AT	Airborne, Transport (Environment Unknown)
AUF	Airborne, Uninhabited, Fighter
AUT	Airborne, Uninhabited, Transport
GB	Ground, Benign
GF	Ground, Fixed
GM	Ground, Mobile
GP	Ground, Portable
GT	Ground, Transport
ML	Missile, Launch
NS	Naval, Sheltered
NSS	Naval, Sheltered, Submarine
NU	Naval, Unsheltered
PA	Part-Level, Government Agency Tested
PI	Part-Level, Independent Test Lab Tested
PM	Part-Level, Part Manufacturer Tested
PQ	Part-Level, Government Qualification
PU	Part-Level, Part User Tested
SF	Space, Flight
SL	Satellite, Launch

(4) SOURCE. Identifies the data source level at which the failure(s) was reported, i.e., component level, board level, or equipment level.

(5) DATA TYPE. Indicates the test environment to which the component/board/equipment was subjected. Categories are listed as follows:

BURN-IN	Device Burn-In (<250 hrs.)
CHECKOUT	Equipment Check
DEVICE EVALUATION	Non-Stress Evaluation
ENVIRONMENTAL	Environmental Test
FIELD	Field Experience
LIFE	Device Laboratory Life (>250 hrs.)
REL DEMO	Equipment Reliability Demonstration
REL PROD DEMO	Reliability Production Demonstration

NOTE: For DEVICE EVALUATION tests, quantity failed is indicated as zero, since no stress tests have been applied to verify the failure. These results, therefore, are excluded from the summary tables.

(6) APPLICATION ENV. The actual or intended environment from which the failure data was reported. The definitions used here are identical to the conventions defined in item 3, except that the part-level codes (PA, PI, PM, PQ, PU) do not constitute an operational environment and, hence, are not included within this category.

(7) DEVICE FUNCTION. The device function represents the basic circuit function/classification of the device which failed under test.

(8) CIRCUIT TYPE. The circuit type further identifies the specialized characteristics of a given device function.

(9) PART NUMBER. Represents the full manufacturer's commercial part number for the failed device including any stated prefix or suffix designations.

(10) PART MANUFACTURER. Manufacturer of the failed device, indicated by the part number.

(11) DATE CODE. This date is usually reported in the format of year/week (e.g. 7848) and is assigned by the device manufacturer to indicate the date of fabrication.

(12) DEVICE TECHNOLOGY. Represents the fabrication technology applied in the implementation of the failed device.

(13) SCREEN CLASS. Indicates the screen class represented by the failed device(s). The appropriate definitions are included below:

JS	38510, Class S
S-1	883 Method 5004, Screen Class S
JB	38510, Class B
B-1	883 Method 5004, Screen Class B
B-2	Class B, vendor or user equivalent
JC	38510, Class C
C-1	883 Method 5004, Screen Class C
C-2	Class C, vendor or user equivalent
D	Hermetic pkg., no screening beyond normal Q.C.
P	Plastic pkg., no screening beyond normal Q.C.
S/R	See Remarks. Device quality defined in item 24 REMARKS
JAN	38510, Screen Class not reported
883	883, probably Method 5004, Screen Class not reported

(14) COMPLEXITY. Represents the complexity of the failed device in terms of the number of gates (G), the number of bits (B), or the number of transistors (T).

(15) PACKAGE. Indicates the materials used for package enclosure and the type of construction used in the package design, as indicated on the following page:

PACKAGE ENCLOSURES:

NONHERMETIC	HERMETIC
EPOXY	CERAMIC
SILICONE	METAL
PHENOLIC	CERAMIC/METAL
	METAL/GLASS
	GLASS/GLASS

PACKAGE CONSTRUCTION:

DIP	Dual In-Line Package
CAN	Can Package
FPK	Flatpack
QIP	Quad In-Line Package
LLP	Leadless Package
CRR	Chip Carrier

(16) NUMBER OF PINS. Represents the number of pins as applied to the package construction.

(17) QUANTITY FAILED. The quantity of identical part number failures exhibiting the exact failure description and occurring within the same failure event, meaning identical data source, test and device information, failure analysis description, time-to-detection, etc.

(18) TIME-TO-DETECTION. This value, expressed in hours, represents the reported or calculated time of the device under test before a) a verified failure actually occurs, or b) a verified failure is finally detected.

(19) FAILURE INDICATOR. That failure condition identified by parametric measurements of the device prior to performing destructive analyses.

(20) FAILURE MODE. The physical location within the device which is caused to catastrophically fail or degrade due to exposure to chemical/electrical/mechanical/thermal environments.

(21) DEFECT DESCRIPTION. A detailed description of the physical characteristics of the failure mode.

(22) DEFECT CAUSE. The responsible chemical/electrical/mechanical/thermal phenomena which culminated in device parameter degradation or catastrophic failure.

(23) FAILURE ACTIVATING STRESS. The physical characteristic(s) of stress which was primarily responsible for activating the failure defect cause/description.

(24) REMARKS. Contains additional comments which describe, in additional detail, the conditions or activities which lead to the occurrence of a failure event. This section may also contain information about device screen class levels not defined sufficiently in item 13.

MFEF REPORT NUMBER: 1 MFEF REPORT DATE: 7609

DATA SOURCE: FF-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: FIELD APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: SN74LS253 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7515
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER LOGIC STATE FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: SELECT CIRCUIT FAILED TO MAINTAIN LOGIC 1 INPUT. SCHOTTKY DIODE LEAK AT BASE OF INPUT TRANSISTOR,PIN 2.

MFEF REPORT NUMBER: 2 MFEF REPORT DATE: 7604

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL DATA-TYPE: CHECKOUT APPLICATION ENV: GF
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9601 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7534
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 G
PACKAGE HERMETIC FPP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN OUTPUT FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NO OUTPUT AT PIN 6. OPEN WIREBOND DUE TO CHLORINATED CONTAMINATION.

MFEF REPORT NUMBER: 4 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: N/R DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 54175 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7430
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 26 G
PACKAGE. HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHING FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AT 50 DEG C PIN 7 WAS LATCHED HI AND PIN 6 WAS LATCHED LOW. BULK DEFECT FROM VCC CONTACT TO INPUT TRANSISTOR TUB.

MFEF REPORT NUMBER 5 MFEF REPORT DATE: 7610

DATA SOURCE: AE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE. CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT INPUT FAILURE MODE: OXIDE
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INTERNAL SHORT BETWEEN PINS 2 AND 7 DUE TO SHORTED INPUT CLAMP DIODE AT PIN 2. FAILED DURING 6TH CYCLE,+25C,NO VIBRATION

MFEF REPORT NUMBER: 6 MFEF REPORT DATE: 7612

DATA SOURCE: AE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FLASHOVER-ARC DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INTERNAL SHORT PIN 2 TO 7 AT PIN 2 INPUT CLAMP DIODE DUE TO POS. VOLT. OVERSTRESS. FAILED 16TH CYC,+25C,NO VIBRATION

MFEF REPORT NUMBER: [illegible] MFEF REPORT DATE: 7612

DATA SOURCE: AF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FLASHOVER-ABC DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INTERNAL SHORT PIN 5 TO 7 AT PIN 5 INPUT CLAMP DIODE DUE TO POS. VOLT. OVERSTRESS. FAILED 16TH CYC,+25C,NO VIBRATION

MFEF REPORT NUMBER: 9 MFEF REPORT DATE: 7611

DATA SOURCE: AF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5410 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FLASHOVER-ABC DEFECT CAUSE: TROUBLESHOOTING
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: RESISTIVE SHORTS BETWEEN PINS 10,11 AND VCC. FLASHOVER OBSERVED BETWEEN INPUT TRANS EMITTERS. FAILED 12TH CYC,+25C

MFEF REPORT NUMBER: 10 MFEF REPORT DATE: 7611

DATA SOURCE: AF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5410 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FLASHOVER-ABC DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PINS 1,2 RESISTIVE SHORT TO GND. PIN 13 DIRECT SHORT TO GND. FLASHOVER SHORTS AT THESE PINS.FAILED 12TH CYC,-54C,NO VIB.

MFEF REPORT NUMBER: 12 MFEF REPORT DATE: 7612

DATA SOURCE: AF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: RFL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: RC5405 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 6 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 12

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PUNCH THROUGH DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PUNCH-THROUGH SHORT C(PIN 21-TO-E(PIN 7 GND) IN OUTPUT TRANSISTOR. FAILED DURING 2ND CYC, TEMP. TRANSITION,NO VIBRATION.

MFEF REPORT NUMBER: 15 MFEF REPORT DATE: 7705

DATA SOURCE: AF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: RFL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 5473 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 20 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 13

FAILURE INDICATOR: OUTPUT LATCHING FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: ZAPPED-EVAPORATED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: AL CONDUCTOR FROM INPUT PAD 7 TO EMITTER WINDOW FUSED OPEN. EMITTER WINDOW-TO-GND SHORT. SHORTED B-E JNCN OF P14 IN. XRA

MFEF REPORT NUMBER: 16 MFEF REPORT DATE: 7705

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5410 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 13

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: ZAPPED-EVAPORATED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: RELATED TO MFEF 15. SHORTED C-B JUNCTION RESULTING IN FUSED OPEN EMITTER AL CONDUCTOR. FAILED 3RD CYC,-54C,NO VIBRATION.

MFEF REPORT NUMBER: 17 MFEF REPORT DATE: 7706

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2602 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 14 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 1 TIME TO DETECTION: 29

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FLASHOVER-ARC DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: E-B VOLTAGE FLASHOVER AT TRANSISTOR Q12,SIDE A. FAILED DURING 5TH CYCLE,+71C,NO VIBRATION.

MFEF REPORT NUMBER: 20 MFEF REPORT DATE: 7501

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: RC5402F PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS B-2 COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 6

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: SURFACE
DEFECT DESCRIPTION FLASHOVER-ARC DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: COLLECTOR[PIN 11]-TO-EMITTER[GND] FLASHOVER. FAILED DURING 2ND CYCLE,-54C,NO VIBRATION.

MFEF REPORT NUMBER: 22 MFEF REPORT DATE: 7509

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 16

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 12 LEAD WIRE BROKEN ABOVE GLASS SEALANT COVERING BOND. NO COMPENSATION FOR VIB/TEMP EFFECTS IN LEAD DRESS. 3RD C,+71

MFEF REPORT NUMBER: 23 MFEF REPORT DATE: 7512

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER 5402 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 33

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: SURFACE
DEFECT DESCRIPTION: DISCOLORED DEFECT CAUSE: THERMAL DIFFUSION
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: EOS AT C-E OF OUTPUT TRANSISTOR.DISCOLORATION DUE TO THERMAL BUILD-UP. NON-RELATED DEFECT OF AL INTERCONNECT COVERS E&B.

MFEF REPORT NUMBER: 24 MFEF REPORT DATE 7404

DATA SOURCE: FE-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN74H51N PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: EPOXY DIP NUMBER OF PINS. 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: CHIP CRACKED IN 2 PIECES. NO EVIDENCE OF EOS. STRAIN AND MICROCRACKS IN CRYSTAL SUBSTRATE STRUCTURE EVOLVED INTO CRACK.

MFEF REPORT NUMBER: 27 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: DM8820N PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7408
DEVICE TECHNOLOGY: BIPOLAR (NOC SCREEN CLASS: N/R COMPLEXITY: 20 T
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN INPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: COROSION AT PIN 1 DIE METALIZATION [ALUMINUM] DUE TO PHOSPHOR CONTAMINANT CAUSED OPEN.

MFEF REPORT NUMBER: 28 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 5475 PART MANUFACTURER: SIGNETICS DATE CODE: 7443
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 24 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: METALIZATION RUN [PIN 2 TO 3] MELTED OPEN. CHANNEL SHORTS AT PIN 2 INPUT TRANS. SUSPECT 1 MJOULE [.01UF,500V] EOS AT P2

MFEF REPORT NUMBER: 30 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: N/R DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER SN5404 PART MANUFACTURER: SIGNETICS DATE CODE: 7328
DEVICE TECHNOLOGY TTL SCREEN CLASS: JAN COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN INPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: METALIZATION BLOWN OPEN AT INPUT PIN 1. SUSPECT EOS BETWEEN 500-700 MA AS ASSOCIATED [illegible] LEAD WIRE WAS OK.

MFEF REPORT NUMBER: 31 MFEF REPORT DATE 7606

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H11 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR IMPROPER OUTPUT SWITCHING FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: EOS OPENED INPUT METALIZATION PATHS ON BOTH DEVICES. NO OPEN LEAD WIRES ON EITHER DEVICE [EOS=500-700 MA].

MFEF REPORT NUMBER: 36 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: MEMORY DRIVER
PART NUMBER: SN75324 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7222
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 24 T
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: DISCOLORED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: E-C PUNCH-THRU OF BOTH PIN 1 INPUT TRANSISTORS. SIMULATION DUPLICATED EOS DAMAGE WITH 300USEC,+10V,300MA PULSE.

MFEF REPORT NUMBER 39 MFEF REPORT DATE: 7704

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: DM5406J PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7535
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: GLASS/GLASS DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: B-C LEAKAGE OF PIN OUTPUT TRANSISTOR. METALIZATION REMOVAL CURED DEVICE. SUSPECT PINHOLE/OXIDE FAULT UNDER METALIZATION.

MFEF REPORT NUMBER: 41 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: RAYTHEON DATE CODE: 7730
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: JB COMPLEXITY: 6 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: ZAPPED-EVAPORATED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: BLOWN METAL BETWEEN OUTPUT TRANS. COLLECTOR AND PIN ,2 PAD. CHANNEL SHORT C-F/GND AT PIN 12,LEAD WIRE NOT DAMAGED.

MFEF REPORT NUMBER 42 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: INTERCONNECTS
DEFECT DESCRIPTION: EXTRANEOUS WIRE DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MULTIPLE PIN SHORTS DUE TO EXTRANEOUS WIRE [0.005IN X 0.200IN STAINLESS STEEL] SHORTING INTERNAL LEAD WIRES.

MFEF REPORT NUMBER: 43 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 13 HAD DEGRADED PHASE-SPLITTER TRANSISTOR B-E JUNCTION. ANALYSIS DID NOT REVEAL OBVIOUS LEAKAGE CAUSE.

MFEF REPORT NUMBER: 44 MFEF REPORT DATE: 7812

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: RAYTHEON DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (SOC) SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: STRIPPING GLASSIVATION/METALIZATION REVEALED OXIDE PINHOLE UNDER EMITTER METAL CAUSING B-TO-C[SUBSTRATE] SHORT.

MFEF REPORT NUMBER: 46 MFEF REPORT DATE: 7810

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: CHARGE-SPLITTER TRANSISTOR FAILURE. REMOVING METALIZATION AND OXIDE DID NOT REVEAL FAILURE SITE OR CAUSE.

MFEF REPORT NUMBER 47 MFEF REPORT DATE: 7804

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S8890P PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT INPUT FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: N/R DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILS BELOW -4.5V AT -20C. ANALYSIS WAS INCONCLUSIVE, BUT SUSPECTED CAUSE IS PB PRECIPITATE ON EXT. LEAD SEAL AREA.

MFEF REPORT NUMBER: 49 MFEF REPORT DATE: 7802

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER CIRCUIT TYPE: N/R
PART NUMBER: S82700 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS N/R COMPLEXITY: 4 B
PACKAGE: CERAMIC FPF NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FLIPT/OSC OUTPUT FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 14 SWITCHING AT CLOCK RATE BELOW ROOM TEMP. STRIPPING METALIZATION REVEALED EVIDENCE OF PINHOLES.

MFEF REPORT NUMBER: 50 MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: S8821W PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: CERAMIC FPF NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FLIPT/OSC OUTPUT FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: N/R DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: OUTPUT PIN OSCILLATES WITH VCC > 4.6V AND/OR TEMP. > +25C. SI WAFER CONTAMINATION PRIOR TO EPI GROWTH. PROCESS DEFECT.

MFEF REPORT NUMBER: 52 MFEF REPORT DATE: 7611

DATA SOURCE: AU-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: AUF
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 5 INTERNALLY GROUNDED,LATCHING OUTPUTS HIGH. CROSS-COUPLING BETWEEN LOGIC LINES AND HIGHER VOLT/CUR = OVERSTRESS

MFEF REPORT NUMBER: 53 MFEF REPORT DATE: 7806

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7639
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN OUTPUT FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MELTED OPEN 1.25 MIL ALUM. WIRE WITH NO APPARENT CHIP DAMAGE DUE TO A HIGH CURRENT (>1 AMP) SHORT DURATION TRANSIENT EOS

MFEF REPORT NUMBER 54 MFEF REPORT DATE: 7708

DATA SOURCE FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: FIELD APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8870 PART MANUFACTURER: SIGNETICS DATE CODE: 7731
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: RESISTIVE OUTPUT TO GND AT PIN 5. G-S CHANNEL SHORT AT OUTPUT TRANSISTOR. NO METAL DAMAGE INDICATES HI VOLT, SHORT TERM

MFEF REPORT NUMBER 55 MFEF REPORT DATE: 7707

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER CIRCUIT TYPE: N/R
PART NUMBER: DM54L164J PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7529
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: DIE
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT WOULD NOT HOLD HIGH WITH INPUT PIN 3 HIGH AT TEMP. <=25C. COULD NOT DETERMINE CAUSE. SUSPECT PROCESS FLAWS IN DIE

MFEF REPORT NUMBER: 56 MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54LS02 PART MANUFACTURER: RAYTHEON DATE CODE: 7742
DEVICE TECHNOLOGY: STTL SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN OF INPUT PINS DUE TO EITHER AN OXIDE DEFECT UNDER DIE BOND PAD OR AN OVERBONDING CONDITION. BOTH PROCESSES

MFEF REPORT NUMBER: 58 MFEF REPORT DATE: 7706

DATA SOURCE FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER: S88L0W PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: E-C CHANNEL,PIN 8 INPUT TRANSISTOR. B-E CHANNEL,SUMMING TRANSISTOR. MELTED PATH AT BASE OF LOWER OUTPUT TRANSISTOR.

MFEF REPORT NUMBER 59 MFEF REPORT DATE: 7706

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S8H90W PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTI FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: E-C CHANNEL,PIN 8 INPUT TRANSISTOR. B-E CHANNEL,PHASE SPLITTER TRANSISTOR. MELTED PATHS B&E CIRCUIT OF PHASE SPLITTER.

MFEF REPORT NUMBER: 60 MFEF REPORT DATE: 7705

DATA SOURCE FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN74S10N PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7606
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GATE INPUT PINS 3,4 AND 5 SHORTED TO PIN 14 [VCC] AND PIN 7 [GND]. DEVICE DESTROYED AT AUTOPSY - FAILURE CAUSE UNKNOWN.

MFEF REPORT NUMBER: 61 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S11PC PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7613
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 8, INPUT PINS 9,10 SHORTED TO PIN 7 [GND]. SUSPECT PACKAGE MOISTURE. MELTED METAL AND LEAD WIRES AT PIN 7-10

MFEF REPORT NUMBER: 62 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S20A? PART MANUFACTURER: SIGNETICS DATE CODE: 7611
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: SILICONE DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 8, INPUT PINS 9,10,12 SHORTED TO PIN 7 [GND]. MELTED/BRIDGING METAL ON DIE DUE TO MASK DEFECT.

MFEF REPORT NUMBER: 63 MFEF REPORT DATE: 7704

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 38510/30202 PART MANUFACTURER: SIGNETICS DATE CODE: 7614
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: JAN COMPLEXITY: 4 G
PACKAGE HERMETIC N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LEAKAGE FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: DIFFUSION FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: B-E LEAKAGE OF PIN 8 OUTPUT TRANSISTOR. GLASS PASSIVATION & METALIZATION REVEALED NO DEFECT. E-B DIFFUSION FAULT.

MFEF REPORT NUMBER: 64 MFEF REPORT DATE: 7703

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8885N8 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPA NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN OTHER FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: NO PACKAGE LEAD EGRESS ABNORMALITIES. PIN 11 2ND METAL FUSED OPEN. EOS ORIGINATED AT SINK TRANSISTOR OF OUTPUT PIN 12.

MFEF REPORT NUMBER: 65 MFEF REPORT DATE: 7634

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DCL963 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7110
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 6 LOCKED HIGH. METALIZATION BRIDGE SHORTING OUTPUT TRANSISTOR C-TO-INPUT TRANSISTOR E DUE TO MFG. TOOL SMEAR.

MFEF REPORT NUMBER: 66 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74S473 PART MANUFACTURER: SIGNETICS DATE CODE: 7417
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 16 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: POWER SUPPLY FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: REVERSED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NOTCH IN PACKAGE LID DESIGNATING PIN 1 ALIGNMENT NOT COINCIDENT WITH NOTCH IN THE PACKAGE BASE.

MFEF REPORT NUMBER 67 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NO VISUAL EXT INT ANOMALIES. OUTPUTS TOGGLE ON CLOCK TRANSITIONS, ALL INPUTS HIGH. OUTPUT FOLLOWED CLOCK W/ P1,14,13 LOW

MFEF REPORT NUMBER: 68 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE N/R
PART NUMBER, S8840W PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY, TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS CHANNEL SHORTS [ACROSS IN. PROT. DIODES OF P3,5, BETW. P6 E AND P7 E]. BURNED OPEN METAL FROM INPUT P5,P6. +11VDC EOS.

MFEF REPORT NUMBER: 69 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER SN7403J PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7344
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS SHORT CLEARED AFTER DELIDDING-EXCESSIVE OXIDE FLAWS ON CHIP-DEFECT IS RESULT OF MOBILE PARTICLE (NONE FOUND) OR OXIDE FL

MFEF REPORT NUMBER: 70 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 4109

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS OPEN NICHROME RESISTOR IN BASE CKT OF INPUT TRANSISTOR AS RESULT OF ANODIC CORROSION DUE TO PACKAGE MOISTURE. MFG RELATE

MFEF REPORT NUMBER: 71 MFEF REPORT DATE: 7603

DATA SOURCE FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DM54L00F PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7541
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: METAL/GLASS FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS. PIN 13 INPUT TRANSISTOR : B-E [1] SHORTED, C-E [1] DEGRADED. B-E [2], C-E [2] AND E[1]-E[2] WERE ALL UNDAMAGED.

MFEF REPORT NUMBER 72 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: RS
PART NUMBER: DTL945 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7320
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 8 G
PACKAGE: N/R DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: REVERSED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. INOPERATIVE,EXCESSIVE VCC [>30 AMPS] BEING DRAWN. PIN INDEX MARK INDICATES PIN 8,NOT PIN 1. WHITE DOT IN CASE IS CORRECT

MFEF REPORT NUMBER: 73 MFEF REPORT DATE: 7511

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DM54L54F PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7340
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 5 G
PACKAGE: METAL/GLASS FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: PACKAGE BODY
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. 40-OHM SHORT BETWEEN PINS 3 AND 4. PINS 1 AND 8 INTERCHANGED DUE TO INCORRECT IN-HOUSE PART MARKING. PART USER DEFECT.

MFEF REPORT NUMBER 74 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: DENDRITE GROWTH
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS PB CONTAMINATION BRIDGED/SHORTED PINS 2-3 AT PKG. LEAD FRAME. GLASS FRIT LID SEAL PB RICH-NON-HERMETIC PKG = DENDRITES.

MFEF REPORT NUMBER: 75 MFEF REPORT DATE: 7605

DATA SOURCE FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY. N/R SCREEN CLASS. N/R COMPLEXITY: 4 G
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: WIREBOND LEAD FRAME HEEL
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS. INPUT PIN 7 POST BOND CRACKED AT HEEL DUE TO IMPROPER BONDING. OTHER POOR POST BONDS DUE TO LATERAL MOVEMENT/MISORIENTED

MFEF REPORT NUMBER. 76 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9601 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7534
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. CONTAMINATION [NA & SUI ATTACKED KOVAR LEADS AND AL LEAD WIRES AT PKG. FRAME,CAUSING METALLIC BRIDGE. VENDOR DEFECT.

MFEF REPORT NUMBER: 77 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: SN54L95F PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: METAL/GLASS FPK NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DC 7440 [2 DEVICES]. DC 7442 [1 DEVICE]. DYE PENETRANT [ZYGLO] CONCENTRATED IN LID SEAL AREA,SOME IN HEADER AREA.

MFEF REPORT NUMBER: 78 MFEF REPORT DATE: 7510

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (VCC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CURVE TRACER CHECK SHOWED PIN 8 SHORTED TO PIN 4 (VCC).

MFEF REPORT NUMBER: 79 MFEF REPORT DATE: 7507

DATA SOURCE: FF-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DTL946 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7426
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: FAILED X-RAY REVIEW AT INCOMING INSPECTION. EXTRANEOUS DIE ATTACH MATERIAL ATTACHED TO THE HEADER. SEE MFEF #80.

MFEF REPORT NUMBER: 80 MFEF REPORT DATE: 7507

DATA SOURCE: FF-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DTL946 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7426
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE DIE ATTACH BOND
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: REFERENCE MFEF #79. IN ADDITION TO EXTRANEOUS DIE ATTACH PARTICLES, ONE DEVICE SHOWS LACK OF DIE ATTACH UNDER DIE CENTER

MFEF REPORT NUMBER: 81 MFEF REPORT DATE: 7508

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DM54LS[illegible] PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7442
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 5 G
PACKAGE: METAL/GLASS FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER LOGIC STATE FAILURE MODE: WIRE
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: 6 INTERNAL LEADS OPEN NEAR PKG POST BONDS. CORROSIVE PERCHLOROETHYLENE ENTERED THRU FAULTY SEAL DURING BOARD WASHING

MFEF REPORT NUMBER: 82 MFEF REPORT DATE: 7508

DATA SOURCE: FF-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DM54LS4F PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7442
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 5 G
PACKAGE: METAL/GLASS FPK NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN FAILURE MODE: WIRE
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SEE MFEF #81. MULTIPLE OPENS DUE TO CHLORINE CONTAMINANT ENTERING THRU FAULTY KOVAR-GLASS INTERFACE OF PKG SEAL.

MFEF REPORT NUMBER: 83 MFEF REPORT DATE: 7612

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: ARRAY CIRCUIT TYPE: DIODE
PART NUMBER TID139F PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7437
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: HERMETIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: CRAC Ec DEFECT CAUSE: N/R
ACTIVATING STRESS A. TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS 7-DIODE ARRAY. CRACK IN GLASS SEAL AT LEAD PIN 1. HI REVERSE LEAKAGE APPARENTLY RESULT OF INTERNAL PACKAGE MOISTURE.

MFEF REPORT NUMBER: 84 MFEF REPORT DATE: 7604

DATA SOURCE FE-0001 SOURCE. COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: DM76L70J/883 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7436
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: 883 COMPLEXITY: 8 B
PACKAGE GLASS/GLASS DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS SCREEN CLASS MAY BE B-1. PIN 8 [CLOCK IN] SHORTED TO PIN 9 [CLEAR IN] DUE TO EXT. EOS.

MFEF REPORT NUMBER. 85 MFEF REPORT DATE. 7604

DATA SOURCE: FE-0001 SOURCE. N/R DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: DM76L70J/883 PART MANUFACTURER NATIONAL SEMI DATE CODE: 7436
DEVICE TECHNOLOGY: LTTL SCREEN CLASS. 883 COMPLEXITY: 8 B
PACKAGE: GLASS/GLASS DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B. N/R

REMARKS: OXIDE FLAWS EXTENDING UNDER METALIZATION PATHS POSSIBLY CAUSING TEMPERATURE SENSITIVE FAILURE.

MFEF REPORT NUMBER: 86 MFEF REPORT DATE: 7602

DATA SOURCE FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: NOT REPORTED PART MANUFACTURER: HARRIS SEMI DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN FAILURE MODE: WIRE
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: P5 AL METAL & P1,7,13,14 LEAD WIRES ATTACKED BY CHLORINATED COMPOUND. GLASS IN PKG INTERFACE INDICATES DEFECT. MFG WELD.

MFEF REPORT NUMBER: 87 MFEF REPORT DATE: 7609

DATA SOURCE FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: DM54L02 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7449
DEVICE TECHNOLOGY LTTL SCREEN CLASS: JAN COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS. 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: JIF DIFFUSION
DEFECT DESCRIPTION: DIFFUSION FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS FAILED AT -55F. FAILED DUE TO DIFFUSION FAULT BRIDGING B-C JUNCTION OF PIN 9 INPUT TRANSISTOR. MANUFACTURER DEFECT.

MFEF REPOR[illegible]MBER: [illegible]8 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8875 PART MANUFACTURER: SIGNETICS DATE CODE: 7522
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: ELECTROLYSIS
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: ADJACENT PIN SHORTS DUE TO PB PRECIP. OUT OF SOLDER-GLASS FRIT. ACID FLUX WAS ELECTROLYTE,SN REDUCING AGENT FOR PB PREC.

MFEF REPORT NUMBER: 89 MFEF REPORT DATE: 7601

DATA SOURCE FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SSH90W PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: TWO CHANNEL SHORTS AND MELTED METAL PATH ASSOCIATED WITH PIN 7 INPUT CIRCUITRY DUE TO +20V EOS.

MFEF REPORT NUMBER: 90 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0001 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: N74174F PART MANUFACTURER: SIGNETICS DATE CODE: 7403
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 36 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: SURFACE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: BASE-TO-SUBSTRATE SHORT ON INPUT STAGE STEERING TRANSISTOR OF OUTPUT PIN. TWO PROCESS FLAWS,1 IN INPUT,1 IN OUTPUT STAGE

MFEF REPORT NUMBER: 91 MFEF REPORT DATE 7506

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 1 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METAL MULTI-LEVEL INTERFACE
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: CORROSION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B VOLTAGE STRESS

REMARKS: ANODIC CORROSION AT NICR/AL INTERFACE DUE TO POOR GLASSIVATION COVER AT INTERFACE. PROCESS DEFECT DURING DEPOSITION.

MFEF REPORT NUMBER: 92 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 54175 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7430
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 24 G
PACKAGE: N/R DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHING FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION DIFFUSION FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DIFFUSION FLAWS FOUND IN VARIOUS LOCATIONS,CAUSING VCC OPERATIONAL SENSITIVITY. MALFUNCTIONED AT ROOM TEMP, 5V VCC.

MFEF REPORT NUMBER: 93 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 54175 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7430
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 24 G
PACKAGE: N/R DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: SMEAR DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS METALIZATION SMEAR (SHORT LIKELY) AND GROSS DIFFUSION FLAWS ARE VENDOR DEFECTS.

MFEF REPORT NUMBER: 94 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S8190W PART MANUFACTURER: SIGNETICS DATE CODE: 7215
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN INPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: ZAPPED-EVAPORATED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 9 METALIZATION BLOWN OPEN. INPUT TRANSISTOR AT PIN 9 CHANNELED E-T. PIN 9 LEAD WIRE WAS NOT OPENED.

MFEF REPORT NUMBER: 95 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S8885W PART MANUFACTURER: SIGNETICS DATE CODE: 7233
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN SUPPLY FAILURE MODE: WIRE
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 4 (VCC SUPPLY) LEAD BLOWN OPEN.

MFEF REPORT NUMBER: 96 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S8816W PART MANUFACTURER: SIGNETICS DATE CODE: 7233
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OPEN SUPPLY FAILURE MODE: WIRE
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 4 (VCC SUPPLY) LEAD BLOWN OPEN. CHANNEL SHORT BETWEEN INPUT PINS 1 & 14. OTHER INPUTS NOT DEGRADED.

MFEF REPORT NUMBER: 111 MFEF REPORT DATE: 7812

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: DM8820AN PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7408
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 20 T
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: CORROSION
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: INTERNAL PKG MOISTURE CAUSED CORRODED OPEN METAL PATH ASSOC. WITH INPUT PIN 13, BETWEEN BOND PAD AND INPUT RESISTOR.

MFEF REPORT NUMBER: 117 MFEF REPORT DATE: 7807

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: DRIVER
PART NUMBER: SN55451BJG PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 10 T
PACKAGE: CERAMIC DIP NUMBER OF PINS: 8
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: SURFACE
DEFECT DESCRIPTION: PUNCH THROUGH DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: DATE CODES 7731/7810. DELID,DEGLASSIVATE,AND METAL REMOVAL REVEALED CHANNEL AND PUNCH-THROUGH SHORTS IN OUTPUT TRANS.

MFEF REPORT NUMBER: 130 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: DM7830 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7441
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 28 T
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: TROUBLESHOOTING
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: +-36V SQ WAVE APPLIED AT P5. +36V WAVE SHUNTS LO OUTPUT TRANS [C-B-E CHANNEL SHORT]. MELTS P5,7 LEADS & C,E,GND METAL.

MFEF REPORT NUMBER 179 MFEF REPORT DATE: 7611

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN54S04 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7503
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: DISCOLORED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR SHORTED E-B. EMITTER BURNED IN CONTACT WINDOW,METALIZATION ALLOYED INTO DIE. EOS > 10V.

MFEF REPORT NUMBER: 180 MFEF REPORT DATE: 7416

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: MC9312L PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7343
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILURE MOST LIKELY DUE TO AN OXIDE PINHOLE UNDER A METALIZATION STRIPE.

MFEF REPORT NUMBER: 181 MFEF REPORT DATE: 7140

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9328 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7112
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: N/P N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: DIE EPITAXIAL LAYER
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: HIGH C-B BREAKDOWN INDICATES EXCESS BASE REGION/BURIED LAYER SPACING,DUE TO POOR EPI GROWTH PROCESS [> NORMAL THICKNESS]

MFEF REPORT NUMBER: 182 MFEF REPORT DATE: 7147

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN23615A PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7118
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: VIS EXAMINATION REVEALED OXIDE DEFECT ALLOWING INPUT PIN 11 TO BECOME SHORTED TO IC GROUND UNDER THE BONDING PAD.

MFEF REPORT NUMBER: 183 MFEF REPORT DATE: 7342

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: SN23611C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7326
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: OXIDE
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE PATH BETWEEN Q4 BASE AND GROUND WOULD NOT ALLOW IC OUTPUT PIN 10 TO SWITCH SERIALLY.

MFEF REPORT NUMBER: 184 MFEF REPORT DATE: 7407

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER SN23611C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7331
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: OXIDE
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: Q4 COLLECTOR HAS 1.5V BREAKDOWN TO CHIP SUBSTRATE. NO EOS INDICATIONS. PREVENTS OUTPUT PIN 10 FROM SWITCHING SERIALLY.

MFEF REPORT NUMBER: 185 MFEF REPORT DATE: 7128

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: AN23611A PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7110
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: Q3 TRANSISTOR OPEN AT BASE DUE TO A MASKING DEFECT WHICH DID NOT ALLOW CONTACT.

MFEF REPORT NUMBER: 186 MFEF REPORT DATE: 7323

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9328 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7324
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: SURFACE
DEFECT DESCRIPTION: SCRATCH DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 11 NON-FUNCTIONAL. SCRATCH ACROSS DIE SURFACE OCCURED PRIOR TO METALIZATION APPLICATION.

MFEF REPORT NUMBER: 187 MFEF REPORT DATE: 7411

DATA SOURCE: - 003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: MC9312L PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7343
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS PINHOLES IN OXIDE PENPATH METALIZATION RUN CONNECTING P11 OUTPUT TO EACH ONE OF FOUR INPUT TRANSISTOR EMITTERS = SHORTS.

MFEF REPORT NUMBER: 188 MFEF REPORT DATE: 7202

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7144
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DECAP AND OPTICAL EXAMINATION REVEALED A CRACKED DIE.

MFEF REPORT NUMBER: 189 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN5400J PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7248
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR SHORT INPUT FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 12 SHORTED TO SUBSTRATE DUE TO OXIDE DEFECT UNDER PIN 12 BOND PAD.

MFEF REPORT NUMBER 190 MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54S194 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7508
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: Q1,Q2,Q3 OUTPUTS STUCK HI AT ELEVATED TEMPERATURES [+75C]. RESISTIVE SHORT [CLOCK-TO-VCC] REMOVED WITH METALIZATION.

MFEF REPORT NUMBER: 191 MFEF REPORT DATE: 7509

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: SNC54S151J PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7508
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DECAPPING REVEALED SHORTED VCC-TO-GND [SUBSTRATE]. SHORT CAUSED BY FLAWS IN OXIDE BENEATH METAL. AREA BADLY BURNED.

MFEF REPORT NUMBER: 192 MFFF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7303
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/P N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT OPEN FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: N/R DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINS 3,8 INTERMITTENTLY OPEN DUE TO A COLD-ALUMINUM INTERMETALLIC PROBLEM CAUSED BY AN IMPROPER BONDING PROCEDURE.

MFEF REPORT NUMBER: 193 MFFF REPORT DATE: 7141

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN23615A PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7113
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/P NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: Q2 TRANSISTOR EXHIBITS UNIT GAIN. E-B LEAKAGE EXCESSIVE. ANGLE LAPPING AND VISUAL REVEALED BULK DEFECTS IN E-B REGION.

MFEF REPORT NUMBER: 194 MFEF REPORT DATE: 7148

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7136
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R ./R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DELIDDING,PROBING AND OPTICAL EXAMINATION REVEALED OPEN METALIZATION BETWEEN BASE OF Q3 TRANSISTOR.

MFFF REPORT NUMBER: 195 MFFF REPORT DATE: 7347

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7339
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN THERMAL OXIDE ALLOWED GROUND METALIZATION TO SHORT TO THE RESISTOR ISOLATION REGION.

MFFF REPORT NUMBER: 196 MFFF REPORT DATE: 7347

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7324
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: MISSING DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: BOND MISSING FROM INPUT PIN 2 BOND PAD. BOND DESTROYED DUE TO IMPROPER GOLD-ALUMINUM INTERMETALLIC FORMATION.

MFEF REPORT NUMBER: 198 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 54LI96 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7511
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 39 G
PACKAGE: N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: TROUBLESHOOTING
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 6 SHORTED UNDER THE OXIDE TO THE GROUND METALIZATION. A VOLTAGE IN EXCESS OF 15V REQUIRED TO INDUCE THIS FAULT.

MFEF REPORT NUMBER: 199 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/P
PART NUMBER: 5420 PART MANUFACTURER: VARIOUS DATE CODE: 7440
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE AND CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: EXTENSIVE METAL MELT AT INPUT TRANSISTORS. METAL MELTED INTO DIE. UNDER OXIDE SHORTS. DAMAGE DUE TO >150MA,>15V EOS.

MFEF REPORT NUMBER: 200 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/P
PART NUMBER: 7400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7438
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MASSIVE DAMAGE I.E. MELTED METALIZATION,MELTED LEADS, AND SHORTED TRANSISTORS, DUE TO EOS IN EXCESS OF 15V.

MFEF REPORT NUMBER: 201 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/P
PART NUMBER: 7400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7438
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/P NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 6 OUTPUT TRANSISTOR SHORTED TO GROUND UNDER THE OXIDE. VOLTAGE IN EXCESS OF 15V REQUIRED TO CAUSE THIS DAMAGE.

MFEF REPORT NUMBER: 202 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/P
PART NUMBER: 7400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7348
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 1 SUBSTRATE OVERHEATED [illegible] INTO DIE. PIN 14 HAD MELTED LEAD. CURRENT IN EXCESS OF 500MA CAUSED DAMAGE.

MFEF REPORT NUMBER: 203 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 9N5A PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: DC 7434,7435. MASSIVE DAMAGE IN MELTED METALIZATION,SHORTED TRANSISTORS. DAMAGE CAUSED BY CURRENT IN EXCESS OF 500MA.

MFEF REPORT NUMBER: 204 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 9N5A PART MANUFACTURER: SIGNETICS DATE CODE: 7435
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: LEADS TO PINS 7,9,10 MELTED. METALIZATION MELTED BETWEEN PAD 9 AND ASSOCIATED TRANSISTOR COLLECTOR. EOS > 500MA.

MFEF REPORT NUMBER: 205 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 9N5A PART MANUFACTURER: SIGNETICS DATE CODE: 7414
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: MELTED METAL AT PAD 9 AND ASSOC. TRANS. COLLECTOR. PIN 4,6-11 LEADS MELTED. P9 TRANS. E-B METAL MELTED. EOS > 500MA.

MFEF REPORT NUMBER: 206 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74S04 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7446
DEVICE TECHNOLOGY: MTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (DIODE) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: D1 DIODE SHORTED UNDER OXIDE FROM CATHODE TO ANODE. VOLTAGE EOS IN EXCESS OF 10V REQUIRED TO SHORT DIODE.

MFEF REPORT NUMBER: 207 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: DELIDDING REVEALED MELTED DIE METALIZATION. OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 208 MFEF REPORT DATE: 7603

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: DELIDDING REVEALED MELTED DIE METALIZATION. OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 209 MFEF REPORT DATE: 7603

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (POC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: DELIDDING REVEALED EMITTER-TO-BASE SHORT OF INPUT TRANSISTOR.

MFEF REPORT NUMBER: 210 MFEF REPORT DATE: 7603

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7422
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (POC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT CLAMP DIODE SHORTED TO CHIP SUBSTRATE. EMITTER-BASE SHORT ON INPUT TRANSISTOR. EOS > -4V IS LIKELY FAILURE CAUSE.

MFEF REPORT NUMBER: 211 MFEF REPORT DATE: 7605

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54L04 PART MANUFACTURER: NOT REPORTED DATE CODE: 7429
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: JB COMPLEXITY: 6 G
PACKAGE: HERMETIC FPF NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: VARIOUS INPUT LEADS ARE MELTED. DIE IS BLACKENED OVER ITS ENTIRETY. FAILURE DUE TO EOS IN EXCESS OF 15V.

MFEF REPORT NUMBER: 212 MFEF REPORT DATE: 7401

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7106
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS ON INPUT DIODES. FAILED SYSTEM-LEVEL TEST AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 213 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: SN74S194 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILURE DUE TO TIMING PROBLEM IN SHIFT REGISTER FLIP-FLOPS OF STAGES B AND C. FAILED SYSTEM TEST AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 214 MFEF REPORT DATE: 7412

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT SUPPORTED PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7325
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R * N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SHORTS BETWEEN BOND WIRES AND EDGE OF CHIP WHEN GOLD PARTICLES SPANNED THE GAP.

MFEF REPORT NUMBER: 215 MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: CD4001AK PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PUNCH THROUGH DEFECT CAUSE: N/P
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: SHORTED INPUTS THRU OXIDE TO FET CHANNEL. GATE OXIDE PUNCH-THROUGH AT 52V.

MFEF REPORT NUMBER: 216 MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: CD4001AK PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: CERAMIC FPF NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: SURFACE
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SLUG OF COPPER ATTACHED TO CHIP BETWEEN THE GATE AND DRAIN METALIZATION.

MFEF REPORT NUMBER: 217 MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/P
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/P
PART NUMBER: 934 PART MANUFACTURER: RAYTHEON DATE CODE: 7439
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/P COMPLEXITY: 4 C
PACKAGE N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIREBOND DIE PAD HEEL
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/P
ACTIVATING STRESS B: N/P

REMARKS: SEVERAL DEVICES INVOLVED. POOR BOND POSITIONING AND DAMAGE TO HEEL OF BOND.

MFEF REPORT NUMBER 218 MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE COMPONENT LEVEL DATA-TYP[illegible]EV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT [illegible]: N/R
PART NUMBER: 930 PART MANUFACTURER: RAYTHEON DATE CODE: 7434
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 C
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIREBOND DIE PAD HEEL
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SEVERAL DEVICES INVOLVED. POOR BOND POSITIONING AND DAMAGE TO HEEL OF BOND.

MFEF REPORT NUMBER: 220 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 54L192 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7231
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE DIE ATTACH BOND
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEFECTIVE DIE BOND.

MFEF REPORT NUMBER: 221 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54L04 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OXIDE DEFECT BENEATH BONDING PAD.

MFEF REPORT NUMBER: 223 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5403 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/P N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 11 SHORTED TO GND.

MFEF REPORT NUMBER: 224 MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: LIFE APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S151 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7449
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED BONDING WIRE.

MFEF REPORT NUMBER: 226 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7504
DEVICE TECHNOLOGY TTL SCREEN CLASS: JAN COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 227 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7504
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: DIE CRYSTAL
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH TRANSISTOR GAINS DUE TO MANUFACTURER DOPING PROCESS DEFECTS.

MFEF REPORT NUMBER: 228 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: SIGNETICS DATE CODE: 7348
DEVICE TECHNOLOGY TTL SCREEN CLASS: JAN COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT LEAKAGE DUE TO MASKING DEFECT.

MFEF REPORT NUMBER: 229 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 9 MELTED OPEN ON CHIP DUE TO EOS.

MFEF REPORT NUMBER: 230 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: RAYTHEON DATE CODE: 7304
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC WIREBOND DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 231 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: RAYTHEON DATE CODE: 7304
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC WIREBOND DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 232 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7302
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TOGETHER.

MFEF REPORT NUMBER: 233 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 957 PART MANUFACTURER: RAYTHEON DATE CODE: 7303
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SPURIOUS DIFFUSION DUE TO POOR PHOTORESIST COVERAGE.

MFEF REPORT NUMBER: 234 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN BONDS DUE TO REACTIVE CHLORINE CONTAMINANT.

MFEF REPORT NUMBER: 235 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7432
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/P N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION CAUSED BY MASKING DEFECT.

MFEF REPORT NUMBER: 236 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7432
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: OXIDE
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: B-SELECT INPUT TRANSISTOR HAS HIGH C-E LEAKAGE. PINHOLE IN OXIDE IS PROBABLE DEFECT.

MFEF REPORT NUMBER: 237 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 4049 PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7507
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT LEAKAGE.

MFEF REPORT NUMBER: 238 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011 PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7511
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE.

MFEF REPORT NUMBER: 239 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 4049A PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7507
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 240 MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: LIFE APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L30 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 1 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OXIDE DEFECT CAUSED METALIZATION SHORT TO BRIDGE.

MFEF REPORT NUMBER: 241 MFFF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER 54109 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7435
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED UNDERPASS DIFFUSION.

MFEF REPORT NUMBER: 242 MFFF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54109 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7438
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DIFFUSION MISPLACED.

MFEF REPORT NUMBER: 243 MFFF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 4024 PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7508
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 61 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT LEAKAGE CAUSED BY STATIC ZAP.

MFEF REPORT NUMBER: 244 MFFF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTUREP: MOTOROLA SEMI DATE CODE: 7445
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 0
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OVER 7.7V APPLIED TO INPUT PIN 15 ON 2 DEVICES.

MFEF REPORT NUMBER: 245 MFFF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 5476 PART MANUFACTURER: SIGNETICS DATE CODE: 7344
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED TO VCC.

MFEF REPORT NUMBER: 246 MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: A/D CONVERTER
PART NUMBER: D111 PART MANUFACTURER: SILICONIX DATE CODE: 7507
DEVICE TECHNOLOGY: BIPOLAR/MOSFET SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: HUMIDITY TEST RESULTS REVEALED THAT EXTERNAL PACKAGE LEADS WERE NOT PROPERLY GOLD-PLATED.

MFEF REPORT NUMBER: 247 MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: A/D CONVERTER
PART NUMBER: D111 PART MANUFACTURER: SILICONIX DATE CODE: 7200
DEVICE TECHNOLOGY: BIPOLAR/MOSFET SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: DIE
DEFECT DESCRIPTION: MISSING DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PARASITIC SCR ACTION MOST LIKELY RESULTING FROM LACK OF BURIED LAYER UNDER RESISTORS.

MFEF REPORT NUMBER: 248 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: A/D CONVERTER
PART NUMBER: D111 PART MANUFACTURER: SILICONIX DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR/MOSFET SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIREBOND
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN BOND.

MFEF REPORT NUMBER: 249 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: A/D CONVERTER
PART NUMBER: D111 PART MANUFACTURER SILICONIX DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR/MOSFET SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: WIRE
DEFECT DESCRIPTION: EXTRANEOUS WIRE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE BONDING WIRE LENGTH ALLOWED WIRES TO TOUCH.

MFEF REPORT NUMBER: 250 MFEF REPORT DATE: 7601

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9328D PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7528
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/P COMPLEXITY: 16 B
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/P

REMARKS: GROSS LEAK FAILURE DUE TO CRACK IN CERAMIC LID.

MFEF REPORT NUMBER: 251 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7508
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: 2 DEVICES FAILED ISS MEASUREMENTS DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 252 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 54S140 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7450
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PROBABLY DUE TO APPLICATION OF UNLIMITED SOURCE OF CURRENT DURING ELECTRICAL TEST OR BURN-IN.

MFEF REPORT NUMBER: 254 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 93160 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7408
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: DIFFUSION FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: BASE AND ISOLATION DIFFUSION DEFECTS.

MFEF REPORT NUMBER: 255 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L10J PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7424
DEVICE TECHNOLOGY LTTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE GLASS/GLASS DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED TPLH. PULL-UP RESISTORS TOO HIGH A VALUE. FAILED AT TEMPERATURE BETWEEN +100 TO +125C.

MFEF REPORT NUMBER: 256 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L10J PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7424
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: CLASS/GLASS DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED TPLH. PULL-UP RESISTORS TOO HIGH A VALUE. FAILED AT ROOM TEMPERATURE.

MFEF REPORT NUMBER: 257 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54S04W PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7503
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED SOLDERABILITY TEST.

MFEF REPORT NUMBER. 258 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 7832W PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7510
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 60 T
PACKAGE: HERMETIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT ELECTRICALLY OVERSTRESSED FOLLOWING BURN-IN.

MFEF REPORT NUMBER: 259 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: DIE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INCORRECT DIE FOUND WITHIN THIS PACKAGE.

MFEF REPORT NUMBER: 260 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 261 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 9614 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7444
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: RESISTOR DIFFUSION DEFECT.

MFEF REPORT NUMBER: 262 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: D/A CONVERTER
PART NUMBER: PAC100 PART MANUFACTURER: PRECISION MONOLITHICS DATE CODE: 7402
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 10 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT SCHOTTKY CLAMP LEAKY DUE TO IMPROPER PROCESSING.

MFEF REPORT NUMBER: 268 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0002 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54L04 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7508
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE WIREBOND PAD 12.

MFEF REPORT NUMBER: 269 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54L04 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7508
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: Q2 SHORTED E-B UNDER OXIDE.

MFEF REPORT NUMBER: 270 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 54L74 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7507
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 12 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TOGETHER. ONE INPUT RUN MELTED OPEN.

MFEF REPORT NUMBER: 271 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: RAYTHEON DATE CODE: 7305
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/P N/P NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SOLDER BRIDGING BETWEEN EXTERNAL LEAD AND PACKAGE, MOST LIKELY DURING REMOVAL FROM CIRCUIT BOARD.

MFEF REPORT NUMBER: 273 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: RF50 PART MANUFACTURER: RAYTHEON DATE CODE: 7304
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT 11 MELTED OPEN.

MFEF REPORT NUMBER: 274 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9614Q2 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7442
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 18 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: BONDING WIRES AT INPUT PINS 11,12,13 ARE MELTED.

MFEF REPORT NUMBER: 275 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER 82562D PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7521
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE UNDER METALIZATION RUN.

MFEF REPORT NUMBER: 277 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7105
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GATE DESTROYED WHILE ISOLATING FAILURE CAUSE.

MFEF REPORT NUMBER: 278 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: T
PART NUMBER: 946 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7105
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 8 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: CAUSE OF DEGRADATION OR LEAKY INPUT DIODE COULD NOT BE DETERMINED.

MFFF REPORT NUMBER: 279 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7106
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: CAUSE OF LEAKAGE ON INPUT DIODE COULD NOT BE DETERMINED.

MFFF REPORT NUMBER: 280 MFFF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 5485 PART MANUFACTURER: SIGNETICS DATE CODE: 7422
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 281 MFEF REPORT DATE: 7605

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7107
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 282 MFEF REPORT DATE: 6054

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: TIMER CIRCUIT TYPE: N/R
PART NUMBER: CD4001A 2 PART MANUFACTURER: RCA DATE CODE: 4120
DEVICE TECHNOLOGY: 30 SCREEN CLASS: N/R COMPLEXITY: 47
PACKAGE: N/R N/R NUMBER OF PINS: 147
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: RADIATION-NUCLEAR

REMARKS:

MFFF REPORT NUMBER: 283 MFFF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404J PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7416
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 284 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54153 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7418
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 5
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS AND OUTPUT MELTED.

MFEF REPORT NUMBER: 285 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED.

MFEF REPORT NUMBER: 286 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: RAYTHEON DATE CODE: 7305
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED.

MFEF REPORT NUMBER: 287 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54L04 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MISPLACED BONDING WIRE CAUSED SHORT TO ISOLATION DIFFUSION.

MFEF REPORT NUMBER: 288 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE SHORTED BASE-EMITTER JUNCTIONS.

MFEF REPORT NUMBER: 295 MFEF REPORT DATE: 7607

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S20 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7550
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 296 MFEF REPORT DATE: 7608

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: N/R
PART NUMBER: [illegible] PART MANUFACTURER: RAYTHEON DATE CODE: 7304
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 297 MFEF REPORT DATE: 7608

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: BURN-IN APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54194 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: TROUBLESHOOTING
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PLUGGED INTO SOCKET BACKWARDS DURING BURN-IN TESTING.

MFEF REPORT NUMBER: 298 MFEF REPORT DATE: 7609

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: MC2101 PART MANUFACTURER: RAYTHEON DATE CODE: 7303
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS OVERSTRESSED.

MFEF REPORT NUMBER: 299 MFEF REPORT DATE: 7609

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 54S182 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7603
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 19 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT OVERSTRESSED DURING TESTING.

MFEF REPORT NUMBER: 300 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5403 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7450
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: TWO OUTPUT TRANSISTORS EXHIBITED COLLECTOR-EMITTER SHORTS.

MFEF REPORT NUMBER: 301 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5410 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OVERSTRESSED. GROUND WIRES MELTED.

MFEF REPORT NUMBER: 302 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: MC2101 PART MANUFACTURER: RAYTHEON DATE CODE: 7303
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 6

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED.

MFEF REPORT NUMBER: 303 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54195 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7527
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 7

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 304 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S20 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7447
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 C
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: INPUT LATCH-BACK AT +125 DEGREES C.

MFEF REPORT NUMBER: 306 MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L20 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7604
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OHMIC CONTACT MASK MISALIGNMENT WHICH POSITIONED EMITTER CONTACT AT EDGE OF DIFFUSION.

MFEF REPORT NUMBER: 307 MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: N/R
PART NUMBER: 948 PART MANUFACTURER: RAYTHEON DATE CODE: 7304
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MASKING DEFECT IN BURIED LAYER.

MFEF REPORT NUMBER: 308 MFEF REPORT DATE: 7611

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: LIFE APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54132 PART MANUFACTURER: SIGNETICS DATE CODE: 7414
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT PROTECTION DIODE SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER. 311 MFEF REPORT DATE: 7612

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7101
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED TO INPUT SHORTED INPUT DIODE.

MFEF REPORT NUMBER: 312 MFEF REPORT DATE: 7612

DATA SOURCE: FE-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 957 PART MANUFACTURER: RAYTHEON DATE CODE: 7302
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS ELECTRICAL OVERSTRESS TO OUTPUT TRANSISTOR SHORTED COLLECTOR-TO-EMITTER.

MFEF REPORT NUMBER: 313 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: DISCOLORED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: METALIZATION RUN TO INPUT DIODE WAS BURNED OPEN.

MFEF REPORT NUMBER: 314 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 936 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR. N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILURE MODE NOT CONFIRMED,BUT BONDING WIRES WERE FOUND CLOSE TO THE EDGE OF THE CHIP.

MFEF REPORT NUMBER: 315 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 05 PART MANUFACTURER: RAYTHEON DATE CODE: 7307
DEVICE TECHNOLOG. TTL SCREEN CLASS: N/R COMPLEXITY: 1 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED BASE-TO-EMITTER.

MFEF REPORT NUMBER: 319 MFEF REPORT DATE: 7600

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5495 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH VOLTAGE DUE TO VOLTAGE DROP ON GROUND LINE.

MFEF REPORT NUMBER: 320 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 930 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 6944
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED TO INPUT SHORTED INPUT DIODE.

MFEF REPORT NUMBER 321 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 946 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7051
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS SHORTED INPUT DIODES AND OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 322 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7005
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS TO INPUT DIODES.

MFEF REPORT NUMBER: 323 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: VARIOUS DATE CODE: 6903
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS ON INPUT DIODES. 2-FAIRCHILD,1-ITT DEVICE.

MFEF REPORT NUMBER: 324 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: EOS TO INPUT DIODES. 1 DEVICE HAD TRANSISTOR SHORTS INPUT-TO-GND. DC 6838,7006,7048,7049,7052,7101,7105,7106.

MFEF REPORT NUMBER: 325 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: EOS AT INPUT DIODES. 3 DEVICES HAD TRANSISTOR SHORTS INPUT-TO-GND. DC 7041,7048,7049,7106

MFEF REPORT NUMBER: 327 MFEF REPORT DATE: 7702

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7411
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: ELECTRICAL OVERSTRESS APPLIED AT INPUT PIN 5.

MFEF REPORT NUMBER: 330 MFEF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7431
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN ON OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 331 MFEF REPORT DATE: 7509

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7400
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SUPPLY CURRENT OUT OF TOLERANCE FAILURE MODE: OXIDE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE VCC CURRENT.

MFEF REPORT NUMBER: 332 MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7338
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE ON OUTPUT DUE TO LOW BREAKDOWN.

MFEF REPORT NUMBER: 333 MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7338
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: LOW BREAKDOWN ON OUTPUT.

MFEF REPORT NUMBER: 334 MFFF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7544
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE DAMAGE TO INPUT TRANSISTOR.

MFEF REPORT NUMBER: 338 MFFF REPORT DATE: 7502

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: DM7832 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7345
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 9 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: CROSSTALK FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILURE APPEARED TO BE CONNECTED WITH GLASS PASSIVATION ON THE CHIP.

MFEF REPORT NUMBER: 339 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 7832 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7534
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 9 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NOT MAKING CONTACT IN DIFFUSION WINDOW.

MFFF REPORT NUMBER 340 MFEF REPORT DATE: 7612

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 7832 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7510
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 9 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: EMITTER METALIZATION OF OUTPUT TRANSISTOR MELTED.

MFEF REPORT NUMBER: 341 MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5854 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7240
DEVICE TECHNOLOGY: DTI SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION UNDER GLASSIVATION LAYER.

MFEF REPORT NUMBER: 342 MFEF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5854 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7400
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: OHMIC DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH BASE DIFFUSION RESISTIVITY.

MFEF REPORT NUMBER: 343 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5856 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HEATING IC LOWERED LEAKAGE. LEAKAGE CAUSED BY IONIC SURFACE CONTAMINATION - A MANUFACTURING DEFECT.

MFEF REPORT NUMBER: 344 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 930 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7546
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SWITCHING CHARACTERISTICS CHANGED DUE TO VARIATIONS IN DIFFUSION AND/OR GOLD DOPING.

MFEF REPORT NUMBER: 345 MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: RAYTHEON DATE CODE: 7313
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN (WIRE) SHORTED TO CHIP SUBSTRATE.

MFEF REPORT NUMBER: 346 MFEF REPORT DATE: 7411

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: RAYTHEON DATE CODE: 7331
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN THERMAL OXIDE BENEATH METALIZATION STRIPE.

MFEF REPORT NUMBER: 347 MFEF REPORT DATE: 7202

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9312 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7143
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 C
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: BLOWN INPUT CLAMP DIODES.

MFEF REPORT NUMBER: 348 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9312 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7143
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 C
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED INPUT LEAD.

MFEF REPORT NUMBER: 349 MFEF REPORT DATE: 7309

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9312 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7304
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 C
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 350 MFEF REPORT DATE: 7309

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9312 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 C
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: CROSSTALK FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CURRENT SPIKING.

MFEF REPORT NUMBER: 351 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9312 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 17 C
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO GND. DATE CODES 7312 (2 DEVICES) AND 7311 (1 DEVICE).

MFEF REPORT NUMBER: 352 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SNC5400S PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7446
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 362 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54S194HL PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7508
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 47 G
PACKAGE: METAL CAN NUMBER OF PINS: 0
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE DUE TO STATIC VOLTAGE ZAPPING OF INPUT TRANSISTOR.

MFEF REPORT NUMBER: 363 MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: RM957 PART MANUFACTURER: RAYTHEON DATE CODE: 7309
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MISPLACED DIFFUSION CAUSED VOLTAGE FAILURE.

MFEF REPORT NUMBER: 364 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO VCC.

MFEF REPORT NUMBER: 365 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 366 MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS FAILURE CAUSED BY STATIC ELECTRICITY.

MFEF REPORT NUMBER: 367 MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L20 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUTS.

MFEF REPORT NUMBER: 368 MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L20 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7150
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS SHORTED TO GROUND. ONE DEVICE REPORTED 7501, 2 DEVICES REPORTED 7504.

MFEF REPORT NUMBER: 369 MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L20 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7150
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUTS RESISTIVELY SHORTED TO GROUND.

MFEF REPORT NUMBER: 370 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 5476W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7435
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUTS.

MFFF REPORT NUMBER: 371 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54L86 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUT.

MFEF REPORT NUMBER: 372 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54L73 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7231
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT CURRENT ON CLOCK.

MFEF REPORT NUMBER: 373 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7246
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUT.

MFEF REPORT NUMBER: 374 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54L95 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT EMITTERS SHORTED TOGETHER.

MFEF REPORT NUMBER: 375 MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54L95 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN INPUT.

MFEF REPORT NUMBER: 376 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54L95 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: CLOCK INPUT OPEN.

MFEF REPORT NUMBER: 377 MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: S54080 PART MANUFACTURER: SIGNETICS DATE CODE: 7115
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 4 METALIZATION MELTED.

MFEF REPORT NUMBER: 383 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5495 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE DROP ALONG GROUND METALIZATION DUE TO CIRCUIT DESIGN.

MFEF REPORT NUMBER: 384 MFEF REPORT DATE: 7006

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: MSI9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 6941
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS INSUFFICIENT WINDOW OPENING AND BONDING BETWEEN METALIZATION AND WINDOWS.

MFEF REPORT NUMBER: 385 MFEF REPORT DATE: 7203

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: MSI9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: CROSSTALK FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 386 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: AM9316 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7330
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FLUCT/OSC OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEVICE OUTPUT OSCILLATES WITH CLOCK APPLIED. APPEARS TO BE THRESHOLD PROBLEM.

MFEF REPORT NUMBER: 387 MFEF REPORT DATE: 7203

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: DIE
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: DEFECT IN ONE COUNTER STAGE CAUSES FAILURE AT ELEVATED TEMPERATURE WITH NORMAL VCC. DOPING PROCESS DEFECT.

MFEF REPORT NUMBER: 388 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7144
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CRACKED DIE.

MFEF REPORT NUMBER: 389 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 57 G
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 395 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54109 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: SHORT TERM HIGH VOLTAGE PULSE APPLIED.

MFEF REPORT NUMBER: 396 MFEF REPORT DATE: 7312

DATA SO[illegible]E-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: MC2107F PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 397 MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE. N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN OUTPUT.

MFEF REPORT NUMBER: 398 MFEF REPORT DATE: 0

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: [illegible]TION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT GROUND METALIZATION MELTED. 3 DEVICES REPORTED DC 7402, 1 DEVICE REPORTED DC 7209.

MFEF REPORT NUMBER: 399 MFEF REPORT DATE: 7209

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SG320 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 400 MFEF REPORT DATE: 7308

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: MC2125 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7141
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 18 C
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: HOLE DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION ENTERED THROUGH HOLE IN PACKAGE SEAL DUE TO PROCESS DEFECT.

MFEF REPORT NUMBER: 401 MFEF REPORT DATE: 7408

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: RF200K PART MANUFACTURER: RAYTHEON DATE CODE: 7241
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 10 G
PACKAGE: METAL FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: COMBINATION MODULE AND IC FAILURE.

MFEF REPORT NUMBER: 402 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7429
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: ICBO LEAKAGE ON INPUT TRANSISTOR CAUSED THRESHOLD SHIFT.

MFEF REPORT NUMBER: 403 MFEF REPORT DATE: 7212

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: EOS CAUSED FUNCTIONAL ANOMALY BETWEEN INPUTS.

MFEF REPORT NUMBER: 404 MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 9014 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7318
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR OUTPUT LATCHED LOW FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: PRESENCE OF MOISTURE DUE TO IMPROPER HERMETIC SEAL.

MFEF REPORT NUMBER: 405 MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER MC00141 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7339
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN METAL RUN DUE TO POOR PHOTORESIST COVERAGE PATTERN DELINEATED BY ANODIZATION.

MFEF REPORT NUMBER: 406 MFEF REPORT DATE: 7509

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: MC9014L PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7338
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION STRIPE INTERNAL TO CIRCUIT.

MFEF REPORT NUMBER: 414 MFEF REPORT DATE: 7403

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7302
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN VCC METAL DUE TO POOR FANING OF CHIP PRIOR TO GLASS PASSIVATION.

MFEF REPORT NUMBER: 420 MFE REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54L73 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: NO RESISTOR IN SERIES WITH INPUTS TIED TO VCC.

MFEF REPORT NUMBER: 421 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74L73 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE DUE TO OVERSTRESS.

MFEF REPORT NUMBER: 422 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S140DM PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7432
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE DAMAGE TO INPUT TRANSISTOR.

MFEF REPORT NUMBER: 423 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER 74H106 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7516
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT UNDERPASS SHORTED.

MFEF REPORT NUMBER: 424 MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54H106 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7324
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LEAKY UNDERPASS DIODE.

MFEF REPORT NUMBER 425 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 2361IC PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7331
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LOW RESISTANCE SHUNT PATH CAUSED BY OXIDE DEFECT.

MFEF REPORT NUMBER. 426 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 2361IC PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7331
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS MISPLACED ISOLATION DIFFUSION.

MFEF REPORT NUMBER: 427 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: SN2361IC PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7331
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 428 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: SN5495A PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7512
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: SMEAR DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: "A" INPUT METALIZATION SMEARED CAUSING 1 TRANSISTOR TO BE INTERMITTENTLY SHORTED.

MFEF REPORT NUMBER: 429 MFEF REPORT DATE: 7404

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5494 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 48 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 430 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: S5495F PART MANUFACTURER: SIGNETICS DATE CODE: 7234
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DESIGN,APPLICATION MISMATCH.

MFEF REPORT NUMBER: 431 MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: RB5495 PART MANUFACTURER: SIGNETICS DATE CODE: 7218
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXACT NATURE OF DEFECT UNDETERMINED DUE TO PORTION OF CHIP BEING DESTROYED.

MFEF REPORT NUMBER: 432 MFEF REPORT DATE: 7503

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: S5495F PART MANUFACTURER: SIGNETICS DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: TUNNELED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OVERVOLTAGE ON VCC RESULTED IN TUNNELING OF ALUMINUM METALIZATION.

MFEF REPORT NUMBER. 433 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7144
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 14 E-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 434 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7142
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 7 METALIZATION MELTED BETWEEN BOND PAD AND INTERNAL CHIP CIRCUITRY.

MFEF REPORT NUMBER: 435 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7218
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 8 E-TO-GND METALIZATION MELTED. PIN 8 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 436 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 14 E-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE. ONE DEVICE HAD DATE CODE 7242.

MFEF REPORT NUMBER: 437 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN24559C PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 8 E-TO-GND METALIZATION MELTED. PIN 8 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 438 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: PART MANUFACTURER: DATE CODE: 7418
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 14 E-TO-GND METALIZATION MELTED. PIN 14 TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 439 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: SN35037 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7414
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: OXIDE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. LEAKAGE BETWEEN GROUND PLANE AND CHIP SUBSTRATE. EXACT DEFECT LOCATION COULD NOT BE DETERMINED.

MFEF REPORT NUMBER: 441 MFEF REPORT DATE: 7504

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: RECEIVER/TRANSMITTER
PART NUMBER: 26S12 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 9 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEFECT WAS PRESENT FROM TIME DEVICE FINISHED WAFER PROCESSING.

MFEF REPORT NUMBER: 442 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7016
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: SURFACE
DEFECT DESCRIPTION: PARTICLE BRIDGE DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SPEAR OF ALUMINUM ON SURFACE OF DIE UNDER PASSIVATION.

MFEF REPORT NUMBER: 443 MFEF REPORT DATE: 7407

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7334
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: OXIDE
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. PINHOLES OR VOIDS IN THE OXIDE.

MFEF REPORT NUMBER: 444 MFEF REPORT DATE: 7605

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: AMD54101 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7429
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT-OF-SPEC DUE TO IMPROPER PROCESSING.

MFEF REPORT NUMBER: 445 MFEF REPORT DATE: 7308

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: 1 DEVICE EXHIBITED DIFFERENT ELECTRICAL DESIGN COMPARED TO OTHER DEVICES MARKED IDENTICALLY.

MFEF REPORT NUMBER: 446 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: SN75114 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7421
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: SCRATCH DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: METALIZATION SCRATCH CAUSED DEVICE TO FAIL OUTPUT CLAMP DIODE TEST.

MFEF REPORT NUMBER: 447 MFEF REPORT DATE: 7410

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5414 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7233
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUTS TO GROUND.

MFEF REPORT NUMBER: 448 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7421
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 449 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615FM-B PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7422
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE: HERMETIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: UNBALANCE IN RESISTOR VALUES IN INPUT STAGE.

MFEF REPORT NUMBER: 450 MFEF REPORT DATE: 7204

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7124
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 451 MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7329
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MISPLACED DIFFUSION.

MFEF REPORT NUMBER: 452 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7401
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT OFFSET VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT OFFSET UNBALANCE DUE TO MISMATCHED RESISTORS.

MFEF REPORT NUMBER: 453 MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 454 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT TO VCC.

MFEF REPORT NUMBER: 455 MFEF REPORT DATE: 7410

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5414 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7233
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OVERLOAD TO GROUND.

MFEF REPORT NUMBER: 456 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER: 9615 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7402
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 36 T
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MODULE SPECS TIGHTER THAN COMPONENT SPECS.

MFEF REPORT NUMBER: 457 MFEF REPORT DATE: 7205

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9328 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7112
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: POOR PROCESS CONTROL DURING EPITAXIAL LAYER GROWTH OR THE BURIED LAYER DIFFUSION.

MFEF REPORT NUMBER: 458 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9328 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7404
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 459 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54153 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GROSS LEAKER RELATED TO SYLVANIA COVER PLATE MODULE DESIGN.

MFEF REPORT NUMBER: 460 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: N/R
PART NUMBER: 985A PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: OHMIC DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH CONTACT RESISTANCE BETWEEN METAL AND SILICON AT ANODE CONTACT OF Q OUTPUT STAGE.

MFEF REPORT NUMBER: 461 MFEF REPORT DATE: 7605

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: SN54S151 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7508
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: PACKAGE DIE ATTACH BOND
DEFECT DESCRIPTION: LOOSE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LOOSE DIE.

MFEF REPORT NUMBER: 462 MFEF REPORT DATE: 7512

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54S151 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7518
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 17 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: ETCH FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCHOTTKY BARRIER METALIZATION OVERETCHED.

MFEF REPORT NUMBER: 463 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN23615C PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7344
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT METALIZATION MELTED OPEN.

MFEF REPORT NUMBER: 464 MFEF REPORT DATE: 7402

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 465 MFEF REPORT DATE: 7409

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5405 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7304
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIRE
DEFECT DESCRIPTION: DISCOLORED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VCC BOND WIRE BURNED.

MFEF REPORT NUMBER: 466 MFEF REPORT DATE: 7405

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN7404 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 467 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7438
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS AND OUTPUTS MELTED.

MFEF REPORT NUMBER: 468 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7322
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 9 METALIZATION MELTED.

MFEF REPORT NUMBER: 469 MFEF REPORT DATE: 7511

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VCC LEAD WIRE MELTED.

MFEF REPORT NUMBER: 470 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7506
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: IMPERFECTION IN INPUT 12 EMITTER DIFFUSION WHICH HAD METALIZATION ALLOYED DOWN INTO IT.

MFEF REPORT NUMBER: 471 MFEF REPORT DATE: 7406

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT "STUCK AT" 0.

MFEF REPORT NUMBER: 472 MFEF REPORT DATE: 7403

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: NOT REPORTE DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT TO GROUND SHORT.

MFEF REPORT NUMBER: 473 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: SYNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED AND/OR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 474 MFEF REPORT DATE: 7607

DATA SOURCE FE-0003 SOURCE EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7440
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED AND/OR SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 475 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN5400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7331
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAD MELTED. TRANSISTOR EMITTER METALIZATION MELTED AND SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 476 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN5400 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7435
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OXIDE IN RESISTOR WINDOW.

MFEF REPORT NUMBER: 477 MFEF REPORT DATE: 7606

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN5400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7329
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: METAL CONTACT WINDOW
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CLAMP DIODE CONTACT AREA TOO SMALL.

MFEF REPORT NUMBER: 478 MFEF REPORT DATE: 7601

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7339
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: CURRENT STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT 5 DIODE DAMAGED C-A DUE TO CURRENT OVERLOAD.

MFEF REPORT NUMBER: 479 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7426
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED OPEN AND SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 480 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7426
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT TRANSISTOR SHORTED C-E UNDER OXIDE.

MFEF REPORT NUMBER: 481 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS LEADS MELTED. INPUTS MELTED OPEN. DATE CODES 7426 [2 DEVICES] AND 7422 [1 DEVICE].

MFEF REPORT NUMBER: 482 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7440
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS LEADS MELTED. INPUTS MELTED OPEN.

MFEF REPORT NUMBER 483 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S20 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7223
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT TRANSISTOR BLOWN, APPARENTLY BY STATIC DISCHARGE.

MFEF REPORT NUMBER: -86 MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7630
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: GATE OXIDE DIELECTRIC
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PIN 10 INPUT TRANSISTOR SHORTED UNDER OXIDE EMITTER-TO-BASE.

MFEF REPORT NUMBER -87 MFEF REPORT DATE: 7611

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7630
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT PIN 9 BONDING WIRE MELTED.

MFEF REPORT NUMBER -88 MFEF REPORT DATE: 7[illegible]

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN54S30 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7504
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 1 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: SHORT BETWEEN ADJACENT INPUTS.

MFEF REPORT NUMBER: -89 MFEF REPORT DATE: 7[illegible]

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: [illegible]S PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7346
DEVICE TECHNOLOGY: PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: CERAMIC DIP NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT PIN 1 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: -90 MFEF REPORT DATE: 7[illegible]

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7337
DEVICE TECHNOLOGY: PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT 2 WAS PATTERN SENSITIVE.

MFEF REPORT NUMBER: 491 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 3411JS PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7132
DEVICE TECHNOLOGY: PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE CERAMIC DIP NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT 9 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 492 MFEF REPORT DATE: 7610

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7301
DEVICE TECHNOLOGY: PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 STAGE HAD NO OUTPUT. DEFECT COULD NOT BE LOCATED.

MFEF REPORT NUMBER: 493 MFEF REPORT DATE: 7705

DATA SOURCE FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 3411JS PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7345
DEVICE TECHNOLOGY PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE CERAMIC DIP NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 494 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 3411JS PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7420
DEVICE TECHNOLOGY: PMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: CERAMIC DIP NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: INPUT 7 SHORTED TO SUBSTRATE DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER: 495 MFEF REPORT DATE: 7401

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: POWER
PART NUMBER: 944 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: 10V OR GREATER STRESS APPLIED TO OUTPUT TRANSISTORS.

MFEF REPORT NUMBER: 496 MFEF REPORT DATE: 7404

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: RS
PART NUMBER: SW772 PART MANUFACTURER: STEWART WARNER DATE CODE: 0
DEVICE TECHNOLOGY: DTL SCREEN CLASS: N/R COMPLEXITY: 24 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 499 MFEF REPORT DATE: 7507

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER 93S62 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7321
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 20 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: MARGINAL CIRCUIT DESIGN CAN CAUSE HIGH TEMPERATURE PROBLEMS.

MFEF REPORT NUMBER: 500 MFEF REPORT DATE 7608

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: ENCODER CIRCUIT TYPE: N/R
PART NUMBER: 9318 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: OXIDE
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OXIDE PINHOLE.

MFEF REPORT NUMBER: 503 MFEF REPORT DATE: 7604

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER PART MANUFACTURER: DATE CODE: 7504
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILS FALL TIME.

MFEF REPORT NUMBER: 504 MFEF REPORT DATE: 7604

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7504
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 50 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7515
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: PINS 6 AND 7 METALIZATION MELTED.

MFEF REPORT NUMBER: 506 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7516
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT 6 METALIZATION MELTED AND INPUT DIODE SHORTED UNDER OXIDE.

MFEF REPORT NUMBER: 507 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7516
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N,3 COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: HILLOCK DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: VARIOUS INPUTS MELTED.

MFEF REPORT NUMBER: 509 MFEF REPORT DATE: 7309

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7226
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GROUND METALIZATION OPEN ON OUTPUT TRANSISTOR.

MFEF REPORT NUMBER: 510 MFEF REPORT DATE: 7510

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7443
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: APPEARS TO BE STATIC & FOTRIGITY DAMAGE.

MFFF REPORT NUMBER: 511 MFFF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7426
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: DAMAGED DIODE.

MFFF REPORT NUMBER: 512 MFFF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: IMPROPER HERMETIC SEAL.

MFFF REPORT NUMBER: 513 MFFF REPORT DATE: 7505

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 514 MFFF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: WEAK PACKAGE COUPLED WITH POOR MOUNTING TECHNIQUE.

MFFF REPORT NUMBER: 515 MFFF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL: DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN74S10W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7422
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: CERAMIC FPF NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: IMPROPR DOPING PROCESS.

MFEF REPORT NUMBER: 516 MFEF REPORT DATE: 7602

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7516
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH INPUT CAPACITANCE.

MFEF REPORT NUMBER: 517 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: SN54S181 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7424
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 63 G
PACKAGE: N/R N/R NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: SHORTED INPUT DUE TO STATIC DISCHARGE.

MFEF REPORT NUMBER 518 MFEF REPORT DATE: 7609

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: LIFE APPLICATION ENV: N/R
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: 54S181J PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7526
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 63 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: WIRE
DEFECT DESCRIPTION SHORT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: BONDING WIRE TOUCHING EDGE OF CHIP.

MFEF REPORT NUMBER: 519 MFEF REPORT DATE: 7501

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 522 MFEF REPORT DATE: 7408

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: CD4051 PART MANUFACTURER: RCA DATE CODE: 7404
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR N/R FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: DIFFUSION FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: INCOMPLETE N-PLUS DIFFUSION.

MFEF REPORT NUMBER: 527 MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SHORT CAUSED BY PINHOLE IN OXIDE LAYER BENEATH GATE METALIZATION.

MFEF REPORT NUMBER: 528 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEFECTIVE GATE OXIDE.

MFEF REPORT NUMBER: 543 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 544 MFEF REPORT DATE: 7507

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7430
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS PINS WERE SHORTED TOGETHER.

MFEF REPORT NUMBER 545 MFEF REPORT DATE: 7506

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 546 MFEF REPORT DATE: 7405

DATA SOURCE: FF-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H30 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7330
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 1 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CKT 4 HAD 1 TRANSISTOR WITH POOR VCE SATURATION CHARACTERISTICS.

MFEF REPORT NUMBER: 547 MFEF REPORT DATE: 7712

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7337
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: BOND PADS 1,2 AND 4 MELTED AND ALLOYED INTO DIE.

MFEF REPORT NUMBER: 549 MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54H04 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7114
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 553 MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SNC54000 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7225
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: NAND GATE METALIZATION MELTED AT OUTPUT.

MFEF REPORT NUMBER: 555 MFEF REPORT DATE: 7701

DATA SOURCE: FF-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: SN74H101W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7325
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: FLIP-FLOP METALIZATION MELTED AT OUTPUT.

MFEF REPORT NUMBER: 556 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN74H04W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7328
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: GROUND LEAD MELTED ON INVERTER AND MUCH DAMAGE TO METALIZATION.

MFEF REPORT NUMBER: 557 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN74H04W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7328
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: METALIZATION ON INVERTER CHIP MELTED.

MFEF REPORT NUMBER: 558 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: SN74H04W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7328
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INTERNAL LEAD W MELTED IN TWO AND SOME METALIZATION DAMAGE EXISTED.

MFEF REPORT NUMBER: 559 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54H04 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7349
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: GROUND LEAD OF INVERTER CHIP MELTED IN TWO AND SOME METALIZATION DAMAGED.

MFEF REPORT NUMBER: 560 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54H04 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7403
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: METALIZATION AT INPUT OF INVERTER MELTED.

MFEF REPORT NUMBER: 561 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54H04 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7403
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 562 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H101 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7336
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 563 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H101 PART MANUFACTURER: NOT REPORTED DATE CODE: 7423
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAD OF FLIP-FLOP AT PIN 8 MELTED.

MFEF REPORT NUMBER: 564 MFEF REPORT DATE: 7701

DATA SOURCE: FE-0003 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 54H04 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7426
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED LOW FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: MELTED METALIZATION ON INVERTER CHIP.

MFEF REPORT NUMBER: 565 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/P
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7412
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS: INPUT LEAKAGE.

MFEF REPORT NUMBER: 566 MFEF REPORT DATE: 7512

DATA SOURCE FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H00W PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7238
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 567 MFEF REPORT DATE: 7603

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 93L16DM PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7314
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: OXIDE
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PINHOLE IN OXIDE.

MFEF REPORT NUMBER: 568 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: F93L1659 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7222
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 0
PACKAGE: HERMETIC FPK NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: HIGH VOF (SAT) VARIED THRESHOLD OF FLIP-FLOP. EXACT NATURE OF DEFECT NOT DETERMINED.

MFEF REPORT NUMBER: 569 MFEF REPORT DATE: 7608

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7534
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXACT NATURE OF DEFECT NOT DETERMINED.

MFEF REPORT NUMBER: 570 MFEF REPORT DATE: 7607

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54S194 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7419
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 47 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: THERMAL HEATPLATE FLEXING BROKE PKG HERMETIC SEAL, DUE TO MECHANICAL DESIGN/LAYOUT.

MFEF REPORT NUMBER: 571 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 93L16 PART MANUFACTURER: NOT REPORTED DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 C
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: DEGRADED FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: SHORT (VCC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTROSTATIC DISCHARGE
ACTIVATING STRESS B: N/R

REMARKS: STATIC DISCHARGE SHORTED CROSSUNDER DIFFUSION TO ISOLATION BOAT WHICH WAS TIED TO VCC.

MFEF REPORT NUMBER: 572 MFEF REPORT DATE: 7604

DATA SOURCE: FE-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 93L16 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7419
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 C
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: WIRE
DEFECT DESCRIPTION: OPEN (S) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: LEAD WIRES CORRODED DUE TO SALT ATMOSPHERE ENTERING THROUGH A PACKAGE LEAK.

MFEF REPORT NUMBER: 579 MFEF REPORT DATE: 7902

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: SN5400 PART MANUFACTURER: SIGNETICS DATE CODE: 7517
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: SHORT (VCC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT PIN 9 SHORTED UNDER OXIDE FROM CATHODE OF INPUT PROTECTION DIODE TO GND METAL. DUE TO HIGH + VOLTAGE [>VCC] EOS.

MFEF REPORT NUMBER: 580 MFEF REPORT DATE: 7903

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: REGISTER (SHIFT UNIT CIRCUIT TYPE: N/R
PART NUMBER: 9341 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 66 C
PACKAGE: N/R N/R NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: SHORT (VCC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT 22 METAL PIN SHORTED UNDER OXIDE TO NEARBY METAL PIN, LIKELY DUE TO HIGH PLUS POTENTIAL [>VCC] EOS.

MFEF REPORT NUMBER: 581 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: SIGNETICS DATE CODE: 7419
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (VCC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 12 OUTPUT TRANSISTOR SHORTED (+VCC-E UNDER THE OXIDE DUE TO HIGH PLUS POTENTIAL [>VCC] EOS.

MFEF REPORT NUMBER: 582 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: ALL 6 INPUT TRANS [P1,4,6,8,10,12] SHORTED,UNDER OXIDE,C-E. METAL MELTED BETWEEN E-GND. BY POS. POT. [>VCC] EOS * PINS

MFEF REPORT NUMBER: 583 MFEF REPORT DATE: 7905

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: SN54L153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7611
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: *

FAILURE INDICATOR: N/R FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: SHORT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS DEV. #1: INPUT 6,12 BOND PADS SHORTED UNDER OXIDE TO GND. DEV. #2: INPUT 3,11 BOND PADS SHORTED UNDER OXIDE TO GND.

MFEF REPORT NUMBER: 584 MFEF REPORT DATE: 7903

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: SN54L73 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7719
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: *

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 9 INPUT TRANS. SHORTED UNDER OXIDE [illegible]. METALIZATION MELTED BETW E & GND. HIGH POS. POTENTIAL [>VCC] EOS.

MFEF REPORT NUMBER: 585 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: MC9316L PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 44 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: *

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: OUTPUT Q1 BONDING WIRE AND INPUT TRANSISTOR EMITTER METAL MELTED DUE TO EOS IN EXCESS OF VCC. DC 7330, 7351.

MFEF REPORT NUMBER: 586 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: MC9316L PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7403
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 44 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LATCHED HI FAILURE MODE: METAL MULTI-LAYER INTERFACE
DEFECT DESCRIPTION: OPEN (SOC) DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT Q METAL OPENS TO VIA METAL VIA PIN IN SIO2 ISOLATION GLASS - [illegible] METAL MIGRATION. MANUFACTURING DEFECT.

MFEF REPORT NUMBER: 587 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7410
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 44 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTROSTATIC DISCHARGE

REMARKS: C-E RESISTIVE SHORT AT PIN 9 INPUT TRANSISTOR AS RESULT OF VOLTAGE >50V, POSSIBLY ESD.

MFEF REPORT NUMBER: 588 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 9316 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7117
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 44 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LATCHED HI FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: CORRODED DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS PHOSPHORIC RESIDUE [CLEANING/SEALING PROCESS] SCATTERED ON DIE SURFACE. METAL EATEN AWAY. MOIST. = PHOSPH. ACID = CORROS

MFEF REPORT NUMBER: 589 MFEF REPORT DATE: 7706

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 54153 PART MANUFACTURER: SIGNETICS DATE CODE: 7410
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS EXTENSIVE CRACKING/PEELING OF BOND PAD GLASSIVATION, CAUSING LIFTING OF THE WIREBONDS. POOR GLASS APPLICATION PROCESS.

MFEF REPORT NUMBER: 590 MFEF REPORT DATE: 7705

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S10 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7612
DEVICE TECHNOLOGY: STTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND LEAD FRAME HEEL
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. P7 [GNI] BOND WIRE AT LEAD FRAME BROKEN AT HEEL. EXCESSIVE PRESSURE DURING ULTRASONIC BOND FLATTENED LEAD.

MFEF REPORT NUMBER 591 MFEF REPORT DATE: 0

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 9614 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7248
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS B-E LEAKAGE PATH AT INPUT Q2 CAUSING FAILURE AT +60C. STRIPPING THERMAL OXIDE DID NOT CURE DEVICE. MANUFACTURING DEFECT.

MFEF REPORT NUMBER. 592 MFEF REPORT DATE. 0

DATA SOURCE: FF-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: SN5474 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7326
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 12 G
PACKAGE N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SWITCHING CHAR OUT OF TOLERANCE FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OVERLY THICK GLASSIVATION LAYER CONTAINED NUMEROUS CRACKS. SUSPECT HIGH LEAKAGE PATH ON DIE SURFACE.

MFEF REPORT NUMBER: 593 MFEF REPORT DATE: 0

DATA SOURCE: FF-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 9614 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7632
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS. OUTPUT TRANSISTOR SHORTED [UNDER OXIDE] C-E, 2 CURRENT SOURCE TRANS SHORTED, 1 E-B, 1 C-E. HI POSITIVE [>VCC] EOS.

MFEF REPORT NUMBER. 595 MFEF REPORT DATE: 7904

DATA SOURCE: FF-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: 93L40 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7618
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 63 G
PACKAGE: N/R N/R NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: P7 INPUT TRANSISTOR SHORTED [UNDER OXIDE] C-E. 2ND TRANSISTOR SHORTED E-B. HIGH POSITIVE POTENTIAL [>VCC] EOS.

MFEF REPORT NUMBER: 596 MFEF REPORT DATE: 7904

DATA SOURCE: FF-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: REGISTER LOGIC UNIT CIRCUIT TYPE: N/R
PART NUMBER: 93L40 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7618
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 63 G
PACKAGE: N/R N/R NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUT I1 SHORTED [UNDER OXIDE] C-E. MELTED METAL BETWEEN PIN 11 BOND PAD, TRANS EMITTER. HI POS. VOLT. [>VCC] EOS.

MFEF REPORT NUMBER: 597 MFEF REPORT DATE: 7908

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7907
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: JB COMPLEXITY: 31 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: SUPPLY CURRENT OUT OF TOLERANCE FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CRACKS IN SEAL AREA AND CONTAMINATION.

MFEF REPORT NUMBER 598 MFEF REPORT DATE: 7908

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER PART MANUFACTURER: DATE CODE: 7907
DEVICE TECHNOLOGY LSTTL SCREEN CLASS: JB COMPLEXITY: 31 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CRACKS IN SEAL AREA AND CONTAMINATION.

MFEF REPORT NUMBER: 599 MFEF REPORT DATE: 7903

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7737
DEVICE TECHNOLOGY LSTTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE CERAMIC DIP NUMBER OF PINS. 14
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR SHORT INPUT FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. SHORT BETWEEN P9,10. DEVICE REVEALED TO BE DECADE COUNTER [54LS90 OR 5490A]. WRONG COVER/WRONG MARKING IS FAILURE DEFECT

MFEF REPORT NUMBER: 600 MFEF REPORT DATE: 7903

DATA SOURCE FE-0005 SOURCE BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED. 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PROPGN DELAY OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS MASK DEFECT CAUSES OUT-OF-SPEC PROP DELAY. DATE CODES 7847-7903, GOOD/BAD PRODUCT MIX. SCREEN WITH <1KHZ TEST SIGNAL.

MFEF REPORT NUMBER: 601 MFEF REPORT DATE: 7903

DATA SOURCE FE-0005 SOURCE COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 86 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 20
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: MISSING DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS: SIMULATION REVEALED MISSING CONNECTIONS ON VENDOR SCHEMATIC, SUCH THAT OUTPUT YB [Q1] WOULD NEVER CHANGE STATE.

MFEF REPORT NUMBER: 602 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS DC 7806,7827. 2 DEV. FAILED AT <+5C, 1 DEV. FAILED AT +67C. SUSPECT ELEVATED TEMP. INCREASES COUPLING WITHIN PACKAGE.

MFEF REPORT NUMBER 603 MFEF REPORT DATE: 7905

DATA SOURCE. FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: CONVERTER CIRCUIT TYPE: BINARY/BCD
PART NUMBER: PART MANUFACTURER: DATE CODE: 7820
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 B
PACKAGE CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEVICES MARKED INCORRECTLY, ACTUALLY CONTAINED 54184J PARTS.

MFEF REPORT NUMBER: 604 MFEF REPORT DATE: 7808

DATA SOURCE: FE-0005 SOURCE: BOARD LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: JB COMPLEXITY: 57 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: USER DESIGN MISAPPLICATION.

MFEF REPORT NUMBER: 605 MFEF REPORT DATE: 7902

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7809
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 50 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT LEAKAGE FAILURE MODE PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE IOI ON P3,6,11,14 AND IOH ON P2,15. DEVICES APPEAR TO BE MISMARKED 74LS175 LATCHES.

MFEF REPORT NUMBER: 606 MFEF REPORT DATE: 7906

DATA SOURCE: FE-0005 SOURCE. EQUIPMENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: PART MANUFACTURER: DATE CODE: 7834
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 20 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 50 TIME TO DETECTION. 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS: PKGS HAD LIDS MARKED "S123", ACTUALLY CONTAINED "S153" DIE.

MFEF REPORT NUMBER: 607 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7723
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 33 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEVICES TURNED OUT TO BE 54LS85 PARTS WHICH HAD BEEN MISMARKED.

MFEF REPORT NUMBER 608 MFEF REPORT DATE: 7902

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7821
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE LID
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE RECEIVING INSPECTION FAILURES REVEALED DEVICES TO BE SCHOTTKY, NOT LOW POWER SCHOTTKY, PARTS.

MFEF REPORT NUMBER 609 MFEF REPORT DATE: 7901

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: PART MANUFACTURER: DATE CODE: 7806
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: JB COMPLEXITY: 28 T
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT IN-OP,CATAS FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NONFUNCTIONAL PARTS TESTED OK AS 5432 DEVICES (QUAD POSITIVE-OR GATES).

MFEF REPORT NUMBER: 611 MFEF REPORT DATE: 7812

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: PART MANUFACTURER: DATE CODE: 7711
DEVICE TECHNOLOGY: STTL SCREEN CLASS: JB COMPLEXITY: 12 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PARTS WERE ACTUALLY 5474 OR 54H74 DEVICES, RATHER THAN SCHOTTKY PARTS.

MFEF REPORT NUMBER: 612 MFEF REPORT DATE: 7805

DATA SOURCE: FF-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: PART MANUFACTURER: DATE CODE: 7538
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: JAN COMPLEXITY: 10 T
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD HEEL
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: ALL DEVICES HAD BROKEN WIRE BONDS, HEEL AT DIE PAD. 5 DEV. BROKEN AT PIN 9, 1 AT PIN 6. PROPAGATED BY 38510 TEMP CYCLE.

MFEF REPORT NUMBER: 613 MFEF REPORT DATE: 7810

DATA SOURCE: FF-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: CONVERTER CIRCUIT TYPE: D/A CONVERTER
PART NUMBER: PART MANUFACTURER: DATE CODE: 7716
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: N/R COMPLEXITY: 8 B
PACKAGE: CERAMIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DEVICES MISMARKED, CONTAINED DIFFERENT 8-BIT MULTIPLYING D/A CONVERTER.

MFEF REPORT NUMBER 614 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 16 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: NUMEROUS CRACKS IN METALIZATION, SOME COMPLETELY THROUGH THE ALUMINUM. SOME LATERAL CRACKING ALSO OCCURED.

MFEF REPORT NUMBER: 615 MFEF REPORT DATE: 7901

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: DIE
DEFECT DESCRIPTION: SCRATCH DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS SCRATCHED METALIZATION, CRACKING OF GLASSIVATION, METALIZATION VOID. DEVICES FAILED MIL-STD-883, METHOD 2010.

MFEF REPORT NUMBER: 616 MFEF REPORT DATE: 7806

DATA SOURCE FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS ONE FLIP-FLOP NONFUNCTIONAL AT 10MHZ DUE TO FLIP-FLOP/CLOCK SHORT. HIGH CURRENT CONSUMPTION DUE TO IMPROPER METALIZATION.

MFEF REPORT NUMBER: 617 MFEF REPORT DATE: 7805

DATA SOURCE FE-0005 SOURCE: BOARD LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 48 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: NUMEROUS DEVICES FAILED LOW TEMP (-55C) SCREENING TESTS, WITH VDC = +4.5V

MFEF REPORT NUMBER: 622 MFEF REPORT DATE: 7806

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER. PART MANUFACTURER: DATE CODE: 7749
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR PROPGN DELAY OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: COMBINATION OF REPETITION RATES < 500KHZ, [illegible] USE DUTY CYCLE > 50% GIVES INCREASE IN HI-LO PROP DELAY, ESP. HI TMP

MFEF REPORT NUMBER: 623 MFEF REPORT DATE: 7811

DATA SOURCE: [illegible] SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE RECEIVER
PART NUMBER PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: B-1 COMPLEXITY: 49 T
PACKAGE CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 0 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: DATE CODES 7810,7822A,7811A. HYSTERESIS LIMITS UNPREDICTABLE, CAN APPROACH ZERO, ASSYMETRICAL, DRIFT RANDOMLY AT ROOM T

MFEF REPORT NUMBER: 627 MFEF REPORT DATE: 7803

DATA SOURCE: FE-0005 SOURCE: COMPONENT LEV DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: N R CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 0 0
PACKAGE: CERAMIC FPF NUMBER OF PINS: 0
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS 4 PART TYPES [DC 7635,7636,7641] WITH 14- OR 16- LEAD PKGS. HAD PIN MARKING 180 DEG. OUT-OF-PHASE WITH PIN 1.

MFEF REPORT NUMBER: 628 MFEF REPORT DATE: 7802

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FLUCT/OSC OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS DC 7552,7636. DEVICES BECAME ERRATIC AT TEMP. BETWEEN -30 TO -50 DEG. C.

MFEF REPORT NUMBER: 630 MFEF REPORT DATE: 7803

DATA SOURCE FE-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: N/P CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7730
DEVICE TECHNOLOGY CMOS SCREEN CLASS: 883 COMPLEXITY: 0
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED: 180 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: DEFECTIVE OXIDE CAUSES [illegible]-CHANNEL TRANSISTORS WHEN SUBJECTED TO HIGH TEMP [80-125C]. ACCENT BY HIGH VCC,VIN VOLTAGE

MFEF REPORT NUMBER: 631 MFEF REPORT DATE: 7710

DATA SOURCE: FE-0005 SOURCE: BOARD LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 7346
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 35 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN-COLLECTOR HEX INVERTER. ANOMALY TESTED OUT AS 7404 DEVICES DUE TO PACKAGE MISMARKING.

MFEF REPORT NUMBER: 632 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: PART MANUFACTURER: DATE CODE: 7139
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 12 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR IMPROPER OUTPUT SWITCHING FAILURE MODE: OXIDE
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: METALIZATION SHORTS DUE TO OXIDE PI:

MFEF REPORT NUMBER: 633 MFEF REPORT DATE: 7508

DATA SOURCE: FE-0005 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: PART MANUFACTURER: DATE CODE: 7439
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JAN COMPLEXITY: 12 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT SWITCHING FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MISSING DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OPEN METALIZATION PATH DUE TO MISSING METAL.

MFEF REPORT NUMBER. 634 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: NOT REPORTED PART MANUFACTURER: SIGNETICS DATE CODE: 7419
DEVICE TECHNOLOGY: N/R SCREEN CLASS: N/R COMPLEXITY: 4 B
PACKAGE: N/R N/R NUMBER OF PINS: 0
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: PIN 12 OUTPUT TRANSISTOR SHORTED UNDER OXIDE, C-E, AS A RESULT OF HIGH POSITIVE POTENTIAL [>VCC] EOS.

MFEF REPORT NUMBER: 635 MFEF REPORT DATE: 7904

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: N/R N/R NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: MELTED-FUSED DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: ALL 6 OUTPUT TRANSISTORS SHORTED UNDER OXIDE, C-E, AND METALIZATION MELTED E-GND, DUE TO HIGH POS. POT. [>VCC] EOS.

MFEF REPORT NUMBER 636 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: I / VALIDATION APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 9304 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 22 G
PACKAGE HERMETIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISLOCATED WIRE BONDS.

MFEF REPORT NUMBER: 637 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 9304 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 22 G
PACKAGE: HERMETIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIF PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EXAMINATION REVEALED INADEQUATE WIRE BONDING.

MFEF REPORT NUMBER: 638 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER 9304 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 22 G
PACKAGE HERMETIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATTER WITHIN THE PACKAGES.

MFEF REPORT NUMBER: 639 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 93L16 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 640 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 93L16 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE LOW.

MFEF REPORT NUMBER: 641 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 93L16 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 642 MFEF REPORT DATE: 7512

DATA SOURCE PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 93L16 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISPLACED WIRE BONDS.

MFEF REPORT NUMBER: 643 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 93L16 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 58 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 33 TIME TO DETECTION: 0

FAILURE INDICATOR N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE BONDING.

MFEF REPORT NUMBER: 644 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 8293 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 43 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED WIREBOND MISALIGNED.

MFEF REPORT NUMBER: 645 MFEF REPORT DATE: 7512

DATA SOURCE PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 8293 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 43 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE BONDING.

MFEF REPORT NUMBER: 646 MFEF REPORT DATE: 7512

DATA SOURCE PU-0001 SOURCE COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 8293 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 43 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 647 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 5490A PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 68 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MIALIGNED WIREBONDS.

MFEF REPORT NUMBER: 648 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 5490A PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 69 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIRE BONDING.

MFEF REPORT NUMBER: 649 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 5490A PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 15 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN THE PACKAGE.

MFEF REPORT NUMBER: 650 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 26L02 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 18 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 651 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54L73 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER 652 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54L73 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 653 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54L73 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 14 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 654 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2602 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 18 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED THAT THE PACKAGE CONTAINED THE WRONG PART.

MFEF REPORT NUMBER: 655 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2602 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 18 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 656 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2602 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 18 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF [illegible] NUMBER: [illegible] MFEF REPORT DATE: 7512

DATA SOURCE: [illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: [illegible]
PART NUMBER 9LS109 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: [illegible] SCREEN CLASS: N/R COMPLEXITY: 16 C
PACKAGE [illegible] DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 658 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54109 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE HIGH.

MFEF REPORT NUMBER: 659 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54109 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 660 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54109 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 16 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED PACKAGE CONTAINED THE WRONG PART.

MFEF REPORT NUMBER: 661 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H55 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 3 C
PACKAGE: HERMETIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 662 MFEF REPORT DATE: 7513

DATA SOURCE: FC-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION REV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H55 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: HERMETIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 3

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MFEF REPORT NUMBER: 663 MFEF REPORT DATE: 7513

DATA SOURCE: FC-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION REV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H55 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 3 G
PACKAGE: HERMETIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 3

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 664 MFEF REPORT DATE: 7513

DATA SOURCE: FC-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION REV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54H00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 665 MFEF REPORT DATE: 7513

DATA SOURCE: FC-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION REV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER 54H10 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY HTTL SCREEN CLASS: N/R COMPLEXITY: 3 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 666 MFEF REPORT DATE: 7513

DATA SOURCE: FC-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION REV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54J6 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: N/R COMPLEXITY: 4 C
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 667 MEEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 576 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT CIRCUIT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 668 MEEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 576 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 669 MEEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 576 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MEEF REPORT NUMBER: 670 MEEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 576 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MEEF REPORT NUMBER 671 MEEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 576 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 2 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 26 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 672 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MFEF REPORT NUMBER: 673 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE OUTPUT LOW.

MFEF REPORT NUMBER 674 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: VOLTAGE OUTPUT HIGH.

MFEF REPORT NUMBER: 675 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: MISALIGNED/MISPLACED DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS X-RAY EVALUATION REVEALED MISALIGNED WIREBONDS.

MFEF REPORT NUMBER: 676 MFEF REPORT DATE: 7512

DATA SOURCE: PU-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: N/R COMPLEXITY: 4 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MEEF REPORT NUMBER: 677 MEEF REPORT DATE: 7512

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: INADEQUATE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED INADEQUATE WIREBONDS.

MEEF REPORT NUMBER: 678 MEEF REPORT DATE: 7512

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 5404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 6 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: X-RAY EVALUATION REVEALED EXTRANEOUS MATERIAL WITHIN PACKAGE.

MEEF REPORT NUMBER: 679 MEEF REPORT DATE: 7512

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 93L09 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUTPUT VOLTAGE HIGH.

MEEF REPORT NUMBER: 680 MEEF REPORT DATE: 7512

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8273 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: [illegible] SCREEN CLASS: N/R COMPLEXITY: 63 G
PACKAGE: [illegible] DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 681 MEEF REPORT DATE: 7701

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 11C05 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7519
DEVICE TECHNOLOGY: ECL SCREEN CLASS: B COMPLEXITY: 0 0
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: THERMAL SHOCK/TEMP. CYCLE FOLLOWED BY SEQUENCE PRODUCED FINE LEAK TEST HERMETICITY FAILURE.

MFEF REPORT NUMBER: 683 MFEF REPORT DATE: 7701

DATA SOURCE PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER 10164 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: ECL SCREEN CLASS: B COMPLEXITY: 12 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: THERMAL SHOCK/TEMPERATURE CYCLE TEST SEQUENCE PRODUCED FINE LEAK TEST FAILURE.

MFEF REPORT NUMBER: 684 MFEF REPORT DATE: 7701

DATA SOURCE: PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 10103 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: ECL SCREEN CLASS: B COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: MECH SHOCK/VIBVRFQ/CONSTANT ACCELERATION TEST SEQUENCE CAUSED HERMETICITY TEST FAILURE.

MFEF REPORT NUMBER 685 MFEF REPORT DATE: 7701

DATA SOURCE PM-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 10132 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: ECL SCREEN CLASS: B COMPLEXITY: 10 G
PACKAGE: F/R DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: MECHSHK/VBVRFQ/CONST. ACCEL. TEST SEQUENCE CAUSED HERMETICITY TEST FAILURE.

MFEF REPORT NUMBER: 686 MFEF REPORT DATE: 7604

DATA SOURCE PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7235
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 2 .
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: 85C/85%. FAIL. = 500 HRS [2], 1000 [1], 1400 [3], 1700 [1], 2300 [2], 4000 [3], DUE TO V-OUT A [1551] ("0" & "1" LEV)

MFEF REPORT NUMBER: 687 MFEF REPORT DATE: 7605

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 9

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE (SEAL) FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 17 TEMP CYCLES [-55/+125C]. ADHESION OF MOLYB. PAD TO LEAD DEGRADED TO INITIALLY WEAK BOND.

MELF REPORT NUMBER: [illegible] MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: [illegible] ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 6905
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: [illegible] COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: [illegible] TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLTAGE OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 100 THERMAL SHOCK CYC. [-65/+150C] OUT OF HIGH V-OUT "0"-LEVEL VOLTAGE.

MELF REPORT NUMBER: 689 MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: FAILED FINE LEAK TEST AFTER 100 THERMAL SHOCK CYCLES [-65/+150C], BUT ALL DC ELECTRICALS OK.

MEFF REPORT NUMBER: 690 MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEV DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 7203
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: SILICONE DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: 85C/85RH TEST. FAIL. @ 100 HRS [1], 500 [3], 1000 [1], 1430 [2], 4000 [2], 5600 [1], DUE TO V-OUT "1" & I-TH "0" & "1".

MEFF REPORT NUMBER: 691 MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7207
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAIL. BIAS TEMP. CYC. [-55/+125C] AT 416 HRS [1] & 832 HRS [1] DUE TO HIGH I-TH "0" & "1" THRESHOLD DRAIN CURRENTS.

MEFF REPORT NUMBER: 692 MEFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: [illegible] LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED BIAS TEMP. CYC. [-55/+125C] AT 512 HRS [1, @ 1310 HRS [1] DUE TO HI I-TH "0" & "1" THRESHOLD DRAIN CURRENTS.

MFEF REPORT NUMBER: 693 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: 1 FINE LK FAILURE, 4 GROSS LK FAILURES. GROSS LEAKERS REVEALED HAIRLINE CRACKS IN CERAMIC BETW. 2 ADJ. LD FRAME PKG PINS

MFEF REPORT NUMBER 694 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED AFTER 417 CYCLES OF THERMAL SHOCK [-65/+150C] DUE TO HIGH I-THRESHOLD "0" LEVEL DRAIN CURRENT.

MFEF REPORT NUMBER: 695 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS 12 OF 17 DEVICES FAILED INITIAL D.C. PARAMETER TEST DUE PREDOMINANTLY TO OUT-OF-SPEC V-OUT [LO] & I-TH ["1" LEVEL].

MFEF REPORT NUMBER: 696 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS: FAILED 85C/85RH AFTER 100 HRS [1], 1000 [2], 2800 [1], & 7300 [1] DUE PREDOMINANTLY TO OUT-OF-SPEC I-TH "0" LEVEL.

MFEF REPORT NUMBER: 697 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: HARRIS SEMI DATE CODE: 7314
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS 14
QUANTITY FAILED: 1 TIME TO DETECTION: 512

FAILURE INDICATOR: LOW LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: FAILED STATIC B-I AT 150C, DUE TO HIGH "0"-LEVEL THRESHOLD DRAIN CURRENT.

MFFF RFPORT NUMBER: 698 MFFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 6939
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 168

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: FAILED AT +300C DUE TO HIGH "1"-LEVEL THRESHOLD DRAIN CURRENT.

MFFF RFPORT NUMBER: 699 MFFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 6926
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: N/R DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: N-CHAN. V-TH. DEGRAD. FAILED AT 48 HRS [1 DEV/+100C], 96 [1/100C], 144 [1/125C], 1240 [1/225C], 1264 [2/225C].

MFFF REPORT NUMBER: 700 MFFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: RCA DATE CODE: 6926
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: N/R DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: P-CHAN. V-TH. DEGRAD. FAILED AT 209 HRS [1 DEV/+125C] AND 1144 HRS [1 DEV/+175C].

MFFF REPORT NUMBER: 701 MFFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLID STATE SCIENTIFIC DATE CODE: 7207
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: EXPOSED DEFECT CAUSE: ELECTROLYSIS
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: "1" & "0" I-TH. LEVELS OUT-OF-SPEC. FAILED AT 346 HRS [2 DEV/150C], 444 [1/175C] & 492 [1/175C]. EXPOSED P-CHANNELS.

MFFF REPORT NUMBER: 702 MFFF REPORT DATE: 7603

DATA SOURCE: PA-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4002A PART MANUFACTURER: SOLITRON DEVICES DATE CODE: 7214
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE STRESS

REMARKS: FAILED AT 390 HRS [1 DEV/+150C], 492 [1/175C] & 1019 [1/175C], DUE TO OUT-OF-SPEC I-TH "0" & "1" LEVEL DRAIN CURRENTS.

MFEF REPORT NUMBER: 703 MFEF REPORT DATE: 7503

DATA SOURCE: ML-0001 SOURCE: EQUIPMENT LEVEL DATA-TYPE: REL PROD DEMO APPLICATION ENV: ML
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER SNC54121J PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: JB COMPLEXITY: 8 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT OUTPUT FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AT +90C,Q OUTPUT PULSE STARTED TO BREAK UP. AT +94C PULSE OUTPUT DECREASED, THEN DISAPPEARED. OUTPUT SHORTED TO GROUND.

MFEF REPORT NUMBER: 705 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 706 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 707 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 708 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 709 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 7617
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 710 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 7617
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 711 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74177 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 712 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 910 TESTED.

MFEF REPORT NUMBER: 713 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 910 TESTED

MFEF REPORT NUMBER: 714 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 715 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 716 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1201 TESTED.

MFEF REPORT NUMBER: 717 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 718 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 719 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 720 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 155 TESTED.

MFEF REPORT NUMBER: 721 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ADDER CIRCUIT TYPE: FULL
PART NUMBER: 7483 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 36 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1354 TESTED.

MFEF REPORT NUMBER: 722 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74S40 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1007 TESTED.

MFEF REPORT NUMBER 723 MFEF REPORT DATE: 7608

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74S40 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 724 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74S40 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 725 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74S40 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 726 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74S40 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 727 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8T97 PART MANUFACTURER: VARIOUS DATE CODE: 7608
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 728 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8T98 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 729 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74H40 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: B-1 COMPLEXITY: 2 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 730 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74LS125 PART MANUFACTURER: VARIOUS DATE CODE: 7523
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: B-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 731 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8095 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 7 C
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 732 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8095 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 C
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 733 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8097 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 C
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 734 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8097 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7634
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 735 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 200 TESTED.

MFEF REPORT NUMBER: 736 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 220 TESTED.

MFEF REPORT NUMBER: 737 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7608
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 738 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7608
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 739 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 740 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS D-1 COMPLEXITY: 8 G
PACKAGE EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 741 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 8098 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 742 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER 74125 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 61 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 743 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74125 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 744 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74125 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 79 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 745 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74126 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 281 TESTED.

MFEF REPORT NUMBER: 746 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74126 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OF 200 TESTED.

MFEF REPORT NUMBER: 747 MFEF REPORT DATE: 7610

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74126 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. OUT OF 500 TESTED.

MFEF REPORT NUMBER: 748 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 74126 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 749 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7428 PART MANUFACTURER: VARIOUS DATE CODE: 7531
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 750 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7428 PART MANUFACTURER: VARIOUS DATE CODE: 7531
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 751 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7428 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 752 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7428 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 753 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7433 PART MANUFACTURER: VARIOUS DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 754 MFFF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER 7433 PART MANUFACTURER: VARIOUS DATE CODE: 7419
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 755 MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7433 PART MANUFACTURER: VARIOUS DATE CODE: 7406
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS. 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 756 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 757 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 758 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 759 MFFF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 760 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 761 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 762 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 763 MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7437 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 764 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 765 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 35 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 766 MFEF REPORT DATE: 7610

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1200 TESTED.

MFEF REPORT NUMBER: 767 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1200 TESTED.

MFEF REPORT NUMBER 768 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 73 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 769 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 770 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 771 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER 772 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER: 773 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7438 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 520 TESTED.

MFEF REPORT NUMBER: 774 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7440 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 17,153 TESTED.

MFEF REPORT NUMBER: 775 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7440 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 219 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 17,153 TESTED.

MFEF REPORT NUMBER: 776 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7440 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 91 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8384 TESTED.

MFEF REPORT NUMBER: 777 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: 7440 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 69 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8384 TESTED.

MFEF REPORT NUMBER: 778 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 74S85 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 779 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 74S85 PART MANUFACTURER: VARIOUS DATE CODE: 7528
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: HERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 780 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 74LS85 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 781 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8160 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 782 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8160 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 783 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 75110 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 784 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0007 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: LINE DRIVER
PART NUMBER: 75110 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 785 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 7485 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 127 TESTED. OF THE REMAINING 54 DEV. TESTED (7603) THERE WERE ZERO FAILURES.

MFEF REPORT NUMBER 786 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER 7485 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 787 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 7485 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF INS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 788 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 7485 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 31 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 300 TESTED. OF THE REMAINING 246 TESTED (7608) THERE WERE ZERO FAILURES.

MFEF REPORT NUMBER: 789 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 790 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 700 TESTED.

MFEF REPORT NUMBER: 791 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2873 TESTED.

MFEF REPORT NUMBER: 792 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 115 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2873 TESTED.

MFEF REPORT NUMBER: 793 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 111 TESTED.

MFEF REPORT NUMBER: 794 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 111 TESTED.

MFEF REPORT NUMBER: 795 MFEF REPORT DATE: 7602

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7544
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 796 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 797 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 799 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 8324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

[illegible] MFEF REPORT DATE: 7610

DATA SOURCE: [illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 9324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 800 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 9324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 801 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 9324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7621
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 802 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COMPARATOR CIRCUIT TYPE: N/R
PART NUMBER: 9324/9324 PART MANUFACTURER: VARIOUS DATE CODE: 7630
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 803 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74LS193 PART MANUFACTURER: VARIOUS DATE CODE: 7617
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 804 MFFF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74LS193 PART MANUFACTURER: VARIOUS DATE CODE: 7617
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 805 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74LS193 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 806 MFEF REPORT DATE: 7608

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 74LS90 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 92 TESTED.

MFEF REPORT NUMBER: 807 MFFF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 74LS90 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 150 TESTED.

MFEF REPORT NUMBER: 808 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74LS93 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 809 MFEF REPORT DATE: 7601

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 544 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 810 MFEF REPORT DATE: 7605

DATA SOURCE. PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 9 TIME TO DETECTION: 0

FAILURE INDICATOR. MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 811 MFEF REPORT DATE: 7605

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR. FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 812 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 62 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 813 MFEF REPORT DATE. 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER. 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION. 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. OUT OF 1504 TESTED.

MFFF REPORT NUMBER: 814 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS: OUT OF 1504 TESTED.

MFFF REPORT NUMBER 815 MFEF REPORT DATE. 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFFF REPORT NUMBER: 816 MFEF REPORT DATE: 7612

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFFF REPORT NUMBER: 817 MFEF REPORT DATE 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE. N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1162 TESTED.

MFEF REPORT NUMBER: 818 MFEF REPORT DATE. 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 16
QUANTITY FAILED. 2 TIME TO DETECTION 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 819 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74161 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 57 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 820 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7529
DEVICE TECHNOLOGY: TTL SCREEN CLASS. D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 821 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7529
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 822 MFEF REPORT DATE. 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7620
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 823 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7620
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 35 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 824 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 75 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 825 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 826 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 827 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 828 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER: 829 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER 74192 PART MANUFACTURER VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 10 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 830 MFEF REPORT DATE: 7611

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BCD
PART NUMBER: 74192 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION. 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 831 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 832 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 833 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER. 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 3195 TESTED.

MFEF REPORT NUMBER: 834 MFEF REPORT DATE. 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER. VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3195 TESTED.

MFEF REPORT NUMBER: 835 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3195 TESTED.

MFEF REPORT NUMBER: 836 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 837 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 474 TESTED.

MFEF REPORT NUMBER: 838 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 439 TESTED.

MFEF REPORT NUMBER: 839 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 439 TESTED.

MFEF REPORT NUMBER: 840 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 841 MFEF REPORT DATE. 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 69 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 842 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 843 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 844 MFEF REPORT DATE 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 845 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 846 MFEF REPORT DATE 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 847 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 848 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION COUNTER CIRCUIT TYPE: BINARY
PART NUMBER 74193 PART MANUFACTURER VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 849 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 10 TIME TO DETECTION. 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 850 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 851 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 852 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER: 853 MFEF REPORT DATE: 7611

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 28 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 854 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 855 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 856 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 857 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/
ACTIVATING STRESS B: N/

REMARKS: OUT OF 491 TESTED.

MFEF REPORT NUMBER: 858 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2094 TESTED.

MFEF REPORT NUMBER: [illegible] MFEF REPORT DATE: 7605

DATA SOURCE: [illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2694 TESTED.

MFEF REPORT NUMBER: 560 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2694 TESTED.

MFEF REPORT NUMBER: 561 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 562 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 282 TESTED.

MFEF REPORT NUMBER: 563 MFEF REPORT DATE 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 864 MFEF REPORT DATE: 7610

DATA SOURCE: P1-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 74193 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 48 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 865 MFEF REPORT DATE: 7693

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 74197 PART MANUFACTURER: VARIOUS DATE CODE: 7450
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 866 MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 74197 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 867 MFEF REPORT DATE: 7607

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 74197 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 868 MFEF REPORT DATE: 7607

DATA SOURCE: P1-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 74197 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 34 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MEEF REPORT NUMBER: [illegible] MEEF REPORT DATE: 7610

DATA SOURCE: PI=0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7490 PART MANUFACTURER: [illegible] DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 34 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION:

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: [illegible] MEEF REPORT DATE: 7604

DATA SOURCE: PI=[illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: PART MANUFACTURER: VARIOUS DATE CODE: 7541
DEVICE TECHNOLOGY: SCREEN CLASS: B-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION:

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: [illegible] MEEF REPORT DATE: 7604

DATA SOURCE: PI=0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 7490 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION:

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: [illegible] MEEF REPORT DATE: 7605

DATA SOURCE: PI=[illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 7490 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: [illegible] MEEF REPORT DATE: 7610

DATA SOURCE: PI=[illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 7490 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 874 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 7490 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 875 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 198 TESTED.

MFEF REPORT NUMBER: 876 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 380 TESTED.

MFEF REPORT NUMBER: 877 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 380 TESTED.

MFEF REPORT NUMBER: 878 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 879 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL . APPLICATION ENV: N/R
DEVICE FUNCTION. COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 880 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 881 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER. VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 882 MFEF REPORT DATE 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: N/R
PART NUMBER: 7492 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 883 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURE . VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFFF REPORT NUMBER 884 MFEF REPORT DATE. 7603

DATA SOURCE: PI-0002 SOURCE· COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION· N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER· 885 MFFF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE. 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR· PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFFF REPORT NUMBER· 886 MFEF REPORT DATE 7607

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE. ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION ITER CIRCUIT TYPE BINARY
PART NUMBER: 74 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: L SCREEN CLASS. D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION· 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFEF REPORT NUMBER: 887 MFFF REPORT DATE: 7607

DATA SOURCE. PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION· COUNTER CIRCUIT TYPE BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR· FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION· N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A· N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 888 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE· ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION· COUNTER CIRCUIT TYPE. BINARY
PART NUMBER· 7493 PART MANUFACTURER: VARIOUS DATE CODE. 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR· PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 889 MFEF REPORT DATE: 7607

DATA SOURCE PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 890 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE. N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 891 MFEF REPORT DATE 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 28 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER 892 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7313
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 893 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER: 894 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 895 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7633
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 896 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 7636
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 897 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 898 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MEEF REPORT NUMBER: 900 MEEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 192 TESTED

MEEF REPORT NUMBER: 900 MEEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION. COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION. 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 470 TESTED.

MEEF REPORT NUMBER: 901 MEEF REPORT DATE: 7604

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 470 TESTED.

MEEF REPORT NUMBER: 902 MEEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MEEF REPORT NUMBER 903 MEEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MFEF REPORT NUMBER: 904 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2300 TESTED.

MFEF REPORT NUMBER: 905 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2300 TESTED.

MFEF REPORT NUMBER: 906 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 110 TESTED.

MFEF REPORT NUMBER: 907 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 110 TESTED.

MFEF REPORT NUMBER: 908 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 875 TESTED.

MEF REPORT NUMBER 909 MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER: 910 MEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER: 911 MEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: BINARY
PART NUMBER: 7493 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 912 MEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 4017A PART MANUFACTURER: RCA DATE CODE: 7431
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 47 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEF REPORT NUMBER 913 MEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: COUNTER CIRCUIT TYPE: DECADE
PART NUMBER: 4017A PART MANUFACTURER: RCA DATE CODE: 7431
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 47 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 914 MFFF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 4006 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 15 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 375 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFEF REPORT NUMBER: 915 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECOD. CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2226 TESTED.

MFEF REPORT NUMBER: 916 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 22 TIME TO DETECTION 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2226 TESTED.

MFEF REPORT NUMBER: 917 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS: OUT OF 1894 TESTED.

MFEF REPORT NUMBER: 918 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 919 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 920 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 785 TESTED.

MFEF REPORT NUMBER: 921 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 791 TESTED

MFEF REPORT NUMBER: 922 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 791 TESTED.

MFEF REPORT NUMBER: 923 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 924 MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BCD/DECIMAL
PART NUMBER: 7442 PART MANUFACTURER: VARIOUS DATE CODE: 7643
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUS. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF RFPORT NUMBER: 925 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCF: COMPONENT LEVEL DATA-TYI ENVIRONMENTAL APPLICATION ENV: N/R
DEVICF FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9307 PART MANUFACTURER: VARIOUS DATE CODE: 7408
DEVICF TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 35 G
PACKAGE: NONHERMETIC DIP NUMBE OF PINS 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATINC STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBFR: 926 MFEF PEPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCF· COMPONENT LFVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9307 PART MANUFACTURER: VARIOUS DATE CODE: 7408
DEVICE TECHNOLOGY: TTL SCREEN CLASS. D-1 COMPLEXITY: 35 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO D.TECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCF FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATINC STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF RFPORT NUMBER 927 MFeF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DFVICF FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREFN CLASS: D-1 COMPLEXITY: 18 G
PACKAGF: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILFD· 12 TIME TO DETECTION: 0

FAILURE INDICATOR· MECHANICAL ANOMALY FAILURE MODE: N/P
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFFF RFPORT NUMBER· 928 MFEF REPORT DATE: 7606

DATA SOURCF: PI-0002 SOURCE: COMPONENT LEVEI DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICF FUNCTION: DFCODER CIRCUIT TYPE: N/R
PART NUMBFR: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 0
DFVICF TECHNOLOGY: TTL SCRFFN CLASS: D-1 COMPLEXITY: 18 G
PACKAGF NONHFRMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILFD: 52 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMFTERS OUT OF TOLFRANCE FAILURE MODE: N/R
DFFECT DESCRIPTION· N/R DEFECT CAUSE: N/R
ACTIVATINC STRESS A: N/R
ACTIVATING STRES[illegible] N/R

REMARKS:

MFEF REPORT NUMBER: 929 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 930 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 931 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER 9321 PART MANUFACTURER: VARIOUS DATE CODE: 7634
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 932 MFEF REPORT DATE 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 7634
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 933 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER 9321 PART MANUFACTURER: VARIOUS DATE CODE: 7319
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 934 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 18 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 935 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION DECODER CIRCUIT TYPE: N/R
PART NUMBER: 9321 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 18 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 936 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 16 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE. N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 937 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 16 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 938 MFEF REPORT DATE: 7609

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 16 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 939 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 940 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 941 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74S138 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 114 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 942 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74LS138 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 943 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74LS139 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS D-1 COMPLEXITY: 18 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 944 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74154 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 945 MFEF REPORT DATE: 7612

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74154 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 946 MFEF REPORT DATE: 7612

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74154 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 947 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74154 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 401 TESTED.

MFEF REPORT NUMBER: 948 MFEF REPORT DATE: 7611

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74154 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 25 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 180 TESTED.

MFEF REPORT NUMBER: 949 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL - APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74155 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: .5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 950 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE. ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74155 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 951 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74155 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 952 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 74155 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/P DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 953 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 9311 PART MANUFACTURER: VARIOUS DATE CODE: 7421
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 25 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 954 MFFF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 9311 PART MANUFACTURER: VARIOUS DATE CODE: 7421
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY. 25 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 955 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: ENCODER CIRCUIT TYPE: N/R
PART NUMBER: 74148 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 29 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS 16
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFEF REPORT NUMBER: 956 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION ENCODER CIRCUIT TYPE: N/R
PART NUMBER: 74148 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 29 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 957 MFFF REPORT DATE. 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION ENCODER CIRCUIT TYPE: N/R
PART NUMBER: 9318 PART MANUFACTURER: VARIOUS DATE CODE 7551
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 958 MFLF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER 74S112 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE. N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 959 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74S112 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER. 960 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74S112 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 961 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 962 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S175 PART MANUFACTURER: VARIOUS DATE CODE: 7546
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER 963 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR. FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 964 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 965 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S175 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 966 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 967 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 7601
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED

MFEF REPORT NUMBER: 968 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 7601
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MEF REPORT NUMBER 969 MEF REPORT DATE: 7603

DATA SOURCE PI=0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER VARIOUS DATE CODE: 7601
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS 4 OUT OF 1000 TESTED.

MEF REPORT NUMBER 970 MEF REPORT DATE: 7603

DATA SOURCE: PI=0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 7601
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED. 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS: OUT OF 1000 TESTED.

MEF REPORT NUMBER 971 MEF REPORT DATE: 7607

DATA SOURCE PI=0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 2 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MEF REPORT NUMBER: 972 MEF REPORT DATE: 7607

DATA SOURCE PI=0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MEF REPORT NUMBER: 973 MEF REPORT DATE: 7611

DATA SOURCE PI=0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74S74 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 6 TIME TO DETECTION 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS

MFEF REPORT NUMBER: 974 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 3061 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7442
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 975 MFEF REPORT DATE 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 8H22 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY 16 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 976 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/P

REMARKS OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 977 MFEF REPORT DATE 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 43 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1520 TESTED.

MFEF REPORT NUMBER: 978 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 413 TESTED.

MFEF REPORT NUMBER [illegible] MFEF REPORT DATE: 7606

DATA SOURCE: [illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: B-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 43 TESTED.

MFEF REPORT NUMBER: 980 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: B-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 981 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H102 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: B-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 982 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74H72 PART MANUFACTURER: VARIOUS DATE CODE: 7427
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 983 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS112 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: B-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 984 MFFF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS112 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 985 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE JK
PART NUMBER: 74LS112 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 31 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 986 MFFF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74LS123 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 20 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 987 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74LS123 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 20 C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFFF REPORT NUMBER: 988 MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74LS123 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 20 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 989 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS174 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 990 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE:
PART NUMBER: 74LS175 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D- COMPLEXITY: 2. G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 991 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74LS221 PART MANUFACTUREP: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 992 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER 74LS273 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS. D-1 COMPLEXITY: 50 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 20
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 993 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS273 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 50 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 20
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 994 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS73 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 995 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS73 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 996 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS73 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 997 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 74LS73 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 998 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 999 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1000 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1001 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1002 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1003 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7425
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1004 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74LS74 PART MANUFACTURER: VARIOUS DATE CODE: 7425
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1005 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2600 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7351
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 9 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1006 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 2600 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1007 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 26123 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7550
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 800 TESTED.

MFEF REPORT NUMBER: 1008 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 26123 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7550
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 18 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 200 TESTED.

MFEF REPORT NUMBER: [illegible] MFEF REPORT DATE: 7612

DATA SOURCE: MIL-STD-883 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 54123 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 7646
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 18 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: [illegible] TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1010 MFEF REPORT DATE: 7605

DATA SOURCE: MIL-STD-883 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: N/R
PART NUMBER: 4024 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 T
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1011 MFEF REPORT DATE: 7607

DATA SOURCE: MIL-STD-883 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 54107 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1012 MFEF REPORT DATE: 7603

DATA SOURCE: MIL-STD-883 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 54121 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1013 MFEF REPORT DATE: 7605

DATA SOURCE: MIL-STD-883 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 54121 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 207 TESTED.

MEEF REPORT NUMBER: 1014 MEEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: S C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2073 TESTED.

MEEF REPORT NUMBER 1015 MEEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: S C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1400 TESTED.

MEEF REPORT NUMBER: 1016 MEEF REPORT DATE: 7605

DATA SOURCE P1-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY TTL SCREEN CLASS: B-1 COMPLEXITY: S C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1017 MEEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: S C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1018 MEEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER 74121 PART MANUFACTURER VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: S C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1019 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 8 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1020 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 8 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 45 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1021 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 8 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1022 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 8 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1023 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 8 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1024 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7643
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1025 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 7643
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE NONHERMETIC NUMBER OF PINS: 14
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1026 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1027 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE. N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1028 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 27 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1253 TESTED

MFEF REPORT NUMBER: 1029 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1253 TESTED.

MFEF REPORT NUMBER: 1030 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 146 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS: OUT OF 1691 TESTED.

MFEF REPORT NUMBER: 1031 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. OUT OF 120 TESTED.

MFEF REPORT NUMBER: 1032 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 254 TESTED.

MFEF REPORT NUMBER: 1033 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 254 TESTED.

MFEF REPORT NUMBER: 1034 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1035 MFEF REPORT DATE: /612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74121 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1400 TESTED.

MFEF REPORT NUMBER: 1036 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74122 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 10 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1037 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1999 TESTED.

MFEF REPORT NUMBER: 1038 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1999 TESTED.

MFEF REPORT NUMBER: 1039 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER 1040 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER 1041 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1994 TESTED.

MFEF REPORT NUMBER: 1042 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1994 TESTED.

MFEF REPORT NUMBER: 1043 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 162 TESTED.

MFEF REPORT NUMBER: 1044 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1045 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1046 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7532
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1047 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1048 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1049 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/P
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1050 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1051 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1052 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 28 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1053 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2996 TESTED.

MFEF REPORT NUMBER: 1054 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2996 TESTED.

MFEF REPORT NUMBER: 1055 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 77 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1056 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1057 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1058 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1059 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1060 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 984 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1262 FAILURES.

MFEF REPORT NUMBER: 1061 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1062 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 74123 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 272 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1262 FAILURES.

MFEF REPORT NUMBER: 1063 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74173 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 45 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1064 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74173 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 45 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 88 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1065 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74173 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 45 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 353 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1066 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74173 PART MANUFACTURER: VARIOUS DATE CODE: 7305
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 45 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1067 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74173 PART MANUFACTURER: VARIOUS DATE CODE: 7305
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 45 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1068 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1069 MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1070 MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1071 MFEF REPORT DATE: 7604

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1072 MFEF REPORT DATE: 7604

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 7548
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1073 MFEF REPORT DATE: 7604

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 7548
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1074 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1075 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1076 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1077 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1078 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74174 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1079 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 16
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3998 TESTED.

MFEF REPORT NUMBER: 1080 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 135 TESTED.

MFEF REPORT NUMBER: 1081 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1082 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION. 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1083 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 39 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1084 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 249 TESTED.

MFEF REPORT NUMBER 1085 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 249 TESTED.

MFEF REPORT NUMBER: 1086 MFEF REPORT DATE: 7604

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1087 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1088 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1089 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER 1090 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1091 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1092 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1093 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 11 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1094 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER 1095 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1096 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1097 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 33 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1098 MFEF REPORT DATE: 7608

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 29 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1099 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 74 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1100 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1101 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1102 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1103 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1104 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7436
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1105 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7319
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER: 1106 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7642
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR. MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1107 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: VARIOUS DATE CODE: 7642
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1108 MFEF REPORT DATE: 7602

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2008 TESTED.

MFFF REPORT NUMBER: 1109 MFFF REPORT DATE: 7602

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2998 TESTED.

MFEF REPORT NUMBER: 1110 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MFEF REPORT NUMBER 1111 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2499 TESTED.

MFEF REPORT NUMBER: 1112 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1553 TESTED.

MFEF REPORT NUMBER: 1113 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1114 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7605
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1115 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1116 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1117 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1118 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1119 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1120 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7473 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 2000 TESTED.

MFFF REPORT NUMBER 1121 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 4998 TESTED.

MFEF REPORT NUMBER 1122 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4998 TESTED.

MFEF REPORT NUMBER: 1123 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4998 TESTED.

MFEF REPORT NUMBER: 1124 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7608
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1125 MFEF REPORT DATE: 7604

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7608
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1126 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 31 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5250 TESTED.

MFEF REPORT NUMBER 1127 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1128 MFEF REPORT DATE: 7610

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1129 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1130 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1131 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1132 MFEF REPORT DATE: 7610

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1133 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1280 TESTED.

MFEF REPORT NUMBER: 1134 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1280 TESTED.

MFEF REPORT NUMBER: 1135 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4990 TESTED.

MFEF REPORT NUMBER: 1136 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 4990 TESTED.

MFEF REPORT NUMBER 1137 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2824 TESTED.

MFEF REPORT NUMBER: 1138 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 16,093 TESTED.

MFEF REPORT NUMBER: 1139 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 78 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 16,093 TESTED.

MFEF REPORT NUMBER: 1140 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 62[illegible] TESTED.

MFEF REPORT NUMBER 1141 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 59 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 5223 TESTED.

MFEF REPORT NUMBER: 1142 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED

MFEF REPORT NUMBER: 1143 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144 MFEF REPORT DATE: 7604

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1145 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1144 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1145 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFFF REPORT NUMBER 1149 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 66 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9498 TESTED.

MFEF REPORT NUMBER: 1150 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1237 TESTED.

MFFF REPORT NUMBER: 1151 MFEF REPORT DATE: 7607

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER. VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1287 TESTED.

MFFF REPORT NUMBER: 1152 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED.

MFEF REPORT NUMBER: 1153 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED

MFEF REPORT NUMBER: 1154 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 7474 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 27 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4823 TESTED.

MFEF REPORT NUMBER 1155 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1156 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1157 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1158 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500 TESTED.

MFEF REPORT NUMBER: 1159 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2500 TESTED.

MFEF REPORT NUMBER: 1160 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1161 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 27 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1162 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 548 TESTED.

MFEF REPORT NUMBER: 1163 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 548 TESTED.

MFEF REPORT NUMBER: 1164 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1165 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1166 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1491 TESTED.

MFEF REPORT NUMBER: 1167 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER 7476 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1168 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 8601/9601 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 8 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1169 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7519
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1170 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7519
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1171 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7601
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1172 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1173 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 24 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1174 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 60 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5794 TESTED.

MFEF REPORT NUMBER: 1175 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIF NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1176 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1177 MFEF REPORT DATE: 7607

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7622
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DFFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1178 MFEF REPORT DATE: 7607

DATA SOURCE. PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7622
DEVICE TECHNOLOGY: TTL SCRFEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMFTIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLFRANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1179 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 834 TESTED.

MFEF REPORT NUMBER: 1180 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 834 TESTED.

MFEF REPORT NUMBER: 1181 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1166 TESTED.

MFEF REPORT NUMBER: 1182 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1166 TESTED.

MFEF REPORT NUMBER: 1183 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1184 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1185 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1186 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE· NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1187 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7630
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1188 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7630
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1189 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1190 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1191 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 62 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1192 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 9602 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1193 MFEF REPORT DATE: 7805

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: MONOSTABLE
PART NUMBER: 14528 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 32 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 16
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1194 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 82S41 PART MANUFACTURER: SIGNETICS DATE CODE: 7421
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1195 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 82S41 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER 1196 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 82S42 PART MANUFACTURER: SIGNETICS DATE CODE: 7604
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1197 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 82S42 PART MANUFACTURER: SIGNETICS DATE CODE: 7604
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1198 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1199 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1200 MFEF REPORT DATE: 7610

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1201 MFEF REPORT DATE 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1202 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1203 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1204 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER 74S02 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1205 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S03 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1206 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S10 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1207 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S10 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1208 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S11 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1209 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S133 PART MANUFACTURER: VARIOUS DATE CODE: 7434
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1210 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S133 PART MANUFACTURER: VARIOUS DATE CODE: 7434
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1211 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S133 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1212 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S133 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1213 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S51 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1214 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S86 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1215 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S86 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1216 MFEF REPORT DATE: 606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74S86 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1217 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1218 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1219 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H00 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1220 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H08 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1221 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H20 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 470 TESTED.

MFEF REPORT NUMBER: 1222 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H20 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 400 TESTED.

MFEF REPORT NUMBER: 1223 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H20 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1224 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H21 PART MANUFACTURER: VARIOUS DATE CODE: 7414
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1225 MFEF REPORT DATE. 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H22 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER. 1226 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H22 PART MANUFACTURER. VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1227 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H22 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED. 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1228 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H22 PART MANUFACTURER: VARIOUS DATE CODE. 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1229 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H30 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1230 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74H54 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: C

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1231 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: EXPANDABLE
PART NUMBER: 74H55 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1232 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS00 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 27 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1233 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS00 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1234 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS02 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1235 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS02 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1236 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS08 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1237 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS08 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1238 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS20 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1239 MFEF REPORT DATE: 7609

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS32 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1240 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS32 PART MANUFACTURER: VARIOUS DATE CODE: ,628
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1241 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS86 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1242 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7636
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1243 MFEF REPORT DATE: 76..

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7636
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 37 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1244 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7636
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1245 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1246 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1247 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 7640
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1248 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4999 TESTED.

MFEF REPORT NUMBER: 1249 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4912 TESTED.

MFEF REPORT NUMBER: 1250 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 38 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1251 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7402 TESTED.

MFEF REPORT NUMBER: 1252 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 48 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 40,159 TESTED.

MFEF REPORT NUMBER: 1253 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 113 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1254 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: C

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1508 TESTED.

MFEF REPORT NUMBER: 1255 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1508 TESTED.

MFEF REPORT NUMBER: 1256 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1303 TESTED.

MFEF REPORT NUMBER: 1257 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1303 TESTED.

MFEF REPORT NUMBER: 1258 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1259 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1260 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 66 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1261 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1262 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1263 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER: 1264 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 40 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER 1265 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 10,000 TESTED.

MFEF REPORT NUMBER: 1266 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1267 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1268 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS O F OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1269 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7401 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DI NUMBER OF PINS: 14
QUANTITY FAILED: 39 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1270 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1271 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1272 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1273 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1274 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1275 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 15,000 TESTED.

MFEF REPORT NUMBER: 1276 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 15,000 TESTED.

MFEF REPORT NUMBER: 1277 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 34 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 28,981 TESTED.

MFEF REPORT NUMBER: 1278 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 226 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 28,981 TESTED.

MFEF REPORT NUMBER: 1279 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 117 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2000 TESTED.

MFEF REPORT NUMBER: 1280 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3545 TESTED.

MFEF REPORT NUMBER: 1281 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 258 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3545 TESTED.

MFEF REPORT NUMBER: 1282 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 33 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2218 TESTED.

MFEF REPORT NUMBER: 1283 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 19,680 TESTED.

MFEF REPORT NUMBER: 1285 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1286 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1287 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7402 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1288 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500G TESTED.

MFEF REPORT NUMBER: 1289 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500G TESTED.

MFEF REPORT NUMBER: 1290 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1291 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1292 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 35 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 11,000 TESTED.

MFEF REPORT NUMBER: 1293 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 2600 TESTED.

MFEF REPORT NUMBER: 1294 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6402 TESTED.

MFEF REPORT NUMBER: 1295 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6402 TESTED.

MFEF REPORT NUMBER: 1296 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1636 TESTED.

MFEF REPORT NUMBER. 1297 MFEF REPORT DATE: 7609

DATA SOURCE: PI-000. SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED. 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION· N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1636 TESTED.

MFEF REPORT NUMBER: 1298 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1299 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1300 MFEF REPORT DATE: 7608

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1301 MFEF REPORT DATE: 7608

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1302 MFEF REPORT DATE: 7608

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 62 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1303 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE. N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1304 MFEF REPORT DATE. 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS. D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1305 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 49 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1306 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7408 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1307 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7409 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1308 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1309 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1310 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1311 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1312 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1313 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1314 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1315 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1316 MFEF REPORT DATE: 760.

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1317 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1318 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4728 TESTED.

MFEF REPORT NUMBER: 1319 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER. 1320 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5400 TESTED.

MFEF REPORT NUMBER: 1321 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1322 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 29 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1323 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR. MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1324 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1325 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7410 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8000 TESTED.

MFEF REPORT NUMBER: 1326 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7411 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER O. PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1327 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7411 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1328 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7411 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1329 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7412 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: [illegible]

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7412 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1331 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74136 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1332 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74136 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1333 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74136 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1334 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74136 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1335 MFEF REPORT DATE: 7612

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74136 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1336 MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7421
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1337 MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7421
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 37 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1338 MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 9

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1339 MFEF REPORT DATE: 7903

DATA SOURCE: FE-0004 SOURCE: EQUIPMENT LEVEL DATA-TYPE: N/R APPLICATION ENV: NSS
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: SN54L153 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7911
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: N/R COMPLEXITY: 16 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT INPUT FAILURE MODE: METAL BOND PAD
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: ELECTRICAL OVERSTRESS

REMARKS: INPUTS 6,12 BOND PADS (1 DEV) AND INPUTS 5,11 BOND PADS (1 DEV) SHORTED UNDER OXIDE TO NEARLY GROUND METALIZATION.

MEEF REPORT NUMBER: 1340 MEEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7533
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1341 MEEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7533
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1342 MEEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1343 MEEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 741 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER: 1344 MEEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1345 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1346 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7635
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 26 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1347 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7413 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1348 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1349 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1350 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7551
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1351 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7607
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1352 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7607
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1353 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7607
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1354 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1355 MFEF REPORT DATE: 7603

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1356 MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7617
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1357 MFEF REPORT DATE: 7606

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1358 MFEF REPORT DATE: 7610

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 7631
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1359 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1360 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1361 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1362 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1363 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1364 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 667 TESTED.

MFEF REPORT NUMBER: 1365 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS. D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 667 TESTED.

MFEF REPORT NUMBER: 1366 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS. OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1367 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLFRANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1368 MFEF REPORT DATE: 7606

DATA SOURCE. PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS· 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2899 TESTED.

MFEF REPORT NUMBER: 1369 MFEF REPORT DATE· 7606

DATA SOURCE: PI-0002 SOURCE· COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER. VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 44 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2899 TESTED.

MFEF REPORT NUMBER: 1370 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 170 TESTED.

MFEF REPORT NUMBER: 1371 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 170 TESTED.

MFEF REPORT NUMBER: 1372 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7425 PART MANUFACTURER: VARIOUS DATE CODE: 7549
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1373 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7425 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1374 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7425 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1375 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7427 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1376 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 100 TESTED.

MFEF REPORT NUMBER: 1377 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 313 TESTED.

MFEF REPORT NUMBER: 1378 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 7451
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1379 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 7451
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1380 MFEF REPORT DATE 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 7329
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1381 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7429 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1382 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7430 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5023 TESTED.

MFEF REPORT NUMBER: 1383 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7430 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5023 TESTED.

MFEF REPORT NUMBER: 1384 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7430 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1385 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7430 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 1 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1386 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3646 TESTED.

MFEF REPORT NUMBER: 1387 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1424 TESTED.

MFEF REPORT NUMBER: 1388 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE. ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION. GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1424 TESTED.

MFEF REPORT NUMBER: 1389 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTIO . GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1390 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1391 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1392 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1393 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1394 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 7652
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1395 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7432 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 26 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1396 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7989 TESTED.

MFEF REPORT NUMBER: 1397 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7989 TESTED.

MFEF REPORT NUMBER: 1398 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1399 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1400 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5000 TESTED.

MFEF REPORT NUMBER: 1401 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1402 MFEF REPORT DATE: 7605

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER: 1403 MFEF REPORT DATE: 7611

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 7637
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 6000 TESTED.

MFEF REPORT NUMBER 1404 MFEF REPORT DATE: 7607

DATA SOURCE: P1-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1405 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 250 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4922 TESTED.

MFEF REPORT NUMBER: 1406 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1652 TESTED.

MFEF REPORT NUMBER: 1407 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1652 TESTED.

MFEF REPORT NUMBER: 1408 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 183 TESTED.

MFEF REPORT NUMBER: 1409 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 7635
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1410 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7451 PART MANUFACTURER: VARIOUS DATE CODE: 7635
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 42 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1411 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8995 TESTED.

MFEF REPORT NUMBER: 1412 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8995 TESTED.

MFEF REPORT NUMBER: 1413 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 69 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 8995 TESTED.

MFEF REPORT NUMBER: 1414 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 450 TESTED.

MFEF REPORT NUMBER: 1415 MFFF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1416 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 26 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1417 MFFF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER 7454 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 5 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF R RT NUMBER: 1418 MFEF REPORT DATE: 7605

A SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1419 MFFF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFF REPORT NUMBER: 1420 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1057 TESTED.

MFEF REPORT NUMBER: 1421 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 795 TESTED.

MFEF REPORT NUMBER: 1422 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 805 TESTED.

MFEF REPORT NUMBER: 1423 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 805 TESTED.

MFEF REPORT NUMBER: 1424 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 595 TESTED.

MFEF REPORT NUMBER: 1425 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74e9 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 595 TESTED.

MFEF REPORT NUMBER 1426 MFEF REPORT DATE 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7486 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 65 TESTED.

MFEF REPORT NUMBER: 1427 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8241 PART MANUFACTURER: VARIOUS DATE CODE: 7415
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1428 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2990 TESTED.

MFEF REPORT NUMBER: 1429 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2990 TESTED.

MFEF REPORT NUMBER: 1430 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1000 TESTED.

MFEF REPORT NUMBER 1431 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1432 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1100 TESTED.

MFEF REPORT NUMBER. 1433 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATIO ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1100 TESTED.

MFEF REPORT NUMBER: 1434 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 31 TESTED.

MFEF REPORT NUMBER: 1435 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 8242 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 20 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/A DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3112 TESTED.

MFEF REPORT NUMBER: 1436 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 1601/1602 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 0
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1437 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 82S62 PART MANUFACTURER: VARIOUS DATE CODE: 7613
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1438 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 82S62 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1439 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 82S62 PART MANUFACTURER: VARIOUS DATE CODE: 7629
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 12 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/P DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1440 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 8220 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 B
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1664 TESTED.

MFEF REPORT NUMBER: 1441 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER 8220 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 B
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1664 TESTED.

MFEF REPORT NUMBER: 1442 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 8220 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 B
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1443 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 8220 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7631
DEVICE TECHNOLOGY. TTL SCREEN CLASS: D-1 COMPLEXITY: 9 B
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER 1444 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION GENERATOR CIRCUIT TYPE. N/R
PART NUMBER: 8220 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 9 B
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER 1445 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 7533
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 14 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1446 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 7533
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 14 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1447 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1448 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1449 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 7533
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1450 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 7621
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1451 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 7621
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1452 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF NS: 14
QUANTITY FAILED: 1 TIME TO D. ECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1453 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GENERATOR CIRCUIT TYPE: N/R
PART NUMBER: 74180 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1454 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74S04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1455 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74S04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 44 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1456 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74S04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY STTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3996 TESTED.

MFEF REPORT NUMBER: 1457 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 74S04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 57 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3996 TESTED.

MFEF REPORT NUMBER: 1458 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74L04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1459 MFEF REPORT DATE 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74L04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1460 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 8H90 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 255 TESTED.

MFEF REPORT NUMBER: 1461 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 8H90 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1924 TESTED.

MFEF REPORT NUMBER: 1462 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 8H90 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1924 TESTED.

MFEF REPORT NUMBER: 1463 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 8H90 PART MANUFACTURER: SIGNETICS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 41 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 953 TESTED.

MFEF REPORT NUMBER: 1464 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1465 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H04 PART MANUFACTURER: VARIOU DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 26 TIME TO DETECTION: 0

FAILURE INDICATOR: FUN IONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1466 MFEF REPORT DATE: 7612

DATA SOURCE: PI-000. SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H04 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXI..: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1467 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 7411
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 500 TESTED.

MFEF REPORT NUMBER: 1468 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 7411
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1335 TESTED.

MFEF REPORT NUMBER 1469 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 7411
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 34 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1335 TESTED.

MFEF REPORT NUMBER: 1471 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1471 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1472 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 7411
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1473 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74H05 PART MANUFACTURER: VARIOUS DATE CODE: 7411
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1474 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 74LS04 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1475 MFEF REPORT DATE: 7611

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 74LS04 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1476 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 74LS10 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 3 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1477 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 74LS14 PART MANUFACTURER: VARIOUS DATE CODE: 7541
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1478 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1479 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1480 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1481 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7611
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1482 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7611
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1483 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1484 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 168 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1485 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1486 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7622
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 55 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1487 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 7622
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1488 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 12480 TESTED.

MFEF REPORT NUMBER 1489 MFEF REPORT DATE: 7602

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 95 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 12480 TESTED.

MFEF REPORT NUMBER: 1490 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TEST).

MFEF REPORT NUMBER 1491 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1492 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9250 TESTED

MFEF REPORT NUMBER: 1493 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 6

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9250 TESTED.

MFEF REPORT NUMBER: 1494 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1750 TESTED.

MFEF REPORT NUMBER: 1495 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1750 TESTED.

MFEF REPORT NUMBER: 1496 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 13,500 TESTED.

MFEF REPORT NUMBER: 149 MFEF REPORT DATE: 7605

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1500 TESTED.

MFEF REPORT NUMBER: 1498 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 331 TESTED.

MFEF REPORT NUMBER: 1499 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 102 TESTED.

MFEF REPORT NUMBER: 1500 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7404 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 102 TESTED.

MFEF REPORT NUMBER: 1501 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER. 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1502 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1503 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS: OUT OF 1150 TESTED.

MFEF REPORT NUMBER: 1504 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7609
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1505 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1506 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERME. DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1507 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 5736 TESTED.

MFEF REPORT NUMBER 1508 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 5736 TESTED.

MFEF REPORT NUMBER: 1509 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 44 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 9264 TESTED.

MFEF REPORT NUMBER: 1510 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 65 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2631 TESTED.

MFEF REPORT NUMBER: 1511 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 170 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2500 TESTED.

MFEF REPORT NUMBER: 1512 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 38 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1186 TESTED.

MFEF REPORT NUMBER: 1513 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 182 TESTED.

MFEF REPORT NUMBER: 1514 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 35 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4100 TESTED.

MFEF REPORT NUMBER: 1515 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2296 TESTED.

MFEF REPORT NUMBER: 1516 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1517 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 7405 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4497 TESTED.

MFEF REPORT NUMBER: 1518 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7414 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1519 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7414 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1520 MFEF REPORT DATE: 7608

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7414 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1521 MFEF REPORT DATE: 7609

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: SCHMITT TRIGGER
PART NUMBER: 7414 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 6 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1522 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: RS
PART NUMBER 74LS279 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 8 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1523 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: RS
PART NUMBER: 74LS279 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 8 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1524 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 74LS75 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY LSTTL SCREEN CLASS: D-1 COMPLEXITY: 24 C
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1525 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9308 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 56 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1526 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9308 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 56 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1527 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9308 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 56 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1528 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 74100 PART MANUFACTURER: VARIOUS DATE CODE: 7438
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 56 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1529 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 74100 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 56 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1530 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 74100 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 56 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1531 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1532 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1533 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1534 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1535 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1536 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT EVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7540
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1537 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1538 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1539 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1540 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1541 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1542 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER 1543 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1544 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1545 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1546 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1547 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 4000 TESTED.

MFEF REPORT NUMBER: 1548 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1549 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1550 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1551 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1552 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1553 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1554 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1555 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 3050 TESTED.

MFEF REPORT NUMBER: 1556 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4376 TESTED.

MFEF REPORT NUMBER: 1557 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 4376 TESTED.

MFEF REPORT NUMBER: 1558 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS- OUT OF 4376 TESTED.

MFEF REPORT NUMBER- 1559 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1995 TESTED.

MFEF REPORT NUMBER: 1560 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1995 TESTED.

MFEF REPORT NUMBER: 1561 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 623 TESTED.

MFEF REPORT NUMBER: 1562 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 623 TESTED.

MFEF REPORT NUMBER: 1563 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 32 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1564 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: BISTABLE
PART NUMBER: 7475 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 24 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1565 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7548 TESTED.

MFEF REPORT NUMBER: 1566 MFEF REPORT DATE: 7602

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 107 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 7548 TESTED.

MFEF REPORT NUMBER: 1568 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 121 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS OUT OF 1498 TESTED.

MFEF REPORT NUMBER: 1569 MFEF REPORT DATE: 7603

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7551
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1570 MFEF REPORT DATE: 7606

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1571 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 86 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1572 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7610
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 38 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1573 MFEF REPORT DATE: 7607

DATA SOURCE PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7547
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1574 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7547
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1575 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7547
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1576 MFEF REPORT DATE: 7607

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1577 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 23 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1578 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1579 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1580 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER 1581 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7625
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1582 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 26 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1583 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D COMPLEXITY: 26 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1584 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1585 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1586 MFEF REPORT DATE: 7611

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1587 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1588 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7540
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1589 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MFEF REPORT NUMBER: 1590 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 3000 TESTED.

MFEF REPORT NUMBER: 1591 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1600 TESTED.

MFEF REPORT NUMBER: 1592 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1600 TESTED.

MFEF REPORT NUMBER: 1593 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1594 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7639
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1595 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7642
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1596 MFEF REPORT DATE: 7612

DATA SOURCE PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: N/R
PART NUMBER: 9314 PART MANUFACTURER: VARIOUS DATE CODE: 7442
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 26 G
PACKAGE: NONHERMETIC D.P NUMBER OF PINS: 16
QUANTITY FAILED: 36 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1597 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: ADDRESSABLE
PART NUMBER: 9334 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 59 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER 1598 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: ADDRESSABLE
PART NUMBER: 9334 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 59 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1599 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: ADDRESSABLE
PART NUMBER: 9334 PART MANUFACTURER: VARIOUS DATE CODE: 7325
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 59 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1600 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LATCH CIRCUIT TYPE: ADDRESSABLE
PART NUMBER: 9334 PART MANUFACTURER: VARIOUS DATE CODE: 7325
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 59 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1601 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: TRUE COMPLEMENT
PART NUMBER 74H87 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1602 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION LOGIC UNIT CIRCUIT TYPE: TRUE COMPLEMENT
PART NUMBER: 74H87 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1603 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: TRUE COMPLEMENT
PART NUMBER: 74H87 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1604 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: TRUE COMPLEMENT
PART NUMBER: 74H87 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED 29 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 600 TESTED.

MFEF REPORT NUMBER: 1605 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: TRUE COMPLEMENT
PART NUMBER: 74H87 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D-1 COMPLEXITY: 14 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 420 TESTED.

MFEF REPORT NUMBER: 1606 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: ARITHMETIC
PART NUMBER: 74181 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 63 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1607 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: ARITHMETIC
PART NUMBER: 9340 PART MANUFACTURER: VARIOUS DATE CODE: 7439
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 80 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1608 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: ARITHMETIC
PART NUMBER: 9340 PART MANUFACTURER: VARIOUS DATE CODE: 7439
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 80 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1609 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: ARITHMETIC
PART NUMBER: 9340 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 80 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1610 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: LOGIC UNIT CIRCUIT TYPE: ARITHMETIC
PART NUMBER: 9340 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 80 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1611 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S153 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1612 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S153 PART MANUFACTURER: VARIOUS DATE CODE: 7602
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1613 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1614 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 85 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1615 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1616 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S157 PART MANUFACTURER: VARIOUS DATE CODE: 7548
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1617 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S157 PART MANUFACTURER: VARIOUS DATE CODE. 7548
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1618 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1619 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1620 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1621 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER: VARIOUS DATE CODE: 7614
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1622 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER: VARIOUS DATE CODE: 7622
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 54 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1623 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER: VARIOUS DATE CODE: 7626
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1624 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S158 PART MANUFACTURER VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1625 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2177 TESTED.

MFEF REPORT NUMBER: 1626 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2177 TESTED.

MFEF REPORT NUMBER: 1627 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1122 TESTED.

MFEF REPORT NUMBER: 1628 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1122 TESTED.

MFEF REPORT NUMBER: 1629 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1630 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S257 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 C
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1631 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S258 PART MANUFACTURER: VARIOUS DATE CODE: 7308
DEVICE TECHNOLOGY: STTL SCREEN CLASS. D-1 COMPLEXITY: 15 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1632 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S258 PART MANUFACTURER: VARIOUS DATE CODE: 7308
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1633 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74S258 PART MANUFACTURER: VARIOUS DATE CODE: 7308
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1634 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER. 74LS157 PART MANUFACTURER: VARIOUS DATE CODE: 9
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 31 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1635 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74LS257 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1636 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74LS258 PART MANUFACTURER: VARIOUS DATE CODE: 7604
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 15 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1637 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74151 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR. MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1638 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74151 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1639 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74151 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1640 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74151 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1641 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74151 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 16 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1642 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 7544
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1643 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 7544
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1644 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1645 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1646 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1647 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE. N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1648 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 7624
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1649 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE. N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1650 MFEF REPORT DATE: 7610

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74153 PART MANUFACTURER: VARIOUS DATE CODE: 7627
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: ../R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1651 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1652 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1653 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2005 TESTED.

MFEF REPORT NUMBER: 1654 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 2005 TESTED.

MFEF REPORT NUMBER: 1655 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1656 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1000 TESTED.

MFEF REPORT NUMBER: 1657 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7546
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1658 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1020 TESTED.

MFEF REPORT NUMBER: 1659 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7321
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 208 TESTED.

MFEF REPORT NUMBER: 1660 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7321
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 624 TESTED.

MFEF REPORT NUMBER: 1661 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5007 TESTED.

MFEF REPORT NUMBER: 1662 MFEF REPORT DATE: 7604

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 31 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 5007 TESTED.

MFEF REPORT NUMBER: 1663 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 125 TESTED.

MFEF REPORT NUMBER: 1664 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 7550
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1665 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 7620
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1666 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 7428
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1667 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8309/9309 PART MANUFACTURER: VARIOUS DATE CODE: 7632
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 16 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1668 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8312/9312 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 390 TESTED.

MFEF REPORT NUMBER: 1669 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8312/9312 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 390 TESTED.

MFEF REPORT NUMBER: 1670 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 8312/9312 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 17 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 159 TESTED.

MFEF REPORT NUMBER: 1671 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7603
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1672 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1673 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7552
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1674 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7447
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1675 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7447
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1676 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 15 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1677 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS. 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1678 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7607
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1679 MFE. REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1680 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 46 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1681 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1682 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1683 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1684 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7316
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1685 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7316
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1686 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 258 TESTED.

MFEF REPORT NUMBER: 1687 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 146 TESTED.

MFEF REPORT NUMBER: 1688 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 74157 PART MANUFACTURER: VARIOUS DATE CODE: 7641
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 19 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1689 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74LS164 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1690 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1691 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1692 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1693 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1694 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7616
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1695 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1696 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7618
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1697 MFEF REPORT DATE: 7606

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1698 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 7619
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1699 MFEF REPORT DATE: 7409

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 22 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1700 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1702 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 60 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1703 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1704 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1705 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 7628
DEVICE TECHNOLOGY: BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1706 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INTERFACE CIRCUIT TYPE: BUFFER/DRIVER
PART NUMBER: 7416 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY BIPOLAR (NOC) SCREEN CLASS: D-1 COMPLEXITY: 6 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1707 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1708 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74164 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 36 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1709 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 62 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1710 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 62 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1711 MFEF REPORT [illegible]

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7546
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1712 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7546
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1713 MFEF REPORT DATE: 7604

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1714 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MFEF REPORT NUMBER: 1715 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1716 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7606
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 52 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1717 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFEF REPORT NUMBER: 1718 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER. 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1719 MFEF REPORT DATE: 7608

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74165 PART MANUFACTURER: VARIOUS DATE CODE: 7615
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 62 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 22 TIME TO DETECTION 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1720 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER. 74194 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 47 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER. 1721 MEEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74194 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 47 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED 10 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS.

MEEF REPORT NUMBER. 1722 MEEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74194 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 47 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER. 1723 MEEF REPORT DATE: 7612

DATA SOURCE. PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74194 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 47 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MEEF REPORT NUMBER. 1724 MEEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74195 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 41 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 20 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 1154 TESTED.

MEEF REPORT NUMBER 1725 MEEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER. 74195 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 41 G
PACKAGE. NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 13 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 444 TESTED.

MFEF REPORT NUMBER: 1726 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 74195 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 41 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS: OUT OF 444 TESTED.

MFEF REPORT NUMBER: 1727 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1728 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE. ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE. N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1729 MFEF REPORT DATE: 7605

DATA SOURCE. PI-0002 SOURCE COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION· SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR. PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1730 MFEF REPORT DATE: 7607

DATA SOURCE· PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV. N/R
DEVICE FUNCTION. SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS:

MFEF REPORT NUMBER: 1731 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 99 TESTED.

MFEF REPORT NUMBER: 1732 MFEF REPORT DATE: 7610

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: OUT OF 382 TESTED.

MFEF REPORT NUMBER: 1733 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 7612
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 30 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1734 MFEF REPORT DATE: 7612

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7495 PART MANUFACTURER: VARIOUS DATE CODE: 7248
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 37 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1735 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7496 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 39 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1736 MFEF REPORT DATE: 7609

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7496 PART MANUFACTURER: VARIOUS DATE CODE: 7545
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 39 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1737 MFEF REPORT DATE: 7611

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7496 PART MANUFACTURER: VARIOUS DATE CODE: 7623
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D- COMPLEXITY: 39 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR. FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1738 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7496 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 39 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: FUNCTIONAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1739 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 7496 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 39 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1740 MFEF REPORT DATE: 7602

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8202 PART MANUFACTURER: VARIOUS DATE CODE: 7546
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1741 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8202 PART MANUFACTURER: VARIOUS DATE CODE: 7550
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS

MFEF REPORT NUMBER: 1742 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8202 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1743 MFEF REPORT DATE: 7603

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8202 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1744 MFEF REPORT DATE: 7605

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8202 PART MANUFACTURER: VARIOUS DATE CODE: 7613
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1745 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8203 PART MANUFACTURER: VARIOUS DATE CODE: 7420
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1746 MFEF REPORT DATE: 7607

DATA SOURCE: PI-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 8203 PART MANUFACTURER: VARIOUS DATE CODE: 7420
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 66 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 24
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1748 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7425
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCR. CLASS X. LIFTED/OPEN BALL BOND DUE TO AU-AL INTERMETALLIC GROWTH (PLAGUE). HIGH TEMP. EXPOSURE NOT ENOUGH CAUSE.

MFEF REPORT NUMBER: 1749 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: PRESSURE

REMARKS: OUT-OF-TOLERANCE INPUT VOLTAGE DRIVE LEVELS BROUGHT ABOUT BY PRESSURE-INDUCED MOISTURE PENETRATION.

MFEF REPORT NUMBER: 1750 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAULTY GATE OUTPUT FOLLOWING BURN-IN SEGMENT OF ENVIRONMENTAL TEST SEQUENCE.

MFEF REPORT NUMBER: 1751 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: NONHERMETIC IP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: PRESSURE

REMARKS: OUT-OF-TOLERANCE INPUT VOLTAGE DRIVE LEVELS AS A RESULT OF PRESSURE-INDUCED MOISTURE PENETRATION.

MFEF REPORT NUMBER: 1752 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED INITIAL ELECTRICAL MEASUREMENT DUE TO INACTIVE GATE.

MFEF REPORT NUMBER: 1753 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO AN INACTIVE GATE AND EXCESSIVE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1754 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1755 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: IMPROPER OUTPUT FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO DEFECTIVE GATE OUTPUT.

MFEF REPORT NUMBER: 1756 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENTS.

MFEF REPORT NUMBER: 1757 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENT, COUPLED WITH OUT-OF-SPEC. OUTPUT VOLTAGE LEVELS AND OUTPUT DRIVE CURRENTS.

MFEF REPORT NUMBER: 1758 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: LEAKAGE CURRENTS WERE 3 TO 4 TIMES THE MAXIMUM SPEC.

MFEF REPORT NUMBER: 1759 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1760 MFEF REPORT DATE: 7503

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D-1 COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1761 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1762 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1763 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: JB COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1764 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1765 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1766 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1767 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1768 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1769 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1770 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1771 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1772 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE. COMPONENT LEVEL DATA- YPE : ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUI. TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION. N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1773 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE. COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY. CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS·

MFEF REPORT NUMBER: 1774 MFEF REPORT DATE: 7505

DATA SOURCE: PA-000 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTIO : GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
Q ANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1775 MFEF REPORT DATE: 7505

DATA SOURCE. PA-0005 SOURCE: COMPONENT VEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED. 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY F..URE MODE: N/R
DEFECT DESCRIPTION N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER. 1776 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY· CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIV. ING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS· SCREEN CLASS X.

MFEF REPORT NUMBER: 1777 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURC : COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 7 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1778 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. CATASTROPHIC FAILURE, EXHIBITS EXCESSIVE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1779 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE LEAKAGE CURRENT. SCREEN CLASS X.

MFEF REPORT NUMBER: 1780 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE. EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B. N/R

REMARKS SCREEN CLASS X.

MFEF REPORT NUMBER: 1781 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE. ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 4011A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1782 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5420 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-1 COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE BODY
DEFECT DESCRIPTION: CHIPOUT DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CHIPPED CASE NOT DETECTED UNTIL PRE-BURN-IN ELECTRICAL TEST.

MFEF REPORT NUMBER. 1783 MFEF REPORT DATE: 7505

DATA SOURCE. PA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER. 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT,IN-OP,CATAS FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1784 MFEF REPORT DATE: 7505

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7420 PART MANUFACTURER: VARIOUS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 2 G
PACKAGE: NONHERMETIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL INPUT CURRENT OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A. N/R
ACTIVATING STRESS B: N/R

REMARKS: EXCESSIVE DRIFT IN LOGIC 1 LEVEL INPUT CURRENT (IR) ON SEVERAL GATE INPUTS. SCREEN CLASS X.

MFEF REPORT NUMBER: 1785 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: OPEN (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: ELECTRICAL OVERSTRESS
ACTIVATING STRESS B: HUMIDITY

REMARKS. SCREEN CLASS X. MASSIVE CIRCUIT DISRUPTIONS (OPENS) CAUSED BY ELECTRICAL ABUSE DUE TO ABSORBED MOISTURE.

MFEF REPORT NUMBER: 1786 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF THE N-CHANNEL FETS.

MFEF REPORT NUMBER: 1787 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MFEF REPORT NUMBER: 1788 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: HUMIDITY
ACTIVATING STRESS B: N/R

REMARKS MOISTURE ABSORPTION INTO SURFACE DISRUPTED CIRCUIT OPERATION.

MFEF REPORT NUMBER: 1789 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MFEF REPORT NUMBER: 1790 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. CRACKED DIE, BLOWN METALIZATION CAUSED/RESULT OF ELECTRICALLY ABUSIVE CURRENTS.

MFEF REPORT NUMBER: 1791 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: HUMIDITY

REMARKS: SCREEN CLASS X. CHANNELING OF N-CHANNEL FETS.

MFEF REPORT NUMBER: 1792 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS S. FAILURE RESULTED FROM SHORTED GATE OXIDE REGION. FAILURE SITE COULD NOT BE DETERMINED.

MFEF REPORT NUMBER: 1793 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BINARY
PART NUMBER: 10561 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7432
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 12 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MFEF REPORT NUMBER: 1794 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER CIRCUIT TYPE: BINARY
PART NUMBER: 10561 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7432
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 12 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MFEF REPORT NUMBER: 1795 MFEF REPORT DATE: 7606

DATA SOURCE: PA-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: DECODER/DEMULTIPLEX CIRCUIT TYPE: N/R
PART NUMBER: 54LS138 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: LSTTL SCREEN CLASS: D COMPLEXITY: 16 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: SHORT FAILURE MODE: FIELD OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: CONTAMINATION IN PYROLYTIC OXIDE CAUSED PIN-TO-PIN SHORT.

MFEF REPORT NUMBER: 1796 MFEF REPORT DATE: 7606

DATA SOURCE: PA-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 54S00 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: STTL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 2160

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METALIZATION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: EXCEEDED VOL LIMIT OF 0.5V. FAILURE ANALYSIS REVEALED ELECTROMIGR. EFFECTS ON LOADED OUTPUT TRANSISTOR METALIZATION.

MFEF REPORT NUMBER: 1797 MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5410 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS:

MFEF REPORT NUMBER: 1798 MFEF REPORT DATE. 7705

DATA SOURCE. PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7425
DEVICE TECHNOLOGY: TTL SCREEN CLASS S/R COMPLEXITY. 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1799 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7425
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE. WIREBOND DIE PAD
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AU-AL INTERMETALLICS FORMED THROUGH KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN, BUT NOT LIFTED, BONDS.

MFEF REPORT NUMBER: 1800 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7425
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: AU-AL INTERMETALLICS FORMED THROUGH KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN, BUT NOT LIFTED, BONDS.

MFEF REPORT NUMBER: 1801 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: ITT SEMICONDUCTOR DATE CODE: 7425
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 47 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE BODY
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SWOLLEN/CRACKED ENCAPSULENT DUE TO HI TEMP EXPOSURE [200C TEST VS. 175C THERMAL COEF. TRANSITION TEMP.] CAUSED OPEN WIRE

MFEF REPORT NUMBER: 1802 MFEF REPORT DATE: 7705

DATA SOURCE: [illegible] SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1803 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1804 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 25 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS SCREEN CLASS X.

MFEF REPORT NUMBER: 1805 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS. AU-AL INTERMETAL. FORMED THRU KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN [NOT LIFTED] BONDS. SCREEN CLASS X.

MFEF REPORT NUMBER. 1806 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE. COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY. 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 49 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE BODY
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SHOULDER/CRACKED ENCAPS. DUE TO HI TEMP EXPOSURE [200C VS. .75C THERMAL COEF. TRANSITION TEMP] CAUSED OPEN WIRES. S.C. X.

MFEF REPORT NUMBER: 1807 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTUREK: SIGNETICS DATE CODE: 7407
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: DIE DIFFUSION
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1808 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: SIGNETICS DATE CODE: 7407
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS. AU-AL INTERMETAL. FORMED THRU KIRKENDALL DIFFUSION RESULTED IN VOIDS, CAUSING OPEN [NOT LIFTED] BONDS. SCREEN CLASS X.

MFEF REPORT NUMBER: 1809 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: SIGNETICS DATE CODE: 7407
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 48 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE BODY
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS. SWOLLEN/CRACKED ENCAPS. DUE TO HI TEMP EXPOSURE [200C VS. 175C THERMAL COEF. TRANSITION TEMP] CAUSED OPEN WIRES. S.C. X.

MFEF REPORT NUMBER: 1810 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: SIGNETICS DATE CODE: 7407
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1811 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 5400 PART MANUFACTURER: SIGNETICS DATE CODE: 7407
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X. BALL BOND FAILED AROUND PERIPHERY OF, RATHER THAN UNDER, AREA OF AU-AL INTERFACE [PERIPHERAL OPEN].

MFEF REPORT NUMBER: 1812 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 39 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: PACKAGE LEAD FRAME/EXTERNAL LEADS
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: SCR. CLASS X. BASIC CORRODED PLATING BY CHLORIDE IONS CAUSING STRESS CORROSION CRACKING OF ALLOY-42 SILVER-PLATED LEADS.

MFEF REPORT NUMBER: 1813 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 7400 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 7410
DEVICE TECHNOLOGY: TTL SCREEN CLASS: S/R COMPLEXITY: 4 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 333

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1814 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 95101 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 C
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METAL OXIDE STEP/CUTOUT
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1815 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 95101 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 C
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METAL OXIDE STEP/CUTOUT
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1816 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 95101 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 7344
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 C
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METAL OXIDE STEP/CUTOUT
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1817 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 10501 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 7346
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 5 TIME TO DETECTION: 720

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: METAL OXIDE STEP/CUTOUT
DEFECT DESCRIPTION: VOIDS DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: HI COLLECTOR RESISTANCE DUE TO MASS TRANSPORT OF ALUM., ESP. AT OXIDE STEPS, RESULTING IN VOIDS & HILLOCK FORMATION.

MFEF REPORT NUMBER: 1818 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 1652 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 1800

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: OHMIC DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: HIGH EMITTER RESISTANCE OF OUTPUT TRANSISTOR DUE TO NON-UNIFORM SIL. DEPOSITION O. EMITTER CONTACT.

MFEF REPORT NUMBER: 1819 MFEF REPORT DATE: 7603

DATA SOURCE: PA-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: 1662 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: ^
DEVICE TECHNOLOGY: ECL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 2 TIME TO DETECTION: 1800

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: ELECTROMIGRATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: CURRENT STRESS

REMARKS: EMITTER-BASE SHUNT OF OUTPUT TRANSISTOR DUE TO PIT FORMATION.

MFEF REPORT NUMBER: 1820 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OTHER LEAKAGE FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1821 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: OTHER LEAKAGE FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MFFF REPORT NUMBER: 1822 MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS. GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BRKDWN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFFF REPORT NUMBER: 1823 MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 1
QUANTITY FAILED: 1 TIM. TO DETECTION: 6

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFFF REPORT NUMBER: 1824 MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 6

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS. GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFFF REPORT NUMBER 182 MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BRKDWN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFFF REPORT NUMBER: 1826 MFFF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS. GATE (P6)-TO-DRAIN (P1,P-CHAN. TRANS) SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1827 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1828 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER: 1829 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BREKDWN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MFEF REPORT NUMBER: 1830 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GATE [P6]-TO-DRAIN [P1,P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MFEF REPORT NUMBER 1831 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BREKDWN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MPEF REPORT NUMBER: 1832 MPEF REPORT DATE: 7606

DATA SOURCE: DQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MPEF REPORT NUMBER: 1833 MPEF REPORT DATE: 7606

DATA SOURCE: DQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OTHER - PACKAGE FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (N DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE DRAIN-TO-SOURCE LEAKAGE CURRENT.

MPEF REPORT NUMBER: 1834 MPEF REPORT DATE: 7606

DATA SOURCE: DQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: GATE [N+]-TO-DRAIN [P], P-CHAN. TRANS] SHORT DUE TO MASK MISALIGNMENT, WITH METAL OVERLAPPING P-CHAN. DRAIN DIFFUSION.

MPEF REPORT NUMBER: 1835 MPEF REPORT DATE: 7606

DATA SOURCE: DQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: HUGHES DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: INTERMITTENT SHORT COMB FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: GATE-SRCE, GATE-DRAIN SHORTS THRU OXIDE BROKEN DUE TO THIN SI ISLES, THIN OXIDE AT ISLE BASE, AL FILAMENT BRIDGE, OR ESD

MPEF REPORT NUMBER: 1836 MPEF REPORT DATE: 7606

DATA SOURCE: DQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED 24 TIME TO DETECTION 0

FAILURE INDICATOR INPUT LEAKAGE FAILURE MODE: GLASSIVATION
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: [N+] AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO GLASSIVATION-SIO2 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1837 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: CLASSIVATION
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIVATION-SIO2 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1838 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: CLASSIVATION
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIVATION-SIO2 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1839 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: CLASSIVATION
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: LKG. AT INPUT PROTECTION NETWORK & TRANS. DRAIN DUE TO MIGRATION OF MOBILE IONS TO CLASSIVATION-SIO2 PASSIV. INTERFACE.

MFEF REPORT NUMBER: 1840 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: OTHER LEAKAGE FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: FAILED DUE TO EXCESSIVE TRANSISTOR DRAIN LEAKAGE CURRENT.

MFEF REPORT NUMBER: 1841 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 C
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1842 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: THRESHOLD VOLTAGE SHIFTS LIKELY DUE TO MOBILE POSITIVE IONIC CONTAMINATION.

MFEF REPORT NUMBER: 1843 MFEF REPORT DATE 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: DEGRADATION OF N-CHANNEL TRANSISTORS DUE TO LEAKAGE CAUSED BY MOBILE,POSITIVE ION CONTAMINATION.

MFEF REPORT NUMBER. 1844 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS DEGRADATION OF N-CHANNEL TRANSISTORS DUE TO LEAKAGE CAUSED BY MOBILE,POSITIVE ION CONTAMINATION.

MFEF REPORT NUMBER 1845 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXTREMELY DEGRADED PROTECTION NETWORK CHARACTERISTICS DUE TO A SHORT IN THE INTERNAL CIRCUITRY.

MFEF REPORT NUMBER: 1846 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: INPUT LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: EXTREMELY DEGRADED PROTECTION CIRCUITRY DUE TO LOW REVERSE BREAKDOWN IN THE CIRCUIT.

MFEF REPORT NUMBER: 1847 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY. CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN VOLT. & DEC. THRESH. VOLT.

MFEF REPORT NUMBER: 1848 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1849 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: [illegible]RTER CIRCUIT TYPE: N/R
PART NUMBER: 40[illegible] PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: [illegible]S/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: LEAKAGE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SOFT BKDN. CHARACTERISTICS, REDUCED BKDN. VOLT., & N-CHAN. THRESH. VOLT. SHIFT DUE TO POSITIVE IONIC CONTAMINATION.

MFEF REPORT NUMBER: 1850 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR. LEAKAGE FAILURE MODE: N/R
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: P-CHANNEL DEGRADATION DUE TO EXCESSIVE LEAKAGE RESULTING FROM DRAIN-TO-SOURCE SHORT. EXACT FAILURE SITE NOT FOUND.

MFEF REPORT NUMBER: 1851 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE. INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1852 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS 14
QUANTITY FAILED: 5 TIME TO DETECTION: 1

FAILURE INDICATOR: OUTPUT VOLT OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: POSITIVE MOBILE ION CONTAMINATION CAUSED THRESHOLD VOLTAGE SHIFTS.

MFEF REPORT NUMBER: 1853 MFEF REPORT DATE: 7606

DATA SOURCE PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: GAIN CHAR OUT OF TOLERANCE FAILURE MODE: N/R
DEFECT DESCRIPTION: N/R DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SHIFT IN KN PARAMETER, (RELATED TO GAIN), WHERE KN REPRESENTS SLOPE OF CURVE OF SQ. ROOT OF DRAIN CURRENT VS. GATE VOLT.

MFEF REPORT NUMBER 1854 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1855 MFEF REPORT DATE 7606

DATA SOURCE PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS "PURPLE PLAGUE" FORMATION CAUSED LIFTING OF GOLD BALL BONDS FROM ALUMINUM CHIP METALIZATION.

MFEF REPORT NUMBER: 1856 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: WESTINGHOUSE DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN VOLT. & DEC. THRESH. VOLT.

MFFF REPORT NUMBER: 1857 MFFF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 14007 PART MANUFACTURER: MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED 5 TIME TO DETECTION: 0

FAILURE INDICATOR HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT SI/SIO2 INTERFACE [CATION DRIFT]. THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1858 MFFF REPORT DATE: 7508

DATA SOURCE PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 14007 PART MANUFACTURER: MOTOROLA SEMI DATE CODE 0
DEVICE TECHNOLOGY. CMOS SCREEN CLASS. C-1 COMPLEXITY. 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE IONIC DRIFT
ACTIVATING STRESS A. TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT SI/SIO2 INTERFACE [CATION DRIFT]. THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1859 MFFF REPORT DATE 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV. N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 14007 PART MANUFACTURER: MOTOROLA SEMI DATE CODE 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS. 14
QUANTITY FAILED: 2 TIME TO DETECTION. 0

FAILURE INDICATOR: HI LVL OUTPUT CURRENT OUT OF TOLERANCE FAILURE MODE. SURFACE
DEFECT DESCRIPTION: IMPURITIES DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A TEMPERATURE
ACTIVATING STRESS B. N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT SI/SIO2 INTERFACE [CATION DRIFT]. THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1860 MFFF REPORT DATE 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION. INVERTER CIRCUIT TYPE: N/R
PART NUMBER 14007 PART MANUFACTURER MOTOROLA SEMI DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY 3 G
PACKAGE CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: EXC. DRAIN-SOURCE CURRENT AT Q6 DUE TO NET POS. CHARGE AT SI/SIO2 INTERFACE [CATION DRIFT]. THICK FIELD OXIDE CONTAMIN.

MFFF REPORT NUMBER: 1861 MFFF REPORT DATE: 7508

DATA SOURCE PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 14007 PART MANUFACTURER MOTOROLA SEMI DATE CODE 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: LOW LVL INPUT CURRENT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: MASK FAULT DEFECT CAUSE PROCESS FLAW
ACTIVATING STRESS A TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: OHMIC PATH THRU Q1 GATE OXIDE AS ALUMINUM PENETRATED OXIDE FLAW (PROBABLY A PINHOLE).

MFFF REPORT NUMBER 1862 MFFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS 14
QUANTITY FAILED: 9 TIME TO DETECTION 0

FAILURE INDICATOR N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS SCREEN CLASS X.

MFFF REPORT NUMBER: 1863 MFFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 34 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFFF REPORT NUMBER: 1864 MFFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED 4 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS X. N-FET CHANNELING. DEFECT CAUSE COULD NOT BE DETERMINED.

MFFF REPORT NUMBER: 1865 MFFF REPORT DATE: 7705

DATA SOURCE: PO-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICA.. N ENV. N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 7446
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 45 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A. TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS X. N-FET CHANNELING. DEFECT CAUSE COULD NOT BE DETERMINED.

MFFF REPORT NUMBER: 1866 MFFF REPORT DATE: 7607

DATA SOURCE: PO-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED. 4 TIME TO DETECTION: 0

FAILURE INDICATOR N/R FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: IONIC DRIFT
ACTIVATING STRESS A: VOLTAGE STRESS
ACTIVATING STRESS B: TEMPERATURE

REMARKS: CATION DRIFT IN GATE OXIDE OF N-CHANNEL TRANSISTORS.

MFEF REPORT NUMBER: 1867 MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: RCA DATE CODE 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS FAILURE MODE: WIRE
DEFECT DESCRIPTION: SHORT (NOC) DEFECT CAUSE: WORKMANSHIP
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: FAILED AT PIN 10 DUE TO WIRE DIE SHORT CAUSED BY SI-AL ALLOYING AS A RESULT OF INSUFFICIENT INITIAL CLEARANCE.

MFEF REPORT NUMBER: 1868 MFEF REPORT DATE: 7508

DATA SOURCE: PA-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: C-1 COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: HI LVL INPUT CURRENT OUT OF TOLERANCE FAILURE MODE: GATE OXIDE/DIELECTRIC
DEFECT DESCRIPTION: PINHOLE DEFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: N/R

REMARKS: STRIPE-TO-P-WELL SHORT AT PIN 10 DUE TO ALUMINUM PENETRATION THROUGH OXIDE PINHOLE.

MFEF REPORT NUMBER: 1869 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: DIE BULK
DEFECT DESCRIPTION: CRACKED DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: CRACKED DIE CAUSING PINS 6 & 13 TO SHORT TO PIN 7. SCREEN CLASS Y.

MFEF REPORT NUMBER: 1870 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIREBOND DIE PAD
DEFECT DESCRIPTION: LIFTED DEFECT CAUSE: INTERMETALLIC FORMATION
ACTIVATING STRESS A: THERMO-MECHANICAL STRESS
ACTIVATING STRESS B: N/R

REMARKS: OPEN "PERIPHERAL" BALL BOND I.E. FAILED AROUND PERIPHERY OF AU-AL INTERFACE RATHER THAN BENEATH THE BALL BOND. SC. CL. X

MFEF REPORT NUMBER: 1871 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: N/R FAILURE MODE: WIRE
DEFECT DESCRIPTION: BROKEN DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: SCREEN CLASS X.

MFEF REPORT NUMBER: 1872 MFEF REPORT DATE: 7705

DATA SOURCE: PQ-0001 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007A PART MANUFACTURER: RCA DATE CODE: 7444
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: S/R COMPLEXITY: 3 G
PACKAGE: EPOXY DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: NON-FUNCT, IN-OP, CATAS FAILURE MODE: SURFACE
DEFECT DESCRIPTION: CHANNEL DEFECT CAUSE: N/R
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: SCREEN CLASS S. INPUT DIODE CHANNELING.

MFEF REPORT NUMBER: 1873 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 18 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN VOLT. & DEC. THRESH. VOLT.

MFEF REPORT NUMBER: 1874 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 24 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN VOLT. & DEC. THRESH. VOLT.

MFEF REPORT NUMBER: 1875 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN. VOLT. & DEC. THRESH. VOLT

MFEF REPORT NUMBER: 1876 MFEF REPORT DATE: 7606

DATA SOURCE: PQ-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: STEP STRESS APPLICATION ENV: N/R
DEVICE FUNCTION: INVERTER CIRCUIT TYPE: N/R
PART NUMBER: 4007 PART MANUFACTURER: NO. AMER ROCKWELL INT. DATE CODE: 0
DEVICE TECHNOLOGY: CMOS/SOS SCREEN CLASS: D COMPLEXITY: 3 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 21 TIME TO DETECTION: 0

FAILURE INDICATOR: PARAMETERS OUT OF TOLERANCE FAILURE MODE: SURFACE
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: CONTAMINATION
ACTIVATING STRESS A: TEMPERATURE
ACTIVATING STRESS B: VOLTAGE AND CURRENT STRESS

REMARKS: POSITIVE ION CONTAMINATION CAUSED DEGRADED N-CHANNELS IN CONTEXT OF INC. LKG. CUR., DEC. BKDN VOLT & DEC. THRESH. VOLT.

MFEF REPORT NUMBER 1877 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: D
PART NUMBER: 74175 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 24 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 8 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1878 MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9309 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 16 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 16
QUANTITY FAILED 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A N/R
ACTIVATING STRESS B. N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1879 MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER: 9309 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 16 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1880 MFEF REPORT DATE: 7502

DATA SOURCE: PM-0002 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: MULTIPLEXER CIRCUIT TYPE: N/R
PART NUMBER 9312 PART MANUFACTURER: ADVANCED MICRO DEVICES DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: B-2 COMPLEXITY: 17 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1881 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9300 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY. 40 G
PACKAGE: N/R N/R NUMBER OF PINS: 16
QUANTITY FAILED: 12 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1882 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 9300 PART MANUFACTURER: FAIRCHILD SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 40 G
PACKAGE: N/P N/R NUMBER OF PINS: 16
QUANTITY FAILED: 19 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1883 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5495 PART MANUFACTURER: NATIONAL SEMI DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1884 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54164 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 36 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 11 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1885 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5495A PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 17 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1886 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION EN.: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 54164 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 36 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1887 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER: 5495A PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 37 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 14
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1888 MFEF REPORT DATE: 7508

DATA SOURCE: PI-0003 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: SHIFT REGISTER CIRCUIT TYPE: N/R
PART NUMBER 5496 PART MANUFACTURER: TEXAS INSTRUMENTS DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: N/R COMPLEXITY: 39 G
PACKAGE: HERMETIC N/R NUMBER OF PINS: 16
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B N/R

REMARKS:

MFEF REPORT NUMBER: 1889 MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1890 MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 9 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1891 MFEF REPORT DATE: 7508

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: BUFFER CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 2 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (NOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1896 MFEF REPORT DATE: 7504

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 12 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1897 MFEF REPORT DATE: 7504

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 12 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 14 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1898 MFEF REPORT DATE: 7505

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: FLIP-FLOP CIRCUIT TYPE: JK
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: TTL SCREEN CLASS: D COMPLEXITY: 16 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 16
QUANTITY FAILED: 6 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS:

MFEF REPORT NUMBER: 1899 MFEF REPORT DATE: 7503

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED: 3 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MFEF REPORT NUMBER: 1900 MFEF REPORT DATE: 7503

DATA SOURCE: PQ-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: HTTL SCREEN CLASS: D COMPLEXITY: 4 G
PACKAGE: CERAMIC FPK NUMBER OF PINS: 14
QUANTITY FAILED 3 TIME TO DETECTION: 0

FAILURE INDICATOR MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEF REPORT NUMBER: 1901 MEF REPORT DATE 750-

DATA SOURCE: FA-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: EXPANDABLE
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: MOS SCREEN CLASS: D COMPLEXITY: 6 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 1 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEF REPORT NUMBER 1902 MEF REPORT DATE 750-

DATA SOURCE: FA-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: MOS SCREEN CLASS: D COMPLEXITY: 6 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 2 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEF REPORT NUMBER: 1903 MEF REPORT DATE 750-

DATA SOURCE: FA-0004 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: PART MANUFACTURER: DATE CODE: 0
DEVICE TECHNOLOGY: MOS SCREEN CLASS: D COMPLEXITY: 6 G
PACKAGE: CERAMIC DIP NUMBER OF PINS: 14
QUANTITY FAILED: 10 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEF REPORT NUMBER: 1904 MEF REPORT DATE 750-

DATA SOURCE: FA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: CD11A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 4 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEF REPORT NUMBER 1905 MEF REPORT DATE 750-

DATA SOURCE: FA-0005 SOURCE: COMPONENT LEVEL DATA-TYPE: ENVIRONMENTAL APPLICATION ENV: N/R
DEVICE FUNCTION: GATE CIRCUIT TYPE: N/R
PART NUMBER: CD11A PART MANUFACTURER: RCA DATE CODE: 0
DEVICE TECHNOLOGY: CMOS SCREEN CLASS: B-1 COMPLEXITY: 4 G
PACKAGE: CERAMIC/METAL DIP NUMBER OF PINS: 14
QUANTITY FAILED: 5 TIME TO DETECTION: 0

FAILURE INDICATOR: MECHANICAL ANOMALY FAILURE MODE: PACKAGE SEAL
DEFECT DESCRIPTION: FAULT (SOC) DEFECT CAUSE: N/R
ACTIVATING STRESS A: N/R
ACTIVATING STRESS B: N/R

REMARKS: PACKAGE IS NON-HERMETIC SEAL.

[illegible] MEE REPORT DATE: 7505

[illegible] APPLICATION ENV: N/R
[illegible] PART MANUFACTURER: NCA DATE CODE: 0
[illegible] SCREEN CLASS: B-1 COMPLEXITY: 4 G
[illegible]

[illegible] FAILURE MODE: PACKAGE SEAL
[illegible] EFFECT CAUSE: N/P
ACTIVATING STRESS A: N/P
ACTIVATING STRESS B: N/P

REMARKS: PACKAGE SEAL IS NON-HERMETIC.

MEE REPORT NUMBER: 1917 MEE REPORT DATE: 7512

[illegible] DATA-TYPE: DEV EVALUATION APPLICATION ENV: N/R
[illegible] CIRCUIT TYPE: BINARY
[illegible] PART MANUFACTURER: VARIOUS DATE CODE: 0
[illegible] SCREEN CLASS: N/P COMPLEXITY: 58 G
[illegible]

[illegible] FAILURE MODE: PACKAGE
[illegible] EFFECT CAUSE: PROCESS FLAW
ACTIVATING STRESS A: N/P
ACTIVATING STRESS B: N/P

REMARKS: [illegible] EVALUATION REVEALED [illegible] MATERIAL WITHIN PACKAGE.

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Appendix A

RECOMMENDED SCREENS/TESTS FOR VARIOUS
DIE-RELATED AND PACKAGE-RELATED FAILURE MODES

APPENDIX A

TABLE A: RECOMMENDED SCREENS/TESTS FOR VARIOUS DIE RELATED FAILURE MODES

Constituent Failure Mode	Stabilization Bake	Temp Cycle/ Thermal Shock	Const Accel/ Mech Shock	Reverse Bias and Temp	Dynamic Op and Temp	X-ray
Surface Contamination/Leakage	●			●	●	
Foreign Material/ Particles			●			●
Inversion/Channeling	●			●		
Crystal Imperfections	●	●			●	
Cracked Die		●	●		●	
Oxide Pinholes		●		●	●	
Oxide Faults		●			●	
Oxide Short/ Breakdown		●		●	●	
Passivation Defects		●			●	
Diffusion Anomaly				●	●	
Diffusion Spikes				●	●	
Mask Faults					●	
Open Metallization (Excluding Corrosion)		●		●	●	
Metallization Shorts		●		●	●	
Electromigration					●	

TABLE B: RECOMMENDED SCREENS/TESTS FOR VARIOUS PACKAGE RELATED FAILURE MODES

Constituent Failure Mode	Stabilization Bake	Temp Cycle/ Thermal Shock	Const Accel/ Mech Shock	Seal Test	Reverse Bias and Temp	Dynamic Op and Temp	X-ray	External Visual
Broken Wirebond		●			●	●		
Lifted Wirebond		●			●	●		
Over-Bonded		●				●		
Misplaced Bond					●	●		
Multiple Bond			●					
Intermetallic Formation	●	●				●		
Die Attach Defect		●	●			●	●	
Broken Wire		●			●	●		
Shorted Wire					●	●		
Poor Lead Dress		●	●					
Corroded Wire		●			●	●		
Nonhermetic Seal		●	●	●				
Excessive Seal Mat'l								●
External Lead Defect								●

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND FAILURE ANALYSIS DATA

Appendix B

FAILURE EVENT HIERARCHY STRUCTURE

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE

Failure Indicators

- Open
  - Verified Open
    - Unknown
    - Input
    - Output
    - Supply
    - Combination
    - Other
  - Intermittent Open
    - Unknown
    - Input
    - Output
    - Supply
    - Combination
    - Other
- Short
  - Verified Short
    - Unknown
    - Input
    - Output
    - Supply
    - Combination
    - Other
  - Intermittent Short
    - Unknown
    - Input
    - Output
    - Supply
    - Combination
    - Other
- Degraded
  - Unknown
  - Leakage
    - Unknown
    - Input
    - Output
    - Supply
    - Combination
    - Other
  - Parameter Out-of-Tolerance
    - Unknown
    - Output Voltage

Failure Modes

- Die
  - Unknown
  - Bulk Aspects
    - Unknown
    - Junction
    - Diffusion
    - Epitaxial Layer
    - Crystal
  - Metalization
    - Unknown
    - Oxide Step
    - PROM Fuze
    - Contact Window
    - Polysilicon Conductor
    - Multi-Level Interface
    - Multi-Layer Interface
    - Bond Pad
  - Oxide/Dielectric
    - Unknown
    - Gate Oxide/Dielectric
    - Field Oxide/Dielectric
    - Capacitor Dielectric
    - Crossover Dielectric
  - Glassivation
  - Surface
- Interconnects
  - Unknown
  - Wire
  - Wirebond
    - Unknown
    - Wirebond At Die Pad
      - Unknown
      - Die Pad Heel
      - Die Pad Neck
    - Wirebond At Lead Frame
      - Unknown
      - Lead Frame Heel
      - Lead Frame Neck
  - Beam Lead
    - Unknown
    - Die Pad
    - Lead Frame
  - Bump

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE (Cont'd)

Failure Indicators (Cont'd)

Degraded (Cont'd)

- Input Voltage
- Input Offset Voltage
- Switching Characteristics
- Supply Current
- Propagation Delay
- Input Offset Current
- Gain Characteristics
- Dynamic Characteristics

Functional Anomaly

- Unknown
- Non-Func., Inoper., Catastrophic
- Improper Output
  - Unknown
  - Improper Logic State
  - Memory Data Loss
  - Improper Output Switching
  - Fluct./Oscillating Output
  - Distorted/Clipped Output
  - Crosstalk
- Output Latching
  - Unknown
  - Output Latched High
  - Output Latched Low

Mechanical Anomaly

Defect Description

- Brittle
- Broken
- Channel
- Chipout
- Cracked
- Crazed
- Delaminated
- Dislocation
- Etch Fault
- Etch Pit
- Extraneous Wire
- Flaking
- Fracture
- Hillock
- Impurities

Failure Modes (Cont'd)

Package

- Unknown
- Package Seal
- Package Lid
- Package Body
- Package Lead
- Die Attach Bond
- Package Encapsulant

Defect Cause

- Contamination
- Corrosion
- Dendrite Growth
- Dielectric Breakdown
- Electrolysis
- Electromigration
- Fatigue
- Growback
- Intermetallic Formation
- Ionic Drift
- Microplasma
- Oxidation
- Thermal Diffusion
- Workmanship
- Process Flaw
- Troubleshooting

Failure Activating Stress

- Electrical Overstress
- Electrostatic Discharge
- Current Stress
- Humidity
- Mechanical Stress
- Pressure
- Radiation-Nuclear
- Radiation-Electromagnetic
- Radiation-X-ray
- Temperature
- Thermo-Mechanical Stress
- Voltage Stress
- Voltage and Current Stress

APPENDIX B

FAILURE EVENT HIERARCHY STRUCTURE (Cont'd)

Defect Description (Cont'd)

Lifted
Loose
Mask Fault
Misaligned/Misplaced
Missing
Necked Down
Ohmic
Open (NOC)
Particle Bridge
Peeling
Pinhole
Pipe
Scratch
Short (NOC)
Smear
Spike
Stacking Fault
Voids
Zapped-Evaporated
Fault (NOC)
Flashover-Arc
Punch Through
Poor Plating
Discolored
Corroded
Melted-Fused
Diffusion Fault
Reversed
Deformed
Hole
Tunneled
Inadequate
Exposed
Mismarked
Swollen

MICROCIRCUIT DEVICE RELIABILITY

DIGITAL EVALUATION AND
FAILURE ANALYSIS DATA

Appendix C

ADDITIONAL RAC SERVICES

ADDITIONAL RAC SERVICES

Search Services

Retrospective Searches are conducted at a flat fee of $75 per search. If no references are identified, a $25 service charge will be made in lieu of the above. For best results, please call or write for assistance in formulating your search question. An extra charge, based on engineering time and costs, will be made for evaluating, extracting or summarizing information from the cited references.

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15. Supplementary Notes

This is one of a series of microcircuit device reliability publications.

16. Abstract (Limit: 200 words)

This compendium of digital SSI/MSI microcircuit device reliability is separated into two volumes. Part I deals with general summaries and detailed listings which address the various aspects of burn-in and environmental/screening tests at the component level. Devices are classified according to test types and are arranged by test source, device function, operational type, device manufacturer, and commercial part number. Part II contains summaries of failure analysis data based upon failure indicators, failure modes, failure defects, failure defect causes, and failure activating stresses, as well as a detailed listing of verified failure events as derived from device- and equipment-level testing.

17. Document Analysis a. Descriptors

Integrated Circuits
Reliability
Digital Devices
Burn-In Testing
Environmental/Screening Testing
Failure Analysis Results

b. Identifiers/Open-Ended Terms

Digital Detailed Microcircuit Device Reliability Compendium

c. COSATI Field/Group

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