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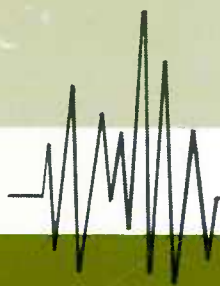
**FINAL REPORT**

**TASK 2**

**DEFINITIZE AND PREPARE OFF-THE-SHELF (OTS)  
ELECTRONIC TEST EQUIPMENT (ETE) SPECIFICATIONS**

**July 1978**

Prepared for  
TMOE DIVISION  
DIRECTORATE OF MAINTENANCE  
U.S. ARMY COMMUNICATIONS AND ELECTRONICS  
MATERIEL READINESS COMMAND  
FORT MONMOUTH, NEW JERSEY 07703  
under Contract DAEA 18-72-A-0005  
Delivery Order BG-02



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TMDE Division  
Directorate of Maintenance  
U.S. Army Communications and Electronics  
Materiel Readiness Command  
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by

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## FOREWORD

Under a contract starting 28 September 1977, ARINC Research Corporation provided non-personal services to the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) to definitize specifications for families of off-the-shelf (OTS) electronic test equipment (ETE). The contract was issued by the Electronics Systems Procurement Branch, Procurement and Production Directorate, U.S. Army Electronics Command, Fort Monmouth, N.J. This report represents the results of that contract effort.

ARINC Research Corporation wishes to acknowledge the invaluable assistance provided by many individuals in the U.S. Army Communications and Electronics Materiel Readiness Command. In particular, we wish to express our appreciation to Mr. Robert Both of the Directorate of Maintenance, TMDE Division, and Mr. Ralph Allorca and Mr. William Orloff of the Logistics Engineering Directorate. We also thank Mr. James A. Carter, Chief TMDE Division, for his interest and guidance during the study.



## ABSTRACT

ARINC Research Corporation is under contract to definitize previously developed Off-the-Shelf (OTS) Electronic Test Equipment (ETE) Specifications by converting them into full Military Specifications. The specifications are then to be used by the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) in competitive evaluation and procurement of OTS ETE to replace appropriate U.S. Army items of general purpose Test, Measurement, and Diagnostic Equipment (TMDE). This effort encompasses two basic contract tasks. The results of Task 1 and Subtasks 2A and 2B were reported in ARINC Research Publication 1076-01-1-1698, December 1977, and 1076-01-2-1720, March 1978, respectively. This Task 2 Final Report (Subtask 2E) presents the conclusions and recommendations of the study and specifically addresses the results of Subtasks 2C and 2D.

## SUMMARY

ARINC Research Corporation is under contract to definitize previously developed Off-the-Shelf (OTS) Electronic Test Equipment (ETE) Specifications by converting them into full Military Specifications. The specifications are then to be used by the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) in competitive evaluation and procurement of OTS ETE to replace appropriate U.S. Army items of general purpose Test, Measurement, and Diagnostic Equipment (TMDE). This effort encompasses two basic contract tasks. The results of Task 1 and Subtasks 2A and 2B were reported in ARINC Research Publication 1076-01-1-1698, December 1977, and 1076-01-2-1720, March 1978, respectively. This Task 2 Final Report (Subtask 2E) presents the conclusions and recommendations of the study and specifically addresses the results of Subtasks 2C and 2D.

The objective of Subtask 2C was to convert nine OTS ETE Specifications into Military (OTS ETE) Specifications. On the basis of the combined review and analysis effort of ARINC Research Corporation and CERCOM, this conversion process resulted in the development of seven Military (OTS ETE) Specifications as shown in Table S-1. Two of the OTS ETE Specifications (Signal Generator, UHF-A, and Signal Generator, VHF-A) were removed from further consideration by CERCOM. The seven Military Specifications are presented in this report as Appendixes A through G.

In Subtask 2D, a two-part TMDE Cross-Reference List (TCRL) was developed to identify the various makes and models of U.S. Army Inventory TMDE that had the potential for replacement by the seven Military (OTS ETE) Specifications. The TCRL is presented in this report as Appendix J.

The contract effort produced the following recommendations:

- In future studies of this nature, primary data sources for technical parameters should be emphasized over secondary sources. Technical manuals, either military or commercial, appear to offer the best data source.
- The sample size of OTS ETE makes and models should be increased, and obsolete or duplicate Army inventory TMDE should be eliminated from consideration. This action will increase OTS ETE representation and simplify the study effort without reducing the quality of the data for the Army inventory TMDE.

Table S-1. CONVERSION OF OTS ETE SPECIFICATIONS TO MILITARY (OTS ETE) SPECIFICATIONS

| Original Name of<br>OTS ETE Specification | Number | New Military (OTS ETE)<br>Specification Name | Appendix | Remarks                          |
|-------------------------------------------|--------|----------------------------------------------|----------|----------------------------------|
| Bridge, Universal                         | 25     | Bridge, Universal                            | A        | Requirement deleted<br>by CERCOM |
| Signal Generator, Function                | 2      | Generator, Signal, Function                  | B        |                                  |
| Signal Generator, Pulse                   | 4      | Generator, Signal, Pulse                     | C        |                                  |
| Signal Generator, UHF-A                   | 15     |                                              |          |                                  |
| Signal Generator, UHF-B                   | 16     | Generator, Signal, UHF                       | D        | Requirement deleted<br>by CERCOM |
| Signal Generator, VHF-A                   | 17     |                                              |          |                                  |
| Signal Generator, VHF-B                   | 18     | Generator, Signal, VHF                       | E        |                                  |
| Stroboscope                               | 95     | Stroboscope                                  | F        |                                  |
| Voltmeter, Differential                   | 38     | Voltmeter, Differential                      | G        |                                  |

- Changes required by CERCOM and identified as potentially restricting competition should be closely examined and, wherever possible, the original ARINC Research recommendation should be followed in order to enhance competition. Further, the requirement for a flash characteristic of 60 to 150,000 flashes per minute for the Stroboscope should be reviewed and validated. As the requirement is now stated, it cannot be met by any OTS ETE known to ARINC Research.
- The seven Military (OTS ETE) Specifications included in this report represent the combined efforts of CERCOM and ARINC Research Corporation and should be tested in the acquisition process to meet U.S. Army TMDE requirements. In addition, the specifications should be provided to the ETE industry and other DoD activities for review and comment.

## CONTENTS

|                                                                                        | <u>Page</u> |
|----------------------------------------------------------------------------------------|-------------|
| FOREWORD . . . . .                                                                     | iii         |
| ABSTRACT . . . . .                                                                     | v           |
| SUMMARY . . . . .                                                                      | vii         |
| CHAPTER ONE: INTRODUCTION . . . . .                                                    | 1-1         |
| 1.1 Background . . . . .                                                               | 1-1         |
| 1.2 Study Objectives . . . . .                                                         | 1-1         |
| 1.3 Overview of Work Performed . . . . .                                               | 1-1         |
| 1.3.1 Task 1: Establish Project Data Base Structure . . . . .                          | 1-2         |
| 1.3.2 Task 2: Definitize and Prepare Specifications . . . . .                          | 1-4         |
| 1.4 Report Organization . . . . .                                                      | 1-6         |
| CHAPTER TWO: STUDY APPROACH . . . . .                                                  | 2-1         |
| 2.1 Subtask 2C: Definitize OTS ETE Specifications . . . . .                            | 2-1         |
| 2.2 Subtask 2D: Develop Cross-Reference List . . . . .                                 | 2-2         |
| 2.3 Subtask 2E: Prepare Task 2 Final Report . . . . .                                  | 2-3         |
| CHAPTER THREE: RESULTS . . . . .                                                       | 3-1         |
| 3.1 Definitization and Preparation of Specifications . . . . .                         | 3-1         |
| 3.2 Development of TMDE Cross-Reference List . . . . .                                 | 3-2         |
| CHAPTER FOUR: CONCLUSIONS AND RECOMMENDATIONS . . . . .                                | 4-1         |
| 4.1 Conclusions . . . . .                                                              | 4-1         |
| 4.2 Recommendations . . . . .                                                          | 4-2         |
| APPENDIX A: MILITARY (OTS ETE) SPECIFICATION, BRIDGE, UNIVERSAL . . . . .              | A-1         |
| APPENDIX B: MILITARY (OTS ETE) SPECIFICATION, GENERATOR, SIGNAL,<br>FUNCTION . . . . . | B-1         |
| APPENDIX C: MILITARY (OTS ETE) SPECIFICATION, GENERATOR, SIGNAL,<br>PULSE . . . . .    | C-1         |
| APPENDIX D: MILITARY (OTS ETE) SPECIFICATION, GENERATOR, SIGNAL,<br>UHF . . . . .      | D-1         |

CONTENTS (continued)

|                                                                                                                | <u>Page</u> |
|----------------------------------------------------------------------------------------------------------------|-------------|
| APPENDIX E: MILITARY (OTS ETE) SPECIFICATION, GENERATOR, SIGNAL,<br>VHF . . . . .                              | E-1         |
| APPENDIX F: MILITARY (OTS ETE) SPECIFICATION, STROBOSCOPE . . . . .                                            | F-1         |
| APPENDIX G: MILITARY (OTS ETE) SPECIFICATION, VOLTMETER,<br>DIFFERENTIAL . . . . .                             | G-1         |
| APPENDIX H: COMPUTER PRINTOUT NUMBER 7: "DEFINITIZATION OF OTS<br>ETE SPECIFICATIONS PARAMETER DATA" . . . . . | H-1         |
| APPENDIX I: COMPUTER PRINTOUT NUMBER 8: "PARAMETER DATA FOR<br>MILITARY (OTS ETE) SPECIFICATIONS" . . . . .    | I-1         |
| APPENDIX J: TMDE CROSS-REFERENCE LIST . . . . .                                                                | J-1         |

## CHAPTER ONE

### INTRODUCTION

#### 1.1 BACKGROUND

ARINC Research Corporation is under contract to provide non-personal services to the U.S. Army Communications and Electronics Materiel Readiness Command (CERCOM) to definitize specifications for families of Off-the-Shelf (OTS) Electronic Test Equipment (ETE). The contract (DAEA 18-72-A-0005, Delivery Order BG-02), a basic ordering agreement, was issued by the Electronic Systems Procurement Branch, Procurement and Production Directorate, U.S. Army Electronics Command, Fort Monmouth, New Jersey. The contract effort was started on 28 September 1977.

Data Item A003 of the contract Data Requirements List (DD Form 1423) provides for the submittal of a final report upon completion of all tasks. This report, submitted in compliance with that requirement, summarizes the results of the completed study and the specific activities of Subtasks 2C, 2D, and 2E.

#### 1.2 STUDY OBJECTIVES

The objective of the program is to convert ARINC Research OTS ETE Specifications into full Military Specifications that can be used by CERCOM for competitive evaluation and procurement of off-the-shelf (OTS) electronic test equipment (ETE) to replace, as appropriate, U.S. Army items of general purpose Test, Measurement, and Diagnostic Equipment (TMDE).

The specific project objectives are as follows:

- Identify Army TMDE inventory salient features and OTS ETE features, including those which enhance the test and measurement capabilities of the U.S. Army.
- Following identification of all approved features, prepare comprehensive Military Specifications that can be used by CERCOM for competitive evaluation and procurement of OTS ETE.

#### 1.3 OVERVIEW OF WORK PERFORMED

The work to be performed consists of two basic contract tasks. This final report presents the conclusions and recommendations of the study and

specifically addresses the results of Subtasks 2C, 2D, and 2E. Brief outlines of Task 1 and Task 2 are presented in the following subsections, together with a summary of the accomplishments of each subtask.

#### 1.3.1 Task 1: Establish Project Data Base Structure

The objective of Task 1 was to design and establish the structure of the data base that would be used in all subsequent tasks. Six subtasks were performed:

- 1A - Identify Technical Characteristics of TMDE
- 1B - Develop Functional Index of OTS ETE Manufacturers and their products
- 1C - Identify TMDE Data Sources
- 1D - Identify TMDE Families that Require Group Analysis
- 1E - Develop Data Formats for Computer Printouts
- 1F - Prepare Task 1 Report

##### 1.3.1.1 Subtask 1A: Identify Technical Characteristics of TMDE

Technical parameters and associated codes that describe in detail the technical characteristics of TMDE were identified. They were encoded to facilitate display of the technical parameters of the TMDE.

##### 1.3.1.2 Subtask 1B: Develop Functional Index of OTS ETE Manufacturers and their Products

A functional index of OTS ETE manufacturers reflecting the type of ETE currently offered was developed. The required information was extracted from the literature of more than 250 ETE manufacturers currently on file at ARINC Research Corporation; it was encoded and displayed in a computer printout.

##### 1.3.1.3 Subtask 1C: Identify TMDE Data Sources

The TMDE assigned to each family included in Task 2 was identified to CERCOM early in the contract. CERCOM designated and provided as Government Furnished Material (GFM) a military procurement specification, technical manual, or other data source that described in detail the technical characteristics of each of the TMDE. Only one data source was used for each TMDE. The data sources were cataloged and encoded for display as a computer printout.

Table 3-2 of the Task 1 Technical Report was originally published with incomplete data. This table has been reprinted in this report as Table 1-1, with all data entries complete. It shows the number of documents received for each TMDE family vs. the number of TMDE assigned and indicates whether



Table 1-1. SUMMARY OF PRIMARY SOURCE DOCUMENTS BY TMDE FAMILIES

| TMDE Family Names               | Number of TMDE<br>Assigned to Each<br>TMDE Family | Number of<br>Documents<br>Received | Types of Source Documents Received |                     |                  |                             |
|---------------------------------|---------------------------------------------------|------------------------------------|------------------------------------|---------------------|------------------|-----------------------------|
|                                 |                                                   |                                    | Primary Source                     |                     | Secondary Source |                             |
|                                 |                                                   |                                    | MIL-STD<br>(Specification)         | Technical<br>Manual | JETDS<br>File    | DA PAM 700-20<br>and 700-21 |
| Bridge, Universal               | 33                                                | 31                                 | 3                                  | 3                   | 4                | 21                          |
| Capacitor Test Set              | 16                                                | 14                                 | 2                                  | 1                   | 3                | 8                           |
| Impedance Meter                 | 10                                                | 10                                 | 6                                  | 1                   | 0                | 3                           |
| Inductance Meter                | 4                                                 | 4                                  | 2                                  | 0                   | 0                | 2                           |
| Signal Generator<br>Function    | 20                                                | 19                                 | 5                                  | 1                   | 5                | 8                           |
| Signal Generator Pulse          | 49                                                | 44                                 | 4                                  | 5                   | 12               | 23                          |
| Signal Generator Square<br>Wave | 13                                                | 12                                 | 0                                  | 0                   | 8                | 4                           |
| Signal Generator UHF            | 28                                                | 28                                 | 0                                  | 0                   | 11               | 17                          |
| Signal Generator VHF            | 51                                                | 45                                 | 0                                  | 0                   | 21               | 24                          |
| Stroboscope                     | 7                                                 | 7                                  | 0                                  | 0                   | 5                | 2                           |
| Voltmeter, Differential         | 15                                                | 15                                 | 0                                  | 0                   | 3                | 12                          |
| Total                           | 246                                               | 229                                | 22                                 | 11                  | 72               | 124                         |

the documents are those in which the technical parameters of the instrument were originally listed. Secondary sources are those which are derived from the primary and are normally abbreviated and condensed for filing. Table 1-1 shows that only 33 of the 229 documents received (Military Standards and Technical Manuals) were from primary sources.

1.3.1.4 Subtask 1D: Identify TMDE Families that Require Group Analysis

Subtask 1D identified all groups of TMDE families that required analysis among different types of TMDE. For example, the Signal Generator Group comprises the following TMDE families: Signal Generators HF, VHF, UHF, and SHF. These TMDE must be analyzed together as well as individually to permit proper partitioning of the TMDE families with respect to the capabilities of OTS ETE and the requirements of Army general purpose TMDE.

1.3.1.5 Subtask 1E: Develop Data Formats for Computer Printouts

In Subtask 1E the required computer data input and output formats were developed.

1.3.1.6 Subtask 1F: Prepare Task 1 Report

The results of Subtasks 1A, 1B, 1C, 1D, and 1E were documented for inclusion in the Task 1 Final Report (ARINC Research Publication 1076-01-1-1693, December 1977), which is a companion document to this report.

1.3.2 Task 2: Definitize and Prepare Specifications

The overall objective of Task 2 was to definitize the OTS ETE Specifications for those TMDE families assigned to Task 2. This task was divided into five subtasks:

- 2A - Encode Technical Characteristics
- 2B - Review and Analyze Technical Characteristics
- 2C - Definitize OTS ETE Specifications
- 2D - Develop Cross-Reference List
- 2E - Prepare Task 2 Final Report

1.3.2.1 Subtask 2A: Encode Technical Characteristics

The technical characteristics of the appropriate OTS ETE Specifications, commercially available OTS ETE, and the Army inventory TMDE were encoded for subsequent display in various computer printouts. These printouts permitted direct comparison of the equipment in terms of the technical characteristics derived from the three sources. The development and purpose of the computer printouts are described in the Task 1 Final Report.

During the encoding of the OTS ETE and the U.S. Army Inventory TMDE, two areas of concern were noted. First, the sample size of the OTS ETE should be increased from 5 to 10 (whenever possible) so as to obtain a more comprehensive representation of what is available on the commercial market. Second, considerable time was spent in coding Army Inventory TMDE that were obsolete (according to SB 700-20) or duplicate. The problem of encoding duplicate instruments is exemplified by the encoding of three models of the ZM-4 series (ZM-4, ZM-4A, and ZM-4B). All three are functionally the same and interchangeable; therefore, only the ZM-4B should have been coded. Following this approach would not have had any impact on the study results and would have simplified the review and analysis process.

#### 1.3.2.2 Subtask 2B: Review and Analyze Technical Characteristics

The objective of Subtask 2B was to ensure the completeness of the OTS ETE Specifications. This was accomplished by using the data compiled in Subtask 2A and by identifying and documenting those technical characteristics which are available in commercial OTS ETE but were not included in the OTS ETE Specifications. Further, the technical characteristics of Army inventory TMDE were analyzed to determine whether there were technical characteristics that might be required by the Army but were not specified in the OTS ETE Specifications.

A report of the findings, conclusions, and recommendations resulting from these comparative analysis activities was prepared for each OTS ETE Specification and for TMDE family groups, as applicable. Group analysis of TMDE families is described in Subtask 1D of the Task 1 Final Report. In Task 2, the TMDE in Signal Generator UHF and VHF TMDE families were analyzed collectively. The results of Subtasks 2A and 2B were reported in ARINC Research Publication 1076-01-2-1720, dated March 1978, which is a companion document to this report.

#### 1.3.2.3 Subtask 2C: Definitize OTS ETE Specifications

On the basis of the CERCOM review of the Subtask 2A and 2B report, the original OTS ETE Specifications as encoded in Subtask 2A were changed as required to reflect the comments resulting from the review. Military specifications for OTS ETE were then prepared from these data by using the format provided by CERCOM.

#### 1.3.2.4 Subtask 2D: Develop Cross-Reference List

On the basis of the data reviewed, analyzed, and definitized in previous subtasks, a computer-generated cross-reference list was developed to correlate the Joint Electronics Type Designator (JETD) or manufacturer's model number of Army General Purpose TMDE with the associated military (ETE) specification(s) included in Task 2.

#### 1.3.2.5 Subtask 2E: Prepare Task 2 Final Report

This final report was prepared to present the results of Subtasks 2C and 2D and the conclusions and recommendations of the entire study. The

computer printouts, "Parameter Data of OTS ETE" and "Parameter Data of U.S. Army TMDE", originally intended for presentation in this report, were previously submitted as Appendixes K and L of the Task 2B Report.

#### 1.4 REPORT ORGANIZATION

Chapter One has presented the study background and objectives. Chapters Two and Three describe, respectively, the study approach and the results of Subtasks 2C and 2D. Chapter Four presents the conclusions and recommendations. Ten appendixes document the results of the study:

- Appendix A - Military (OTS ETE) Specification, Bridge, Universal
- Appendix B - Military (OTS ETE) Specification, Generator, Signal, Function
- Appendix C - Military (OTS ETE) Specification, Generator, Signal, Pulse
- Appendix D - Military (OTS ETE) Specification, Generator, Signal, UHF
- Appendix E - Military (OTS ETE) Specification, Generator, Signal, VHF
- Appendix F - Military (OTS ETE) Specification, Stroboscope
- Appendix G - Military (OTS ETE) Specification, Voltmeter, Differential
- Appendix H - Computer Printout Number 7: "Definitization of OTS ETE Specifications Parameter Data"
- Appendix I - Computer Printout Number 8: "Parameter Data for Military (OTS ETE) Specifications"
- Appendix J - TMDE Cross-Reference List

## CHAPTER TWO

### STUDY APPROACH

#### 2.1 SUBTASK 2C: DEFINITIZE OTS ETE SPECIFICATIONS

ARINC Research Publication 1076-01-2-1720, *Review and Analysis of Technical Characteristics for the Definitization of Specifications for Families of Off-the-Shelf (OTS) Electronic Test Equipment ETE* (March 1978), contained a separate appendix for each OTS ETE specification included in this study. The specification names and numbers are listed in Table 2-1.

| Table 2-1. OTS ETE SPECIFICATIONS |        |
|-----------------------------------|--------|
| Name                              | Number |
| Bridge, Universal                 | 25     |
| Signal Generator, Function        | 2      |
| Signal Generator, Pulse           | 4      |
| Signal Generator, UHF-A           | 15     |
| Signal Generator, UHF-B           | 16     |
| Signal Generator, VHF-A           | 17     |
| Signal Generator, VHF-B           | 18     |
| Stroboscope                       | 95     |
| Voltmeter, Differential           | 38     |

Each appendix of Publication 1076-01-2-1720 has five sections containing the results of the detailed review and analysis of each technical parameter applicable to a specific OTS ETE Specification:

- Introduction and Instructions. The procedure for documenting the review process is described, with space provided for CERCOM comments.
- Identification Data. All data applicable to the detailed identification of a specific OTS ETE Specification are presented.

- Summary of Recommendations. The results of the review and analysis of each technical parameter encoded are summarized.
- Detailed Review and Analysis. The detailed findings, conclusions, and recommendations of the review and analysis for each technical parameter encoded are presented.
- Supporting Data. A computer printout is presented for the specific OTS ETE Specification being considered; it provides the data source from which the detailed review and analyses were made.

These appendixes were structured to permit CERCOM to review the data, rationale, and recommendations for each technical parameter considered in the analysis, and to make direct comments related to each parameter. The following is a sample of the format used in the "Detailed Review and Analysis" section:

| <u>Parameter Number</u> | <u>Parameter Name</u>                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 00140                   | POWER SOURCE/CONSUMPTION                                                                                                                                            |
| Narrative:              | The majority of OTS ETE are common with the OTS ETE Specification, with two (2) items being battery-powered. The TMDE also lists two types of power sources.        |
| Conclusion:             | Since the equipment to be procured under the OTS ETE Specification is not intended for field use, the battery power source does not offer any increased capability. |
| Recommendation:         | Retain as specified                                                                                                                                                 |
| CERCOM Comments:        | _____                                                                                                                                                               |
|                         | _____                                                                                                                                                               |

On the basis of CERCOM's review of each appendix and its specific comments related to each parameter, Military (OTS ETE) Specifications reflecting the technical capability of OTS ETE or the requirements of the Army were provided. The specification format used was based on MIL-T-28800 as provided by CERCOM.

## 2.2 SUBTASK 2D: DEVELOP CROSS-REFERENCE LIST

The TMDE Cross-Reference List (TCRL) is intended as a guide for identifying initially Military (OTS ETE) Specifications that are "functionally compatible" or "partially compatible" with U.S. Army Inventory TMDE. The technical parameters for each U.S. Army Inventory TMDE in Task 2 were compared with the major technical parameters of the applicable Military (OTS ETE) Specification(s) developed in Subtask 2C, and it was determined whether



the TMDE parameters were "functionally compatible" or "partially compatible". Applicable data were then encoded. The two types of compatibility are described as follows:

- *Functionally compatible* implies that the technical parameters of the TMDE are within the range of the technical parameters of the identified Military (OTS ETE) Specification.
- *Partially compatible* implies that the technical parameters of the TMDE are only partially within the range of the technical parameters of the identified Military (OTS ETE) Specification(s) and that more than one specification is required to provide full compatibility.

The analysis and subsequent encoding resulted in the following listings for the two-part TCRL:

- Part I - OTS ETE Specification to U.S. Army General Purpose TMDE.\*  
Part I is an alphabetical listing of Military (OTS ETE) or OTS ETE Specifications correlated with the U.S. Army Inventory TMDE that are either functionally compatible or partially compatible with each Specification.
- Part II - U.S. Army General Purpose TMDE to OTS ETE Specifications.  
Part II is an alphanumeric listing, by type designator or manufacturer's model number, of each U.S. Army Inventory TMDE considered in the analysis; it indicates, by Military (OTS ETE) or OTS ETE Specification number, whether the TMDE is functionally or partially compatible (or a combination thereof).

The data presented in the TCRL should be considered representative of the potential of each Military (OTS ETE) Specification for replacing general purpose TMDE in the U.S. Army. It can serve as the starting point for estimating cost savings that can be realized from the CERCOM standardization program.

### 2.3 SUBTASK 2E: PREPARE TASK 2 FINAL REPORT

This final report was prepared to present the findings, conclusions, and recommendations of the study.

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\*The TCRL contains, in addition to cross-reference data for the Military (OTS ETE) Specifications developed during this study, data related to the remaining 91 OTS ETE specifications developed under a previous contract. Therefore, the title "OTS ETE Specification....." for Part I and Part II has been retained.

## CHAPTER THREE

### RESULTS

#### 3.1 DEFINITIZATION AND PREPARATION OF SPECIFICATIONS

On the basis of the comments provided by CERCOM in response to ARINC Research Publication 1076-01-2-1720 (March 1978), the seven Military (OTS ETE) Specifications shown in Table 3-1 were prepared in the format specified. The specifications are presented in Appendixes A through G of this report.

| Table 3-1. MILITARY (OTS ETE) SPECIFICATIONS |          |
|----------------------------------------------|----------|
| Specification Name                           | Appendix |
| Bridge, Universal                            | A        |
| Generator, Signal, Function                  | B        |
| Generator, Signal, Pulse                     | C        |
| Generator, Signal, UHF                       | D        |
| Generator, Signal, VHF                       | E        |
| Stroboscope                                  | F        |
| Voltmeter, Differential                      | G        |

Originally there were nine OTS ETE Specifications to be converted to Military (OTS ETE) Specifications. However, CERCOM has elected not to definitize two of the OTS ETE Specifications -- Signal Generator, UHF-A; and Signal Generator, VHF-A.

The revised Computer Printouts, Numbers 8 and 9, are presented in Appendixes H and J, respectively. These printouts, described in the Task 1 report, include all of the technical parameter changes confirmed or requested by CERCOM.

All changes to the original OTS ETE specifications recommended by ARINC Research and agreed to by CERCOM, as well as those changes specifically requested by CERCOM, were incorporated into the Military (OTS ETE)



Specifications. Three of the changes requested that require further review by CERCOM are described in Table 3-2, which shows the parameter code and name, the recommendation for the parameter made by ARINC Research, and the change required by CERCOM.

| Table 3-2. CERCOM CHANGES THAT HAVE A POTENTIAL IMPACT ON COMPETITION |                |                        |                                                                                              |
|-----------------------------------------------------------------------|----------------|------------------------|----------------------------------------------------------------------------------------------|
| Military (OTS ETE) Specification                                      | Parameter Code | Parameter Name         | ARINC Research Recommendation and Change Required by CERCOM                                  |
| Bridge, Universal                                                     | 59600          | Resistance Measurement | Recommended: 10 ohms to 12 megohms. Changed to: 10 ohms to 50 megohms.                       |
| Stroboscope                                                           | 24400          | Flash Characteristics  | Recommended: 110 to 25,000 flashes per minute. Changed to: 60 to 150,000 flashes per minute. |
| Voltmeter, Differential                                               | 26650          | Frequency Range        | Recommended: 5 Hz to 5 kHz. Changed to: 5 Hz to 100 kHz.                                     |

The data shown for comparative analysis in Appendix H for each of the specifications and technical parameters in Table 3-2 suggest two problems. First, the changes required by CERCOM for two devices -- the Bridge, Universal; and the Voltmeter, Differential -- limit competition to one make or model of OTS ETE. Second, there are no makes or models of Stroboscope listed that accommodate the change required by CERCOM for flash characteristics.

### 3.2 DEVELOPMENT OF TMDE CROSS-REFERENCE LIST

The two-part TMDE Cross-Reference List (TCRL) is presented in this report as Appendix J. Table 3-3 summarizes the number of "Functionally Compatible" and "Partially Compatible" TMDE, by separate make and model, that have the potential for replacement by each Military (OTS ETE) Specification.

It should be noted that the number of TMDE listed for each OTS ETE specification (Table 3-3) equals or exceeds the number of Army inventory TMDE initially assigned to a TMDE Family (Table 1-1). There are several reasons for this disparity. During the analysis of TMDE during Task 2, it was discovered that a few TMDE had been initially assigned to the wrong family, and reassignment to the correct family was necessary. Further, the deletion of the two OTS ETE specifications by CERCOM has caused the movement of UHF and VHF instruments between families. Finally, in the Partially Compatible portion of the TCRL, there are several instruments from TMDE families (e.g., Signal Generator HF and SHF) that are not definitized in this report.

| Table 3-3. TCRL SUMMARY             |                            |                         |
|-------------------------------------|----------------------------|-------------------------|
| Military (OTS ETE)<br>Specification | Number of Makes or Models  |                         |
|                                     | Functionally<br>Compatible | Partially<br>Compatible |
| Bridge, Universal                   | 39                         | 16                      |
| Generator, Signal, Function         | 28                         | 8                       |
| Generator, Signal, Pulse            | 31                         | 18                      |
| Generator, Signal, UHF              | 13                         | 6                       |
| Generator, Signal, VHF              | 48                         | 23                      |
| Stroboscope                         | 2                          | 5                       |
| Voltmeter, Differential             | 12                         | 8                       |

## CHAPTER FOUR

### CONCLUSIONS AND RECOMMENDATIONS

#### 4.1 CONCLUSIONS

A review of Table 1-1 in Chapter One shows that the source documents for the U.S. Army technical parameters were derived essentially from secondary sources for more than 85 percent of the Army Inventory TMDE included in the study; that is, the total of 196 for the columns "JETDS FILE" (72) and the "DA PAM 700-20 and 700-21" (124) divided by the total "Number of Documents Received" (229) equals 85.5 percent of the data source documents. Thus the great majority of technical parameters for U.S. Army Inventory TMDE were obtained from abbreviated and condensed files (secondary sources) that could also contain translation errors. Further, key characteristics could have been missing or reduced in importance. These factors could produce misleading study results.

The sample size of OTS ETE, limited by the statement of work, should be increased from 5 to 10 whenever possible in any future studies of this nature. The larger sample will allow greater representation of the commercial market and a more accurate illustration of the salient features of each TMDE family. It should also more clearly identify unique features of the instrument that meet or exceed U.S. Army requirements.

U.S. Army Inventory TMDE that are obsolete (as identified by SB 700-20 or other authoritative documents) should be eliminated from future studies of this type. Duplicate makes or models that are functionally the same and interchangeable should also be eliminated. This approach would not affect the study results, and it would simplify the review and analysis process.

The changes required by CERCOM for the three Military (OTS ETE) specifications, as shown in Table 3-2, may restrict competition. For one of the three -- the Stroboscope Flash Characteristic -- a search of ARINC Research Corporation's extensive OTS ETE files has not identified an OTS ETE that can meet the stated requirement.

#### 4.2 RECOMMENDATIONS

In future studies of this nature, primary data sources for technical parameters should be emphasized over secondary sources. Technical manuals (military or commercial) appear to offer the best data source.

The sample size of OTS ETE makes and models should be increased, and obsolete or duplicate Army inventory TMDE should be eliminated from consideration. This action will increase OTS ETE representation and simplify the study effort without reducing the quality of the data for the Army inventory TMDE.

Changes required by CERCOM (listed in Table 3-2) identified as potentially restricting competition should be closely examined and, wherever possible, the original ARINC Research recommendation should be followed in order to enhance competition. Further, the requirement for a flash characteristic of 60 to 150,000 flashes per minute for the Stroboscope should be reviewed and validated. As the requirement is now stated, it cannot be met by any OTS ETE known to ARINC Research.

The seven Military (OTS ETE) Specifications included in this report represent the combined efforts of CERCOM and ARINC Research Corporation and should be tested in the acquisition process to meet U.S. Army TMDE requirements. In addition, the specifications should be provided to the ETE industry and other DoD activities for review and comment.

*APPENDIX A*

MILITARY (OTS ETE) SPECIFICATION  
BRIDGE, UNIVERSAL

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX (EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Bridge, universal hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625

MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| MIL-T-28800 | Test Equipment for Use with Electrical and Electronic Equipment, General Specification for |
|-------------|--------------------------------------------------------------------------------------------|

## STANDARDS

### MILITARY

|             |                                                                           |
|-------------|---------------------------------------------------------------------------|
| MIL-STD-461 | Electromagnetic Interference Characteristics, Requirements for Equipments |
| MIL-STD-462 | Electromagnetic Interference Characteristics, Measurement of              |
| MIL-STD-781 | Reliability Tests, Exponential Distribution                               |

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |



3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such mother-boards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 15 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 317.5mm (12.50 in) maximum height, 292.1mm (11.50 in) maximum depth and the width of 482.6mm (19 in) as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 17KG (37 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

MIL-X-XXXXX (EL)

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 3500 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Capacitance range. The Capacitance Measurement capability shall, at a minimum, extend from 1 picofarad to 1200 microfarad in not more than 8 ranges.

3.11.1.1 DC test voltage. The equipment shall have the capability to measure for DC leakage from 0 to 500 VDC.

3.11.1.2 Dissipation factor. The equipment shall have the capability to measure the dissipation factor within the range of 0.001 to 1, with an accuracy of +/- 5 percent.

3.11.2 Inductance. The inductance measurement capability shall, at a minimum, extend from 1 microhenry to 1100 henry in not more than 8 ranges. The accuracy for each range shall not be less than  $\pm .1$  percent.

3.11.2.1 Internal signal source. The equipment shall have an internal signal source of 1KHz  $\pm 3$  percent.

3.11.2.2 External signal source. The equipment shall be capable of operation with an external signal source, at all frequencies from 50 Hz to 20KHz.

3.11.2.3 Storage factor (Q). The equipment shall have the capability to measure the storage factor (Q), within the range of 0.05 to 1000, with an accuracy of  $\pm 5$  percent.

3.11.3 Resistance measurement. The resistance measurement capabilities shall, at a minimum, extend from 10 ohms to 50 megohms.

3.11.4 Primary connectors. The primary connectors shall be the dual female banana jack.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.



4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.

TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

MIL-X-XXXXX(EL)

TABLE II

Level A Performance Tests 1/

| DESCRIPTION            | REQUIREMENTS |
|------------------------|--------------|
| Capacitance Range      | 3.11.1       |
| Inductance             | 3.11.2       |
| Resistance Measurement | 3.11.3       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION            | REQUIREMENTS |
|------------------------|--------------|
| DC Test Voltage        | 3.11.1.1     |
| Dissipation Factor     | 3.11.1.2     |
| Internal Signal Source | 3.11.2.1     |
| External Signal Source | 3.11.2.2     |
| Storage Factor (Q)     | 3.11.2.3     |



4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_0 =$$

| <u>Number of<br/>Failures</u> | <u>Accept**<br/>(Equal or More)</u> | <u>Total Test Time*<br/>Reject***<br/>(Equal or Less)</u> |
|-------------------------------|-------------------------------------|-----------------------------------------------------------|
| 0                             |                                     |                                                           |
| 1                             |                                     |                                                           |
| 2                             |                                     |                                                           |
| 3                             |                                     |                                                           |
| 4                             |                                     |                                                           |
| 5                             |                                     |                                                           |
| 6                             |                                     | ****                                                      |

\* Total test time is total unit hours of "equipment ON" time (in hours).

\*\* Accept if test time is greater than or equal to that listed.

\*\*\* Reject if test time is less than or equal to that listed.

\*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.

#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625-

User Activities:

Army -

*APPENDIX B*

MILITARY (OTS ETE) SPECIFICATION  
GENERATOR, SIGNAL, FUNCTION

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX (EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Generator, Signal, Function hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625



MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| MIL-T-28800 | Test Equipment for Use with Electrical and Electronic Equipment, General Specification for |
|-------------|--------------------------------------------------------------------------------------------|

### STANDARDS

#### MILITARY

|             |                                                                           |
|-------------|---------------------------------------------------------------------------|
| MIL-STD-461 | Electromagnetic Interference Characteristics, Requirements for Equipments |
| MIL-STD-462 | Electromagnetic Interference Characteristics, Measurement of              |
| MIL-STD-781 | Reliability Tests, Exponential Distribution                               |

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such mother-boards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 50 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 152.4mm (6 in) maximum height, 381mm (15 in) maximum depth and the width 482.6mm (19 in), as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 4KG (9 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 2500 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Output frequency. The output frequency range of the equipment, at a minimum, shall extend from 00.1Hz to 10MHz. The accuracy of the output frequency shall be at a minimum within  $\pm 5$  percent of the indicated frequency. The minimum required output frequency of the equipment shall be divided into a maximum of 10 frequency bands.

3.11.1.1 Distortion. The sine wave distortion shall not exceed 0.5 percent at 1KHz.

3.11.1.2 Frequency response. The output level shall not vary more than  $\pm 1$ dB over any individual frequency band.



3.11.1.3 Harmonics. The sine wave harmonics shall be at least 30dB below the fundamental frequency.

3.11.2 Output signals. The output waveforms shall be selectable, at a minimum, between sine, square, sawtooth, triangle and pulse waveforms.

3.11.2.1 DC offset. The DC offset shall be continuously adjustable, at a minimum, from -10 volts DC to +10 volts DC.

3.11.2.2 Linearity. The linearity error of the sawtooth and triangle waveforms shall be less than 1 percent at 100Hz.

3.11.2.3 Pulse width. The pulse width shall be continuously variable at a minimum over a range of 0.1 microsecond to 5 seconds.

3.11.2.4 Pulse MOD transition time. The rise and fall time of the square and pulse waveforms shall be less than 21 nanoseconds.

3.11.2.5 Synchronization output. The equipment shall provide a synchronization signal output of at least 1 volt peak-to-peak square wave. The source impedance shall be 50 ohms +/-10 percent.

3.11.3 Attenuation output. The output attenuation range shall be at a minimum 50dB with 10dB vernier calibrated in 1dB steps.

3.11.4 Output voltage. The output voltage shall be at least 10 volts peak-to-peak across a 50 ohm load. The accuracy of the output voltage shall be within  $\pm 1$ dB of the indicated value.

3.11.5 Impedance output. The output impedance of the equipment shall be 50 ohms.

3.11.6 Primary connectors. The output signal connectors shall be series "BNC" female.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.



TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

MIL-X-XXXXX(EL)

TABLE II

Level A Performance Tests 1/

| DESCRIPTION        | REQUIREMENTS |
|--------------------|--------------|
| Output Frequency   | 3.11.1       |
| Output Signals     | 3.11.2       |
| Output Attenuation | 3.11.3       |
| Output Voltage     | 3.11.4       |
| Output Impedance   | 3.11.5       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION                      | REQUIREMENTS |
|----------------------------------|--------------|
| Distortion                       | 3.11.1.1     |
| Frequency Response               | 3.11.1.2     |
| Harmonics                        | 3.11.1.3     |
| DC Off Set                       | 3.11.2.1     |
| Linearity                        | 3.11.2.2     |
| Pulse Width                      | 3.11.2.3     |
| Pulse Modulation Transition Time | 3.11.2.4     |
| Synchronization Output           | 3.11.2.5     |

4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_o =$$

| <u>Number of<br/>Failures</u> | <u>Accept**<br/>(Equal or More)</u> | <u>Total Test Time*</u> |                        |
|-------------------------------|-------------------------------------|-------------------------|------------------------|
|                               |                                     | <u>Reject***</u>        | <u>(Equal or Less)</u> |
| 0                             |                                     |                         |                        |
| 1                             |                                     |                         |                        |
| 2                             |                                     |                         |                        |
| 3                             |                                     |                         |                        |
| 4                             |                                     |                         |                        |
| 5                             |                                     |                         |                        |
| 6                             |                                     |                         |                        |

\*\*\*\*

- \* Total test time is total unit hours of "equipment ON" time (in hours).
- \*\* Accept if test time is greater than or equal to that listed.
- \*\*\* Reject if test time is less than or equal to that listed.
- \*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

AN/USM-108  
AN/USM-48  
PL-1178/U  
SG-298/U  
SG-321/U  
SG-747/U  
SG-769/U

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.

#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625-

User Activities:

Army -



*APPENDIX C*

MILITARY (OTS ETE) SPECIFICATION  
GENERATOR, PULSE, SIGNAL

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX(EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Generator, Signal, Pulse hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625

MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| MIL-T-28800 | Test Equipment for Use with Electrical and Electronic Equipment, General Specification for |
|-------------|--------------------------------------------------------------------------------------------|

### STANDARDS

#### MILITARY

|             |                                                                           |
|-------------|---------------------------------------------------------------------------|
| MIL-STD-461 | Electromagnetic Interference Characteristics, Requirements for Equipments |
| MIL-STD-462 | Electromagnetic Interference Characteristics, Measurement of              |
| MIL-STD-781 | Reliability Tests, Exponential Distribution                               |

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such mother-boards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 75 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 165mm (6.5 in) maximum height, 343mm (13.5 in) maximum depth and the width of 432mm (17 in). A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 10KG (22.1 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 2000 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Output Signal. The output signal shall consist of a variable pulse wave form.

3.11.1.1 Pulse width. The pulse width shall be variable at a minimum from 10 nanoseconds to 1 second, within +/- 0.002 percent of the indicated value.

3.11.1.2 Pulse transition time. Pulse transition time shall be less than 5 nanoseconds.



3.11.1.3 Synchronization Mode. The equipment shall be capable of internal and external mode synchronization.

3.11.2 Pulse rate. The output pulse repetition rate of the equipment at a minimum, shall extend from 10 pulses to 50 million pulses per second with a maximum of six ranges. The pulse rate accuracy shall be at a minimum, within  $\pm 0.002$  percent of the indicated value.

3.11.3 Output Attenuation. The output attenuation range shall be 0 to 90DB with a 10DB vernier calibrated in 1DB steps.

3.11.4 Voltage output. The voltage output shall be adjustable to 3 volts across a 50 ohm load and accurate to within  $\pm 0.5$ dB of the indicated value.

3.11.5 Impedance output. The output impedance shall be 50 ohms.

3.11.6 Primary connectors. The output signal connectors shall be series "BNC" female.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.

TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

MIL-X-XXXXX(EL)

TABLE II

Level A Performance Tests 1/

| DESCRIPTION        | REQUIREMENTS |
|--------------------|--------------|
| Output Signal      | 3.11.1       |
| Pulse Rate         | 3.11.2       |
| Output Attenuation | 3.11.3       |
| Voltage Output     | 3.11.4       |
| Impedance Output   | 3.11.5       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION           | REQUIREMENTS |
|-----------------------|--------------|
| Pulse Width           | 3.11.1.1     |
| Pulse Transition Time | 3.11.1.2     |
| Synchronization Mode  | 3.11.1.3     |

4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_o =$$

| Number of<br>Failures | Accept**<br>(Equal or More) | Total Test Time*             |
|-----------------------|-----------------------------|------------------------------|
|                       |                             | Reject***<br>(Equal or Less) |
| 0                     |                             |                              |
| 1                     |                             |                              |
| 2                     |                             |                              |
| 3                     |                             |                              |
| 4                     |                             |                              |
| 5                     |                             |                              |
| 6                     |                             | ****                         |

- \* Total test time is total unit hours of "equipment ON" time (in hours).
- \*\* Accept if test time is greater than or equal to that listed.
- \*\*\* Reject if test time is less than or equal to that listed.
- \*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.



6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.

#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625-

User Activities:

Army -

*APPENDIX D*

MILITARY (OTS ETE) SPECIFICATION  
GENERATOR, SIGNAL, UHF

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX(EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Generator, Signal, UHF hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625

MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

MIL-T-28800                      Test Equipment for Use with Electrical and  
                                         Electronic Equipment, General Specification  
                                         for

## STANDARDS

### MILITARY

MIL-STD-461                      Electromagnetic Interference Characteristics,  
                                         Requirements for Equipments

MIL-STD-462                      Electromagnetic Interference Characteristics,  
                                         Measurement of

MIL-STD-781                      Reliability Tests, Exponential Distribution

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such mother-boards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 240 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.



3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 305mm (12 in) maximum height, 533mm (21 in) maximum depth and the width of 482.6mm (19 in) as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 27KG (60 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 2000 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Output frequency. The output frequency range of the equipment, at a minimum, shall extend from 800 MHz to 2.4GHz. The accuracy of the output frequency shall be, at a minimum, within +/- 2 percent of the indicated frequency, with a maximum of 5 frequency bands.

3.11.1.1 Output frequency response. The output level shall not vary at a level greater than +/-1dB over any individual frequency band.

3.11.1.2 Frequency Shift. Deviation of the frequency spectrum up to and including 25KHz with any modulating frequency required in this specification shall not cause a carrier shift in excess of 0.005 percent.

3.11.1.3 RF drift due to temperature. The RF output shall not drift in excess of 0.01 percent during a one (1) hour period when tested in accordance with MIL-T-28800.

3.11.1.4 RF spurious output. The total harmonic content of the rf output shall be at least 30dB below the level of the unmodulated carrier.

3.11.1.5 RF noise level. The spurious fm on the unmodulated carrier shall not be greater than 25Hz at any frequency in the range of the equipment.

3.11.2 Amplitude Modulation - External. The equipment shall have the capability of amplitude modulation of the carrier by an external sine or square wave of at least 20Hz to 20KHz.

3.11.2.1 Amplitude Modulation - External Sensitivity. An external sine or square wave of less than 5 volts peak-to-peak shall produce a modulation level of at least 90 percent.

3.11.2.2 AM Internal Distortion. The distortion of the amplitude-modulated carrier shall not exceed 2 percent.

3.11.2.3 AM Spurious Modulation. The spurious amplitude modulation shall not exceed 5 percent, when the signal generator is frequency-modulated at any frequency with deviation set at 40KHz.

3.11.3 Amplitude Modulation - Internal. The internal amplitude modulation, sine or square wave frequencies shall at a minimum be selectable between the frequencies of 400Hz and 1000Hz. The accuracy will be within 10 percent.

3.11.3.1 RF Modulation Due to Vibration. The equipment, when vibrated along the vertical axis, shall not produce spurious frequency modulation of the RF output greater than 200 Hz deviation at 900, 1100, 1300, 1600, 2000, and 2200 MHz.

3.11.4 Frequency Modulation - Deviation. The equipment shall have both an internal and an external capability of 3KHz to 300KHz rms deviation.

3.11.4.1 FM Internal Distortion. The distortion of the modulated signal shall not exceed 2 percent at all frequencies and all deviations.

3.11.4.2 Modulation voltage. The voltage required to produce 10KHz deviation in the range from 100Hz to 15KHz shall not differ more than +/- 10 percent from the voltage required at 1000Hz, and shall not exceed +/- 20 percent from 15 KHz to 30KHz.

3.11.5 Pulse Modulation - External. The equipment shall have the capability to be pulse-modulated by an external source.

3.11.5.1 Standing Wave Ratio (SWR). The SWR at RF output levels shall be less than 2.0 to 1.

3.11.6 Pulse Modulation - Internal. The equipment shall contain an internal modulation source variable from 40 to 4000 pulses per second.

3.11.7 RF output voltage. The minimum output voltage shall be at least 0.5 volts rms across a 50 ohm load, within +/- 1dB of the indicated value.

3.11.8 Output Impedance. The output impedance of the equipment shall be 50 ohms.

3.11.9 Input impedance. The input impedance of the external AM input terminals shall be 600 ohms +/- 5 percent.

3.11.10 Output Attenuation. The output attenuation range shall be at least 100dB, with at least an additional 10dB vernier calibrated in 1dB steps. The output attenuation accuracy shall be +/- 0.2dB per step.

3.11.11 Primary Connectors. The input and output signal connectors shall be series "BNC" female except for the RF output, which shall be series "N" female.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.

TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800



MIL-X-XXXXX(EI)

TABLE II

Level A Performance Tests 1/

| DESCRIPTION                      | REQUIREMENTS |
|----------------------------------|--------------|
| Output Frequency                 | 3.11.1       |
| Amplitude Modulation - External  | 3.11.2       |
| Amplitude Modulation - Internal  | 3.11.3       |
| Frequency Modulation - Deviation | 3.11.4       |
| Pulse Modulation - External      | 3.11.5       |
| Pulse Modulation - Internal      | 3.11.6       |
| RF Output Voltage                | 3.11.7       |
| Output Impedance                 | 3.11.8       |
| Input Impedance                  | 3.11.9       |
| Output Attenuation               | 3.11.10      |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION                     | REQUIREMENTS |
|---------------------------------|--------------|
| Output Frequency Response       | 3.11.1.1     |
| Frequency Shift                 | 3.11.1.2     |
| RF Drift Due to Temperature     | 3.11.1.3     |
| RF Spurious Output              | 3.11.1.4     |
| RF Noise Level                  | 3.11.1.5     |
| Amplitude Modulation - External |              |
| Sensitivity                     | 3.11.2.1     |
| AM Internal Distortion          | 3.11.2.2     |
| AM Spurious Modulation          | 3.11.2.3     |
| RF Modulation Due to Vibration  | 3.11.3.1     |
| FM Internal Distortion          | 3.11.4.1     |
| Modulation Voltage              | 3.11.4.2     |
| Standing Wave Ratio (SWR)       | 3.11.5.1     |



4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

|                           | $\theta_o =$                        |                                                           |
|---------------------------|-------------------------------------|-----------------------------------------------------------|
| <u>Number of Failures</u> | <u>Accept**<br/>(Equal or More)</u> | <u>Total Test Time*<br/>Reject***<br/>(Equal or Less)</u> |
| 0                         |                                     |                                                           |
| 1                         |                                     |                                                           |
| 2                         |                                     |                                                           |
| 3                         |                                     |                                                           |
| 4                         |                                     |                                                           |
| 5                         |                                     |                                                           |
| 6                         |                                     | ****                                                      |

- \* Total test time is total unit hours of "equipment ON" time (in hours).
- \*\* Accept if test time is greater than or equal to that listed.
- \*\*\* Reject if test time is less than or equal to that listed.
- \*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.

#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625-

User Activities:

Army -

*APPENDIX E*

MILITARY (OTS ETE) SPECIFICATION  
GENERATOR, SIGNAL, VHF

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX (EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Generator, Signal, VHF hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625



MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| MIL-T-28800 | Test Equipment for Use with Electrical and Electronic Equipment, General Specification for |
|-------------|--------------------------------------------------------------------------------------------|

## STANDARDS

### MILITARY

|             |                                                                           |
|-------------|---------------------------------------------------------------------------|
| MIL-STD-461 | Electromagnetic Interference Characteristics, Requirements for Equipments |
| MIL-STD-462 | Electromagnetic Interference Characteristics, Measurement of              |
| MIL-STD-781 | Reliability Tests, Exponential Distribution                               |

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such mother-boards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 125 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 609.6mm (24 in) maximum height, 533.4mm (21 in) maximum depth and the width of 482.6mm (19 in) as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 22.7KG (50 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 2000 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Output frequency. The output frequency range of the equipment, at a minimum, shall extend from 400 KHz to 512 MHz. The minimum required accuracy of +/-0.5 percent of the output frequency, with a maximum of six frequency bands.

3.11.1.1 Output frequency response. The output level shall not vary more than +/-2dB over any individual frequency band.

3.11.1.2 RF spurious output. The total harmonic content of the rf output shall be at least 40 dB below the level of the unmodulated carrier.



3.11.1.3 RF noise level. The RF noise level shall be at least 35 dB below the level of the unmodulated carrier.

3.11.2 Amplitude modulation. The equipment shall have the capability of amplitude modulation of the carrier by an internal and external sine or square wave of at least 20Hz to 20KHz.

3.11.2.1 External AM sensitivity. An external sine or square wave of less than 5 volts peak-to-peak shall produce a modulation level of at least 95 percent.

3.11.2.2 Percent modulation. The equipment shall be capable of 0 to at least 95 percent amplitude modulation by both an external audio tone and an internal audio tone.

3.11.3 Amplitude modulation, internal. The internal amplitude modulation frequencies shall, at a minimum, be selectable between the frequencies of 400 Hz and 1000 Hz.

3.11.3.1 Modulation distortion. The distortion of the amplitude-modulated carrier shall not exceed 2 percent.

3.11.4 Pulse modulation (PM). The equipment shall be capable of being pulse-modulated by an internal and external signal at repetition rates of 50 to 5000 pulses per second and pulse widths of 10 to 40 microseconds.

3.11.5 FM deviation. The equipment shall have both an internal and external capability of 0 to 40KHz rms deviation.

3.11.5.1 FM internal spurious AM. The spurious amplitude-modulation shall not exceed 5 percent, when the signal generator is frequency-modulated at any frequency with deviation set at 40 Hz.

3.11.5.2 Carrier frequency shift. Deviation of the frequency spectrum up to and including 25KHz with any modulating frequency required in this specification shall not cause a carrier shift in excess of 0.005 percent of the carrier frequency.

3.11.5.3 Modulation voltage. The voltage required to produce 10KHz deviation in the range from 100Hz to 15KHz shall not differ more than +/- 10 percent from the voltage required at 1000Hz and shall not exceed +/- 20 percent from 15 KHz

3.11.6 RF voltage output. The minimum output voltage shall be variable from 0.1 microvolt to 1.0 volt rms across a 50 ohm load, and the accuracy shall be within +/- 1dB of the indicated value.

3.11.6.1 Standing wave ratio (SWR). The SWR of the RF output level shall be less than 1.2.

3.11.7 Output attenuation. The output attenuation range shall be at least 120dB, with at least an additional 10dB vernier calibrated in 1dB steps, with an accuracy of +/- 0.2dB or better.

3.11.8 Output impedance. The output impedance of the equipment shall be 50 ohms.

3.11.9 Input impedance. The input impedance of the equipment shall be 600 ohms.

3.11.10 Primary connectors. The input and output connectors shall be series "BNC" female, except for the RF Output, which shall be series "N" female.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.



TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

TABLE IILevel A Performance Tests 1/

| DESCRIPTION                       | REQUIREMENTS |
|-----------------------------------|--------------|
| Output Frequency                  | 3.11.1       |
| Amplitude Modulation              | 3.11.2       |
| Amplitude Modulation-Internal     | 3.11.3       |
| Pulse Modulation (PM) Int and Ext | 3.11.4       |
| FM Deviation                      | 3.11.5       |
| RF Voltage Output                 | 3.11.6       |
| Output Attenuation                | 3.11.7       |
| Output Impedance                  | 3.11.8       |
| Input Impedance                   | 3.11.9       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE IIILevel B Performance Tests

| DESCRIPTION               | REQUIREMENTS |
|---------------------------|--------------|
| Output Frequency Response | 3.11.1.1     |
| RF Spurious Output        | 3.11.1.2     |
| RT Noise Level            | 3.11.1.3     |
| External AM Sensitivity   | 3.11.2.1     |
| Percent Modulation        | 3.11.2.2     |
| Modulation Distortion     | 3.11.3.1     |
| FM Internal Spurious AM   | 3.11.5.1     |
| Carrier Frequency Shift   | 3.11.5.2     |
| Modulation Voltage        | 3.11.5.3     |
| Standing Wave Ratio (SWR) | 3.11.6.1     |

4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_o =$$

| Number of<br>Failures | Accept**<br>(Equal or More) | Total Test Time*             |
|-----------------------|-----------------------------|------------------------------|
|                       |                             | Reject***<br>(Equal or Less) |
| 0                     |                             |                              |
| 1                     |                             |                              |
| 2                     |                             |                              |
| 3                     |                             |                              |
| 4                     |                             |                              |
| 5                     |                             |                              |
| 6                     |                             | ****                         |

\* Total test time is total unit hours of "equipment ON" time (in hours).

\*\* Accept if test time is greater than or equal to that listed.

\*\*\* Reject if test time is less than or equal to that listed.

\*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.



#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

#### Custodian:

Army - EL

#### Preparing Activity:

Army - EL

#### Review Activities:

Army -

(Project 6625-

#### User Activities:

Army -



*APPENDIX F*

MILITARY (OTS ETE) SPECIFICATION  
STROBOSCOPE

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX(EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Stroboscope hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625

MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

|             |                                                                                            |
|-------------|--------------------------------------------------------------------------------------------|
| MIL-T-28800 | Test Equipment for Use with Electrical and Electronic Equipment, General Specification for |
|-------------|--------------------------------------------------------------------------------------------|

## STANDARDS

### MILITARY

|             |                                                                           |
|-------------|---------------------------------------------------------------------------|
| MIL-STD-461 | Electromagnetic Interference Characteristics, Requirements for Equipments |
| MIL-STD-462 | Electromagnetic Interference Characteristics, Measurement of              |
| MIL-STD-781 | Reliability Tests, Exponential Distribution                               |

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such motherboards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 30 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 203mm (8 in) maximum height, 381mm (15 in) maximum depth and the width of 305mm (12 in) or as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 5.44KG (12 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.

3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 2000 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Flash Characteristics. The flash rate of the equipment shall as a minimum extend from 60 to 150,000 flashes per minute, with an accuracy of +/- 1 percent, and with no more than 4 ranges.

3.11.1.1 Light beam intensity. The light beam intensity of the equipment shall be a minimum of  $0.5 \times 10$  candelas when measured at a distance of 1 meter from the lamp.



3.11.1.2 Synchronization input. The equipment shall include provision for synchronization from external signals.

3.11.2 Primary connectors. The input and output connectors shall be compatible with tip-ring sleeve audio plugs.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.

TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

TABLE II

Level A Performance Tests 1/

| DESCRIPTION           | REQUIREMENTS |
|-----------------------|--------------|
| Flash Characteristics | 3.11.1       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION           | REQUIREMENTS |
|-----------------------|--------------|
| Light Beam Intensity  | 3.11.1.1     |
| Synchronization Input | 3.11.1.2     |

4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_o =$$

| Number of<br>Failures | Accept**<br>(Equal or More) | Total Test Time*             |
|-----------------------|-----------------------------|------------------------------|
|                       |                             | Reject***<br>(Equal or Less) |
| 0                     |                             |                              |
| 1                     |                             |                              |
| 2                     |                             |                              |
| 3                     |                             |                              |
| 4                     |                             |                              |
| 5                     |                             |                              |
| 6                     |                             | ****                         |

- \* Total test time is total unit hours of "equipment ON" time (in hours).
- \*\* Accept if test time is greater than or equal to that listed.
- \*\*\* Reject if test time is less than or equal to that listed.
- \*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.

4.4.4.4 Test conditions.

4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.



#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625- . . .)

User Activities:

Army -

*APPENDIX G*

MILITARY (OTS ETE) SPECIFICATION  
VOLTMETER, DIFFERENTIAL

Off-the-Shelf (OTS)  
Test Equipment Specification

MIL-X-XXXXX(EL)

12 April 1978

MILITARY SPECIFICATION

This specification is approved for use by the Communications Research and Development Command, Department of the Army, and is available for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification defines a Voltmeter, Differential hereinafter called the equipment.

1.2 Classification. The equipment defined by this specification shall be Type II, Class 5, Style E, Color R per MIL-T-28800 and as herein with the convertible/rack-mountable capability.

2. APPLICABLE DOCUMENTS

2.1 Issues of documents. The following documents of the issue in effect on the date of invitation for bids, or the request for proposal, form a part of this specification to the extent specified herein.

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: U. S. Army Communications Research and Development Command, Fort Monmouth, New Jersey 07703 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

FSC 6625

MIL-X-XXXXX (EL)

## SPECIFICATIONS

### MILITARY

MIL-T-28800                      Test Equipment for Use with Electrical and  
                                         Electronic Equipment, General Specification  
                                         for

## STANDARDS

### MILITARY

MIL-STD-461                      Electromagnetic Interference Characteristics,  
                                         Requirements for Equipments

MIL-STD-462                      Electromagnetic Interference Characteristics,  
                                         Measurement of

MIL-STD-781                      Reliability Tests, Exponential Distribution

(Copies of specifications, standards, drawings and publications required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

## 3. REQUIREMENTS

3.1 Classification of requirements. The requirements for the equipment are classified as follows:

| <u>REQUIREMENT</u>                       | <u>PARAGRAPH</u> |
|------------------------------------------|------------------|
| Safety                                   | 3.2              |
| Parts, materials and processes           | 3.3              |
| Design and construction                  | 3.4              |
| Electrical power sources and connections | 3.5              |
| Dimensions and weight                    | 3.6              |
| Enclosure requirements                   | 3.7              |
| Marking and identification               | 3.8              |
| Environmental requirements               | 3.9              |
| Reliability requirements                 | 3.10             |
| Performance characteristics              | 3.11             |

3.2 Safety. Unless otherwise specified herein, the equipment shall comply with the Type II safety requirements specified in MIL-T-28800.

3.3 Parts, materials and processes. Unless otherwise specified herein, the equipment shall comply with the Type II parts, materials and processes requirements of MIL-T-28800.

3.3.1 Restricted materials. Equipment shall comply with the restricted material requirements of MIL-T-28800 including the requirement for mercury or radioactive materials and shall contain no combination of materials which cause deterioration of any material contained in the equipment due to effects of outgassing.

3.4 Design and construction. Unless otherwise specified herein, the equipment shall comply with the Type II, Class 5, Style E, Color R, design and construction requirements of MIL-T-28800 with the convertible/rack-mountable capability.

3.4.1 First article. When specified, the contractor shall furnish five sample equipments for first article inspection and approval. (See 4.3 and 6.2)

3.4.2 Mainframe plug-in concept. Equipment utilizing externally accessible, externally removable subassemblies (mainframe plug-in concept) do not meet the requirements of this specification and therefore are unacceptable. Items using this concept may be offered, provided the plug-in(s) shall not be removable by access through the front panel or rear panel with the unaided hand. A system part number shall be assigned to any such mainframe plug-in combination required to meet the requirements of this specification. The system part number shall be marked on the mainframe identification plate and any plug-in(s).

3.4.3 Controls. Unless otherwise specified herein, built-in adjustments and compensating devices shall not be externally accessible.

3.4.3.1 Front panel controls. All controls which are required to operate the equipment throughout its specified performance characteristics, shall be located on the front panel.

3.4.4 Accessibility. The equipment shall be constructed so that:

3.4.4.1 Subassemblies and chassis components can be removed without removing any other hard wired subassembly, printed circuit card or component.

3.4.4.2 Adjustments can be made without removing any component, printed circuit card or subassembly except the use of extender cards is permitted.

3.4.4.3 Printed circuit cards can be removed without the need to unsolder cables and interconnecting wiring (connections to all printed circuit cards shall be through pin and socket connectors). Printed circuit cards (mother boards) designed primarily to distribute power and signals to other printed cards (daughter boards) are excluded from this requirement. When such motherboards are used, they shall be accessible from both sides to allow maintenance testing.

3.4.4.4 Indicator lights. Unless approved by the procuring activity upon presentation of acceptable reliability data, indicator lights other than light emitting diodes (LEDs) shall be accessible from the operator's side of the front panel.

3.4.4.5 Encapsulation and embedment. Encapsulation and embedment (potting) of subassemblies shall not be used.

3.4.5 Solid State construction. Unless otherwise specified herein, the equipment shall be of solid-state, modular, miniaturized construction.

3.5 Electrical power sources and connections. Unless otherwise specified herein, the equipment shall comply with the Type II electrical power sources and connections requirements of MIL-T-28800. The equipment shall operate from a nominal 115/230 volts, single phase, 50, 60 and 400Hz source.

3.5.1 Maximum power. The maximum power consumption of the equipment shall be 12 watts.

3.5.2 Input power selection device. An input power selection device shall be provided for selection of input power voltages of 115 VAC or 230 VAC. Provision shall be incorporated to prevent accidental switching. When the equipment is delivered, the power selection device shall be in the 115 VAC position.

3.5.3 Fuses and circuit breakers. Fuses and circuit breakers shall be in accordance with MIL-T-28800. (115VAC/230VAC) Either common or separate fuseholders may be provided. If only one fuseholder is used (common), the equipment shall be provided with the 115VAC fuse installed and the 230VAC fuse shall be stowed with the accessories.

3.5.4 Input power switch. A front panel mounted power switch shall be provided. The ON position shall have panel identification lights for AC operation. The switch shall break both sides of the power source.

3.6 Dimensions and weight.

3.6.1 Dimensions. The overall dimensions shall be 229mm (9 in) maximum height, 394mm (15.5 in) maximum depth and the width of 254mm (10 in) or as specified in MIL-T-28800 for rack-mounted equipment. A blank plate may be required to satisfy incremental height requirements.

3.6.2 Weight. The maximum weight of the equipment shall be 9.07KG (20 lbs).

3.7 Enclosure requirements. Unless otherwise specified herein, the equipment shall comply with the Style E enclosure requirements of MIL-T-28800.

3.8 Marking and identification. Unless otherwise specified herein, the equipment shall comply with the Type II marking and identification requirements of MIL-T-28800.

3.8.1 Supplemental identification plate. The supplemental identification plate specified in MIL-T-28800 shall contain the following data only:

- a. Nomenclature.
- b. Procurement instrument identification number (PIIN).
- c. Serial number
- d. National stock number.
- e. US

3.9 Environmental requirements. Unless otherwise specified herein, the equipment shall comply with the Class 5 environmental requirements of MIL-T-28800.



3.9.1 Electromagnetic interference. The equipment shall comply with the following emission and susceptibility requirements of Notice 4, MIL-STD-461.

|      |      |        |      |
|------|------|--------|------|
| CE02 | CS02 | RE02.1 | RS03 |
| CE04 | CS06 | RE02   |      |

RE02.1 and RS03 shall be performed from (TBD) with RS03 at a susceptibility level of one volt per meter (1V/m).

3.9.2 Humidity. The equipment shall meet the humidity requirements in accordance with the test specified in paragraph 4.5.5.1.1.3 of MIL-T-28800.

3.9.3 Vibration. The equipment shall comply with the Class 5 vibration requirements of MIL-T-28800, except that the equipment need not be operating during vibration.

### 3.10 Reliability requirements.

3.10.1 Reliability burn-in. Each equipment delivered against this specification shall be submitted to a minimum 96-hour on-time burn-in procedure as specified in 4.4.4. The last 24 hours of burn-in shall be failure free.

3.10.2 Reliability. Reliability shall comply with requirements as specified herein. The specified MTBF shall be 7500 hours when tested as specified in 4.4.4. A failure shall be defined in MIL-STD-781, para 3.1, and as any departure from the required performance or operation of the required accuracies (not correctable by normal use of the operating controls) after the test is initiated. Test Level B, MIL-STD-781 shall be the required test level.

3.10.3 Maintainability requirements. The equipment shall comply with the Type II maintainability requirements of MIL-T-28800. (See 6.4)

### 3.11 Performance characteristics.

3.11.1 Voltage AC. The equipment shall be capable of measuring AC differential voltage to 1000 volts, with a maximum of 8 ranges and accurate to +/- 0.2 percent.

3.11.2 Voltage DC. The equipment shall be capable of measuring, at a minimum, DC differential voltages from -1000 to +1000 volts, with a maximum of 8 ranges and accurate to +/- 0.2 percent.

3.11.2.1 Null Mode. The equipment shall be capable of measuring voltage variation in the null mode, as low as 100 microvolts DC and 1 millivolt AC.

3.11.2.2 Input Frequency Range Measurement. The equipment shall accurately measure the specified voltages from 20HZ to 5KHZ with an accuracy of +/- 0.2%. The total measurement range shall be 5HZ to 100KHZ, with an accuracy of +/-5 percent for voltage measurements less than 20HZ and greater than 5KHZ.

3.11.3 Input impedance. The input impedance shall be at least 10 megohms for DC voltage and 1 megohms for AC voltage measurements

3.11.4 Primary connectors. The primary connectors shall be the dual female banana plug type.

#### 4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Classification of inspections. The inspections required herein are classified as in a and b.

- a. First article inspection (see 4.3).
- b. Quality conformance inspection (see 4.3).

4.3 First article and quality conformance inspection. Unless otherwise specified herein, the first article and quality conformance inspections shall be in accordance with MIL-T-28800.

4.3.1 Test plan. Unless otherwise stated in the contract, the contractor shall prepare a test plan in accordance with paragraphs 4.3(a) and 4.4(a) of MIL-T-28800, for use with both classes of inspection. The test plan shall include as a minimum the tests listed in TABLES I, II, & III, the tests noted in section 4.4, and a description of the satisfactory operation check and satisfactory operation test, as defined in para 4.5 of MIL-T-28800. Unless otherwise required, the tests and inspections to be performed shall be identical for both classes of inspection.

4.3.2 Inspection sampling plan. The inspection sampling to be performed during both classes of inspection shall be as specified in MIL-T-28800, except as indicated below:

4.3.2.1 Unless otherwise specified herein or in the contract, the Group C, D, E & F quality conformance inspections shall be performed on the first production lot only.

TABLE IExamination and Test Groups

| DESCRIPTION                                                                        | RQMT.                              | TEST METHOD     |
|------------------------------------------------------------------------------------|------------------------------------|-----------------|
| Group A<br>Preoperational Inspection<br>Leakage Current<br>Level A Performance     | 4.5.3.1*<br>3.2.1.3.1*<br>TABLE II | 4.3.1           |
| Group B<br>Level B Performance                                                     | TABLE III                          | 4.3.1           |
| Group C<br>Electrical Power<br>Environmental Requirements<br>Humidity<br>Vibration | 3.5<br>3.9<br>3.9.2<br>3.9.3       | 4.3.1           |
| Group D<br>Electromagnetic Interference                                            | 3.9.1                              | 4.4.1           |
| Group E<br>Dimensions<br>Weight<br>Front Panel Marking                             | 3.6.1<br>3.6.2<br>3.8              | 4.3.1<br>4.3.1  |
| Group F<br>Reliability                                                             | 3.10                               | 4.3.1,<br>4.4.4 |

\*Paragraphs of MIL-T-28800

MIL-X-XXXXX(EL)

TABLE II

Level A Performance Tests 1/

| DESCRIPTION     | REQUIREMENTS |
|-----------------|--------------|
| Voltage AC      | 3.11.1       |
| Voltage DC      | 3.11.2       |
| Input Impedance | 3.11.3       |

1/ Level A testing is abbreviated testing (see 6.4.1)

TABLE III

Level B Performance Tests

| DESCRIPTION                       | REQUIREMENTS |
|-----------------------------------|--------------|
| Null Mode                         | 3.11.2.1     |
| Input Frequency Range Measurement | 3.11.2.2     |

4.3.2.2 The Group D EMI tests and Group F Reliability test shall be performed during quality conformance inspection only if not performed during first article or bid sampling testing.

4.4 Quality assurance tests. Unless otherwise specified herein, the following tests shall be performed in accordance with MIL-T-28800.

4.4.1 Electromagnetic interference. One equipment shall be subjected to an EMI test for compliance with the requirements of 3.9.1. All test set-ups and procedures shall comply with the measurement techniques of Notice 3, MIL-STD-462. All emission and susceptibility tests shall be performed with the output cable connected to, and extended parallel with, the front of the equipment. The output cable shall be terminated to simulate a normal loading configuration.

4.4.2 Humidity. The equipment shall be subjected to the humidity test specified in para 4.5.5.1.1.3 of MIL-T-28800.

4.4.3 Vibration. The equipment shall be subjected to the vibration tests specified in MIL-T-28800, for Class 5 equipment, except that the equipment shall not be operated during the test. The satisfactory operation test shall be performed prior to and following vibration testing.

4.4.4 Reliability. The reliability tests shall be performed as follows:

4.4.4.1 Burn-in. Each deliverable equipment shall be subjected to a minimum 96 hours on-time burn-in period, prior to Group A testing. During the last 24 hours of burn-in, the equipment must operate failure free. Up until this time, equipment will be allowed to accumulate failures. Each equipment which fails during the final 24 hour period shall be repaired and returned to test until it successfully survives a 24 hour period without failure. Failures which occur during the burn-in test shall be noted and reported, but shall not count toward the establishment of equipment MTBF. Prior to burn-in, the satisfactory operation test of 4.3.1 shall be conducted. Daily satisfactory operation checks (4.3.1) shall be conducted. For the last 24 hour failure free period, a complete satisfactory operation test shall be conducted prior to and after the period.

4.4.4.2 Reliability sampling plan.

4.4.4.2.1 First Article. The Group F reliability demonstration shall be conducted on at least five (5) samples. The use of ten (10) samples is encouraged, but not more than ten (10) samples shall be used.

4.4.4.2.2 Quality conformance inspection. The Group F reliability tests shall be performed on the first production lot, only if not performed during First Article testing. From those units of the first lot that have passed the required Group A and B tests, a random sample of ten (10) units shall be selected, for Group F testing.

4.4.4.2.3 Reliability test plan. The reliability tests shall be conducted in accordance with the following test plan:

$$\theta_0 =$$

| Number of<br>Failures | Accept**<br>(Equal or More) | Total Test Time*<br>Reject***<br>(Equal or Less) |
|-----------------------|-----------------------------|--------------------------------------------------|
| 0                     |                             |                                                  |
| 1                     |                             |                                                  |
| 2                     |                             |                                                  |
| 3                     |                             |                                                  |
| 4                     |                             |                                                  |
| 5                     |                             |                                                  |
| 6                     |                             | ****                                             |

\* Total test time is total unit hours of "equipment ON" time (in hours).

\*\* Accept if test time is greater than or equal to that listed.

\*\*\* Reject if test time is less than or equal to that listed.

\*\*\*\* Reject if test time is strictly less than \_\_\_\_\_ with 6 failures.

4.4.4.3 Test length. Testing shall continue until the total unit hours together with the total count of relevant equipment failures permit either an accept or reject decision in accordance with the specified test plan. Only equipment "ON" time may be used in MTBF or longevity determinations. Testing shall be monitored in such a manner that the times to failure may be estimated with reasonable accuracy. No single equipment "ON" time shall be less than one-half the average operating time of all equipments "ON" test.



#### 4.4.4.4 Test conditions.

##### 4.4.4.4.1 Operating mode (duty cycle).

4.4.4.4.2 Test level. While under test, the equipment shall be subjected to the conditions specified by Test Level B, MIL-STD-781.

4.4.4.4.3 Input voltage cycling. When so directed by the procuring activity, voltage cycling shall be accomplished as follows: The input voltage shall be maintained at one hundred ten percent (110%) nominal voltage for one-third of the equipment "ON" cycle, at the nominal value for the second one-third of the equipment "ON" cycle, and at ninety percent (90%) for the final one-third of the equipment "ON" cycle. This cycling procedure is to be repeated continuously throughout the reliability test.

4.4.4.5 Reliability examination and test method. The following inspections shall be used to verify equipment operation during reliability testing. The satisfactory operation test of 4.3.1 shall be used to confirm proper equipment operation prior to and following reliability testing. The satisfactory operation test shall also be performed weekly to verify equipment operation. The satisfactory operation check of 4.3.1 shall be used to monitor proper operation of the equipment daily.

4.4.4.6 Reliability failure actions, Group F. In the event of failure(s) during reliability testing, failure action shall be taken as required in MIL-STD-781, para 5.5.

4.4.4.7 Corrective action, Group F. In the event the reliability test reaches a reject decision, corrective action shall be taken as required in MIL-STD-781, para 5.7.

4.4.5 Optional quality assurance system. The procuring activity may substitute tests from a Department of Defense (DoD) approved supplier's quality assurance system for any or all tests in TABLE I.

## 5. PACKAGING

5.1 Preservation, packaging. Packaging for delivery shall be in accordance with MIL-T-28800 and as specified by the procuring activity.

6. NOTES

6.1 Intended use. The equipment is intended for use in maintaining electronic communications equipment by equipment repair units in intermediate and depot maintenance.

6.1.1 Equipment replaced. Equipment procured according to this specification is intended to replace all versions of various older equipments now fielded. These equipments to be replaced are listed below:

6.2 Ordering data. Procurement documents should specify the following:

- a. Title, number and date of this specification and any amendment thereto.
- b. Packaging requirements (see Section 5).
- c. When rough handling and functional tests are required.
- d. Place of final inspection.
- e. Technical literature required.
- f. Quantity of tools and running spare parts required.
- g. Marking for shipment and shipping containers.
- h. Test plans and test reports.
- i. Classification of inspection and number of samples required.
- j. Rack mounting requirements.
- k. Alternate power requirements.
- l. Maintainability rationale.
- m. Reliability rationale.

6.3 Contract data requirements.

- a. Nomenclature assignment.
- b. National stock number.
- c. Equipment sample test plans.
- d. Pretest performance records.
- e. First production test data.
- f. Identification plate drawing.

#### 6.4 Definitions.

6.4.1 Level A performance tests. Level A testing (TABLE II) is a reduced amount of testing which is performed on each equipment produced. Its purpose is to insure that all functions and modes of operation of the equipment are evaluated without extensively checking each parameter as required in the Level B test (TABLE III). The approved equipment test procedure shall specify the actual amount of testing to be performed.

6.4.2 Reliability rationale. Reliability rationale submitted with the bid should provide clear and concise rationale showing how the reliability of the equipment complies with minimum requirements of the solicitation. This may include data from previous reliability tests, reliability predictions and other data available to the offeror. In the absence of such data on the equipment being offered, such data on similar equipment of equal or greater complexity produced by the offeror may be submitted. However, such data must be clearly identified as comparative data, and accomplished with specifications and technical literature on the similar equipment. The acceptance of the submitted rationale does not relieve the successful bidder of performing and successfully completing the production reliability testing.

6.4.3 Maintainability rationale. Maintainability rationale submitted with the bid should provide clear and concise rationale showing how the maintainability of the equipment complies with requirements of the solicitation. This may include data from previous maintainability tests, records of repair and calibration data, and other data on the equipment available to the offeror. Data on selection of module size and other design features relevant to maintainability may also be submitted.

Custodian:

Army - EL

Preparing Activity:

Army - EL

Review Activities:

Army -

(Project 6625-

User Activities:

Army -

## APPENDIX H

### DEFINIZATION OF OTS ETE SPECIFICATIONS

#### 1. INTRODUCTION

This appendix presents technical parameter data for the Military (OTS ETE) Specifications and those OTS ETE and Army Inventory TMDE encoded during the study. It is structured to permit CERCOM to directly compare the technical parameters of each source.

#### 2. ABBREVIATIONS

The following nonelectronic abbreviations are used throughout the computer listings:

|     |                    |
|-----|--------------------|
| EXT | - External         |
| GT  | - Greater Than     |
| NGT | - Not Greater Than |
| INT | - Internal         |
| LT  | - Less Than        |
| NLT | - Not Less Than    |
| PCT | - Percent          |
| W/  | - With             |

## DEFINITIZATION OF QTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

SPEC QTS ETC TYPE DESIGNATOR/ FAM TMDE  
 NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

00100

25

008 9025 BRIDGE, UNIVERSAL

RM6302 77569 008 8006 RCL BRIDGE RM6302  
 TF1313A 09555 008 8007 UNIVERSAL BRIDGE  
 1683 24655 008 8003 AUTOMATIC PLC BRIDGE  
 3154 00000 008 8004 MINI-BRIDGE  
 426JA 28480 008 8008 UNIVERSAL BRIDGE 426JA

AN/UPM-90 83777 024 0375 BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE  
 AN/USM-263 11837 008 0496 BRIDGE, RESISTANCE-VOLTAGE  
 AN/USM-357 80009 011 0536 METER INDUCTANCE AND CAPACITANCE  
 DP170 28569 009 1930 BRIDGE RESISTANCE DIGITAL  
 E1002 07239 008 3267 BRIDGE IMPEDANCE  
 F3067 07239 008 1982 POTENTIOMETER  
 E3108 07239 008 1295 BRIDGE, RESISTANCE  
 M-3 56289 011 1300 TEST SET, CAPACITOR COMPACT  
 O19-2 19482 008 1562 IMPEDANCE BRIDGE HIGH FREQ  
 RN-1600 08987 008 2000 RESISTANCE BRIDGE  
 SP2280 11837 022 3292 IMPEDANCE MEASURING SYSTEM  
 TO-5 56289 011 1307 BRIDGE, CAPACITANCE  
 ZB-2A 80740 011 1314 BRIDGE, IMPEDANCE  
 ZM-11/U 13259 011 1276 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE  
 ZM-11A/U 011 1277 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE  
 ZM-11B/U 12019 011 1278 BRIDGE CAPACITANCE, INDUCTANCE, RESISTANCE  
 ZM-3/U 54294 011 1271 ANALYZER, CAPACITOR  
 ZM-3A/U 77569 011 1272 ANALYZER, CAPACITOR  
 ZM-4/U 31922 008 1273 BRIDGE, RESISTANCE  
 ZM-4A/U 66150 008 1274 BRIDGE, RESISTANCE  
 ZM-4B/U 66150 008 1275 BRIDGE, RESISTANCE  
 ZM-61/U 28480 008 1284 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE  
 ZM-68/U 88869 008 1285 BRIDGE IMPEDANCE  
 ZM-69 24655 008 3630 BRIDGE, IMPEDANCE  
 ZM-69A 24655 008 3631 BRIDGE, IMPEDANCE  
 ZM-70/U 11837 008 1286 BRIDGE, CAPACITANCE, INDUCTANCE, RESISTANCE  
 ZM-71/U 28480 008 1287 BRIDGE, IMPEDANCE  
 1050 28009 008 1926 WHEATSTONE BRIDGE  
 1090 28009 008 1379 WHEATSTONE BRIDGE  
 1212A 24655 008 1714 DETECTOR, NULL  
 1604A 24655 008 1474 COMPARATOR, IMPEDANCE  
 1610-B2 24655 011 1384 CAPACITANCE MEASURING ASSY  
 1611A 24655 008 1385 BRIDGE, CAPACITANCE  
 1615AM 24655 011 2570 CAPACITANCE, BRIDGE  
 1620A 24655 011 2571 CAPACITANCE MEASUREMENT SYSTEM

## DEFINITION OF QTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC QTS ETC<br>NO | QTS MODEL NO | TYPE DESIGNATOR/<br>QTS MODEL NO | QTS<br>CODE | TIME<br>ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|--------------------|--------------|----------------------------------|-------------|----------------|-----------|--------------------------------|
|--------------------|--------------|----------------------------------|-------------|----------------|-----------|--------------------------------|

00100

|           |       |     |      |                              |  |
|-----------|-------|-----|------|------------------------------|--|
| 1632      | 24655 | 024 | 2572 | BRIDGE, INDUCTANCE           |  |
| 1650B     | 24655 | 008 | 1475 | BRIDGE, IMPEDANCE            |  |
| 231R      | 11837 | 009 | 1333 | WHEATSTONE BRIDGE            |  |
| 250-A     | 04931 | 022 | 1334 | METER RX                     |  |
| 2700      | 09553 | 009 | 1487 | BRIDGE UNIVERSAL IMPEDANCE   |  |
| 290-A-MOD | 11837 | 008 | 3350 | IMPEDANCE BRIDGE             |  |
| 315A      | 11837 | 008 | 3592 | BRIDGE, IMPEDANCE            |  |
| 4271      | 31922 | 008 | 1405 | BRIDGE, RESISTANCE           |  |
| 4285      | 31922 | 008 | 1948 | BRIDGE, RESISTANCE           |  |
| 4735      | 31922 | 008 | 1408 | BRIDGE, RESISTANCE           |  |
| 5305      | 31922 | 008 | 1414 | WHEATSTONE BRIDGE            |  |
| 5430A     | 31922 | 008 | 1949 | BRIDGE, RESISTANCE           |  |
| 7040      | 79409 | 022 | 1420 | TESTER IMPEDANCE GROUND LOOP |  |
| 7160      | 24655 | 011 | 1367 | BRIDGE CAPACITANCE           |  |
| 750       | 04931 | 011 | 1369 | BRIDGE CAPACITANCE           |  |

DIMENSIONS IN MM/INS 00110

25 LOR 9025 482.6MM(19 IN)WX317.5MM(12.50IN)HX292.1MM(11.50IN)D

|         |       |     |      |                                        |
|---------|-------|-----|------|----------------------------------------|
| PM6302  | 25088 | 008 | 8035 | 130CM(51IN)WX250CM(10IN)HX260CM(11IN)D |
| TF1313A | 77569 | 008 | 8036 | 140CM(6IN)HX230CM(9IN)WX280CM(11IN)D   |
| 1683    | 09555 | 008 | 8007 | 30CM(12IN)HX50CM(20IN)WX260CM(10IN)D   |
| 315A    | 24665 | 008 | 8003 | 48CM(19IN)WX20CM(8IN)HX65CM(25IN)D     |
| 4263A   | 00000 | 008 | 8004 | 27CM(10 IN)WX20CM(8IN)W X22CM(9IN)D    |
|         | 28430 | 008 | 8006 | 190CM(6IN)WX170CM(7IN)HX280CM(11IN)D   |

|            |       |     |      |                                                     |
|------------|-------|-----|------|-----------------------------------------------------|
| AN/URM-90  | 83777 | 024 | 0375 | 27.5CM(11IN)WX28.75CM(11.5IN)HX22.5CM(10.5IN)D      |
| AN/USM-263 | 11837 | 008 | 0496 | 23.7CM(11.3IN)W X 18.3CM(7.2IN)H X 36.8CM(14.5IN)D  |
| AN/USM-357 | 80004 | 011 | 0536 | 17.5CM(7IN)WX26.25(10.5IN)HX26.86.97CM(10.75IN)D    |
| DP170      | 28569 | 008 | 1990 | 20.96CM(8.25IN)WX7.62CM(3IN)HX25.40CM(10IN)D        |
| E1002      | 07239 | 008 | 3267 | 30.48CM(12 IN)WX17.78CM(7IN)HX48.26CM(19IN)D        |
| E3067      | 07239 | 008 | 1982 | 21.27CM(8.375IN)WX20.32CM(8IN)HX41.91CM(16.5IN)D    |
| E3108      | 07239 | 008 | 1295 | 24.13CM(9.50IN)WX17.78CM(7IN)HX20.32CM(8IN)D        |
| M-3        | 56289 | 011 | 1330 | 15.24CM(6IN)WX13.97CM(5.5IN)HX20.32CM(8IN)D         |
| DIR-2      | 19482 | 008 | 1562 | 17.78(7 IN)WX22.86(9 IN)HX15.88(6.25IN)D            |
| SP2280     | 11837 | 022 | 3292 | 29.58CM(11.25IN)WX53.34CM(21IN)HX48.26CM(19IN)D     |
| TD-5       | 56289 | 011 | 1307 | 36.20CM(14.25IN)WX21.59CM(8.5IN)HX12.70CM(5IN)D     |
| ZB-2A      | 80740 | 011 | 1314 | 27.31CM(10.75IN)WX24.45CM(9.63IN)HX26.67CM(10.5IN)D |
| ZM-11/U    | 13259 | 011 | 1276 | 22.5CM(9IN)WX16.25CM(6.5IN)HX23.75CM(9.5IN)D        |

N/D

## DEFINITION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

|                                 |                                    |             |                |           |                                |
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|
| SPEC QTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|

DIMENSIONS IN MM/INS      OC110

-----

|           |       |     |      |                                                        |
|-----------|-------|-----|------|--------------------------------------------------------|
| 7M-11A/U  |       | 011 | 1277 | 21.87CM(8.75IN)WX15.5CM(6.2IN)HX24.37CM(9.75IN)D       |
| 7M-11B/U  | 12019 | 011 | 1278 | 21.87CM(8.75IN)WX24.37CM(9.75IN)HX15.5CM(6.2IN)D       |
| 7M-3/U    | 54294 | 011 | 1271 | 21.91CM(8.63IN)WX35.24CM(13.88IN)HX26.35CM(10.38IN)D   |
| 7M-3A/U   | 77569 | 011 | 1272 | 23.50CM(9.25IN)WX34.29CM(13.5IN)HX26.04CM(13.5IN)D     |
| 7M-4/U    | 31922 | 008 | 1273 | 18.42CM(7.25IN)W X 13.56CM(5.34IN)H X 22.23CM(8.75IN)D |
| 7M-4/U    | 31922 | 008 | 1273 | 23.18CM(9.125IN)WX25.72CM(10.125IN)HX29.85CM(11.75IN)D |
| 7M-4A/U   | 66150 | 008 | 1274 | 18.42CM(7.25IN)W X 13.56CM(5.34IN)H X 22.23CM(8.75IN)D |
| 7M-4A/U   | 66150 | 008 | 1274 | 18.42CM(7.25IN)WX13.56CM(5.34IN)HX22.23CM(8.75IN)D     |
| 7M-4B/U   | 66150 | 008 | 1275 | 18.42CM(7.25IN)WX13.56CM(5.34IN)HX22.23CM(8.75IN)D     |
| 7M-4B/U   | 66150 | 008 | 1275 | 18.42CM(7.25IN)W X 13.56CM(5.34IN)H X 22.23CM(8.75IN)D |
| 7M-61/U   | 28480 | 008 | 1284 | 34.29CM(13.50IN)WX50.96CM(20.063IN)HX26.04CM(10.25IN)D |
| 7M-68/U   | 88869 | 008 | 1285 | 13.34CM(5.25IN)WX38.10CM(15IN)HX48.26CM(19IN)D         |
| 7M-69     | 24655 | 008 | 3630 | 33.02CM(13IN)WX17.15CM(6.75IN)HX31.12CM(12.25IN)D      |
| 7M-70/U   | 11837 | 008 | 1286 | 21.34CM(8.4IN)WX17.53CM(6.9IN)HX26.92CM(10.6IN)D       |
| 7M-71/U   | 28480 | 008 | 1287 | 19.69CM(7.75IN)WX16.51CM(6.5IN)HX27.94CM(11IN)D        |
| 1050      | 28009 | 008 | 1926 | 22.86CM(9IN)WX15.24(6IN)HX22.86CM(9IN)D                |
| 1212A     | 24655 | 008 | 1714 | 14.61CM(5.75IN)WX15.88CM(6.25IN)HX27.31CM(10.75IN)D    |
| 1604A     | 24655 | 008 | 1474 | 36.20CM(14.25IN)WX25.40CM(10IN)HX30.48CM(12IN)D        |
| 1610-B2   | 24655 | 011 | 1384 | 109.2CM(43IN)WX50.8CM(20IN)HX57.15CM(22.5IN)D          |
| 1611A     | 24655 | 008 | 1385 | 36.83CM(14.5IN)WX25.40CM(10IN)HX40.64CM(16IN)D         |
| 1615AM    | 24655 | 011 | 2570 | 33.02CM(13IN)WX22.86CM(9IN)HX48.26CM(19IN)D            |
| 1621A     | 24655 | 011 | 2571 | 50.8CM(20IN)WX26.67CM(10.5IN)HX48.26CM(19IN)D          |
| 1632      | 24655 | 024 | 2572 | 40.64CM(16IN)WX27.94CM(11IN)HX50.80CM(20IN)D           |
| 1650B     | 24655 | 008 | 1475 | 25.40CM(10IN)WX15.24CM(6IN)HX30.48CM(12IN)D            |
| 231R      | 11837 | 008 | 1333 | 38.35CM(15.1IN)WX50.80CM(20IN)HX49.53CM(19.5IN)D       |
| 250-A     | 04901 | 022 | 1334 | 50.80CM(20IN)WX30.48CM(12IN)HX25.40CM(10IN)D           |
| 2700      | 09553 | 008 | 1487 | 17.78CM(7IN)WX22.86CM(9IN)HX20.32CM(8IN)D              |
| 290-A-MCD | 11837 | 008 | 3350 | 13.34CM(5.25IN)WX20.32CM(8IN)HX48.26CM(19IN)D          |
| 315A      | 11837 | 008 | 3592 | 20.32CM(8IN)WX17.78CM(7IN)HX25.40CM(10IN)D             |
| 4271      | 31922 | 008 | 1495 | 48.26CM(19IN)WX43.18CM(17IN)HX43.18CM(17IN)D           |
| 4285      | 31922 | 008 | 1948 | 22.86CM(9IN)WX18.80CM(7.4IN)HX40.64CM(16IN)D           |
| 4735      | 31922 | 008 | 1408 | 22.23CM(8.75IN)WX16.19CM(6.38IN)HX48.26CM(19IN)D       |
| 5305      | 31922 | 008 | 1414 | 21.59CM(8.5IN)WX15.75CM(6.2IN)HX24.13CM(9.5IN)D        |
| 5430A     | 31922 | 008 | 1949 | 20.32CM(8IN)WX17.78CM(7IN)HX15.24CM(6IN)D              |
| 7040      | 79409 | 022 | 1420 | 9.53CM(3.75IN)WX8.57CM(3.38IN)HX19.05CM(7.5IN)D        |
| 715C      | 24655 | 011 | 1367 | 55.25CM(21.75IN)WX36.20CM(14.25IN)HX28.58(11.25IN)D    |
| 750       | 04901 | 011 | 1369 | 49.53CM(19.5IN)WX28.58CM(11.25IN)HX32.39CM(12.75IN)D   |

H-5



## DEFINITIZATION OF DTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC DTS ETC<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMOF<br>CODE ID NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

| WEIGHT IN KG/LBS | CO120 |
|------------------|-------|
|------------------|-------|

|         |            |       |      |            |
|---------|------------|-------|------|------------|
| 25      |            | 008   | 9025 | 17KG/37LBS |
| PM6302  |            | 77569 | 008  | 8006       |
| TF1313A |            | 09555 | 008  | 8007       |
| 1683    |            | 24665 | 008  | 8003       |
| 315A    |            | 00000 | 008  | 8004       |
| 4260A   |            | 28480 | 008  | 8008       |
|         | AN/USM-263 | 11837 | 008  | 0496       |
|         | AN/USM-357 | 80009 | 011  | 0536       |
|         | DP170      | 28549 | 008  | 1980       |
|         | E1002      | 07239 | 008  | 3267       |
|         | E3067      | 07239 | 008  | 1982       |
|         | E3108      | 07239 | 008  | 1295       |
|         | M-3        | 56289 | 011  | 1300       |
|         | SP2280     | 11837 | 022  | 3292       |
|         | TD-5       | 56299 | 011  | 1377       |
|         | ZR-2A      | 80740 | 011  | 1314       |
|         | ZM-3/U     | 54294 | 011  | 1271       |
|         | ZM-3A/U    | 77569 | 011  | 1272       |
|         | ZM-4/U     | 31922 | 008  | 1273       |
|         | ZM-4/U     | 31922 | 008  | 1273       |
|         | ZM-4A/U    | 66150 | 008  | 1274       |
|         | ZM-4A/U    | 66150 | 008  | 1274       |
|         | ZM-48/U    | 66150 | 008  | 1275       |
|         | ZM-48/U    | 66150 | 008  | 1275       |
|         | ZM-61/U    | 28480 | 008  | 1284       |
|         | ZM-68/U    | 88869 | 008  | 1295       |
|         | ZM-69      | 24655 | 008  | 3630       |
|         | ZM-71/U    | 28480 | 008  | 1287       |
|         | 1212A      | 24655 | 008  | 1714       |
|         | 1604A      | 24655 | 008  | 1474       |
|         | 1610-R2    | 24655 | 011  | 1384       |
|         | 1611A      | 24655 | 008  | 1385       |
|         | 1615AM     | 24655 | 011  | 2570       |
|         | 1620A      | 24655 | 011  | 2571       |
|         | 1632       | 24655 | 024  | 2572       |
|         | 1650R      | 24655 | 008  | 1475       |
|         | 2318       | 11837 | 008  | 1333       |
|         | 250-A      | 04901 | 022  | 1334       |
|         | 2700       | 09553 | 008  | 1487       |
|         | 290-A-MOD  | 11837 | 008  | 3350       |
|         | 315A       | 11837 | 008  | 3592       |

9-H

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|

ACCURACY -PCT-  
OR AS STATED

WEIGHT IN KG/LBS 00120

|       |       |     |      |                  |
|-------|-------|-----|------|------------------|
| 4271  | 31922 | 008 | 1405 | 21.79KG(48LBS)   |
| 4285  | 31922 | 008 | 1948 | 9.08KG(20LBS)    |
| 4735  | 31922 | 008 | 1408 | 9.08KG(20LBS)    |
| 5305  | 31922 | 008 | 1414 | 4.54KG(10LBS)    |
| 5430A | 31922 | 008 | 1949 | 1.82KG(4LBS)     |
| 7040  | 79439 | 022 | 1420 | .45KG(1LB)       |
| 716C  | 24655 | 011 | 1367 | 18.39KG(40.5LBS) |
| 750   | 94901 | 011 | 1369 | 15.89KG(35LBS)   |

ENCLOSURE (STYLE) 00130

25 008 9025 MIL-T-28000 STYLE E W/RACKMOUNT CAPABILITY

|        |       |     |      |                          |
|--------|-------|-----|------|--------------------------|
| PM6302 | 77569 | 008 | 8006 | YES                      |
| 4260A  | 28480 | 008 | 8008 | NO RACK MOUNT CAPABILITY |

|       |       |     |      |             |
|-------|-------|-----|------|-------------|
| 16J4A | 24655 | 008 | 1474 | 60HZ,115VAC |
| 16508 | 24655 | 008 | 1475 | RACK MOUNT  |

PWR SOURCE(S)/CONSUMPTION 00140

25 008 9025 TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/15W

|            |       |     |      |                                                        |
|------------|-------|-----|------|--------------------------------------------------------|
| PM6302     | 77569 | 008 | 8006 | 48-60HZ S-PHASE 115/230VAC/3.5W                        |
| 1683       | 24665 | 008 | 8003 | 50-60HZ, S-PHASE 105-125, 200-250VAC/110W              |
| 3151       | 00000 | 008 | 8004 | 8 C CELL BATTERIES W/POWER PACK OPTION                 |
| 4260A      | 28480 | 008 | 8008 | 50,60HZ S-PHASE 115/230VAC/7W                          |
| AN/URM-90  | 83777 | 024 | 0375 | 50-1000HZ S-PHASE 115VAC                               |
| AN/USM-263 | 11837 | 008 | 0496 | FIVE 1.5VOLT 0 CELLS AND TWO 8.4VOLT MERCURY BATTERIES |
| AN/USM-357 | 80009 | 011 | 0536 | 50-60HZ S-PHASE 115/230VAC/40W                         |
| OP170      | 28569 | 008 | 1980 | 60HZ S-PHASE 115VAC                                    |
| E3067      | 07239 | 008 | 1982 | INTERNAL BATTERY POWERED                               |
| O18-2      | 19482 | 008 | 1562 | 12.5V BATTERY                                          |
| SP2280     | 11837 | 022 | 3292 | 50-400HZ S-PHASE 117/230VAC/125W                       |

H-7

## DEFINITIZATION OF QTS EYE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC QTS EYE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

PWR SOURCE(S)/CONSUMPTION 00140

|          |       |     |      |                                  |
|----------|-------|-----|------|----------------------------------|
| TD-5     | 56239 | 011 | 1307 | 60HZ S-PHASE 105/125VAC/25W      |
| ZB-2A    | 80740 | 011 | 1314 | 50-1000HZ S-PHASE 115/230VAC/18W |
| ZM-11/U  | 13259 | 011 | 1276 | 50-1000HZ S-PHASE 115VAC/40W     |
| ZM-11B/U | 12019 | 011 | 1278 | 50-1000HZ S-PHASE 115VAC/        |
| ZM-3/U   | 54294 | 011 | 1271 | 50-1000HZ S-PHASE 115/230VAC     |
| ZM-3A/U  | 77569 | 011 | 1272 | 50-1000HZ S-PHASE 115/230VAC     |
| ZM-4/U   | 31922 | 008 | 1273 | 40-60HZ S-PHASE 210/250VAC/25W   |
| ZM-4/U   | 31922 | 008 | 1273 | 3 EACH BA-30 BATTERY             |
| ZM-4A/U  | 66150 | 008 | 1274 | 3 EACH BA-30 BATTERY             |
| ZM-4A/U  | 66150 | 008 | 1274 | VOLTAGE-AC W/3-1.5V BATTERIES    |
| ZM-4B/U  | 66150 | 008 | 1275 | VOLTAGE-AC W/3-1.5V BATTERIES    |
| ZM-4B/U  | 66150 | 008 | 1275 | 3 EACH BA-30 BATTERY             |
| ZM-61/U  | 28480 | 008 | 1284 | 50-1000HZ S-PHASE 115/230VAC/60W |
| ZM-69    | 24655 | 008 | 3630 | AVDC BATTERY                     |
| ZM-69A   | 24655 | 008 | 3631 | 6VDC BATTERY                     |
| ZM-70/U  | 11837 | 008 | 1286 | 4-1.5VOLT BATTERIES              |
| ZM-71/U  | 28490 | 008 | 1287 | 50-60HZ S-PHASE 115/230VAC/7W    |
| 1212A    | 24655 | 008 | 1714 | REQUIRES UNIT PWR SUPPLY         |
| 1611A    | 24655 | 008 | 1385 | 60HZ S-PHASE 115/230VAC/15W      |
| 1620A    | 24655 | 011 | 2571 | 50-400HZ S-PHASE 115/230VAC/22W  |
| 1650B    | 24655 | 008 | 1475 | 4 SIZE-D BATTERY CELLS           |
| 2319     | 11837 | 008 | 1333 | 60HZ S-PHASE 115VAC/1W           |
| 250-A    | 04901 | 022 | 1334 | 50-60HZ S-PHASE 105-125VAC/60W   |
| 2700     | 09553 | 008 | 1487 | 60HZ S-PHASE 110VAC              |
| 315A     | 11837 | 009 | 3592 | 9V DC BATTERY                    |
| 4271     | 31922 | 008 | 1405 | 50-60HZ S-PHASE 120VAC/6W        |
| 4285     | 31922 | 008 | 1948 | BATTERY 1.5V                     |
| 4735     | 31922 | 008 | 1408 | 1VDC                             |
| 5305     | 31922 | 008 | 1414 | 3 TYPE D BATTERIES               |
| 5430A    | 31922 | 008 | 1949 | 3VDC                             |
| 7040     | 79409 | 022 | 1420 | 50-60HZ S-PHASE 115VAC           |

MTBF SPECIFIED/PREDICTED 00150

25

008 9025 3500 HRS

8-H

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC QTS ETE<br>NO | QTS ETE<br>MODEL NO | TYPE DESIGNATOR/<br>QTS ETE MODEL NO | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|--------------------|---------------------|--------------------------------------|-------------|----------------|-----------|
|--------------------|---------------------|--------------------------------------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

## PRIMARY OUTPUT CONNECTOR 00180

25

008 9025 DUAL FEMALE BANANA JACK

## ENVIRONMENTAL CONDITIONS 00200

25

008 9025 MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR 2

|         |       |     |      |               |
|---------|-------|-----|------|---------------|
| ZM-4/U  | 31922 | 008 | 1273 | IAW MIL-T-945 |
| ZM-4A/U | 66150 | 008 | 1274 | IAW MIL-T-945 |
| ZM-4B/U | 66150 | 008 | 1275 | IAW MIL-T-945 |

## TEMP OPER/NON-OPERATING 00210

25

008 9025 0 TO 50 C / -55 TO 75 C

|            |       |     |      |                                                          |
|------------|-------|-----|------|----------------------------------------------------------|
| AN/URM-90  | 83777 | 024 | 0375 | IAW MIL-STD 883C METHOD 502                              |
| AN/USM-263 | 11837 | 008 | 0496 | +40F TO +140F (+5C TO +60C)/-35F TO +160F (-37C TO +70C) |
| ZM-3/U     | 54294 | 011 | 1271 | -4 TO 125F /-65 TO 160F                                  |
| ZM-3A/U    | 77562 | 011 | 1272 | -4 TO 125F /-65 TO 160F                                  |

## RELATIVE HUMIDITY 00220

25

008 9025 95

## ALTITUDE OPER/NON-OPER 00230

25

008 9025 3050M(10000FT)/12000M(40000FT)

|           |       |     |      |                  |
|-----------|-------|-----|------|------------------|
| AN/URM-90 | 83777 | 024 | 0375 | IAW MIL-STD-883C |
|-----------|-------|-----|------|------------------|

## DEFINITION OF QTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

SPEC QTS ETC TYPE DESIGNATOR/ FAM TMOF ACCURACY -PCT-  
 NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER OR AS STATED

## VIBRATION LIMIT (MAXIMUM) 00240

| 25 |         | 008   | 9025 | 2G   |                               |
|----|---------|-------|------|------|-------------------------------|
|    | ZM-4/U  | 31922 | 008  | 1273 | SHALL BE TESTED IAW MIL-T-945 |
|    | ZM-4A/U | 66150 | 008  | 1274 | SHALL BE TESTED IAW MIL-T-945 |
|    | ZM-4B/U | 66150 | 008  | 1275 | SHALL BE TESTED IAW MIL-T-945 |

## SHOCK, PULSE LEVEL 00250

| 25 |         | 008   | 9025 | 30G  |                                           |
|----|---------|-------|------|------|-------------------------------------------|
|    | ZM-4/U  | 31922 | 008  | 1273 | SHOCK AND BOUNCE TEST RQD SEE MIL-9-3067B |
|    | ZM-4A/U | 66150 | 008  | 1274 | SHOCK AND BOUNCE TEST RQD SEE MI-9-3067B  |
|    | ZM-4B/U | 66150 | 008  | 1275 | SHOCK AND BOUNCE TEST RQD SEE MIL-9-3067B |

## CAPACITANCE RANGE 08400

| 25         |       | 008 | 9025 | 1 PF TO 1200 UF IN NMT 8 RANGES | +/-0.2 PCT |
|------------|-------|-----|------|---------------------------------|------------|
| PM6302     | 77569 | 008 | 8036 | 1PF TO 1000UF                   | +/-2 PCT   |
| TF1313A    | 09555 | 008 | 8037 | .1PF TO 110UF                   | +/-0.1 PCT |
| 1683       | 24665 | 008 | 8033 | .1PF TO 20000UF                 | +/-1 PCT   |
| 315A       | 00000 | 008 | 8034 | 0-1200 MFD                      | +/-1 PCT   |
| 4260A      | 28480 | 008 | 8038 | 1000UF TO 1000UF                | +/-1 PCT   |
|            |       |     |      | IN 9 RANGES W                   |            |
|            |       |     |      | IN 7 RANGES                     |            |
| AN/URM-90  | 83777 | 024 | 0375 | .1 TO 10000UF                   | +/-0.5 PCT |
| AN/USM-357 | 80009 | C11 | 0536 | 0 TO 3000UF                     | +/-3 PCT   |
| M-3        | 56289 | 011 | 1300 | 100PF TO 2000UF                 |            |
| SP2280     | 11837 | 022 | 3292 | 0 TO 12000UF                    | +/-0.1 PCT |
| TJ-5       | 56289 | 011 | 1307 | 0 TO 2000UF                     |            |
| Z8-2A      | 80740 | C11 | 1314 | NOT LISTED                      |            |
| ZM-11/U    | 13259 | 011 | 1276 | 100UF TO 1000UF                 | +/-5 PCT   |
| ZM-11A/U   |       | 011 | 1277 | 10PF TO 1000UF                  | +/-2 PCT   |
| ZM-11B/U   | 12019 | 011 | 1278 | 10PF TO 1000UF                  | +/-5 PCT   |
| ZM-3/U     | 54294 | 011 | 1271 | 50UF TO 10000UF                 | +/-5 PCT   |
| ZM-3A/U    | 77569 | 011 | 1272 | 5PF TO 10000UF                  |            |

H-10

## DEFINITIZATION OF DTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC DTS ETC<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

CAPACITANCE RANGE 08400

|           |       |     |      |                  |             |             |
|-----------|-------|-----|------|------------------|-------------|-------------|
| ZM-61/U   | 28480 | 008 | 1284 | 0 TO 20 PF       | IN 8 RANGES | +/-1 PCT    |
| ZM-69     | 24655 | 008 | 3630 | 1PF TO 1000UF    | IN 7 RANGES | +/-1 PCT    |
| ZM-69A    | 24655 | 008 | 3631 | 1PF TO 1100UF    | IN 7 RANGES | +/-1 PCT    |
| ZM-70/U   | 11837 | 008 | 1286 | 0 TO 1200UF      |             | +/-0.2 PCT  |
| ZM-71/U   | 28480 | 008 | 1287 | 1PF TO 1000UF    | IN 7 RANGES | +/-1 PCT    |
| 1610-B2   | 24655 | 011 | 1384 | 200PF TO 1.150UF |             | +/-0.1 PCT  |
| 1611A     | 24655 | 008 | 1385 | 0 TO 1100UF      |             | +/-1 PCT    |
| 1615AM    | 24655 | 011 | 2570 | 1PF TO 1UF       |             | +/-0.01 PCT |
| 1620A     | 24655 | 011 | 2571 | 1PF TO 1UF       |             | +/-0.01 PCT |
| 1650B     | 24655 | 008 | 1475 | 1PF TO 1100UF    |             | +/-1 PCT    |
| 250-A     | 04901 | 022 | 1334 | 0 TO 100PF       |             | +/-1 PCT    |
| 290-A-MCD | 11837 | 008 | 3350 | 0 TO 1200UF      |             | +/-0.2 PCT  |
| 716C      | 24655 | 011 | 1367 | 100PF TO 1100MF  |             | +/-0.1 PCT  |
| 750       | 04901 | 011 | 1369 | 10PF TO 10,000UF |             |             |

DC TEST VOLTAGE 16000

25 008 9025 DC TEST VOLTAGE 0-500 VDC

|          |       |      |                     |
|----------|-------|------|---------------------|
| 7M-11A/U | 011   | 1277 | 0-500VDC            |
| ZM-118/U | 12019 | 011  | 0-500VDC            |
| ZM-3/U   | 54294 | 011  | 0 TO 600VDC LEAKAGE |
| 7M-3A/U  | 77569 | 011  | 0-TO 600VDC LEAKAGE |

DISSIPATION FACTOR 18400

25 008 9025 RANGE 0.001 TO 1.0

+/-5 PCT

INTERNAL SIGNAL SOURCE 25410

25 008 9025 SIGNAL SOURCE 1KHZ

+/-3 PCT

|         |       |     |      |              |
|---------|-------|-----|------|--------------|
| PM6302  | 77569 | 008 | 8036 | 100 & 1KHZ   |
| TF1313A | 09555 | 008 | 8007 | 1KHZ & 10KHZ |

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

INTERNAL SIGNAL SOURCE 25410

|         |       |       |      |                              |      |
|---------|-------|-------|------|------------------------------|------|
| 1683    |       | 24665 | 008  | 8003                         | 1KHZ |
| 3151    |       | 00000 | 008  | 8004                         | 1KHZ |
| 4260A   |       | 28480 | 008  | 8008                         | 1KHZ |
| ZM-11/U | 13259 | 011   | 1276 | 1KHZ INTERNAL OSC            |      |
| ZM-61/U | 28480 | 008   | 1284 | .5 TO 250MHZ                 |      |
| ZM-69A  | 24655 | 008   | 3631 | 1KHZ                         |      |
| ZM-70/U | 11837 | 008   | 1286 | INTERNAL GENERATOR AC AND DC |      |
| ZM-71/U | 28480 | 008   | 1287 | 1KHZ INT                     |      |
| 1610-32 | 24655 | 011   | 1384 | 20HZ TO 500KHZ               |      |
| 1620A   | 24655 | 011   | 2571 | AUDIO OSC                    |      |
| 1650B   | 24655 | 008   | 1475 | 1KHZ INTERNAL OSC            |      |

EXTERNAL SIGNAL SOURCE 25420

|         |       |     |      |                                           |  |
|---------|-------|-----|------|-------------------------------------------|--|
| 25      |       | 008 | 9025 | SIGNAL SOURCE VARIABLE FROM 50HZ TO 20KHZ |  |
| TF1313A | 09555 | 008 | 8007 | 20-20KHZ EXT                              |  |
| 1683    | 24665 | 008 | 8003 | PROGRAMMABLE OPTIONS                      |  |
| 315A    | 00000 | 008 | 8004 | 20-20KHZ                                  |  |
| 4260A   | 28480 | 008 | 8008 | 20-20KHZ EXT                              |  |
| ZM-71/U | 28480 | 008 | 1287 | 20-20KHZ EXT                              |  |
| 1632    | 24655 | 024 | 2572 | 100HZ TO 100KHZ                           |  |
| 1650B   | 24655 | 008 | 1475 | EXTERNAL FREQ CAPABILITY                  |  |

INDUCTANCE 36800

|         |       |     |      |                                     |            |
|---------|-------|-----|------|-------------------------------------|------------|
| 25      |       | 008 | 9025 | 1 UH TO 1100 HENRYS IN NMT 8 RANGES | +/-0.1 PCT |
| PM6302  | 77569 | 008 | 8006 | 1UH TO 1000H                        | +/-2 PCT   |
| TF1313A | 09555 | 008 | 8007 | .1UH TO 110H                        | +/-0.1 PCT |
| 1683    | 24665 | 008 | 8003 | .001UH TO 200H                      | +/-1 PCT   |
| 315A    | 00000 | 008 | 8004 | 0-1200 H                            | +/-1 PCT   |
| 4260A   | 28480 | 008 | 8008 | 1000UH TO 1000H                     | +/-1 PCT   |

IN 9 RANGES

IN 7 RANGES

H-12



## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC QTS ETE<br>NO MFR'S MCL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>ID NO. | PARAMETER | ACCURACY -PCT-<br>OP AS STATED |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

INDUCTANCE 36800

|            |       |     |      |                             |             |
|------------|-------|-----|------|-----------------------------|-------------|
| AN/URM-90  | 83777 | 024 | 0375 | .1UH TO 1100H               | +/- .15 PCT |
| AN/USM-357 | 80009 | 011 | 0536 | 0 TO 300UH                  | +/- .1 PCT  |
| SP2280     | 11837 | 022 | 3292 | 0 TO 1+00H                  | +/- .1 PCT  |
| ZB-2A      | 80740 | 011 | 1314 | NOT LISTED                  |             |
| ZM-11/U    | 13259 | 011 | 1276 | .01MH TO 100H               | +/- .1 PCT  |
| ZM-114/U   |       | 011 | 1277 | 100UH TO 100H               | +/- .1 PCT  |
| ZM-118/U   | 12019 | 011 | 1278 | 100UH TO 100H               | PCT         |
| ZM-61/U    | 28480 | 008 | 1284 | .001UH TO 100MH IN 8 RANGES | +/- .1 PCT  |
| ZM-69      | 24655 | 008 | 3630 | 1UH TO 1000H IN 7 RANGES    | +/- .1 PCT  |
| ZM-69A     | 24655 | 008 | 3631 | 1UH TO 1100H IN 7 RANGES    |             |
| ZM-70/U    | 11837 | 008 | 1286 | 0 TO 1200H                  | +/- .1 PCT  |
| ZM-71/U    | 28480 | 008 | 1287 | 1UH TO 1000H IN 7 RANGES    | +/- .1 PCT  |
| 1632       | 24655 | 024 | 2572 | 100PH TO 1111H              | +/- .1 PCT  |
| 16508      | 24655 | 008 | 1475 | 1UH TO 1100H                | +/- .1 PCT  |
| 290-A-MDD  | 11837 | 008 | 3350 | 0 TO 1200H                  | +/- .1 PCT  |

RESISTANCE MEASUREMENT 59600

|           |       |     |      |                                                       |              |
|-----------|-------|-----|------|-------------------------------------------------------|--------------|
| 25        |       | 008 | 9025 | 10 OHMS TO 50 MEGOHMS IN NMT 8 RANGES                 | +/- .1 PCT   |
| PM6302    | 77569 | 008 | 8006 | .100HM TO 10MEGOHMS IN 9 RANGES                       | +/- .2 PCT   |
| TF1313A   | 09555 | 008 | 8007 | .0030HMS TO 110MEGOHMS                                | +/- .1 PCT   |
| 1683      | 24665 | 008 | 8003 | .001MILLIOHM TO 2MEGOHMS IN 9 RANGES                  | +/- .1 PCT   |
| 3151      | 00000 | 008 | 8004 | 0-12 MEGOHM                                           | +/- .25 PCT  |
| 4260A     | 28480 | 008 | 8008 | 10 OHMS TO 10 MEGOHMS IN 7 RANGES                     | +/- .1 PCT   |
| AN/URM-90 | 83777 | 024 | 0375 | .1MILLIOHM TO 11MEGOHM                                | +/- .15 PCT  |
| DP170     | 28569 | 008 | 1980 | 0-9.99OHMS                                            | +/- .002 PCT |
| F1002     | 07239 | 008 | 3267 | 25.5 OHM PLATINUM RESIST THERMOMETER FOR TEMP READING |              |
| E3108     | 07239 | 008 | 1295 | 0 TO 10 MEGOHM                                        |              |
| DIB-2     | 19482 | 008 | 1562 | 0 TO 600 OHMS                                         | +/- .5 PCT   |
| PN-1600   | 08987 | 008 | 2030 | 0 TO 1.010 OHMS IN 5 RANGES                           | .0000020HM   |
| SP2280    | 11837 | 022 | 3292 | 0 TO 12000MEGOHMS                                     | +/- .01 PCT  |
| ZB-2A     | 80740 | 011 | 1314 | NOT LISTED                                            |              |
| ZM-11/U   | 13259 | 011 | 1276 | 10HM TO 10MEGOHM                                      | +/- .2 PCT   |
| ZM-114/U  |       | 011 | 1277 | 1 TO 10MEGOHMS                                        | +/- .5 PCT   |
| ZM-118/U  | 12019 | 011 | 1278 | 1 TO 10MEGOHMS                                        | +/- .2 PCT   |
| ZM-3/U    | 54294 | 011 | 1271 | 1 TO 10,000 MEGOHMS INSULATION RESISTANCE             |              |
| ZM-34/U   | 77569 | 011 | 1272 | 1.1 TO 10,000MEGOHMS INSULATION RESISTANCE            |              |
| ZM-4/U    | 31922 | 008 | 1273 | .5-2MEGOHM AT 50/500V                                 | +/- .12 PCT  |

H-13

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - BRIDGE UNIVERSAL

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE TO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

RESISTANCE MEASUREMENT 59600

|           |       |     |      |                                     |              |
|-----------|-------|-----|------|-------------------------------------|--------------|
| ZM-41/U   | 66150 | 008 | 1274 | 0 TO 1.011 MEGOHMS                  | +/- .15 PCT  |
| ZM-48/U   | 66150 | 008 | 1275 | 0-1.011 MEGOHMS                     | +/- .15 PCT  |
| ZM-61/U   | 28480 | 008 | 1284 | 15 TO 100KOHMS IN 8 RANGES          | +/-1 PCT     |
| ZM-69     | 24655 | 008 | 3630 | 10HM TO 10MEGOHM IN 7 RANGES        | +/-1 PCT     |
| ZM-69A    | 24655 | 008 | 3631 | .001 TO 1.1MEGOHMS IN 7 RANGES      |              |
| ZM-70/U   | 11837 | 008 | 1286 | 0 TO 12MEGOHMS                      | +/- .2 PCT   |
| ZM-71/U   | 28480 | 008 | 1287 | 10MILLIOHM TO 10MEGOHMS IN 7 RANGES | +/-1 PCT     |
| 1000      | 28009 | 008 | 1926 | 1MILLIOHM TO 9.999MEGOHM            | +/-1 PCT     |
| 1090      | 28009 | 008 | 1379 | 0 TO 100MEGOHM                      | +/- .02 PCT  |
| 16044     | 24655 | 008 | 1474 | 2 TO 20MEGOHMS                      |              |
| 16508     | 24655 | 008 | 1475 | 1MILLIOHM TO 11MEGOHM               | +/- 1 PCT    |
| 2318      | 11837 | 008 | 1333 | 10UCHM TO 12,000 MEGOHMS            |              |
| 250-A     | 04901 | 022 | 1334 | 15 TO 100KOHMS                      |              |
| 2700      | 09553 | 008 | 1487 | 0 TO 1MEGOHM                        | +/- .01 PCT  |
| 290-A-MGD | 11837 | 008 | 3350 | 0 TO 1.2MEGOHMS                     | +/- .5 PCT   |
| 315A      | 11837 | 008 | 3592 | 0 TO 12KOHMS                        | +/-5 PCT     |
| 4271      | 31922 | 008 | 1405 | 1 TO 100MEGOHM                      | +/- .005 PCT |
| 4285      | 31922 | 008 | 1948 | .001OHM TO 26.6OHM                  |              |
| 4735      | 31922 | 008 | 1408 | 0 TO 1,111MEGOHM                    | +/-3 PCT     |
| 5305      | 31922 | 008 | 1414 | 0 TO 100KIOHM                       | +/- .15 PCT  |
| 5430A     | 31922 | 008 | 1949 | 10HM TO 1MEGOHM                     | +/-1 PCT     |
| 7040      | 79409 | 022 | 1420 | 0 TO 25 OHMS                        | +/-1 PCT     |

STORAGE FACTOR (Q) 69700

|    |     |      |                    |          |
|----|-----|------|--------------------|----------|
| 25 | 008 | 9025 | RANGE 0.05 TO 1000 | +/-5 PCT |
|----|-----|------|--------------------|----------|

H-14

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC OTS ETE TYPE DESIGNATOR/  
 NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

00100

02

047 9002 GENERATOR, SIGNAL, FUNCTION

|             |       |     |      |                                                    |
|-------------|-------|-----|------|----------------------------------------------------|
| FG502       | 80009 | 047 | 8011 | SIGNAL GENERATOR FUNCTION                          |
| 142         | 23338 | 047 | 8013 | SIGNAL GENERATOR FUNCTION                          |
| 2000        | 88865 | 047 | 8015 | SIGNAL GENERATOR FUNCTION                          |
| 3312A       | 28480 | 047 | 8014 | SIGNAL GENERATOR FUNCTION                          |
| 7030        | 21793 | 047 | 8012 | SIGNAL GENERATOR FUNCTION                          |
| AN/USM-108  | 28569 | 047 | 0440 | SIGNAL GENERATOR FUNCTION                          |
| AN/USM-108B | 28569 | 047 | 0441 | SIGNAL GENERATOR FUNCTION                          |
| AN/USM-256  | 72314 | 054 | 0491 | SIGNAL GENERATOR SQUARE WAVE                       |
| AN/USM-358  | 80009 | 054 | 0537 | SIGNAL GENERATOR SQUARE WAVE                       |
| F51A        | 07421 | 047 | 1902 | SIGNAL GENERATOR FUNCTION                          |
| F55A        | 07421 | 047 | 1812 | SIGNAL GENERATOR FUNCTION                          |
| IG-115      | 03782 | 047 | 1908 | SIGNAL GENERATOR FUNCTION                          |
| RL-1178/U   | 28480 | 047 | 0791 | SIGNAL GENERATOR FUNCTION                          |
| SG-106/U    | 80009 | 054 | 0838 | SIGNAL GENERATOR SQUARE WAVE                       |
| SG-298/U    | 08775 | 047 | 0839 | SIGNAL GENERATOR FUNCTION                          |
| SG-298A/U   | 21764 | 047 | 0840 | SIGNAL GENERATOR FUNCTION                          |
| SG-299/U    | 28569 | 054 | 0841 | SIGNAL GENERATOR SQUARE WAVE                       |
| SG-299B/U   | 28569 | 054 | 0842 | SIGNAL GENERATOR SQUARE WAVE                       |
| SG-321/U    | 83563 | 047 | 0844 | SIGNAL GENERATOR FUNCTION                          |
| SG-321B/U   | 24635 | 047 | 0846 | SIGNAL GENERATOR FUNCTION                          |
| SG-747      | 28480 | 047 | 0872 | SIGNAL GENERATOR FUNCTION                          |
| SG-769/U    | 23338 | 047 | 0875 | SIGNAL GENERATOR FUNCTION                          |
| SG-772/G    | 80009 | 054 | 0877 | SIGNAL GENERATOR SQUARE WAVE                       |
| TS-583/U    | 28480 | 054 | 3636 | SIGNAL GENERATOR SQUARE WAVE                       |
| TS-583A/U   | 35225 | 054 | 3637 | SIGNAL GENERATOR SQUARE WAVE                       |
| 106 TYRE 2  | 80009 | 054 | 3340 | SIGNAL GENERATOR SQUARE WAVE                       |
| 107         | 80009 | 054 | 1884 | SIGNAL GENERATOR SQUARE WAVE                       |
| 116 VCC     | 23338 | 047 | 1887 | SIGNAL GENERATOR FUNCTION                          |
| 1410        | 65092 | 047 | 1657 | SIGNAL GENERATOR FUNCTION                          |
| 185A        | 30669 | 054 | 1896 | SIGNAL GENERATOR SQUARE WAVE AND ELECTRONIC SWITCH |
| 3310A       | 28480 | 047 | 1842 | SIGNAL GENERATOR FUNCTION                          |
| 5048        | 10597 | 047 | 1862 | SIGNAL GENERATOR FUNCTION                          |

## DEFINITION OF DTS EYE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC DTS EYE TYPE DESIGNATOR/ FAM TMDR  
 NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

DIMENSIONS IN MM/INS UC110  
 -----

02

047 9002 482.6MM(19 IN)WX152.4MM(6 IN)HX381.0MM(15 IN)H

142  
 2000  
 3312A

23338 047 8013 22CM(9 IN)WX13CM(5 IN)HX29CM(12 IN)D  
 88865 047 8015 22CM(9 IN)WX13CM(5 IN)HX29CM(12 IN)D  
 28480 047 8014 10CM(4 IN)HX21CM(9 IN)WX38(15 IN)D

AN/USM-108 28559 047 0440 25.40CM(10 IN)WX42.48CM(16.725 IN)HX34.93CM(13.75 IN)D  
 AN/USM-108B 28559 047 0441 25.40CM(10 IN)WX42.48CM(16.725 IN)HX34.93CM(13.75 IN)D  
 AN/USM-256 72314 054 0491 20.32CM(8 IN)HX27.94CM(11 IN)HX12.70CM(5 IN)D  
 AN/USM-358 80009 054 0537 22.86(9 IN)WX15CM(6 IN)HX37.47CM(14.75 IN)D  
 F51A 07421 047 1902 21.59CM(8.5 IN)WX13.34CM(5.25 IN)HX31.12CM(12.25 IN)D  
 F55A 07421 047 1812 42.55CM(16.75 IN)WX13.18CM(5.188 IN)HX30.80CM(12.125 IN)D  
 IG-115 03782 047 1908 15.24CM(6 IN)WX18.73CM(7.375 IN)HX10.16CM(4 IN)D  
 PL-1178/U 28480 047 0791 15.40CM(6.063 IN)WX12.07CM(4.75 IN)HX26.04CM(10.25 IN)D  
 SG-106/U 80009 054 0838 41.91CM(16.5 IN)WX35.56CM(14 IN)HX25.40CM(10 IN)D  
 SG-298/U 08775 047 0839 36.83CM(14.5 IN)WX19.05CM(7.5 IN)HX44.45CM(17.5 IN)D  
 SG-298A/U 21764 047 0840 36.83CM(14.5 IN)WX19.05CM(7.5 IN)HX44.45CM(17.5 IN)D  
 SG-299/U 28569 054 0841 35.24CM(13.88 IN)WX24.77CM(9.75 IN)HX35.24CM(13.88 IN)D  
 SG-299B/U 28569 054 0842 35.64CM(13.88 IN)WX24.77CM(9.75 IN)HX35.24CM(13.88 IN)D  
 SG-321/U 83563 047 0844 35.625CM(14.250 IN)WX30.625CM(12.500 IN)HX51.45CM(21 IN)D  
 SG-747 28480 047 0872 27.94CM(11 IN)WX13.34CM(5.25 IN)HX42.55CM(16.75 IN)D  
 SG-769/U 23338 047 0875 13.34CM(5.25 IN)WX19.05CM(7.5 IN)HX19.69CM(7.75 IN)D  
 SG-772/G 80009 054 0877 26.67CM(10.5 IN)WX35.56CM(14 IN)HX48.26CM(19 IN)H  
 TS-583A/U 35225 054 3637 36CM(15 IN)WX16.8CM(7 IN)HX21.6(9 IN)D  
 106 TYPE 2 80009 054 3340 22.86CM(9 IN)WX37.47CM(14.75 IN)HX15.24CM(6 IN)D  
 107 80009 054 1884 17.15CM(6.75 IN)WX26.67CM(10.5 IN)HX27.94CM(11 IN)D  
 116 VCC 23338 047 1887 27.94CM(11 IN)WX13.97CM(5.5 IN)HX30.48CM(12 IN)D  
 1410 65092 047 1657 48.26CM(19 IN)WX17.78CM(7 IN)HX45.72CM(18 IN)D  
 185A 30669 054 1896 18.73CM(7.38 IN)WX29.21CM(11.5 IN)HX33.02CM(13 IN)D  
 202A 28480 047 3345 32.34CM(12.75 IN)WX38.10CM(15 IN)HX52.71CM(20.75 IN)D  
 3310A 28480 047 1842 19.69CM(7.75 IN)WX11.43CM(4.5 IN)HX20.32CM(8 IN)D  
 5048 10597 047 1852 43.18CM(17 IN)WX8.89CM(3.5 IN)HX34.29CM(13.5 IN)D

WEIGHT IN KG/LBS CO120  
 -----

02

047 9002 9KG(20 LBS)

142  
 2000

23338 047 8013 3.6KG(8 LBS)  
 88865 047 8015 5KG(12 LBS)

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC OTS ETE TYPE DESIGNATOR/  
 NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

WEIGHT IN KG/LBS 00120  
 -----

|             |       |     |      |                   |
|-------------|-------|-----|------|-------------------|
| 3312A       | 28480 | 047 | 8014 | 4KG(9LBS)         |
| AN/USM-108  | 28569 | 047 | 0440 | 13.73KG(30.25LBS) |
| AN/USM-1088 | 28569 | 047 | 0441 | 13.73KG(30.25LBS) |
| AN/USM-256  | 72314 | 054 | 0491 | 3.41KG(7.5LBS)    |
| AN/USM-358  | 80009 | 054 | 0537 | 7.26KG(16LBS)     |
| F51A        | 07421 | 047 | 1902 | 5.90KG(13LBS)     |
| F55A        | 07421 | 047 | 1812 | 8.63KG(19LBS)     |
| IG-115      | 03782 | 047 | 1908 | 2.72KG(6LBS)      |
| PL-1178/U   | 28480 | 047 | 0791 | 1.82KG(4LBS)      |
| SG-106/U    | 80009 | 054 | 0838 | 15.89KG(35LBS)    |
| SG-298/U    | 08775 | 047 | 0839 | 9.53KG(21LBS)     |
| SG-298A/U   | 21764 | 047 | 0840 | 9.53KG(21LBS)     |
| SG-299/U    | 28569 | 054 | 0841 | 13.62KG(30LBS)    |
| SG-299B/U   | 28569 | 054 | 0842 | 13.62KG(30LBS)    |
| SG-747      | 28480 | 047 | 0872 | 9.08KG(20LBS)     |
| SG-769/U    | 23338 | 047 | 0875 | 3.18KG(7LBS)      |
| SG-772/G    | 80009 | 054 | 0877 | 6.36KG(14LBS)     |
| TS-583/U    | 28480 | 054 | 3636 | 15.9KG(35LBS)     |
| 106 TYPE 2  | 80007 | 054 | 3340 | 8.17KG(18LBS)     |
| 107         | 80009 | 054 | 1884 | 2.72KG(6LBS)      |
| 116 VCC     | 23338 | 047 | 1897 | 4.54KG(10LBS)     |
| 1410        | 65092 | 047 | 1657 | 17.25KG(38LBS)    |
| 185A        | 30669 | 054 | 1896 | 7.72KG(17LBS)     |
| 202A        | 28480 | 047 | 3345 | 19.07KG(42LBS)    |
| 3310A       | 28480 | 047 | 1842 | 2.72KG(6LBS)      |
| 504B        | 10597 | 047 | 1862 | 5.90KG(13LBS)     |

ENCLOSURE (STYLE) 00130  
 -----

02 047 9002 MIL-T-28800 STYLE E W/RACK MOUNT CAPABILITY

2000 88865 047 8015 RACK MOUNT CAPABILITY

|           |       |     |      |                 |
|-----------|-------|-----|------|-----------------|
| PL-1178/U | 28480 | 047 | 0791 | PLUG-IN UNIT    |
| SG-298/U  | 08775 | 047 | 0839 | BENCH MOUNTED   |
| SG-299/U  | 28569 | 054 | 0841 | BENCH MOUNT     |
| SG-321/U  | 83563 | 047 | 0844 | CABINET MOUNTED |
| SG-747    | 28480 | 047 | 0872 | BENCH MOUNTED   |

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC QTS ETE TYPE DESIGNATOR/ FAM TMOE  
 NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

ENCLOSURE (STYLE) 00130

|          |       |     |      |                       |
|----------|-------|-----|------|-----------------------|
| SG-769/U | 23338 | 047 | 0875 | BENCH MOUNTED         |
| SG-772/G | 80009 | 054 | 0877 | PACK MOUNTED          |
| 202A     | 28480 | 047 | 3345 | CABINET OR PACK MOUNT |

PWR SOURCE(S)/CONSUMPTION 00140

02 047 9002 TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/50W

|      |       |     |      |                                         |
|------|-------|-----|------|-----------------------------------------|
| 142  | 23338 | 047 | 8013 | 50-400HZ S-PHASE 105-125/200-250VAC/30W |
| 2000 | 88865 | 047 | 8015 | 50-400HZ S-PHASE 105-125/210-250VAC/50W |

|             |       |     |      |                                  |
|-------------|-------|-----|------|----------------------------------|
| AN/USM-108  | 28569 | 047 | 0440 | 50-60 HZ S-PHASE 115/230VAC/240W |
| AN/USM-108B | 28569 | 047 | 0441 | 50-60 HZ S-PHASE 115/230VAC/240W |
| AN/USM-256  | 72314 | 054 | 0491 | 50-400HZ S-PHASE 105/125VAC/20W  |
| AN/USM-358  | 80009 | 054 | 0537 | 50-60HZ S-PHASE 103/253VAC/85W   |
| F51A        | 07421 | 047 | 1902 | 50-400HZ S-PHASE 115/230VAC 35W  |
| F55A        | 07421 | 047 | 1812 | 50-400HZ S-PHASE 115-230VAC 50W  |
| IG-115      | 03782 | 047 | 1908 | 60 HZ S-PHASE 115VAC             |
| SG-106/U    | 80009 | 054 | 0838 | 50-60HZ S-PHASE 125/250VAC/250W  |
| SG-298/U    | 08775 | 047 | 0839 | 50-1000 HZ S-PHASE 115/230VAC    |
| SG-298A/L   | 21764 | 047 | 0840 | 50-1000 HZ S-PHASE 115/230VAC    |
| SG-299/U    | 28569 | 054 | 0841 | 50-60HZ S-PHASE 115/230VAC/210W  |
| SG-299B/U   | 28569 | 054 | 0842 | 50-60HZ S-PHASE 115/230VAC/210W  |
| SG-321/U    | 83563 | 047 | 0844 | 50-400HZ S-PHASE 115/230VAC      |
| SG-747      | 28480 | 047 | 0872 | 50-400HZ S-PHASE 115/230VAC      |
| SG-769/U    | 23338 | 047 | 0875 | 50-400 HZ S-PHASE 115/230VAC 10W |
| SG-772/G    | 80009 | 054 | 0877 | 50-60HZ S-PHASE 105/125VAC/250W  |
| TS-583A/U   | 35225 | 054 | 3637 | 50-60HZ S-PHASE 115VAC/100W      |
| 106 TYPE 2  | 80009 | 054 | 3340 | 50-60HZ S-PHASE 151/230VAC/85W   |
| 107         | 80009 | 054 | 1884 | 50-60HZ S-PHASE 105/125VAC/100W  |
| 116 VCC     | 23338 | 047 | 1887 | 60HZ S-PHASE 115VAC              |
| 1410        | 65092 | 047 | 1657 | 50-400HZ S-PHASE 115-230VAC 120W |
| 202A        | 28480 | 047 | 3345 | 50-400HZ S-PHASE 115VAC 150W     |
| 3310A       | 28480 | 047 | 1842 | 50-400HZ S-PHASE 115/230VAC 20W  |
| 5048        | 10597 | 047 | 1862 | 50-400HZ S-PHASE 115-230VAC 12W  |

H-18

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

MTBF SPECIFIED/PREDICTED 00150

02

047 9002 2500 HRS

PRIMARY CONNECTORS 00170

02

047 9002 BNC

|             |       |     |      |                         |
|-------------|-------|-----|------|-------------------------|
| AN/USM-108  | 28569 | 047 | 0440 | CABLES VIA BANANA JACKS |
| AN/USM-108B | 28569 | 047 | 0441 | CABLES VIA BANANA JACKS |
| F55A        | 07421 | 047 | 1812 | BNC CABLE               |
| PL-1178/U   | 28480 | 047 | 0791 | PLUGS IN SG-747/U       |
| 1410        | 65092 | 047 | 1657 | CABLES VIA BANANA JACKS |
| 202A        | 28480 | 047 | 3345 | CABLES VIA BANANA JACKS |
| 504B        | 10597 | 047 | 1862 | CABLES                  |

ENVIRONMENTAL CONDITIONS 00200

02

047 9002 MIL-T-28800 TYPE II CLASS 5 STYLE E COLDR

SG-769/U 23338 047 0875 25C=5C

TEMP OPER/NON-OPERATING 00210

02

047 9002 0 TO 50C/-55 TO 75C

|          |       |     |      |                          |
|----------|-------|-----|------|--------------------------|
| SG-298/U | 08775 | 047 | 0839 | +131F-(-)4F/+160F-(-)80F |
| SG-321/U | 83563 | 047 | 0844 | MIL-G-55447A             |



## OFFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

RELATIVE HUMIDITY 00220

|    |          |       |     |      |             |
|----|----------|-------|-----|------|-------------|
| 02 |          |       | 047 | 9002 | 95(+5-0)    |
|    | SG-298/U | 08775 | 047 | 0839 | 97-100      |
|    | SG-321/U | 83563 | 047 | 0844 | MIL-STD-810 |

ALTITUDE OPER/NON-OPER 00230

|    |          |       |     |      |                                     |
|----|----------|-------|-----|------|-------------------------------------|
| 02 |          |       | 047 | 9002 | 3050M(10000FT)/12000M(40000FT)      |
|    | SG-298/U | 08775 | 047 | 0839 | L*EQ10,000 FT ASL/L*EQ50,000 FT ASL |
|    | SG-321/U | 83563 | 047 | 0844 | MIL-STD-810                         |

VIBRATION LIMIT (MAXIMUM) 00240

|    |          |       |     |      |             |
|----|----------|-------|-----|------|-------------|
| 02 |          |       | 047 | 9002 | 2G          |
|    | SG-321/U | 83563 | 047 | 0844 | MIL-STD-810 |

SHOCK, PULSE LEVEL 00250

|    |          |       |     |      |             |
|----|----------|-------|-----|------|-------------|
| 02 |          |       | 047 | 9002 | 30G         |
|    | SG-321/U | 83563 | 047 | 0844 | MIL-STD-810 |

H-20

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC OTS ETE TYPE DESIGNATOR/  
NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

OUTPUT ATTENUATION 03600  
-----

02 047 9002 NLT 5008 W/10DB VERNIER CALIBRATED IN 108 STEPS

3312A 28480 047 8014 NLT 10 TO CONTINUOUS CONTROL

SG-299/U 28569 054 0841 6008 ATTENUATOR VARIABLE IN 2008 STEPS  
SG-2998/U 28569 054 0842 6008 ATTENUATOR VARIABLE IN 2008 STEPS  
TS-583/U 28480 054 3636 7008 ATTENUATOR IN 508 STEPS

OC OFFSET 15600  
-----

02 047 9002 ADJUSTABLE FROM -10VDC TO +10VDC

F51A 07421 047 1902 ADJUSTABLE FROM -10 TO +10V

DISTORTION 19200  
-----

02 047 9002 DISTORTION NGT .5 PCT

202A 28480 047 3345 DISTORTION LEVEL LT

+/-1 PCT

FREQUENCY OUTPUT RANGE 25400  
-----

02 047 9002 .1HZ TO 10MHZ IN NMT 10 RANGES

+/-5 PCT

FG502 80009 047 8011 .1HZ TO 11MHZ IN 10 RANGES  
142 23338 047 8013 .0005HZ TO 10MHZ IN 8 RANGES  
2000 88865 047 8015 .003HZ TO 30MHZ IN 8 RANGES  
3312A 28480 047 8014 .1HZ TO 13MHZ  
7030 21793 047 8012 .000\* TO 11MHZ

+/- 5 PCT  
+/-2 PCT

AN/USM-108 28569 047 0440 50MHZ,10MHZ,5MHZ SINEWAVE

H-21

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC OTS ETE TYPE DESIGNATOR/ FAM TMOE  
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE TO NC. PARAMETER

ACCURACY -PCT-  
OP AS STATED

FREQUENCY OUTPUT RANGE 25400

|            |       |     |      |                   |              |            |
|------------|-------|-----|------|-------------------|--------------|------------|
| AN/USM-256 | 72314 | 054 | 0491 | 7HZ TO 10MHZ      |              |            |
| AN/USM-358 | 80009 | 054 | 0537 | 10HZ TO 1MHZ      | IN 5 RANGES  |            |
| F51A       | 07421 | 047 | 1902 | 0 TO 11MHZ        |              |            |
| F55A       | 07421 | 047 | 1812 | 0 TO 11MHZ        | IN 10 RANGES |            |
| IG-115     | 03782 | 047 | 1908 | 14KHZ TO 1GHZ     |              |            |
| PL-117B/U  | 28480 | 047 | 0791 | 10HZ TO 100KHZ    |              |            |
| SG-106/U   | 80009 | 054 | 0838 | 25HZ TO 1MHZ      | IN 9 RANGES  |            |
| SG-298/U   | 08775 | 047 | 0839 | .008HZ TO 2KHZ    | IN 10 BANDS  |            |
| SG-298A/L  | 21764 | 047 | 0840 | .008 TO 1200HZ    | IN 5 BANDS   |            |
| SG-299/U   | 28569 | 054 | 0841 | 1HZ TO 1MHZ       | IN 6 RANGES  |            |
| SG-299B/U  | 28569 | 054 | 0842 | 1HZ TO 1MHZ       | IN 6 RANGES  |            |
| SG-321/U   | 83563 | 047 | 0844 | .008 TO 1200HZ    |              |            |
| SG-321B/L  | 24635 | 047 | 0846 | .008 TO 1.2KH     |              |            |
| SG-747     | 28480 | 047 | 0872 | .01HZ TO 100KHZ   | IN 10 RANGES |            |
| SG-769/U   | 23338 | 047 | 0875 | .015HZ TO 1MHZ    |              |            |
| SG-772/G   | 80009 | 054 | 0877 | 25HZ TO 1MHZ      | IN 9 RANGES  | +/-3 PCT   |
| TS-583/U   | 28480 | 054 | 3636 | 20HZ TO 20KHZ     |              |            |
| TS-583A/U  | 35225 | 054 | 3637 | 20HZ TO 10KHZ     |              |            |
| 106 TYPE 2 | 80009 | 054 | 3340 | 10HZ TO 10MHZ     |              |            |
| 107        | 80009 | 054 | 1884 | 400KHZ TO 1MHZ    | 1 BAND       |            |
| 116 VCC    | 23338 | 047 | 1887 | 0 TO 200KHZ       |              | +/-1 PCT   |
| 1410       | 65092 | 047 | 1657 | .001 TO 10KHZ     |              | +/-0.5 PCT |
| 202A       | 28480 | 047 | 3345 | .008 TO 1200HZ    |              |            |
| 504B       | 10597 | 047 | 1862 | 100NANOHZ TO 1MHZ |              |            |

OUTPUT FREQUENCY RESPONSE 26800

02

047 9002 VARIATION OF OUT PUT LEVEL BETWEEN BANDS NGT

+/-108

HARMONICS

25000

02

047 9002 SINE WAVE NLT 3008 BELOW FUNDAMENTAL FREQ

2000  
3312A

88865 047 8015 220R BELOW FREQ  
28480 047 8014 GT 3008

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | F4M<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

|                  |  |       |  |  |  |
|------------------|--|-------|--|--|--|
| OUTPUT IMPEDANCE |  | 35200 |  |  |  |
|------------------|--|-------|--|--|--|

|    |  |     |      |                          |  |
|----|--|-----|------|--------------------------|--|
| 02 |  | 047 | 9002 | 50 OHMS IMPEDANCE OUTPUT |  |
|----|--|-----|------|--------------------------|--|

|       |       |     |      |         |  |
|-------|-------|-----|------|---------|--|
| 142   | 23338 | 047 | 8013 | 50 OHMS |  |
| 2000  | 88865 | 047 | 8015 | 50 OHMS |  |
| 3312A | 28480 | 047 | 8014 | 50 OHMS |  |
| 7030  | 21793 | 047 | 8012 | 50 OHMS |  |

|            |       |     |      |                           |  |
|------------|-------|-----|------|---------------------------|--|
| AN/USM-256 | 72314 | 054 | 0491 | 50 OR 600 OHMS SELECTABLE |  |
| AN/USM-358 | 80009 | 054 | 0537 | 50 OHMS                   |  |
| F51A       | 07421 | 047 | 1902 | 50 OHMS                   |  |
| IG-115     | 03782 | 047 | 1908 | 50 OHMS                   |  |
| SG-298/U   | 08775 | 047 | 0839 | 4000 OHMS                 |  |
| SG-298A/U  | 21764 | 047 | 0840 | 40 OHMS                   |  |
| SG-299/U   | 28569 | 054 | 0841 | 75 & 600 OHMS             |  |
| SG-299R/U  | 28569 | 054 | 0842 | 75 AND 600 OHMS           |  |
| SG-321/U   | 83563 | 047 | 0844 | 4000 OHMS                 |  |
| SG-321B/U  | 24635 | 047 | 0846 | 40 OHMS                   |  |
| SG-747     | 28480 | 047 | 0872 | 600 OHMS                  |  |
| SG-769/U   | 23338 | 047 | 0875 | 50 AND 600 OHMS           |  |
| SG-772/G   | 86009 | 054 | 0877 | 50 OHMS                   |  |
| TS-583/U   | 28480 | 054 | 3636 | 500 OR 1000 OHMS          |  |
| TS-583A/U  | 35225 | 054 | 3637 | 1000 OHMS                 |  |
| 106 TYPE 2 | 80009 | 054 | 3340 | 50 OHMS                   |  |
| 107        | 80009 | 054 | 1884 | 50 OHMS                   |  |

|           |  |       |  |  |  |
|-----------|--|-------|--|--|--|
| LINEARITY |  | 39500 |  |  |  |
|-----------|--|-------|--|--|--|

|    |  |     |      |                                                   |  |
|----|--|-----|------|---------------------------------------------------|--|
| 02 |  | 047 | 9032 | SAWTOOTH & TRIANGLE WAVE LINEARITY ERROR AT 100HZ |  |
|----|--|-----|------|---------------------------------------------------|--|

LT 1 PCT

|       |       |     |      |          |  |
|-------|-------|-----|------|----------|--|
| 142   | 23338 | 047 | 8013 | LT .0005 |  |
| 3312A | 28480 | 047 | 8014 |          |  |

+/- .5 PCT

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC OTS ETE TYPE DESIGNATOR/ FAM TIME ACCURACY -PCT-  
 NO MER'S MDL NO MER'S MODEL NO FSCM CODE ID NO. PARAMETER OR AS STATED

OUTPUT SIGNALS 50000  
 -----

02 047 9002 SELECT WAVEFORMS SINE,SQUARE,PULSE,TRIANGLE & SAWTOOTH

FG502 80009 047 8011 SINE,SQUARE,TRIANGLE,PULSE AND SAWTOOTH  
 142 23338 047 8013 SINE,SQUARE,TRIANGLE,PULSE AND SAWTOOTH WAVE FORMS  
 2000 88865 047 8015 SINE,SQUARE,TRIANGLE,RAMP,PULSES  
 3312A 28480 047 8014 SAWTOOTH,SQUARE,SINE,TRIANGLE AND PULSE

AN/USM-108 28569 047 0440 SINEWAVE AND PULSE MARKERS  
 AN/USM-256 72314 054 0491 SQUARE WAVE AND TRIGGER PULSES  
 AN/USM-358 80009 054 0537 SQUARE WAVE POS OR NEG  
 F51A 07421 047 1902 SINE,SQUARE,TRIANGLE AND RAMP WAVE FORMS  
 F55A 07421 047 1812 SINE,SQUARE,TRIANGLE WAVE(W/RAMP AND PULSE TO 5MHZ)  
 PL-1178/U 28490 047 0791 OFF SET SINE AND PULSE  
 SG-298/U 08775 047 0839 SINE,SQUARE,TRIANGLE  
 SG-298A/U 21764 047 0840 SINE,SQUARE,TRIANGULAR  
 SG-299/U 28569 054 0841 SQUARE WAVE  
 SG-299B/U 28569 054 0842 SQUARE WAVE  
 SG-321/U 83563 047 0844 SINE,TRIANGLE,SQUARE WAVES  
 SG-3218/U 24635 047 0846 SINE,TRIANGLE,SQUARE WAVE  
 SG-747 28480 047 0872 SINE,SQUARE,TRIANGLE  
 SG-769/U 23338 047 0875 SINE,TRIANGLE,SQUARE WAVE  
 SG-772/G 80009 054 0877 SQUARE WAVE  
 TS-583/U 28480 054 3636 SQUARE WAVE  
 TS-583A/U 35225 054 3637 SQUARE WAVE  
 IO6 TYPE 2 80009 054 3340 SQUARE WAVE POS & NEG  
 IO7 80009 054 1884 SQUARE WAVE  
 1410 65092 047 1657 SINE,SQUARE,SUPPRESSED CARRIER  
 202A 28480 047 3345 SINE,SQUARE,TRIANGLE  
 3310A 28480 047 1842 SINE,SQUARE,PULSE,RAMP WAVEFORMS  
 5048 10597 047 1862 SINE,SQUARE,TRIANGLE,PULSE

PULSE WIDTH 56010  
 -----

02 047 9002 NLT .1US TO 5SEC CONTINUOUSLY VARIABLE

IO9 80009 054 1885 300NSEC

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

|                       |  |       |  |  |  |  |
|-----------------------|--|-------|--|--|--|--|
| PULSE MD0, TRANS TIME |  | 56430 |  |  |  |  |
|-----------------------|--|-------|--|--|--|--|

|    |  |  |     |      |                                                        |  |
|----|--|--|-----|------|--------------------------------------------------------|--|
| 02 |  |  | 047 | 9032 | THE RISE & FALL TIME OF SQ-WAVE & PULSE LT 2INSEC EACH |  |
|----|--|--|-----|------|--------------------------------------------------------|--|

|     |  |       |     |      |            |  |
|-----|--|-------|-----|------|------------|--|
| 142 |  | 23338 | 047 | 8013 | 20 NANOSEC |  |
|-----|--|-------|-----|------|------------|--|

|                        |  |       |  |  |  |  |
|------------------------|--|-------|--|--|--|--|
| SYNCHRONIZATION OUTPUT |  | 74800 |  |  |  |  |
|------------------------|--|-------|--|--|--|--|

|    |  |  |     |      |                                                       |  |
|----|--|--|-----|------|-------------------------------------------------------|--|
| 02 |  |  | 047 | 9002 | SYNC OUTPUT TO 1V P/P SQ-WAVE W/500HM IMPED +/-100HMS |  |
|----|--|--|-----|------|-------------------------------------------------------|--|

|                   |  |       |  |  |  |  |
|-------------------|--|-------|--|--|--|--|
| RF VOLTAGE OUTPUT |  | 85600 |  |  |  |  |
|-------------------|--|-------|--|--|--|--|

|    |  |  |     |      |                        |        |
|----|--|--|-----|------|------------------------|--------|
| 02 |  |  | 047 | 9002 | 10V P/P AT 50 OHM LOAD | +/-108 |
|----|--|--|-----|------|------------------------|--------|

|       |  |       |     |      |                        |  |
|-------|--|-------|-----|------|------------------------|--|
| 142   |  | 23338 | 047 | 8013 | 4V P/P AT 50 OHM LOAD  |  |
| 2000  |  | 88865 | 047 | 8015 | 30V P/P AT 50 OHM LOAD |  |
| 3312A |  | 28480 | 047 | 8014 | 10V P/P AT 50 OHM LOAD |  |

|             |       |     |      |                                                        |  |
|-------------|-------|-----|------|--------------------------------------------------------|--|
| AN/USM-108  | 28569 | 047 | 0440 | 3V ACROSS 52 OHM LOAD                                  |  |
| AN/USM-1088 | 28569 | 047 | 0441 | 1V (MARKER), 3V (SINWAVE) 5V (TRIGGER PULSE AT 50 OHMS |  |
| AN/USM-256  | 72314 | 054 | 0491 | 3V AT 50 OHMS & 20V AT 600 OHMS                        |  |
| AN/USM-358  | 80009 | 054 | 0537 | 2.5 TO 50V ACROSS 50 OHM LOAD                          |  |
| F55A        | 07421 | 047 | 1812 | 15V P/P                                                |  |
| SG-106/U    | 80009 | 054 | 0838 | 0 TO 100V ACROSS 600 OHM LOAD                          |  |
| SG-298/U    | 08775 | 047 | 0839 | 30V P/P                                                |  |
| SG-299/U    | 28569 | 054 | 0841 | 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS     |  |
| SG-299/U    | 28569 | 054 | 0841 | 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS     |  |
| SG-321/U    | 83563 | 047 | 0844 | 30V P/P ACROSS 4000 OHM LOAD                           |  |
| SG-747      | 28480 | 047 | 0872 | 35V P/P                                                |  |
| SG-769/U    | 23338 | 047 | 0875 | 5V P/P ACROSS 50 OHM LOAD                              |  |
| SG-772/G    | 80009 | 054 | 0877 | 0-15V ACROSS 50 OHM LOAD                               |  |
| TS-583/U    | 28480 | 054 | 3636 | 50V P/P                                                |  |
| TS-583A/U   | 35225 | 054 | 3637 | 60V P/P                                                |  |
| 106 TYPE 2  | 80009 | 054 | 3340 | .5 TO 12V                                              |  |
| 107         | 80009 | 054 | 1884 | .1 TO .5V                                              |  |
| 202A        | 28480 | 047 | 3345 | 30V P/P ACROSS 4K OHM LOAD                             |  |
| 3310A       | 28480 | 047 | 1942 | 0 TO 4608                                              |  |

+/-

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC QTS ETE TYPE DESIGNATOR/  
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

00100

04

050 9004 GENERATOR, SIGNAL, PULSE

|       |       |     |      |                        |
|-------|-------|-----|------|------------------------|
| PG508 | 80009 | 050 | 8016 | SIGNAL GENERATOR PULSE |
| P22   | 07421 | 050 | 8020 | SIGNAL GENERATOR PULSE |
| 101A  | 00000 | 050 | 8019 | SIGNAL GENERATOR PULSE |
| 110B  | 15933 | 050 | 8018 | SIGNAL GENERATOR PULSE |
| 302A  | 26483 | 050 | 8017 | SIGNAL GENERATOR PULSE |

|                |       |     |      |                        |
|----------------|-------|-----|------|------------------------|
| AN/GPM-15      | 82076 | 050 | 0159 | SIGNAL GENERATOR PULSE |
| AN/GPM-15A     | 82076 | 050 | 0160 | SIGNAL GENERATOR PULSE |
| AN/PPM-1       | 28480 | 050 | 0239 | SIGNAL GENERATOR PULSE |
| AN/PPM-1A      | 28480 | 050 | 3596 | SIGNAL GENERATOR PULSE |
| AN/UPM-15      | 98179 | 050 | 0316 | SIGNAL GENERATOR PULSE |
| AN/UPM-15A     | 15196 | 050 | 0317 | SIGNAL GENERATOR PULSE |
| AN/USM-255     | 72314 | 050 | 0490 | SIGNAL GENERATOR PULSE |
| AN/USM-271     | 80009 | 050 | 0500 | SIGNAL GENERATOR PULSE |
| AN/USM-359     | 80009 | 050 | 3617 | SIGNAL GENERATOR PULSE |
| AN/USM-374     | 80009 | 050 | 0541 | SIGNAL GENERATOR PULSE |
| B7B            | 06692 | 050 | 3251 | SIGNAL GENERATOR PULSE |
| K7006          | 28480 | 050 | 3273 | SIGNAL GENERATOR PULSE |
| MP-1           | 04596 | 050 | 1912 | SIGNAL GENERATOR PULSE |
| PG-32          | 24141 | 050 | 1914 | SIGNAL GENERATOR PULSE |
| RCO 20006      | 23495 | 050 | 3287 | OSCILLATOR DUAL PHASE  |
| SG-1105/U      | 28480 | 050 | 2067 | SIGNAL GENERATOR PULSE |
| SG-343/UPM-15A | 15196 | 050 | 0850 | SIGNAL GENERATOR PULSE |
| SG-366/U       | 80138 | 050 | 0851 | SIGNAL GENERATOR PULSE |
| SG-366A/U      | 80138 | 050 | 0852 | SIGNAL GENERATOR PULSE |
| SG-475/APS-94  | 06344 | 050 | 0855 | SIGNAL GENERATOR PULSE |
| SG-633/UPM-10  | 36004 | 050 | 0827 | SIGNAL GENERATOR PULSE |
| SG-69/PPM      | 28480 | 050 | 0818 | SIGNAL GENERATOR PULSE |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | SIGNAL GENERATOR PULSE |
| SG-693/PPM-1   | 28480 | 050 | 0831 | SIGNAL GENERATOR PULSE |
| TG-501         | 80009 | 050 | 1795 | TIME MARK GENERATOR    |
| TS-592/UPM-15  |       | 050 | 1058 | SIGNAL GENERATOR PULSE |
| TS-592A/UPM-15 | 88585 | 050 | 1059 | SIGNAL GENERATOR PULSE |
| 101            | 15933 | 050 | 1883 | PULSE GENERATOR        |
| 1013           | 82199 | 050 | 1874 | SIGNAL GENERATOR PULSE |
| 109            | 80009 | 054 | 1885 | SIGNAL GENERATOR PULSE |
| 1105A          | 28480 | 050 | 2562 | SIGNAL GENERATOR PULSE |
| 1217C          | 24655 | 050 | 1830 | SIGNAL GENERATOR PULSE |
| 132A           | 13488 | 050 | 1889 | SIGNAL GENERATOR PULSE |
| 139B           | 13488 | 050 | 1890 | SIGNAL GENERATOR PULSE |
| 1920A          | 28480 | 050 | 1838 | SIGNAL GENERATOR PULSE |

H-26



## DEFINITIZATION OF DTS ETE SPECIFICATIONS

06/21/79

FAMILY NAME - GENERATOR, SIGNAL, FUNCTION

SPEC DTS ETE TYPE DESIGNATOR/  
 NO MFR'S MCL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

PULSE MOD, TRANS TIME 56430  
 -----

02 047 9002 THE RISE & FALL TIME OF SQ-WAVE & PULSE LT 21NSEC EACH  
 142 23338 047 8013 20 NANOSEC

SYNCHRONIZATION OUTPUT 74800  
 -----

02 047 9002 SYNC OUTPUT TO 1V P/P SQ-WAVE W/500HM IMPED +/-100HMS

RF VOLTAGE OUTPUT 85600  
 -----

02 047 9002 10V P/P AT 50 OHM LOAD +/-10DB  
 142 23338 047 8013 4V P/P AT 50 OHM LOAD  
 2000 88865 047 8015 30V P/P AT 50 OHM LOAD  
 3312A 28480 047 8014 10V P/P AT 50 OHM LOAD

AN/USM-108 28569 047 0440 3V ACROSS 52 OHM LOAD  
 AN/USM-1088 28569 047 0441 1V (MARKER), 3V (SINWAVE) 5V (TRIGGER PULSE AT 50 OHMS)  
 AN/USM-256 72314 054 0491 3V AT 50 OHMS & 20V AT 600 OHMS  
 AN/USM-358 80009 054 0537 2.5 TO 50V ACROSS 50 OHM LOAD  
 F55A 07421 047 1812 15V P/P  
 SG-106/U 80009 054 0838 0 TO 100V ACROSS 600 OHM LOAD  
 SG-298/U 08775 047 0839 30V P/P  
 SG-299/U 28569 054 0841 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS  
 SG-299/U 28569 054 0841 0 TO 7V P/P ACROSS 75 OHM LOAD 50V ACROSS 600 OHMS  
 SG-321/U 83563 047 0844 30V P/P ACROSS 4000 OHM LOAD +/-  
 SG-747 28480 047 0872 35V P/P  
 SG-769/U 23338 047 0875 5V P/P ACROSS 50 OHM LOAD  
 SG-772/G 80009 054 0877 0-15V ACROSS 50 OHM LOAD  
 TS-583/U 28480 054 3636 50V P/P  
 TS-583A/U 35225 054 3637 60V P/P  
 106 TYPE 2 80009 054 3340 .5 TO 12V  
 107 80009 054 1884 .1 TO .5V  
 202A 28480 047 3345 30V P/P ACROSS 4K OHM LOAD  
 3310A 28480 047 1942 0 TO 46DB

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - 'GENERATOR, SIGNAL, PULSE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE IO NO | PARAMETER |
|---------------------------------|------------------------------------|-------------|--------------------|-----------|
|---------------------------------|------------------------------------|-------------|--------------------|-----------|

ACCURACY -PCT-  
OR AS STATED

00100

04

050 9004 GENERATOR, SIGNAL, PULSE

|       |  |       |     |      |                        |
|-------|--|-------|-----|------|------------------------|
| PG508 |  | 80009 | 050 | 8016 | SIGNAL GENERATOR PULSE |
| P22   |  | 07421 | 050 | 8020 | SIGNAL GENERATOR PULSE |
| 101A  |  | 00000 | 050 | 8019 | SIGNAL GENERATOR PULSE |
| 1108  |  | 15933 | 050 | 8018 | SIGNAL GENERATOR PULSE |
| 302A  |  | 26483 | 050 | 8017 | SIGNAL GENERATOR PULSE |

|                |       |     |      |                        |
|----------------|-------|-----|------|------------------------|
| AN/GPM-15      | 82076 | 050 | 0159 | SIGNAL GENERATOR PULSE |
| AN/GPM-15A     | 82076 | 050 | 0160 | SIGNAL GENERATOR PULSE |
| AN/PPM-1       | 28480 | 050 | 0239 | SIGNAL GENERATOR PULSE |
| AN/PPM-1A      | 28480 | 050 | 3596 | SIGNAL GENERATOR PULSE |
| AN/UPM-15      | 98179 | 050 | 0316 | SIGNAL GENERATOR PULSE |
| AN/UPM-15A     | 15196 | 050 | 0317 | SIGNAL GENERATOR PULSE |
| AN/USM-255     | 72314 | 050 | 0490 | SIGNAL GENERATOR PULSE |
| AN/USM-271     | 80009 | 050 | 0500 | SIGNAL GENERATOR PULSE |
| AN/USM-359     | 80009 | 050 | 3617 | SIGNAL GENERATOR PULSE |
| AN/USM-374     | 80009 | 050 | 0541 | SIGNAL GENERATOR PULSE |
| 87B            | 06692 | 050 | 3251 | SIGNAL GENERATOR PULSE |
| K7076          | 28480 | 050 | 3273 | SIGNAL GENERATOR PULSE |
| MP-1           | 04596 | 050 | 1912 | SIGNAL GENERATOR PULSE |
| PG-32          | 24141 | 050 | 1914 | SIGNAL GENERATOR PULSE |
| PCD 20006      | 23495 | 050 | 3297 | OSCILLATOR DUAL PHASE  |
| SG-1105/U      | 28480 | 050 | 2067 | SIGNAL GENERATOR PULSE |
| SG-343/UPM-15A | 15196 | 050 | 0850 | SIGNAL GENERATOR PULSE |
| SG-366/U       | 80138 | 050 | 0851 | SIGNAL GENERATOR PULSE |
| SG-366A/U      | 80138 | 050 | 0852 | SIGNAL GENERATOR PULSE |
| SG-475/APS-94  | 06344 | 050 | 0855 | SIGNAL GENERATOR PULSE |
| SG-633/UPM-10  | 36004 | 050 | 0827 | SIGNAL GENERATOR PULSE |
| SG-69/PPM      | 28480 | 050 | 0818 | SIGNAL GENERATOR PULSE |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | SIGNAL GENERATOR PULSE |
| SG-693/PPM-1   | 28480 | 050 | 0831 | SIGNAL GENERATOR PULSE |
| TG-501         | 80009 | 050 | 1795 | TIME MARK GENERATOR    |
| TS-592/UPM-15  |       | 050 | 1058 | SIGNAL GENERATOR PULSE |
| TS-592A/UPM-15 | 88585 | 050 | 1059 | SIGNAL GENERATOR PULSE |
| 101            | 15933 | 050 | 1883 | PULSE GENERATOR        |
| 1013           | 82199 | 050 | 1874 | SIGNAL GENERATOR PULSE |
| 109            | 80009 | 054 | 1885 | SIGNAL GENERATOR PULSE |
| 1105A          | 28480 | 050 | 2562 | SIGNAL GENERATOR PULSE |
| 1217C          | 24655 | 050 | 1830 | SIGNAL GENERATOR PULSE |
| 132A           | 13488 | 050 | 1889 | SIGNAL GENERATOR PULSE |
| 139B           | 13488 | 050 | 1890 | SIGNAL GENERATOR PULSE |
| 1920A          | 28480 | 050 | 1838 | SIGNAL GENERATOR PULSE |

## DEFINITIZATION OF DTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC DTS ETC<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

00100

|        |       |     |      |                         |  |
|--------|-------|-----|------|-------------------------|--|
| 2133   | 28480 | 050 | 1850 | SIGNAL GENERATOR PULSE  |  |
| 214A   | 28480 | 050 | 3348 | SIGNAL GENERATOR PULSE  |  |
| 216A   | 28480 | 050 | 1851 | SIGNAL GENERATOR PULSE  |  |
| 219AR  | 28480 | 050 | 1852 | GENERATOR DIGITAL DELAY |  |
| 222A   | 28480 | 050 | 1853 | SIGNAL GENERATOR PULSE  |  |
| 2901   | 80009 | 050 | 1849 | GENERATOR TIME MARK     |  |
| 3450D  | 92110 | 050 | 1844 | SIGNAL GENERATOR PULSE  |  |
| 5070B  | 60138 | 050 | 2576 | SIGNAL GENERATOR PULSE  |  |
| 6254-5 | 13222 | 050 | 1848 | SIGNAL GENERATOR PULSE  |  |
| 80353  | 28480 | 050 | 1849 | SIGNAL GENERATOR PULSE  |  |

DIMENSIONS IN MM/INS 00110

04

050 9004 440MM(17IN)WX180MM(6.5IN)HX360MM(13.5IN)

|       |       |     |      |                                    |  |
|-------|-------|-----|------|------------------------------------|--|
| PG508 | 80009 | 050 | 8016 | 15CM(6IN)WX22CM(9IN)HX39CM(15IN)D  |  |
| P22   | 07421 | 050 | 8020 | 43CM(17IN)WX9CM(4IN)HX34CM(14IN)D  |  |
| 110B  | 15933 | 050 | 8018 | 43CM(17IN)WX13CM(5IN)HX35CM(14IN)D |  |
| 302A  | 26483 | 050 | 8017 | 19CM(8IN)WX11CM(4IN)HX23CM(8IN)D   |  |

|                |       |     |      |                                                         |  |
|----------------|-------|-----|------|---------------------------------------------------------|--|
| AN/GPM-15      | 82076 | 050 | 0159 | 31.12CM(12.25IN)WX23.50CM(9.25IN)HX17.78CM(7IN)D        |  |
| AN/GPM-15A     | 82076 | 050 | 0160 | 31.12CM(12.25IN)WX23.50CM(9.25IN)HX17.78CM(7IN)D        |  |
| AN/PPM-1       | 28480 | 050 | 0239 | 26.67CM(10.5IN)WX36.83CM(14.5IN)HX48.26CM(19IN)D        |  |
| AN/UPM-15      | 98179 | 050 | 0316 | 50.17CM(19.75IN)WX40.01CM(15.75IN)HX58.42CM(23IN)D      |  |
| AN/UPM-15A     | 15196 | 050 | 0317 | 50.17CM(19.75IN)WX40.01CM(15.75IN)HX58.42CM(23IN)D      |  |
| AN/USM-255     | 72314 | 050 | 0490 | 21.59CM(8.5IN)WX29.21CM(11.5IN)HX13.34CM(5.25IN)D       |  |
| AN/USM-271     | 80009 | 050 | 0500 | 22.86CM(9IN)WX37.47CM(14.75IN)HX15.24CM(6IN)D           |  |
| AN/USM-359     | 80009 | 050 | 3617 | 22.86CM(9IN)WX15.24CM(6IN)HX45.40CM(17.875IN)           |  |
| AN/USM-374     | 80009 | 050 | 0541 | 16.04CM(6.313IN)WX28.74CM(11.313IN)HX29.05CM(11.438IN)W |  |
| B7B            | 06692 | 050 | 3251 | 49.53CM(19.5IN)WX33.02CM(13IN)HX22.23CM(8.75IN)D        |  |
| K7006          | 28480 | 050 | 3273 | 17.78CM(7IN)WX48.26CM(19IN)HX15.24CM(6IN)D              |  |
| MD-1           | 04596 | 050 | 1912 | 15.24CM(6IN)WX20.96CM(8.25IN)HX20.32CM(8IN)D            |  |
| PG-32          | 24141 | 050 | 1914 | 43.18CM(17IN)WX39.10CM(15IN)HX8.89CM(3.5IN)D            |  |
| RCD 20006      | 23475 | 050 | 3287 | 48.26CM(19IN)WX40.64CM(16IN)HX7.62CM(3IN)D              |  |
| SG-1105/U      | 28480 | 050 | 2067 | 14.22CM(5.6IN)WX33.02CM(13IN)HX20.07CM(7.9IN)D          |  |
| SG-343/UPM-15A | 15196 | 050 | 0850 | 27.94CM(11IN)WX35.56CM(14IN)HX48.26CM(19IN)D            |  |
| SG-366/U       | 80138 | 050 | 0851 | 38.74CM(15.25IN)WX49.53CM(19.5IN)HX24.45CM(9.625IN)D    |  |
| SG-366A/U      | 80138 | 050 | 0852 | 49.53CM(19.5IN)WX29.32CM(8IN)HX34.29CM(13.5IN)D         |  |
| SG-475/APS-94  | 06344 | 050 | 0855 | 38.10CM(15IN)WX48.26CM(19IN)HX13.34CM(5.25IN)D          |  |
| SG-638/UPM-10  | 36004 | 050 | 0827 | 43.94CM(17.3IN)WX21.34CM(8.4IN)HX8.89CM(3.5IN)D         |  |

H-27

## OFFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC OTS ETE TYPE DESIGNATOR/  
NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

DIMENSIONS IN MM/(NS) 00110

|                |       |     |      |                                                          |
|----------------|-------|-----|------|----------------------------------------------------------|
| SG-69/PPM      | 28480 | 050 | 0818 | 52.71CM(20.75IN)WX32.39CM(12.75IN)HX36.04CM(14.18IN)D    |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | 52.71CM(20.75IN)WX32.39CM(12.75IN)HX36.20CM(14.25IN)D    |
| SG-69B/PPM-1   | 28480 | 050 | 0831 | 52.71CM(20.75IN)WX32.39CM(12.75IN)HX36.04CM(14.18IN)D    |
| TG-501         | 80009 | 050 | 1795 | 6.60CM(2.6IN)WX12.70CM(5IN)HX30.99CM(12.2IN)D            |
| TS-592/UPM-15  |       | 050 | 1058 | 37.15CM(14.625IN)WX30.16CM(11.875IN)HX51.60CM(20.313IN)D |
| TS-592A/UPM-15 | 88585 | 050 | 1059 | 37.15CM(14.625IN)WX30.16CM(11.875IN)HX51.60CM(20.313IN)D |
| 101            | 15933 | 050 | 1883 | 27.94CM(11IN)WX8.89CM(3.5IN)HX21.59CM(8.5IN)D            |
| 1013           | 82199 | 050 | 1874 | 38.10CM(15IN)WX20.32CM(8IN)HX48.26CM(19IN)D              |
| 109            | 80009 | 050 | 1885 | 12.70CM(5IN)WX20.32CM(8IN)HX30.48CM(12IN)D               |
| 1105A          | 28480 | 050 | 2562 | 13.34CM(5.25IN)WX5.38CM(2.12IN)HX17.53CM(6.9IN)D         |
| 1217C          | 24655 | 050 | 1830 | 14.61CM(5.75IN)WX15.88CM(6.25IN)HX50.80CM(20IN)D         |
| 1324           | 13486 | 050 | 1889 | 48.26CM(19IN)WX27.94CM(11IN)HX17.78CM(7IN)D              |
| 1398           | 13488 | 050 | 1890 | 43.18CM(17IN)WX15.24CM(6IN)HX30.48CM(12IN)D              |
| 1920A          | 28480 | 050 | 1838 | 20.32CM(8IN)WX10.16CM(4IN)HX18.42CM(7.25IN)D             |
| 2138           | 28480 | 050 | 1850 | 13.32CM(5.125IN)WX12.70CM(5IN)HX3.81CM(1.5IN)D           |
| 2144           | 28480 | 050 | 3348 | 42.55CM(16.75IN)WX17.62CM(6.938IN)HX46.67CM(18.375IN)D   |
| 216A           | 28480 | 050 | 1851 | 42.55CM(16.75IN)WX46.67CM(18.375IN)HX13.97CM(5.5IN)D     |
| 218AR          | 28480 | 050 | 1852 | 48.26CM(19IN)WX55.25CM(21.75IN)HX35.56CM(14IN)D          |
| 222A           | 28430 | 050 | 1853 | 13.97CM(5.5IN)WX34.29CM(13.5IN)HX42.55CM(16.75IN)D       |
| 2901           | 80009 | 050 | 1840 | 20.32CM(8IN)WX10.16CM(4IN)HX                             |
| 3450D          | 92110 | 050 | 1844 | 24.21CM(11.5IN)WX40.64CM(16IN)HX50.80CM(20IN)D           |
| 5073B          | 80138 | 050 | 2576 | 48.26CM(19IN)WX33.02CM(13IN)HX22.56CM(9IN)D              |
| 6254-5         | 13222 | 050 | 1848 | 21.59CM(8.5IN)WX22.86CM(9IN)HX37.15CM(14.625IN)D         |
| 80058          | 28480 | 050 | 1849 | 42.55CM(16.75IN)WX13.97CM(5.5IN)HX33.66CM(13.25IN)D      |

WEIGHT IN KG/LBS 00120

04 050 9004 10KG(22.1 LBS)

|      |       |     |      |              |
|------|-------|-----|------|--------------|
| 922  | 07421 | 050 | 8020 | 7.2KG(16LBS) |
| 1108 | 15933 | 050 | 8018 | 10KG(25LBS)  |
| 3021 | 26483 | 050 | 8017 | 3KG(7LBS)    |

|            |       |     |      |                 |
|------------|-------|-----|------|-----------------|
| AN/GPM-15  | 82076 | 050 | 0159 | 7.72KG(17LBS)   |
| AN/GPM-15A | 82076 | 050 | 0160 | 7.72KG(17LBS)   |
| AN/PPM-1   | 28480 | 050 | 0239 | 21.79KG(48LBS)  |
| AN/UPM-15  | 98179 | 050 | 0316 | 56.75KG(125LBS) |
| AN/UPM-15A | 15196 | 050 | 0317 | 56.75KG(125LBS) |
| AN/USM-255 | 72314 | 050 | 0490 | 4.54KG(10LBS)   |
| AN/USM-271 | 80009 | 050 | 0500 | 5.90KG(13LBS)   |

## DEFINITION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OF AS STATED

WEIGHT IN KG/LBS 00120

|                |       |     |      |                 |
|----------------|-------|-----|------|-----------------|
| AN/USM-359     | 80009 | 050 | 3617 | 6.825KG(15LBS)  |
| AN/USM-374     | 80009 | 050 | 0541 | 4.09KG(9LBS)    |
| 879            | 06692 | 050 | 3251 | 25.42KG(56LBS)  |
| K7406          | 28480 | 050 | 3273 | 6.81KG(15LBS)   |
| MP-1           | 04596 | 050 | 1912 | 3.18KG(7LBS)    |
| PG-32          | 24141 | 050 | 1914 | 13.62KG(30LBS)  |
| PGO 20006      | 23405 | 050 | 3287 | 13.62KG(30LBS)  |
| SG-1105/U      | 28480 | 050 | 2067 | 4.09KG(9LBS)    |
| SG-343/UPM-15A | 15196 | 050 | 0850 | 22.70KG(50LBS)  |
| SG-366/U       | 80138 | 050 | 0851 | 13.62KG(30LBS)  |
| SG-475/APS-S4  | 06344 | 050 | 0855 | 8.17KG(18LBS)   |
| SG-638/UPM-10  | 36014 | 050 | 0827 | 5.45KG(12LBS)   |
| SG-69/PPM      | 28480 | 050 | 0818 | 25.42KG(56LBS)  |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | 25.42KG(56LBS)  |
| SG-69B/PPM-1   | 28480 | 050 | 0831 | 25.42KG(56LBS)  |
| TG-501         | 80009 | 050 | 1795 | 1.36KG(3LBS)    |
| TS-592A/UPM-15 | 88585 | 050 | 1059 | 36.4KG(80LBS)   |
| 101            | 15933 | 050 | 1883 | 3.63KG(8LBS)    |
| 109            | 80009 | 054 | 1885 | 3.63KG(8LBS)    |
| 1105A          | 28480 | 050 | 2562 | 1.82KG(4LBS)    |
| 1217C          | 24655 | 050 | 1830 | 7.04KG(15.5LBS) |
| 132A           | 13488 | 050 | 1889 | 9.99KG(22LBS)   |
| 139B           | 13488 | 050 | 1890 | 9.08KG(20LBS)   |
| 1920A          | 28480 | 050 | 1838 | 1.82KG(4LBS)    |
| 2138           | 28480 | 050 | 1850 | .91KG(2LBS)     |
| 214A           | 28480 | 050 | 3348 | 15.89KG(35LBS)  |
| 216A           | 28480 | 050 | 1851 | 11.35KG(25LBS)  |
| 218AR          | 28480 | 050 | 1852 | 33.60KG(74LBS)  |
| 222A           | 28480 | 050 | 1853 | 8.17KG(18LBS)   |
| 2901           | 80009 | 050 | 1840 | 4.09KG(9LBS)    |
| 34500          | 92110 | 050 | 1844 | 37.68KG(83LBS)  |
| 80058          | 28480 | 050 | 1849 | 7.26KG(16LBS)   |

ENCLOSURE (STYLE) 00130

04

050 9004 MIL-T-28800 STYLE E W/RACK MOUNT CAPABILITY

|       |       |     |      |                       |
|-------|-------|-----|------|-----------------------|
| PG50B | 80009 | 050 | 8016 | RACK MOUNT CAPABILITY |
| P22   | 07421 | 050 | 8020 | RACK MOUNT CAPABILITY |
| 1103  | 15933 | 050 | 8018 | RACK MOUNT CAPABILITY |

AN/GPM-15A 82076 050 0160 CASE MOUNTED

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC OTS ETE TYPE DESIGNATOR/ FAM TMOE  
NO MFR'S MDL NO MFR'S MDL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

ENCLOSURE (STYLE) 00130  
-----

|                |       |     |      |                  |
|----------------|-------|-----|------|------------------|
| AN/PPM-1       | 28480 | 050 | 0239 | PORTABLE         |
| AN/UPM-15      | 98179 | 050 | 0316 | PORTABLE         |
| AN/UPM-15A     | 15196 | 050 | 0317 | PORTABLE         |
| AN/USM-255     | 72314 | 050 | 0490 | PORTABLE         |
| K7006          | 28480 | 050 | 3273 | PLUG-IN MODULE   |
| SG-1105/U      | 28480 | 050 | 2067 | PORTABLE         |
| SG-366/U       | 80138 | 050 | 0851 | PORTABLE         |
| SG-366A/U      | 80138 | 050 | 0852 | PORTABLE         |
| SG-475/APS-94  | 06344 | 050 | 0855 | RACK MOUNT       |
| SG-69/PPM      | 28480 | 050 | 0818 | PORTABLE OR RACK |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | PORTABLE         |
| TS-592/UPM-15  |       | 050 | 1058 | PORTABLE         |
| TS-592A/LPM-15 | 88585 | 050 | 1059 | PORTABLE         |
| 1920A          | 28480 | 050 | 1838 | PLUG-IN          |

PWR SOURCE(S)/CONSUMPTION 00140  
-----

04 050 9034 TYPE II 50,60,400HZ SINGLE PHASE 115/230 VAC/75W

|       |       |     |      |                                     |
|-------|-------|-----|------|-------------------------------------|
| PG508 | 80009 | 050 | 8016 | 50,60,400HZ S-PHASE 115/230VAC/     |
| 222   | 07421 | 050 | 8020 | 50,60,400HZ S-PHASE 115/230VAC/     |
| 110B  | 15933 | 050 | 8018 | 50,60,400HZ S-PHASE 115/230VAC/150W |
| 302A  | 26483 | 050 | 8017 | 50,60,400HZ S-PHASE 115/230VAC/20W  |

|                |       |     |      |                                 |
|----------------|-------|-----|------|---------------------------------|
| AN/GPM-15      | 82076 | 050 | 0159 | 50-1000HZ S-PHASE 115VAC/38W    |
| AN/GPM-15A     | 82076 | 050 | 0160 | 50-1000HZ S-PHASE 115VAC/38W    |
| AN/PPM-1       | 28480 | 050 | 0239 | 50-60HZ S-PHASE 115/230VAC 325W |
| AN/PPM-1A      | 28480 | 050 | 3596 | 50-60HZ S-PHASE 115-230VAC      |
| AN/UPM-15      | 98179 | 050 | 0316 | 50-1000HZ S-PHASE 115VAC/300W   |
| AN/UPM-15A     | 15196 | 050 | 0317 | 50-1000HZ S-PHASE 115VAC 300W   |
| AN/USM-255     | 72314 | 050 | 0490 | 60HZ S-PHASE 115VAC             |
| AN/USM-271     | 80009 | 050 | 0500 | 50-400HZ S-PHASE 115/230VAC 40W |
| AN/USM-359     | 80009 | 050 | 3617 | 60HZ S-PHASE 115/230VAC 115W    |
| AN/USM-374     | 80009 | 050 | 0541 | 50-800HZ S-PHASE 105/125 35W    |
| B7B            | 06692 | 050 | 3251 | 50-60HZ S-PHASE 115VAC 375W     |
| MP-1           | 04596 | 050 | 1912 | 7.5VDC BATTERY                  |
| PG-32          | 24141 | 050 | 1914 | 50-60HZ S-PHASE 115/230VAC 110W |
| RCD 20006      | 23405 | 050 | 3287 | 50-400HZ S-PHASE 115VAC 70W     |
| SG-1105/U      | 28480 | 050 | 2067 | 48-440HZ S-PHASE 120/240VAC 80W |
| SG-343/UPM-15A | 15196 | 050 | 0850 | 50-1000HZ S-PHASE 115VAC/300W   |

H-30

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>TO NC. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

## PWR SOURCE(S)/CONSUMPTION 00140

|                |       |     |      |                                  |
|----------------|-------|-----|------|----------------------------------|
| SG-366/U       | 80138 | 050 | 0851 | 60HZ S-PHASE 105/125VAC/110W     |
| SG-366A/U      | 80138 | 050 | 0852 | 60HZ S-PHASE 105/125VAC 15W      |
| SG-475/APS-94  | 06344 | 050 | 0855 | 60HZ S-PHASE 115VAC 25W          |
| SG-638/UPM-10  | 36004 | 050 | 0827 | 50-1600HZ S-PHASE 115VAC         |
| SG-69/PPM      | 28480 | 050 | 0818 | 50-60HZ S-PHASE 115-230VAC 325W  |
| SG-69A/PPM-1   | 28480 | 050 | 0830 | 50-60HZ S-PHASE 115/230VAC/380W  |
| SG-69B/PPM-1   | 28480 | 050 | 0831 | 50-60HZ S-PHASE 115-230VAC 325W  |
| TS-592/UPM-15  |       | 050 | 1058 | 50-1000HZ S-PHASE 115VAC         |
| TS-592A/UPM-15 | 88585 | 050 | 1059 | 50-1000HZ S-PHASE 115VAC         |
| 101            | 15933 | 050 | 1883 | 50-400HZ S-PHASE 115/230VAC 15W  |
| 1013           | 82199 | 050 | 1874 | 50-4000HZ S-PHASE 115/230VAC 70W |
| 109            | 80009 | 054 | 1885 | 50-800HZ S-PHASE 115VAC/60W      |
| 11054          | 28480 | 050 | 2562 | 50-400HZ S-PHASE 45VAC/1W        |
| 1217C          | 24655 | 050 | 1830 | 50-60HZ S-PHASE 115VAC 90W       |
| 132A           | 13488 | 050 | 1889 | 50-60HZ S-PHASE 105/125VAC       |
| 139B           | 13488 | 050 | 1890 | 50-60HZ S-PHASE 105/125VAC 75W   |
| 213B           | 28480 | 050 | 1850 | 50-1000HZ S-PHASE 115/230VAC 1W  |
| 214A           | 28480 | 050 | 3348 | 50-400HZ S-PHASE 115VAC 325W     |
| 216A           | 28480 | 050 | 1851 | 50-60HZ S-PHASE 115-230VAC/120W  |
| 218AR          | 28480 | 050 | 1852 | 50-60HZ S-PHASE 115/230VAC 555W  |
| 222A           | 28480 | 050 | 1853 | 50-60HZ S-PHASE 115/230VAC 80W   |
| 2901           | 80009 | 050 | 1840 | 60HZ S-PHASE 115VAC              |
| 34500          | 92110 | 050 | 1844 | 50-60HZ S-PHASE 105/125VAC 500W  |
| 50708          | 80138 | 050 | 2576 | 50-60HZ S-PHASE 117VAC 15W       |
| 6254-5         | 13222 | 050 | 1848 | 60HZ S-PHASE 115VAC 200W         |
| 80058          | 28480 | 050 | 1849 | 50-400HZ S-PHASE 115/230VAC 84W  |

## MT8F SPECIFIED/PREDICTED 00150

04

050 9004 2000 HPS

## PRIMARY CONNECTORS

00170

04

050 9004 SERIES-8NC

|            |       |     |      |                   |
|------------|-------|-----|------|-------------------|
| AN/GPM-15  | 82076 | 050 | 0159 | CABLES & ADAPTERS |
| AN/USM-271 | 80009 | 050 | 0500 | BNC               |
| AN/USM-374 | 80009 | 050 | 0541 | CABLES            |

H-31



## DEFINITIZATION OF ITS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC ITS ETE TYPE DESIGNATOR/ F4M TMDE  
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

## PRIMARY CONNECTORS 00170

|                |       |     |      |                                        |
|----------------|-------|-----|------|----------------------------------------|
| SG-1105/U      | 28480 | 050 | 2067 | TEST LEADS                             |
| SG-343/UPM-15A | 15196 | 050 | 0850 | CABLES                                 |
| SG-475/APS-64  | 06344 | 050 | 0855 | BNC                                    |
| SG-69/PPM      | 28480 | 050 | 0818 | BNC AND N-TYPE                         |
| 1013           | 82199 | 050 | 1874 | LEADS                                  |
| 1135A          | 28480 | 050 | 2562 | BNC                                    |
| 139R           | 13488 | 050 | 1890 | TEST PROBES/CABLE HARNESS              |
| 1920A          | 28480 | 050 | 1838 | CABLES                                 |
| 214A           | 28480 | 050 | 3348 | TEST LEADS                             |
| 222A           | 28480 | 050 | 1853 | CABLES                                 |
| 2901           | 80009 | 050 | 1840 | COAXIAL CABLE VIA REAR PANEL CONNECTOR |
| 5070R          | 80138 | 050 | 2576 | TEST LEADS                             |
| 6254-5         | 13222 | 050 | 1848 | BANANA JACKS                           |

## ENVIRONMENTAL CONDITIONS 00200

|           |       |      |                                             |                     |
|-----------|-------|------|---------------------------------------------|---------------------|
| 04        | 050   | 9004 | MIL-T-28800 TYPE II CLASS 5 STYLE B COLDP R |                     |
| AN/GPM-15 | 82076 | 050  | 0159                                        | MIL-T-21200 CLASS 2 |

## TEMP OPER/NON-OPERATING 00210

|            |       |      |                     |                                |
|------------|-------|------|---------------------|--------------------------------|
| 04         | 050   | 9004 | 0 TO 50C/-55 TO 75C |                                |
| 1108       | 15933 | 050  | 8018                | 0-50C                          |
| AN/GPM-15  | 82076 | 050  | 0159                | AS PER METHOD0502 PROCEDURE1&2 |
| AN/GPM-15A | 82076 | 050  | 0160                | -20C-+55C/                     |
| AN/USM-359 | 80009 | 050  | 3617                | +20C-+30C/0C-+50C              |

## DEFINITIZATION OF OTS FTE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM  | FAM<br>CODE | TMOF<br>ID NO. | PARAMETER                                        | ACCURACY -PCT-<br>OP AS STATED |
|---------------------------------|------------------------------------|-------|-------------|----------------|--------------------------------------------------|--------------------------------|
| RELATIVE HUMIDITY 00220         |                                    |       |             |                |                                                  |                                |
| 04                              |                                    |       | 050         | 9004           | 95(+5-0)                                         |                                |
|                                 | AN/GPM-15                          | 82076 | 050         | 0159           | AS PER METHOD 507 PROCEDURE (COVER REMOVED)      |                                |
| ALTITUDE OPER/NON-OPER 00230    |                                    |       |             |                |                                                  |                                |
| 04                              |                                    |       | 050         | 9004           | 3050M(10000FT)/12000M(40000FT)                   |                                |
|                                 | AN/UJM-359                         | 80009 | 050         | 3617           | LT 10,000FT/LT 50,000FT                          |                                |
| VIBRATION LIMIT (MAXIMUM) 00240 |                                    |       |             |                |                                                  |                                |
| 04                              |                                    |       | 050         | 9004           | 2G                                               |                                |
| SHOCK, PULSE LEVEL 00250        |                                    |       |             |                |                                                  |                                |
| 04                              |                                    |       | 050         | 9004           | 30G                                              |                                |
| OUTPUT ATTENUATION 03600        |                                    |       |             |                |                                                  |                                |
| 04                              |                                    |       | 050         | 9004           | 0-90DB IN 10DB STEPS W/10DB VERNIER IN 1DB STEPS |                                |
|                                 | SG-69/PPM                          | 28480 | 050         | 0818           | 0-50DB IN 10 DB STEPS                            |                                |
|                                 | SG-69A/PPM-1                       | 28480 | 050         | 0830           | 0-50DB IN 10 DB STEPS                            |                                |
|                                 | 50708                              | 80138 | 050         | 2576           | 1010B IN 1DB STEPS                               |                                |

H-33

34

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDF<br>CODE IO NO | PARAMETER |
|---------------------------------|------------------------------------|-------------|--------------------|-----------|
|---------------------------------|------------------------------------|-------------|--------------------|-----------|

ACCURACY -PCT-  
OR AS STATED

OUTPUT IMPEDANCE 35200

|       |                |       |          |                           |
|-------|----------------|-------|----------|---------------------------|
| 04    |                | 050   | 9004     | 50 OHMS                   |
| PG508 |                | 80009 | 050 8016 | 50 OHMS                   |
| P22   |                | 07421 | 050 8020 | 50 OHMS                   |
| 101A  |                | 00000 | 050 8019 | 50 OHMS                   |
| 110B  |                | 15933 | 050 8018 | 50 OHMS                   |
| 302A  |                | 26433 | 050 8017 | 50 OHMS                   |
|       | AN/GPM-15      | 82076 | 050 0159 | 50 OHMS                   |
|       | AN/GPM-15A     | 82076 | 050 0160 | 50 OHMS                   |
|       | AN/PPM-1       | 28480 | 050 0239 | 50 OHMS                   |
|       | AN/PPM-1A      | 28480 | 050 3596 | 50 OHMS                   |
|       | AN/UPM-15      | 98179 | 050 0316 | 50 AND 70 OHMS            |
|       | AN/UPM-15A     | 15196 | 050 0317 | 50 AND 75 OHMS            |
|       | AN/USM-255     | 72314 | 050 0490 | 50 AND 1000 OHMS          |
|       | AN/USM-374     | 80009 | 050 0541 | 50 OHMS                   |
|       | B 78           | 06692 | 050 3251 | 50 OHMS                   |
|       | SG-1105/U      | 28480 | 050 2067 | 50 OHMS                   |
|       | SG-343/UPM-15  | 15196 | 050 0850 | 2500,250,OR 50-MATCHED    |
|       | SG-366/U       | 80138 | 050 0851 | 50 OHMS                   |
|       | SG-366A/U      | 80138 | 050 0852 | 50 OHMS                   |
|       | SG-475/APS-94  | 06344 | 050 0855 | 100 OHMS                  |
|       | SG-69/PPM      | 28480 | 050 0818 | 50 OHMS                   |
|       | SG-69B/PPM-1   | 28480 | 050 0831 | 50 OHMS                   |
|       | TS-592/UPM-15  | 050   | 1058     | 2500,250(50 OHMS-MATCHED) |
|       | TS-592A/UPM-15 | 98585 | 050 1059 | 2500,250(50 OHMS-MATCHED) |
|       | 109            | 80009 | 050 1835 | 50 OHMS                   |
|       | 1105A          | 28480 | 050 2562 | 50 OHMS                   |
|       | 222A           | 28480 | 050 1853 | 50 OHMS                   |
|       | 50708          | 80138 | 050 2576 | 50 OHMS                   |
|       | 80058          | 28480 | 050 1849 | 50 OHMS                   |

OUTPUT SIGNALS 50000

|    |           |       |          |                                     |
|----|-----------|-------|----------|-------------------------------------|
| 04 |           | 050   | 9004     | PULSE OUTPUT W/VARIABLE PULSE WIDTH |
|    | AN/GPM-15 | 82076 | 050 0159 | CONTINUOUS OR PULSE                 |
|    | AN/PPM-1  | 28480 | 050 0239 | PULSES                              |
|    | AN/PPM-1A | 28480 | 050 3596 | SAWTOOTH WAVE PULSE                 |

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC OTS ETE NO MFR'S MOL NO TYPE DESIGNATOR/ MFR'S MODEL NO FSCM FAM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

OUTPUT SIGNALS 50000

|               |       |     |      |                                                  |
|---------------|-------|-----|------|--------------------------------------------------|
| B7B           | 06692 | 050 | 3251 | SQ WAVE                                          |
| RCD 20006     | 23405 | 050 | 3287 | 2 PHASE SINE WAVE REF AND VARIABLE PHASE         |
| SG-366/U      | 80138 | 050 | 0851 | CW & PULSE                                       |
| SG-366A/U     | 80138 | 050 | 0852 | CW & PULSED                                      |
| SG-475/APS-54 | 06344 | 050 | 0855 | RECTANGULAR PULSE                                |
| SG-638/UPM-10 | 36004 | 050 | 0827 | SQ WAVES AND PULSE                               |
| 1013          | 82199 | 050 | 1874 | HETERODYNE PRINCIPAL USING 2 HIGH FREQ DST       |
| 109           | 80009 | 054 | 1885 | PULSE                                            |
| 1105A         | 28480 | 050 | 2562 | TRIGGER BIAS SOURCE CONNECTS TO PULSE GEN SUPPLY |
| 2901          | 80009 | 050 | 1840 | MARKERS, SINE WAVES, TRIGGER PULSE INTERVALS     |
| 34500         | 92110 | 050 | 1844 | VARIABLE WIDTH AND FREQ PULSES                   |
| 6254-5        | 13222 | 050 | 1848 | TRANSIENT SINGLE OR SELECTED RATE                |
| 80058         | 28480 | 050 | 1849 | TRIPLE OUTPUT PULSE,                             |

PULSE WIDTH 56010

04

050 9004 VARIABLE FROM 10 NANOSECOND TO 1 SECOND

+/-0.002PCT

|       |       |     |      |                   |
|-------|-------|-----|------|-------------------|
| PG508 | 80009 | 050 | 8016 | 5NS TO 50MS       |
| P22   | 07421 | 050 | 8020 | 10NSEC TO 1SEC    |
| 101A  | 00000 | 050 | 8019 | 50NSEC TO 500MSEC |
| 1108  | 15933 | 050 | 8018 | 3NSEC TO 5MSEC    |
| 302A  | 26483 | 050 | 8017 | 10NSEC            |

|                |       |      |      |                   |
|----------------|-------|------|------|-------------------|
| AN/GPM-15      | 82076 | 050  | 0159 | 40,250,290USEC    |
| AN/GPM-15A     | 82076 | 050  | 0160 | .5 TO 1000USEC    |
| AN/PPM-1       | 28480 | 050  | 0239 | 0 TO 1000USEC     |
| AN/PPM-1A      | 28480 | 050  | 3596 | .07 TO 10USEC     |
| AN/UPM-15      | 98179 | 050  | 0316 | VARIABLE          |
| AN/USM-359     | 80009 | 050  | 3617 | 50NSEC TO 50USEC  |
| AN/USM-374     | 80009 | 050  | 0541 | 2NSEC TO 1.5USEC  |
| B7B            | 06692 | 050  | 3251 | .05 TO 10,000USEC |
| SG-343/UPM-15A | 15196 | 050  | 0850 | 1 TO 2 USEC       |
| SG-366A/U      | 80138 | 050  | 0852 | .20 TO 20USEC     |
| SG-475/APS-54  | 06344 | 050  | 0855 | .5 TO 50USEC      |
| SG-638/UPM-10  | 36004 | 050  | 0827 | .55,1,2.35USEC    |
| SG-69/PPM      | 28480 | 050  | 0818 | .07 TO 10USEC     |
| SG-69A/PPM-1   | 28480 | 050  | 0830 | 0 TO 100USEC      |
| SG-698/PPM-1   | 28480 | 050  | 0831 | .07 TO 10USEC     |
| TS-592/UPM-15  | 050   | 1058 |      | .05 TO 100USEC    |

ON DIFF RANGES

+/-3 PCT

+/-0.1 PCT

+/-10 PCT

+/-1 PCT

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC OTS ETE TYPE DESIGNATOR / FAM TMDE  
NO MER'S MDL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

PULSE WIDTH 56010

TS-592A/UPM-15 88585 050 1059 .5 TO 100USEC  
50708 80138 050 2576 .1 TO 100USEC  
80058 28480 050 1849 25NSEC TO 3SEC

IN 1 RANGE  
IN 5 RANGES

+/- .1 PCT

PULSE MOD, TRANS TIME 56430

04 050 9004 LT 5 MANOSECONDS

P22 07421 050 8020 3.5NSEC  
1014 00000 050 8019 5NSEC  
1108 15933 050 8018 1.3NSEC RISE & FALL  
302A 26483 050 8017 LT 5NSEC

ON DIEF RANGES

AN/GPM-15 82076 050 0159 18,55,80USEC  
AN/GPM-15A 82076 050 0160 .05 TO .25USEC  
AN/PPM-1 28480 050 0239 70NANOSEC TO 10USEC  
AN/UPM-15 98179 050 0316 500NANOSEC TO 100USEC  
AN/UPM-15A 15196 050 0317 500NSEC TO 100USEC  
AN/USM-255 72314 050 0490 2MSEC TO 200NSEC  
AN/USM-359 80009 050 3617 10NSEC TO 10USEC  
B73 06692 050 3251 0 TO 10MSEC  
PG-32 24141 050 1914 30NSEC TO 1SEC  
SG-343/UPM-15A 15196 050 0850 500NSEC TO 100USEC  
SG-366/U 80138 050 0851 200NSEC TO 20USEC  
SG-366A/U 80138 050 0852 100NSEC TO 100USEC  
SG-475/APS-94 06344 050 0855 100USEC TO 10MSEC  
SG-69/PPM 28480 050 0818 .02USEC  
SG-69B/PPM-1 28480 050 0831 700NSEC TO 10USEC  
TG-501 80009 050 1795 5 TO 10NSEC  
TS-592/UPM-15 050 1058 300NSEC TO 2USEC  
TS-592A/UPM-15 88585 050 1059 2 TO 30USEC  
101 15933 050 1883 40NSEC TO 10MSEC  
1920A 28480 050 1838 0 TO 10USEC  
214A 28480 050 3348 50NSEC TO 10MSEC  
218AR 28480 050 1852 100USEC TO 10MSEC  
222A 28480 050 1853 20NSEC TO 5MSEC  
2901 80009 050 1840 1USEC TO 5  
50708 80138 050 2576 0 TO 3SEC  
80058 28480 050 1849 10MSEC TO 2SEC

+/-3 PCT

+/- .05 PCT

IN 6 RANGES

IN 5 RANGES  
IN 5 RANGES  
IN 6 RANGES  
IN 16 STEPS  
IN

+/- .2 PCT

+/- .1 PCT

## OFFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER                                  | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|--------------------------------------------|--------------------------------|
| PULSE RATE 5660C                |                                    |             |                     |                                            |                                |
| 04                              |                                    | 050         | 9004                | 10 TO 50MHZ                                | .005 PCT                       |
| PG508                           |                                    | 80009       | 050 8016            | 5HZ TO 50MHZ                               |                                |
| P22                             |                                    | 07421       | 050 8020            | 0 TO 50MHZ                                 |                                |
| 101A                            |                                    | 00000       | 050 8019            | 1HZ TO 5MHZ                                |                                |
| 110B                            |                                    | 15933       | 050 8018            | 0 TO 125MHZ                                |                                |
| 302A                            |                                    | 26483       | 050 8017            | 10HZ TO 50MHZ                              |                                |
| AN/GPM-15                       | 82076                              | 050         | 0159                | 100KHZ TO 1.950MHZ                         | IN 6 RANGES +/-0.005PCT        |
| AN/GPM-15A                      | 82076                              | 050         | 0160                | 100KHZ TO 1.950MHZ                         | IN 6 RANGES +/-0.005PCT        |
| AN/PPM-1                        | 28480                              | 050         | 0239                | 50 TO 5000 PULSE REPETITION                | +/-10 PCT                      |
| AN/UPM-15                       | 98179                              | 050         | 0316                | 50 TO 10,000 PULSE REPETITION RATE         | +/-0.005PCT                    |
| AN/UPM-15A                      | 15196                              | 050         | 0317                | 50 TO 10,000 PULSE REPETITION              |                                |
| AN/USM-255                      | 72314                              | 050         | 0490                | 50HZ TO 5MHZ                               |                                |
| AN/USM-359                      | 80009                              | 050         | 3617                | 0 TO 10MHZ PULSE REPETITION                |                                |
| AN/USM-374                      | 80009                              | 050         | 0541                | 10 TO 10KHZ PULSE REPETITION RATE          |                                |
| B73                             | 06692                              | 050         | 3251                | 0 TO 2MHZ PULSE REPETITION                 |                                |
| K7006                           | 28480                              | 050         | 3273                | 18 TO 26.50GHZ PART OF AN/USM-234          |                                |
| MP-1                            | 04596                              | 050         | 1912                | 10 + 1.6MHZ                                |                                |
| RCD 20006                       | 23405                              | 050         | 3287                | 1 TO 99.99KHZ                              | +/-1 PCT                       |
| SG-1105/U                       | 28480                              | 050         | 2067                | 1 TO 50MHZ                                 |                                |
| SG-343/UPM-15A                  | 15196                              | 050         | 0850                | 50HZ TO 10KHZ PULSE REPETITION             | IN 3 RANGES                    |
| SG-366/U                        | 80138                              | 050         | 0851                | 12 TO 80MHZ W/400-4000 PPS RATE            | IN 5 RANGES                    |
| SG-366A/U                       | 80138                              | 050         | 0852                | 10 TO 120MHZ W/50 TO 5KHZ PULSE REPETITION |                                |
| SG-475/APS-94                   | 06344                              | 050         | 0855                | 10 TO 10KHZ PULSE REPETITION RATE          |                                |
| SG-638/UPM-10                   | 36004                              | 050         | 0827                | 200 TO 2500HZ PULSE REPETITION             |                                |
| SG-69/PPM                       | 28480                              | 050         | 0818                | 50 TO 5KHZ PULSE REPETITION                |                                |
| SG-69A/PPM-1                    | 28480                              | 050         | 0830                | 2 TO 5KHZ PULSE REPETITION RATE            | IN 2 RANGES                    |
| SG-69B/PPM-1                    | 28480                              | 050         | 0831                | 50 TO 5KHZ PULSE REPETITION                |                                |
| TG-501                          | 80009                              | 050         | 1795                | 0 TO 5MHZ                                  |                                |
| TS-592/UPM-15                   |                                    | 050         | 1058                | 50 TO 10KHZ PULSE REPETITION               |                                |
| TS-592A/UPM-15                  | 88585                              | 050         | 1059                | 50 TO 10KHZ PULSE REPETITION               |                                |
| 101                             | 15933                              | 050         | 1883                | 10HZ TO 10MHZ PULSE REPETITION RATE        | IN 8 RANGES                    |
| 1013                            | 82199                              | 050         | 1874                | 200HZ TO 200KHZ                            |                                |
| 109                             | 80009                              | 054         | 1885                | .5NSEC TO 100NSEC                          |                                |
| 1105A                           | 28480                              | 050         | 2562                | 0 TO 100KHZ                                |                                |
| 1217C                           | 24655                              | 050         | 1830                | 0 TO 2.4MHZ W/100NSEC TO 1SEC              | IN 7 RANGES                    |
| 132A                            | 13488                              | 050         | 1899                | 5 TO 3.5MHZ                                |                                |
| 139B                            | 13488                              | 050         | 1890                | 10 TO 50MHZ                                |                                |
| 1920A                           | 28480                              | 050         | 1838                | 0 TO 25MHZ                                 |                                |
| 213B                            | 28480                              | 050         | 1850                | 0 TO 1MHZ                                  |                                |
| 214A                            | 28480                              | 050         | 3348                | 10 TO 1MHZ                                 | IN 5 RANGES                    |
| 216A                            | 28480                              | 050         | 1851                | 1 TO 100MHZ W/PPS 5NSEC TO 100NSEC         | IN 3 RANGES                    |

H-37

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

|                                 |                                    |      |             |                |           |                                |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER | ACCURACY -PCT-<br>OP AS STATED |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

PULSE RATE 56600

|        |       |     |      |               |                                          |            |
|--------|-------|-----|------|---------------|------------------------------------------|------------|
| 222A   | 28480 | 050 | 1853 | 10 TO 10MHZ   | IN 6 RANGES                              | +/- .3 PCT |
| 2901   | 80009 | 050 | 1840 | 50 TO 10MHZ   |                                          |            |
| 50708  | 80138 | 050 | 2576 | 10 TO 120MHZ  | W/PPS 50 TO 50KHZ PULSE RATE IN 5 RANGES |            |
| 6254-5 | 13222 | 050 | 1848 | .5 TO 40PPS   |                                          |            |
| 80158  | 28480 | 050 | 1849 | .3HZ TO 20MHZ | IN 5 RANGES                              |            |

SYNCHRONIZATION, MODE OF 74400

|                |       |      |                                                |                                                             |  |  |
|----------------|-------|------|------------------------------------------------|-------------------------------------------------------------|--|--|
| 04             | 050   | 9004 | INTERNAL & EXTERNAL SYNC PULSE MODE CAPABILITY |                                                             |  |  |
| AN/GPM-15A     | 82076 | 050  | 0160                                           | SYNC SIGNALS OF 5 TO 75V WITHIN 50 TO 10,000HZ INT & EXT    |  |  |
| AN/PPM-1A      | 28480 | 050  | 3596                                           | INT AND EXT                                                 |  |  |
| AN/UPM-15A     | 15196 | 050  | 0317                                           | INT AND EXT SYNC                                            |  |  |
| AN/USM-255     | 72314 | 050  | 0490                                           | GATED                                                       |  |  |
| AN/USM-359     | 80009 | 050  | 3617                                           | UNDELAYED PULSE, PAIRED PULSES, EXT TRIGGER, EXT GATE PULSE |  |  |
| AN/USM-374     | 80009 | 050  | 0541                                           | INT AND EXT                                                 |  |  |
| B7B            | 06692 | 050  | 3251                                           | INT OR EXT SYNC W/+ OR - POLARITY                           |  |  |
| SG-1105/U      | 28480 | 050  | 2067                                           | EXT CONTROLLED, VARIABLE REP RATE, DELAY, WIDTH & DC OFFSET |  |  |
| SG-343/UPM-15A | 15196 | 050  | 0850                                           | INT OR EXT SYNC W/SINGLE OR DOUBLE PULSE                    |  |  |
| SG-366A/U      | 80138 | 050  | 0852                                           | INT OR EXT SYNC                                             |  |  |
| SG-475/APS-94  | 06344 | 050  | 0855                                           | INT OR EXT SYNC DELAY OR NORMAL                             |  |  |
| SG-638/UPM-10  | 36004 | 050  | 0827                                           | INT SYNC                                                    |  |  |
| SG-69/PPM      | 28480 | 050  | 0818                                           | INT OR EXT SYNC W/DELAY UPTO 100USEC + OR - POLARITY        |  |  |
| SG-69A/PPM-1   | 28480 | 050  | 0830                                           | INT SYNC W/DELAY OUTPUT UPTO 100USEC                        |  |  |
| SG-69B/PPM-1   | 28480 | 050  | 0831                                           | INT OR EXT SYNC W/+ OR - POLARITY                           |  |  |
| TS-592/UPM-15  | 050   | 1058 |                                                | INT OR EXT SYNC W/1 OR PULSES + OR - POLARITY               |  |  |
| TS-592A/UPM-15 | 88585 | 050  | 1059                                           | INT OR EXT SYNC W/SINGLE OR DOUBLE PULSES                   |  |  |
| 101            | 15933 | 050  | 1893                                           | SINEWAVE TRIGGER, SINGLE OR DOUBLE PULSE                    |  |  |
| 132A           | 13488 | 050  | 1839                                           | + AND - POLARITY, W/ADJUSTABLE PULSE WIDTH AND RATE         |  |  |
| 1398           | 13488 | 050  | 1890                                           | DELAY PULSE VARIABLE, DC OFFSET -2V TO +2V                  |  |  |
| 214A           | 28480 | 050  | 3348                                           | VARIABLE WIDTH & AMPLITUDE PULSE, + AND - PULSE             |  |  |
| 218A           | 28480 | 050  | 1852                                           | INT OR EXT TRIGGERING                                       |  |  |
| 222A           | 28480 | 050  | 1853                                           | EXT TRIGGERING + OR - POLARITY, PULSE WIDTH VARIABLE        |  |  |
| 2901           | 80009 | 050  | 1840                                           | EXT CLOCK INPUT                                             |  |  |
| 80058          | 28480 | 050  | 1849                                           | SYNC AND ASYNCHRONOUS GATING                                |  |  |



## DEFINITION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, PULSE

SPEC DTS ETE TYPE DESIGNATOR/  
NO MFR'S MDL NO MFR'S MDL NO FSCM CODE ID NO. PARAMETER

ACCURACY - POT-  
OR AS STATED

RF VOLTAGE OUTPUT 85600  
-----

04

050 9004 VARIABLE W/MAXIMUM OF 3V ACROSS 50 OHM LOAD

|       |       |     |      |                                |
|-------|-------|-----|------|--------------------------------|
| PG508 | 80009 | 050 | 8016 | +/-5V ACROSS 50 OHM LOAD       |
| P22   | 17421 | 050 | 8020 | 10V ACROSS 50 OHM LOAD         |
| 101A  | 00000 | 050 | 8019 | 3.3V P/P                       |
| 110A  | 15933 | 050 | 8018 | 10MV TO 10V ACROSS 50 OHM LOAD |
| 302A  | 26483 | 050 | 8017 | 1.5V ACROSS 50 OHM LOAD        |

|                |       |      |      |                                  |             |
|----------------|-------|------|------|----------------------------------|-------------|
| AN/GPM-15      | 82076 | 050  | 0159 | 150V TO 1V                       | IN 3 RANGES |
| AN/GPM-15A     | 82076 | 050  | 0160 | 0 TO 200V                        |             |
| AN/PPM-1       | 28480 | 050  | 0239 | 0 TO 50V                         |             |
| AN/PPM-1A      | 28480 | 050  | 3596 | 50V AT 50 OHM LOAD               |             |
| AN/UPM-15      | 98179 | 050  | 0316 | 2MV TO 200V                      |             |
| AN/UPM-15A     | 15196 | 050  | 0317 | 2MV TO 200V                      |             |
| AN/USM-255     | 72314 | 050  | 0490 | 10V AT 50 OHMS, 17V AT 1000 OHMS |             |
| AN/USM-359     | 80009 | 050  | 3617 | 0 TO 10V                         |             |
| AN/USM-374     | 80009 | 050  | 0541 | 10V                              |             |
| B7B            | 06692 | 050  | 3251 | 50V                              |             |
| PG-32          | 24141 | 050  | 1914 | 20MV TO 20V                      |             |
| SG-1105/U      | 28480 | 050  | 2067 | 200MV TO 5V                      | IN 5 RANGES |
| SG-343/UPM-15A | 15196 | 050  | 0850 | 2MV TO 200V                      |             |
| SG-366/U       | 80138 | 050  | 0851 | 0 TO 200MV                       |             |
| SG-366A/U      | 80138 | 050  | 0852 | 0 TO 200MV                       |             |
| SG-475/APS-94  | 06344 | 050  | 0855 | 0 TO 10V                         |             |
| SG-69/PPM      | 28480 | 050  | 0818 | 0 TO 50V                         |             |
| SG-69A/PPM-1   | 28480 | 050  | 0830 | 0 TO 50V                         |             |
| SG-69B/PPM-1   | 28480 | 050  | 0831 | -50 TO 50V                       |             |
| TS-592/UPM-15  | 050   | 1058 |      | 20-200V                          |             |
| TS-592A/UPM-15 | 88585 | 050  | 1059 | 20 TO 200V                       |             |
| 101            | 15933 | 050  | 1883 | 500MV TO 10V                     |             |
| 109            | 80009 | 054  | 1885 | 0-50V                            |             |
| 1217C          | 24655 | 050  | 1837 | 0 TO 40V                         |             |
| 1398           | 13488 | 050  | 1890 | 33MV TO 10V                      |             |
| 1920A          | 28480 | 050  | 1838 | 0 TO 5V                          |             |
| 214A           | 28480 | 050  | 3348 | 200MV TO 100V                    | IN 9 RANGES |
| 216A           | 28480 | 050  | 1851 | 400MV TO 10V                     | IN 3 RANGES |
| 222A           | 28480 | 050  | 1853 | 10V                              |             |
| 50708          | 90138 | 050  | 2576 | 0 TO 3V                          |             |
| 6254-5         | 13222 | 050  | 1848 | 10 TO 250V                       |             |

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TIME<br>CODE IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

00100

|    |  |     |      |                        |  |
|----|--|-----|------|------------------------|--|
| 16 |  | 107 | 9016 | GENERATOR, SIGNAL, UHF |  |
|----|--|-----|------|------------------------|--|

|       |  |       |     |      |                  |
|-------|--|-------|-----|------|------------------|
| SLRD  |  | 23340 | 107 | 8030 | SIGNAL GENERATOR |
| 11058 |  | 82199 | 107 | 8028 | SIGNAL GENERATOR |
| 125   |  | 12678 | 107 | 8029 | SIGNAL GENERATOR |
| 6301  |  | 25778 | 107 | 8026 | SIGNAL GENERATOR |
| 8614  |  | 28480 | 107 | 8027 | SIGNAL GENERATOR |

|              |       |     |      |                                 |
|--------------|-------|-----|------|---------------------------------|
| AN/URM-64-1  | 76809 | 107 | 0363 | GENERATOR SIGNAL                |
| AN/URM-64-2  | 76809 | 107 | 0364 | GENERATOR SIGNAL                |
| AN/URM-64A-1 | 03877 | 107 | 0365 | GENERATOR SIGNAL                |
| AN/URM-64A-2 | 03877 | 107 | 0366 | GENERATOR SIGNAL                |
| AN/USM-213   | 28480 | 107 | 0477 | GENERATOR SIGNAL                |
| AN/USM-213A  | 28480 | 107 | 0478 | GENERATOR SIGNAL                |
| L7006        | 77327 | 107 | 3275 | GENERATOR SIGNAL                |
| SG-97/FPC    | 28480 | 107 | 0837 | GENERATOR SIGNAL                |
| TS-419/U     |       | 107 | 1012 | GENERATOR SIGNAL                |
| 1205BF       | 82199 | 107 | 1713 | MODULAR MICROWAVE SIGNAL SOURCE |
| 1205F        | 82199 | 107 | 1827 | SIGNAL GENERATOR MICROWAVE      |
| 18500B       | 99899 | 107 | 2581 | GENERATOR SIGNAL                |
| 470A-1800    | 94668 | 107 | 1861 | GENERATOR SIGNAL                |
| 86602A       | 28480 | 107 | 2090 | RF SECTION                      |

DIMENSIONS IN MM/INS 00110

|    |  |     |      |                                        |
|----|--|-----|------|----------------------------------------|
| 16 |  | 107 | 9016 | 482MM(19IN)WX315MM(12IN)HX525MM(21IN)D |
|----|--|-----|------|----------------------------------------|

|       |       |     |      |                                     |
|-------|-------|-----|------|-------------------------------------|
| 11058 | 82199 | 107 | 8028 | 13CM(5IN)HX43CM(17IN)WX48CM(19IN)D  |
| 125   | 12678 | 107 | 8029 | 30CM(12IN)HX50CM(20IN)HX50CM(20IN)D |
| 6301  | 25778 | 107 | 8026 | 43CM(17IN)WX25CM(10IN)HX53CM(21IN)D |
| 8614  | 28480 | 107 | 8027 | 43CM(17IN)WX14CM(6IN)HX47CM(18IN)D  |
| 8614  | 28480 | 107 | 8027 | 43CM(17IN)WX14CM(6IN)HX47CM(18IN)D  |

|              |       |     |      |                                                     |
|--------------|-------|-----|------|-----------------------------------------------------|
| AN/URM-64-1  | 76809 | 107 | 0363 | 35.56CM(14IN)WX32.39CM(12.75IN)HX45.72CM(18IN)D     |
| AN/URM-64-2  | 76809 | 107 | 0364 | 35.56CM(14IN)WX32.39CM(12.75IN)HX45.72CM(18IN)D     |
| AN/URM-64A-1 | 03877 | 107 | 0365 | 35.56CM(14IN)WX32.39CM(12.75IN)HX45.72CM(18IN)D     |
| AN/URM-64A-2 | 03877 | 107 | 0366 | 35.56CM(14IN)WX32.39CM(12.75IN)HX45.72CM(18IN)D     |
| AN/USM-213   | 28480 | 107 | 0477 | 42.55CM(16.75IN)WX13.97CM(5.5IN)HX46.67CM(18.38IN)D |

H-40

## DEFINITION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC DTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>CODE | TIME<br>IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|

DIMENSIONS IN MM/INS 00110

-----

|             |       |     |      |                                                      |
|-------------|-------|-----|------|------------------------------------------------------|
| AN/USM-213A | 28480 | 107 | 0478 | 42.55CM(16.75IN)WX13.97CM(5.5IN)HX46.67CM(18.38IN)D  |
| SG-97/FRC   | 28480 | 107 | 0837 | 34.29CM(13.5IN)WX33.66CM(13.55IN)HX43.18CM(17IN)D    |
| TS-419/U    |       | 107 | 1012 | 34.29CM(13.5IN)WX43.82CM(17.25IN)HX34.61CM(13.63IN)D |
| 1205BF      | 82199 | 107 | 1713 | 42.55CM(16.75IN)WX13.34CM(5.25IN)HX48.26CM(19IN)D    |
| 1205F       | 82199 | 107 | 1827 | 42.55CM(16.75IN)WX13.34CM(5.25IN)HX43.18CM(17IN)D    |
| 185003      | 99899 | 107 | 2581 | 50.80CM(20IN)WX50.80CM(20IN)HX24.13CM(9.5IN)D        |
| 470A-1800   | 94668 | 107 | 1861 | 25.40CM(10IN)WX9.53CM(3.75IN)HX46.99CM(18.5IN)D      |

WEIGHT IN KG/LBS 00120

-----

|              |       |     |      |                |
|--------------|-------|-----|------|----------------|
| 16           |       | 107 | 9016 | 27KG(60LBS)    |
| 11058        | 82199 | 107 | 8028 | 20KG(43LBS)    |
| 125          | 12678 | 107 | 8029 | 55KG(120LBS)   |
| 6301         | 25778 | 107 | 8026 | 30KG(65LBS)    |
| 8614         | 28480 | 107 | 8027 | 20KG(43LBS)    |
| AN/URM-64-1  | 76809 | 107 | 0363 | 24.52KG(54LBS) |
| AN/URM-64-2  | 76809 | 107 | 0364 | 24.52KG(54LBS) |
| AN/URM-64A-1 | 03877 | 107 | 0365 | 24.52KG(54LBS) |
| AN/URM-64A-2 | 03877 | 107 | 0366 | 24.52KG(54LBS) |
| AN/USM-213   | 28480 | 107 | 0477 | 19.98KG(44LBS) |
| AN/USM-213A  | 28480 | 107 | 0478 | 17.25KG(38LBS) |
| SG-97/FRC    | 28480 | 107 | 0837 | 26.79KG(59LBS) |
| TS-419/U     |       | 107 | 1012 | 22.7KG(50LBS)  |
| 1205BF       | 82199 | 107 | 1713 | 18.61KG(41LBS) |
| 1205F        | 82199 | 107 | 1827 | 18.61KG(41LBS) |
| 185003       | 99899 | 107 | 2581 | 38.59KG(85LBS) |
| 470A-1800    | 94668 | 107 | 1861 | 16.34KG(36LBS) |
| 86602A       | 28480 | 107 | 2090 | 4.09KG(9LBS)   |

H-41

## DEFINITIZATION OF DTS FTE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC DTS FTE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

ENCLOSURE (STYLE) C0130

15 107 9016 MIL-T-28800 STYLE E W/RACK MOUNT CAPABILITY

|       |       |     |      |                       |
|-------|-------|-----|------|-----------------------|
| 11058 | 82199 | 107 | 8028 | RACK MOUNT CAPABILITY |
| 6301  | 25778 | 107 | 8026 | RACK MOUNT CAPABILITY |
| 8614  | 28480 | 107 | 8027 | RACK CAPABILITY       |

|            |       |     |      |                                    |
|------------|-------|-----|------|------------------------------------|
| AN/USM-213 | 28430 | 107 | 0477 | RACK MOUNT CAPABILITY              |
| L7006      | 77327 | 107 | 3275 | PLUG-IN UNIT                       |
| 86602A     | 28480 | 107 | 2090 | PLUG-IN USED W/HP-86608 MAIN FRAME |

PWR SOURCE(S)/CONSUMPTION 80140

16 107 9016 TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/240W

|       |       |     |      |                                 |
|-------|-------|-----|------|---------------------------------|
| 11058 | 82199 | 107 | 8028 | 50-60HZ S-PHASE 115/230VAC/240W |
| 125   | 12678 | 107 | 8029 | 50-60HZ S-PHASE 115/230VAC/400W |
| 8614  | 28480 | 107 | 8027 | 50-60HZ S-PHASE 115-230VAC/125W |

|              |       |     |      |                                               |
|--------------|-------|-----|------|-----------------------------------------------|
| AN/URM-64-1  | 76809 | 107 | 0363 | 50-1000HZ S-PHASE 115VAC/150W                 |
| AN/URM-64-2  | 76809 | 107 | 0364 | 50-1000HZ S-PHASE 115VAC/150W                 |
| AN/URM-64A-1 | 03877 | 107 | 0365 | 50-1000HZ S-PHASE 115VAC/150W                 |
| AN/URM-64A-2 | 03877 | 107 | 0366 | 50-1000HZ S-PHASE 115VAC/150W                 |
| AN/USM-213   | 28480 | 107 | 0477 | 50-60HZ S-PHASE 115/230VAC/125W               |
| AN/USM-213A  | 28480 | 107 | 0478 | 50-60HZ S-PHASE 115/230VAC/125W               |
| L7006        | 77327 | 107 | 3275 | PWR PROVIDED BY MAIN FRAME MODEL 816-510(PRO) |
| SG-97/FRC    | 28480 | 107 | 0837 | 50-400HZ S-PHASE 115/230VAC/160W              |
| TS-419/U     |       | 107 | 1012 | 50-1600HZ S-PHASE 115VAC/150W                 |
| 12058F       | 82199 | 107 | 1713 | 400HZ S-PHASE 110VAC/240W                     |
| 1205F        | 82199 | 107 | 1827 | 50-400HZ S-PHASE 115/230VAC/195W              |
| 470A-1800    | 94668 | 107 | 1861 | 50-60HZ S-PHASE 115VAC                        |

H-42

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC OTS ETE<br>NO MFR'S MOL NO       | TYPE DESIGNATOR/<br>MFR'S MODEL NO | ESCM | FAC TMDE<br>CODE ID NO. | PARAMETER                                   | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------------|------------------------------------|------|-------------------------|---------------------------------------------|--------------------------------|
| <u>MTBF SPECIFIED/PREDICTED</u> 00150 |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | 2000 HRS                                    |                                |
| <u>PRIMARY CONNECTORS</u> 00170       |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | BNC SERIES, RE N-SERIES                     |                                |
| <u>ENVIRONMENTAL CONDITIONS</u> 00200 |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR 3 |                                |
| <u>TEMP OPER/NON-OPERATING</u> 00210  |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | 0 TO 50C/-55 TO 75C                         |                                |
| <u>RELATIVE HUMIDITY</u> 00220        |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | 95(+5-0)                                    |                                |
| <u>ALTITUDE OPER/NON-OPER</u> 00230   |                                    |      |                         |                                             |                                |
| 16                                    |                                    |      | 107 9016                | 3050M(10000FT)/12000M(40000FT)              |                                |

H-43

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC QTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>TO NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

VIBRATION LIMIT (MAXIMUM) 00240

16

107 9016 26

SHOCK, PULSE LEVEL 00250

16

107 9016 306

AMPLITUDE MODULATION 01200

16

107 9016 20HZ TO 20KHZ PY SINE OR SQ WAVE EXT AM

125  
8614

|       |     |      |            |
|-------|-----|------|------------|
| 12678 | 107 | 8029 | SQ-WAVE    |
| 28480 | 107 | 8027 | DC TO 1MHZ |

AN/USM-213  
AN/USM-213A

|       |     |      |           |
|-------|-----|------|-----------|
| 28480 | 107 | 0477 | 0 TO 1MHZ |
| 28480 | 107 | 0478 | 0 TO 1MHZ |

EXTERNAL AM SENSITIVITY 01230

16

107 9016 NGT 5V P/P SINE OR SQ-WAVE TO PRODUCE 90 PCT MOD

AMP MOD-INT 01600

16

107 9016 SELECTIVE BETWEEN 400-1000HZ SINE &amp; SQ-WAVE

10+ PCT

SLRD  
11058  
125  
6301  
8614

|       |     |      |                          |
|-------|-----|------|--------------------------|
| 23340 | 107 | 8030 | 1KHZ SQ WAVE             |
| 82199 | 107 | 8028 | 800HZ TO 1200HZ INTERNAL |
| 12678 | 107 | 8029 | 1000HZ INTERNAL          |
| 25778 | 107 | 8026 | 50HZ TO 10KHZ SQ-WAVE    |
| 28480 | 107 | 8027 | 950 TO 1050 SQ-WAVE      |

AN/US4-213A

|       |     |      |                       |
|-------|-----|------|-----------------------|
| 28480 | 107 | 0478 | 930 TO 1050HZ SQ-WAVE |
|-------|-----|------|-----------------------|

H-44

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/79

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC OTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

AMP MOD-INT 01600

470A-1800 94668 107 1861 100HZ TO 100KHZ

AM INTERNAL DISTORTION 01640

16 107 9016 DISTORTION OF AM CARRIER NOT TO EXCEED 2 PCT

AM SPURIOUS MODULATION 01650

16 107 9016 AT ANY FREQ AND DEV SET AT 40KHZ SPURIOUS AM NGT 5 PCT

OUTPUT ATTENUATION 03600

16 107 9016 RANGE NLT 1000B W/100B VERNIER DIAL AT 10B STEPS +/-20B

|              |       |      |      |                |
|--------------|-------|------|------|----------------|
| AN/URM-64-1  | 76809 | 107  | 0363 | 0 TO -1200PM   |
| AN/URM-64-2  | 76809 | 107  | 0364 | 0 TO -1200PM   |
| AN/URM-64A-1 | 03877 | 107  | 0365 | 0 TO -1200PM   |
| AN/URM-64A-2 | 03877 | 107  | 0366 | 0 TO -1200PM   |
| AN/USM-213   | 28480 | 107  | 0477 | 0 TO -1270PM   |
| SG-97/FRC    | 28480 | 107  | 0837 | 0 TO -1270PM   |
| TS-419/U     | 107   | 1012 |      | +10 TO -1460PM |

FM INTERNAL DISTORTION 19600

16 107 9016 MOD SIGNAL DISTORTION ON ALL FREQ NGT 2 PCT

H-45



## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/79

FAMILY NAME - GENERATOR, SIGNAL, UHF

SPEC OTS ETE TYPE DESIGNATOR/ FAI TMOE  
 NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

FM DEVIATION 26020  
 -----

16

107 9016 INT &amp; EXT 3 TO 300KHZ DEV CAPABILITY

RF MOD DUE TO VIBRATION 26440  
 -----

16

107 9016 WHEN VIBRATED-NGT 200HZ DEVIATION AT 900/1600/2200MHZ

OUTPUT FREQUENCY 26600  
 -----

16

107 9016 800MHZ TO 2.4GHZ W/NMT 5 BANDS

+/-2 PCT

|       |       |     |      |                   |
|-------|-------|-----|------|-------------------|
| SLRD  | 23340 | 107 | 8030 | 275MHZ TO 2.75GHZ |
| 1105B | 82199 | 107 | 8028 | 800-2400MHZ       |
| 125   | 12678 | 107 | 8029 | 200-3000MHZ       |
| 6301  | 25778 | 107 | 8026 | 800MHZ TO 2GHZ    |
| 8614  | 28480 | 107 | 8027 | 800 TO 2400MGH    |

|              |       |     |      |                   |
|--------------|-------|-----|------|-------------------|
| AN/URM-64-1  | 76809 | 107 | 0363 | 900MHZ TO 2.1GHZ  |
| AN/URM-64-2  | 76809 | 107 | 0364 | 900MHZ TO 2.1GHZ  |
| AN/URM-64A-2 | 03877 | 107 | 0366 | 900MHZ TO 2.1GHZ  |
| AN/USM-213   | 28480 | 107 | 0477 | 800MHZ TO 2.4GHZ  |
| AN/USM-213A  | 28480 | 107 | 0478 | 800MHZ TO 2.4GHZ  |
| L7006        | 77327 | 107 | 3275 | 1 TO 2GHZ         |
| SG-97/FRC    | 28480 | 107 | 0837 | 800MHZ TO 2.1GHZ  |
| TS-419/U     |       | 107 | 1012 | 900MHZ TO 2.1GHZ  |
| 1205RF       | 82199 | 107 | 1713 | 900MHZ TO 2.4GHZ  |
| 1205F        | 82199 | 107 | 1827 | 95MHZ TO 2.4GHZ   |
| 18500B       | 99899 | 107 | 2581 | 920MHZ TO 1.25GHZ |
| 470A-1800    | 94668 | 107 | 1861 | 1GHZ TO 1.8GHZ    |
| 86602A       | 28480 | 107 | 2090 | 1GHZ TO 1.299GHZ  |

IN 1 RANGE  
 IN 1 RANGE  
 IN 1 RANGE  
 IN 1 RANGE  
 IN 1 RANGE

+/-0.001PCT  
 +/-0.001PCT  
 +/-0.001PCT  
 +/-5 PCT  
 +/-5 PCT  
 +/-2 PCT

IN 1 RANGE  
 IN 1 RANGE

+/-1 PCT  
 +/-5 PCT  
 +/-1 PCT  
 +/-1 PCT

H-46

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

OUTPUT FREQUENCY RESPONSE 26800  
-----

16

107 9016 FREQ OUTPUT LEVEL VARIATION NGT +/-10B ON ANY BAND

+/-10B

FREQ SHIFT 27000  
-----

16

107 9016 CARRIER SHIFT W/MOD FREQ NGT

.005 PCT

RF DRIFT DUE TO TEMP 27220  
-----

16

107 9016 FREQ DRIFT NGT .01 PCT AFTER 1 HR WARM UP

IMPEOANCE, INPUT 34400  
-----

16

107 9016 600 OHM AN INPUT

+/-5 PCT

6301

25778 107 8026 600 OHMS

OUTPUT IMPEDANCE 35200  
-----

16

107 9016 50 OHMS

11058

82199 107 8028 50 OHMS

125

12678 107 8029 50 OHMS

6301

25778 107 8026 50 OHMS

AN/URM-64-1

76809 107 0363 50 OHMS

AN/URM-64-2

76809 107 0364 50 OHMS

AN/USM-213A

28480 107 0478 50 OHMS

SG-97/FRC

28480 107 0837 50 OHMS

TS-419/U

107 1012 50 OHMS

H-47

## DEFINITIZATION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC DTS ETE<br>NO | MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|--------------------|--------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|
|--------------------|--------------|------------------------------------|------|-------------|----------------|-----------|--------------------------------|

|                    |  |       |  |  |  |  |  |
|--------------------|--|-------|--|--|--|--|--|
| MODULATION VOLTAGE |  | 42600 |  |  |  |  |  |
|--------------------|--|-------|--|--|--|--|--|

|    |  |  |  |     |      |                                                     |           |
|----|--|--|--|-----|------|-----------------------------------------------------|-----------|
| 16 |  |  |  | 107 | 9016 | DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHOULD NOT VARY | +/-10 PCT |
|----|--|--|--|-----|------|-----------------------------------------------------|-----------|

|                   |  |       |  |  |  |  |  |
|-------------------|--|-------|--|--|--|--|--|
| PULSE MOD (PM)-EX |  | 56000 |  |  |  |  |  |
|-------------------|--|-------|--|--|--|--|--|

|    |  |  |  |     |      |                                      |  |
|----|--|--|--|-----|------|--------------------------------------|--|
| 16 |  |  |  | 107 | 9016 | EXTERNAL PULSE MODULATION CAPABILITY |  |
|----|--|--|--|-----|------|--------------------------------------|--|

|             |  |       |     |      |           |  |  |
|-------------|--|-------|-----|------|-----------|--|--|
| SLFD<br>125 |  | 23340 | 107 | 8030 | PULSE MOD |  |  |
|             |  | 12678 | 107 | 8029 | PULSE MOD |  |  |

|  |             |       |     |      |                    |  |  |
|--|-------------|-------|-----|------|--------------------|--|--|
|  | AN/USM-213  | 28480 | 107 | 0477 | 50HZ TO 500KHZ PPS |  |  |
|  | AN/USM-213A | 28480 | 107 | 0478 | PULSE MOD          |  |  |

|                    |  |       |  |  |  |  |  |
|--------------------|--|-------|--|--|--|--|--|
| PULSE MOD (PM)-INT |  | 56400 |  |  |  |  |  |
|--------------------|--|-------|--|--|--|--|--|

|    |  |  |  |     |      |                                         |  |
|----|--|--|--|-----|------|-----------------------------------------|--|
| 16 |  |  |  | 107 | 9016 | INTERNAL PULSE MODULATION OF 40-4000PPS |  |
|----|--|--|--|-----|------|-----------------------------------------|--|

|      |  |       |     |      |           |  |  |
|------|--|-------|-----|------|-----------|--|--|
| 6301 |  | 25778 | 107 | 8026 | PULSE MOD |  |  |
|------|--|-------|-----|------|-----------|--|--|

|  |              |       |     |      |                     |  |  |
|--|--------------|-------|-----|------|---------------------|--|--|
|  | AN/URM-64-1  | 76809 | 107 | 0363 | 40-4000PPS          |  |  |
|  | AN/URM-64-2  | 76809 | 107 | 0364 | 40-4000PPS          |  |  |
|  | AN/URM-64A-1 | 03877 | 107 | 0365 | 40-4000PPS          |  |  |
|  | AN/URM-64A-2 | 03877 | 107 | 0366 | 40 TO 4000PPS       |  |  |
|  | AN/USM-213   | 28480 | 107 | 0477 | 800 TO 1200HZ PULSE |  |  |
|  | SG-97/FRC    | 28480 | 107 | 0837 | 40 TO 4000PPS       |  |  |
|  | TS-419/U     |       | 107 | 1012 | 40 TO 4000PPS       |  |  |
|  | 1R500B       | 99899 | 107 | 2581 | PULSE MOD           |  |  |

H-48

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

|                    |       |  |  |  |  |
|--------------------|-------|--|--|--|--|
| RF SPURIOUS OUTPUT | 68000 |  |  |  |  |
|--------------------|-------|--|--|--|--|

16

107 9016 3008 BELOW LEVEL OF UNMODULATED CARRIER

|                |       |  |  |  |  |
|----------------|-------|--|--|--|--|
| RF NOISE LEVEL | 68400 |  |  |  |  |
|----------------|-------|--|--|--|--|

16

107 9016 NGT 25HZ AT ANY FREQ

+/-10%

|                           |       |  |  |  |  |
|---------------------------|-------|--|--|--|--|
| STANDING WAVE RATIO (SWR) | 69600 |  |  |  |  |
|---------------------------|-------|--|--|--|--|

16

107 9016 LT 2.0 TO 1

11058

82199 107 8028 2 TO 1

SG-97/FRC

28480 107 0837 1.4

|                   |       |  |  |  |  |
|-------------------|-------|--|--|--|--|
| RF VOLTAGE OUTPUT | 85600 |  |  |  |  |
|-------------------|-------|--|--|--|--|

16

107 9016 RF NLT .5V RMS ACROSS 50 OHM LOAD

SLRD  
11058  
125  
8614

|       |     |      |                     |
|-------|-----|------|---------------------|
| 23340 | 107 | 8030 | 0-41V               |
| 82199 | 107 | 8028 | .22V                |
| 12678 | 107 | 8029 | 0-67V               |
| 28480 | 107 | 8027 | .78V AT 50 OHM LOAD |

|              |       |     |      |                |
|--------------|-------|-----|------|----------------|
| AN/URM-64-1  | 76809 | 107 | 0363 | 2000W          |
| AN/URM-64-2  | 76809 | 107 | 0364 | .20V TO .16V   |
| AN/URM-64A-1 | 03877 | 107 | 0365 | .160V TO .20V  |
| AN/URM-64A-2 | 03877 | 107 | 0366 | 2000V TO 160MV |
| AN/USM-213   | 28480 | 107 | 0477 | 1000V TO 700MV |
| AN/USM-213A  | 28480 | 107 | 0478 | 1000V TO 700MV |
| SG-97/FRC    | 28480 | 107 | 0837 | 1000V TO 158MV |
| TS-419/U     |       | 107 | 1012 | 40 TO 70V      |
| 1205F        | 82199 | 107 | 1827 | 50MV TO 126MV  |

H-49

## DEFINITION OF QTS STE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, UHF

| SPEC QTS STE<br>NO MFR'S MDL NO | TYPE DESIGNATOR /<br>MFR'S MODEL NO | FAM<br>CODE | TMDE<br>ID NO. | PARAMETER |
|---------------------------------|-------------------------------------|-------------|----------------|-----------|
|---------------------------------|-------------------------------------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

RF VOLTAGE OUTPUT 85600

470A-1800 94668 107 1861 70MV TO 35V

H-50

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SREC OTS ETE TYPE DESIGNATOR/  
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

00100

18

106 9018 GENERATOR, SIGNAL, VHF

TF2008  
1020  
6106  
86408/004

09553 106 8039 SIGNAL GENERATOR VHF B  
04901 106 8037 SIGNAL GENERATOR VHF B  
03782 106 8038 SIGNAL GENERATOR VHF-B  
28480 106 8036 SIGNAL GENERATOR VHF-B

AVIONIC

AN/ARM-26C 87793 106 0109 SIGNAL GENERATOR  
AN/PRM-10 13194 106 0240 TEST OSCILLATOR  
AN/URM-181 28430 106 0404 GENERATOR SIGNAL  
AN/URM-26 21900 106 0345 GENERATOR SIGNAL  
AN/URM-26A 106 0346 GENERATOR SIGNAL  
AN/URM-26B 106 0347 GENERATOR SIGNAL  
AN/USM-313 24655 106 0523 GENERATOR SIGNAL  
BC-376M 94486 106 2349 GENERATOR SIGNAL  
SG-1112(V)1/U 28480 106 2072 SIGNAL GENERATOR  
SG-13/APN 16636 106 0823 GENERATOR SIGNAL  
TS-497/URR 106 1031 GENERATOR SIGNAL  
TS-497A/URR 106 1032 GENERATOR SIGNAL  
TS-497B/URR 04423 106 1034 GENERATOR SIGNAL  
102A 04901 106 1630 GENERATOR SIGNAL  
211A 28480 106 1638 GENERATOR SIGNAL  
750-S138 33013 106 1872 GENERATOR SIGNAL  
8640A 28480 106 1591 GENERATOR SIGNAL  
8640B 28480 106 2071 GENERATOR SIGNAL  
8640B-001 28480 106 1593 GENERATOR SIGNAL

DIMENSIONS IN MM/INS 00110

18

106 9018 482.6MM(19IN)WX609.6MM(24IN)HX533.4MM(21IN)D

TF2008  
1020  
86408/004

09553 106 8039 48CM(19IN)WX29CM(11IN)HX32CM(13IN)D  
04901 106 8037 43CM(17IN)WX15CM(6IN)HX48CM(19IN)D  
28480 106 8036 43CM(17IN)WX14CM(6IN)HX47CM(18IN)D

AN/ARM-26C 87793 106 0109 36.20CM(14.25IN)WX29.21CM(11.5IN)HX27.31CM(10.75IN)D  
AN/RRM-10 13094 106 0240 29.94CM(11IN)W21.59CM(8.5IN)HX12.70CM(5IN)D  
AN/URM-181 28480 106 0404 20.43CM(8.04IN)WX26.04CM(10.25IN)HX46.67CM(18.38IN)D

H-51

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SPEC OTS ETE TYPE DESIGNATOR/  
NO MFR'S MOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

DIMENSIONS IN MM/INS 00110  
-----

|               |       |     |      |                                                      |
|---------------|-------|-----|------|------------------------------------------------------|
| AN/URM-26     | 21900 | 106 | 0345 | 36.20CM(14.25IN)WX29.21CM(11.5IN)HX27.31CM(10.75IN)D |
| AN/URM-26A    |       | 106 | 0346 | 36.20CM(14.25IN)WX29.21CM(11.5IN)HX27.31CM(10.75IN)D |
| AN/URM-26B    |       | 106 | 0347 | 36.83CM(14.5IN)WX26.67CM(10.5IN)HX27.31CM(10.75IN)D  |
| AN/USM-313    | 24655 | 106 | 0523 | 19.05CM(7.50IN)WX30.48CM(12IN)HX20.32CM(8IN)D        |
| BC-376M       | 94486 | 106 | 2349 | 22.86CM(9IN)WX19.69CM(7.75IN)HX33.02CM(13IN)D        |
| SG-1112(V11/U | 28480 | 106 | 2072 | 42.55CM(16.75IN)WX13.34CM(5.25IN)HX47.63CM(18.75IN)D |
| TS-497/URR    |       | 106 | 1031 | 29.21CM(11.5IN)WX27.94CM(11IN)HX50.80CM(20IN)D       |
| TS-497A/URR   |       | 106 | 1032 | 29.21CM(11.5IN)WX27.94CM(11IN)HX50.80CM(20IN)D       |
| TS-497B/URR   | 04423 | 106 | 1034 | 29.21CM(11.5IN)WX27.94CM(11IN)HX50.80CM(20IN)D       |
| 102A          | 04901 | 106 | 1630 | 43.82CM(17.25IN)WX13.34CM(5.25IN)HX46.36CM(18.25IN)D |
| 211A          | 28480 | 106 | 1638 | 26.67CM(10.5IN)WX24.13CM(9.5IN)HX49.53CM(19.5IN)D    |
| 750-S138      | 33013 | 106 | 1872 | 42.55CM(16.75IN)WX17.78CM(7IN)HX46.48CM(18.3IN)D     |
| 8640A         | 28480 | 106 | 1591 | 47.63CM(18.75IN)WX14.05CM(5.53IN)HX42.55CM(16.55IN)D |
| 8640B         | 28480 | 106 | 2071 | 47.63CM(18.75IN)WX14.05CM(5.53IN)HX42.55CM(16.75IN)D |
| 8640B-001     | 28480 | 106 | 1593 | 42.55CM(16.75IN)WX13.34CM(5.25IN)HX47.63CM(18.75IN)D |

WEIGHT IN KG/LBS 00120  
-----

18 106 9018 22.7KG(50LBS)

|           |       |     |      |             |
|-----------|-------|-----|------|-------------|
| FE2008    | 09553 | 106 | 8039 | 21KG(46LBS) |
| 1020      | 04901 | 106 | 8037 | 18KG(40LBS) |
| 8640B/004 | 28480 | 106 | 8036 | 21KG(46LBS) |

|               |       |     |      |                  |
|---------------|-------|-----|------|------------------|
| AN/ARM-26C    | 27793 | 106 | 0109 | 17.25KG(38LBS)   |
| AN/ARM-10     | 13094 | 106 | 0240 | 5.45KG(12LBS)    |
| AN/URM-181    | 28480 | 106 | 0404 | 20.43KG(45LBS)   |
| AN/URM-26     | 21900 | 106 | 0345 | 17.25KG(38LBS)   |
| AN/URM-26A    |       | 106 | 0346 | 17.25KG(38LBS)   |
| AN/URM-26B    |       | 106 | 0347 | 17.25KG(38LBS)   |
| AN/USM-313    | 24655 | 106 | 0523 | 5.22KG(11.5LBS)  |
| BC-376M       | 94486 | 106 | 2349 | 9.65KG(21.25LBS) |
| SG-1112(V11/U | 28480 | 106 | 2072 | 20.43KG(45LBS)   |
| TS-497/URR    |       | 106 | 1031 | 25.88KG(57LBS)   |
| TS-497A/URR   |       | 106 | 1032 | 25.88KG(57LBS)   |
| TS-497B/URR   | 04423 | 106 | 1034 | 25.88KG(57LBS)   |
| 102A          | 04901 | 106 | 1630 | 13.62KG(30LBS)   |
| 211A          | 28480 | 106 | 1638 | 28.6KG(63LBS)    |
| 750-S138      | 33013 | 106 | 1872 | 12.76KG(27LBS)   |
| 8640A         | 28480 | 106 | 1591 | 20.43KG(45LBS)   |

H-52



## DEFINITIZATION OF DTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SPEC DTS ETC TYPE DESIGNATOR/ FAM TMDE  
NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE IO NO. PARAMETER

ACCURACY -PCT-  
OR AS STATED

WEIGHT IN KG/LBS 00120

|           |       |     |      |                |
|-----------|-------|-----|------|----------------|
| 8640B     | 28480 | 106 | 2071 | 20.43KG(45LBS) |
| 8640B-001 | 28480 | 106 | 1593 | 20.43KG(45LBS) |

ENCLOSURE (STYLE) 00130

18 106 9018 MIL-T-28800B STYLE F W/RACKMOUNT CAPABILITY

|      |       |     |      |                              |
|------|-------|-----|------|------------------------------|
| 1020 | 04901 | 106 | 8037 | PACK MOUNT CAPABILITY        |
| 6105 | 03782 | 106 | 8038 | MAIN FRAME W/PLUG IN MODULES |

|               |       |     |      |               |
|---------------|-------|-----|------|---------------|
| AN/URM-26     | 21900 | 106 | 0345 | CABINET       |
| BC-376M       | 94486 | 106 | 2349 | PORTABLE      |
| SG-1112(V)1/U | 28480 | 106 | 2072 | BENCH MOUNTED |

PWR SOURCE(S)/CONSUMPTION 00140

18 106 9018 TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/125W

|           |       |     |      |                                 |
|-----------|-------|-----|------|---------------------------------|
| TE2308    | 09553 | 106 | 8039 | 45-500HZ S-PHASE 120/240VAC/22W |
| 1020      | 04901 | 106 | 8037 | 50-400HZ S-PHASE 120/240VAC/30W |
| 8640B/004 | 28480 | 106 | 8036 | 48-400HZ S-PHASE 120/240VAC/13W |

|               |       |     |      |                                   |
|---------------|-------|-----|------|-----------------------------------|
| AN/ARM-26C    | 87793 | 106 | 0109 | 50-1000HZ S-PHASE 115VAC          |
| AN/PRM-10     | 13094 | 106 | 0240 | 50-1000 S-PHASE 115/125VAC/20W    |
| AN/URM-121    | 28480 | 106 | 0404 | 50-400HZ S-PHASE 115/230VAC/100W  |
| AN/URM-26     | 21900 | 106 | 0345 | 50-1000HZ S-PHASE 115VAC          |
| AN/URM-26A    |       | 106 | 0346 | 50-1000HZ S-PHASE 115VAC          |
| AN/URM-26B    |       | 106 | 0347 | 50-1000HZ S-PHASE 115VAC          |
| BC-376M       | 94486 | 106 | 2349 | 1.5 R 90V BATTERIES BA-35 & BA-36 |
| SG-1112(V)1/U | 28480 | 106 | 2072 | 48-440HZ S-PHASE 120/240VAC/175W  |
| SG-13/ARN     | 16636 | 106 | 0823 | 265VAC/135W                       |
| TS-497/URR    |       | 106 | 1031 | 50-60HZ S-PHASE 117VAC/65W        |
| TS-497A/URR   |       | 106 | 1032 | 50-60HZ S-PHASE 117VAC/65W        |
| TS-497B/URR   | 04423 | 106 | 1034 | 50-60HZ S-PHASE 117VAC/65W        |
| 1020          | 04901 | 106 | 1630 | 50-400HZ S-PHASE 115/230VAC/30W   |

H-53

## DEFINITIZATION OF QTS ETC SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SPEC QTS ETC TYPE DESIGNATOR/  
 NO MFR'S MDL NO MFR'S MODEL NO ESCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

## PWR SOURCE(S)/CONSUMPTION 00140

|           |       |     |      |                                  |
|-----------|-------|-----|------|----------------------------------|
| 211A      | 2848D | 106 | 1638 | 50-60HZ S-PHASE 105/125VAC/150W  |
| 750-S138  | 33013 | 106 | 1872 | 50-400HZ S-PHASE 115/230VAC/75W  |
| 8640A     | 2848D | 106 | 1591 | 48-440HZ S-PHASE 110/230VAC/175W |
| 8640B     | 2848J | 106 | 2071 | 48-440HZ S-PHASE 110/230VAC/175W |
| 8640B-GC1 | 2848J | 106 | 1593 | 48-440HZ S-PHASE 100/240VAC/175W |

## MTBF SPECIFIED/PREDICTED 00150

18 106 9018 2000 HRS

## PRIMARY CONNECTORS 00170

18 106 9018 BNC SERIES PE-N-SERIES

## ENVIRONMENTAL CONDITIONS 00200

18 106 9018 MIL-T-28800 TYPE II CLASS 5 STYLE E COLDR

## TEMP OPER/NON-OPERATING 00210

18 106 9018 0 TO 50C/-55 TO 75C

|           |       |     |      |              |
|-----------|-------|-----|------|--------------|
| TF2008    | 09553 | 106 | 8039 | 10-35C       |
| 8640B/004 | 2848J | 106 | 8036 | 0-55 DEGREES |

H-54

## DEFINITION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

| SPEC QTS ETE<br>NO MFR'S MOD NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM           | FAM<br>CODE TO NO. | TMOE<br>TO NO. | PARAMETER                                         | ACCURACY - PCT -<br>OR AS STATED |
|---------------------------------|------------------------------------|----------------|--------------------|----------------|---------------------------------------------------|----------------------------------|
| RELATIVE HUMIDITY 00220         |                                    |                |                    |                |                                                   |                                  |
| 18                              |                                    |                | 106                | 9018           | 95(+5-0)                                          |                                  |
| ALTITUDE OPER/NON-OPER 00230    |                                    |                |                    |                |                                                   |                                  |
| 18                              |                                    |                | 106                | 9018           | 3050M(10000FT)/12000M(40000FT)                    |                                  |
| VIBRATION LIMIT (MAXIMUM) 00240 |                                    |                |                    |                |                                                   |                                  |
| 18                              |                                    |                | 106                | 9018           | 2G                                                |                                  |
| SHOCK, PULSE LEVEL 00250        |                                    |                |                    |                |                                                   |                                  |
| 18                              |                                    |                | 106                | 9018           | 30G                                               |                                  |
| AMPLITUDE MODULATION 01200      |                                    |                |                    |                |                                                   |                                  |
| 18                              |                                    |                | 106                | 9018           | 20HZ TO 20KHZ BY INT OR EXTERNAL SINE OR SQ WAVE. |                                  |
| TF200A<br>8640B/C04             |                                    | 09553<br>28430 | 106<br>106         | 8039<br>8036   | 20HZ TO 20KHZ EXT<br>20KHZ TO 600KHZ              |                                  |
|                                 | AV/USM-313<br>TS-497/URR           | 24655          | 106<br>106         | 0523<br>1031   | EXT MOD CAPABILITY<br>60HZ TO 100KHZ              |                                  |

H-55

## DEFINITION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SPEC OTS ETE TYPE DESIGNATOR/ FAM TMOE  
 NO MFR'S MDL NO MFR'S MODEL NO ESCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
 OR AS STATED

EXTERNAL AM SENSITIVITY 01230

18 106 9018 SINE OR SQ-WAVE LT 5V P/P TO PRODUCE MOD OF 95PCT

AMP MOD-INT 01600

18 106 9018 SELECTIVE BETWEEN 400-1000HZ

+/-5 PCT

|           |       |     |      |               |
|-----------|-------|-----|------|---------------|
| TF2008    | 09553 | 106 | 8039 | 300HZ TO 3KHZ |
| 1020      | 04901 | 106 | 8037 | 400-1000HZ    |
| 86408/004 | 28480 | 106 | 8036 | 400-1000HZ    |

|            |       |     |      |              |
|------------|-------|-----|------|--------------|
| AN/ARM-260 | 87793 | 106 | 0109 | 400 & 1000HZ |
| AN/URM-181 | 28480 | 106 | 0404 | 400-1000HZ   |
| AN/URM-26  | 21900 | 106 | 0345 | 400 & 1000HZ |
| AN/URM-26A |       | 106 | 0346 | 400-1000HZ   |
| AN/URM-26B |       | 106 | 0347 | 400-1000HZ   |
| SG-13/ARN  | 16636 | 106 | 0823 | 90 & 150HZ   |
| TS-497/URR |       | 106 | 1031 | 400-1000HZ   |
| 102A       | 04901 | 106 | 1630 | 400 & 1000HZ |

PERCENT MODULATION 01620

18 106 9018 0-95 PCT AM BY INT OR EXT SIGNAL SOURCES

|            |       |     |      |                  |
|------------|-------|-----|------|------------------|
| AN/URM-181 | 28480 | 106 | 0404 | 0-50 PCT MOD INT |
| AN/URM-26A |       | 106 | 0346 | 0-50 PCT MOD INT |
| AN/URM-26B |       | 106 | 0347 | 0-50 PCT MOD INT |
| TS-497/URR |       | 106 | 1031 | 0-30 PCT MOD INT |

H-56

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM<br>CODE | TMDE<br>IO NO. | PARAMETER                                           | ACCURACY -PCT-<br>OR AS STATED     |  |
|---------------------------------|------------------------------------|--------------|----------------|-----------------------------------------------------|------------------------------------|--|
| AM INTERNAL DISTORTION 01640    |                                    |              |                |                                                     |                                    |  |
| 18                              |                                    | 106          | 9018           | DISTORTION OF AM CARRIER NGT                        | 2 PCT                              |  |
| OUTPUT ATTENUATION 03600        |                                    |              |                |                                                     |                                    |  |
| 18                              |                                    | 106          | 9018           | NLT 120DB W/10DB VERNIER IN 108 STEPS               | +/-208                             |  |
|                                 | SG-1112(V)1/U                      | 28480        | 106            | 2072                                                | 10DB STEP ATTENUATOR IN 1 DB STEPS |  |
| FM DEVIATION 26020              |                                    |              |                |                                                     |                                    |  |
| 18                              |                                    | 106          | 9018           | INTERNAL AND EXTERNAL DEV CAPABILITY OF 0-40KHZ PMS |                                    |  |
|                                 | 8640B/004                          | 28480        | 106            | 8036                                                | AM AND FM CR PULSE AND FM          |  |
| RF MOD DUE TO VIBRATION 26440   |                                    |              |                |                                                     |                                    |  |
| 18                              |                                    | 106          | 9018           | AT ANY FREQ W/CEVIATION SET AT 40KHZ NGT            | 5 PCT                              |  |
| OUTPUT FREQUENCY 26600          |                                    |              |                |                                                     |                                    |  |
| 18                              |                                    | 106          | 9018           | 450KHZ TO 512MHZ                                    | +/-5 PCT                           |  |
| TF2308                          | 09553                              | 106          | 8039           | 10KHZ TO 512MHZ W/11 RANGES                         |                                    |  |
| 1020                            | 04901                              | 106          | 8037           | .45MHZ TO 520MHZ                                    |                                    |  |
| 6106                            | 03782                              | 106          | 8038           | 61KHZ TO 512MHZ W/MODULE PLUG-IN 6202               |                                    |  |
| 8640B/004                       | 28480                              | 106          | 8036           | .45MHZ TO 512                                       |                                    |  |
| AN/ARM-26C                      | 87793                              | 106          | 0109           | 3MHZ TO 405MHZ                                      | IN 6 RANGES +/-5 PCT               |  |
| AN/PRM-10                       | 13094                              | 106          | 0240           | 2 TO 400MHZ                                         | IN 7 RANGES +/-1.5 PCT             |  |

H-57

## DEFINITION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

SPEC QTS ETE TYPE DESIGNATOR/ FAM TMDE  
NO MFP'S MOL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER

ACCURACY -PCT-  
OP AS STATED

OUTPUT FREQUENCY 26600  
-----

|               |       |     |      |                  |              |             |
|---------------|-------|-----|------|------------------|--------------|-------------|
| AN/URM-181    | 28480 | 106 | 0404 | 54 TO 216MHZ     | IN 2 RANGES  |             |
| AN/URM-26     | 21900 | 106 | 0345 | 3 TO 405MHZ      | IN 6 RANGES  | +/-5 PCT    |
| AN/URM-26A    |       | 106 | 0346 | 3 TO 405MHZ      | IN 6 RANGES  | +/-5 PCT    |
| AN/URM-26B    |       | 106 | 0347 | 4 TO 405MHZ      | IN 6 RANGES  | +/-5 PCT    |
| AN/USM-313    | 24655 | 106 | 0523 | 500KHZ TO 50MHZ  | IN 1 RANGE   | +/-2 PCT    |
| BC-376M       | 94486 | 106 | 2349 | 75MHZ            |              |             |
| SG-1112(VII/U | 28480 | 106 | 2072 | 500KHZ TO 512MHZ | IN 10 RANGES | +/-0.05 PCT |
| SG-13/APN     | 16636 | 106 | 0823 | 10R TO 335MHZ    | IN 2 RANGES  | .0065 PCT   |
| TS-497/URR    |       | 106 | 1031 | 2 TO 400MHZ      | IN 6 RANGES  |             |
| TS-497A/URR   |       | 106 | 1032 | 2 TO 400MHZ      |              |             |
| TS-497B/URR   | 04423 | 106 | 1034 | 2 TO 400MHZ      | IN 6 RANGES  | +/-0.5 PCT  |
| 102A          | 04901 | 106 | 1630 | 4.3 TO 520MHZ    | IN 5 RANGES  |             |
| 211A          | 28480 | 106 | 1638 | 88 TO 140MHZ     |              |             |
| 750-S138      | 33013 | 106 | 1872 | 9.5 TO 520MHZ    |              |             |
| 8640A         | 28480 | 106 | 1591 | 500KHZ TO 512MHZ | IN 10 RANGES |             |
| 8640B         | 28480 | 106 | 2071 | 500 TO 512MHZ    |              |             |
| 8640B-001     | 28480 | 106 | 1593 | 500 TO 512MHZ    | IN 10 RANGES | +/-0.5 PCT  |

OUTPUT FREQUENCY RESPONSE 26800  
-----

18 106 9018 OVER ANY BAND NGT +/-20B

CARRIER FREQUENCY SHIFT 27200  
-----

18 106 9018 CARRIER FREQUENCY SHIFT W/MOD FREQ NGT .005 PCT

1020 04901 106 8037 INTERNAL PHASE LOCK

IMPEDANCE, INPUT 34400  
-----

18 106 9018 600 OHMS +/-5 PCT

TF2008 09553 106 8039 600 OHMS  
1020 04901 106 8037 600 OHM

H-58

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

| SPEC QTS ETE<br>NO MFR'S MOD NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TIME<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

|                  |  |       |  |  |  |
|------------------|--|-------|--|--|--|
| IMPEDANCE, INPUT |  | 34400 |  |  |  |
|------------------|--|-------|--|--|--|

|           |  |       |     |      |         |
|-----------|--|-------|-----|------|---------|
| 8640B/004 |  | 28480 | 106 | 8036 | 600 OHM |
|-----------|--|-------|-----|------|---------|

|               |  |       |     |      |         |
|---------------|--|-------|-----|------|---------|
| SG-1112(V)1/U |  | 28480 | 106 | 2072 | 2K OHMS |
|---------------|--|-------|-----|------|---------|

|                  |  |       |  |  |  |
|------------------|--|-------|--|--|--|
| OUTPUT IMPEDANCE |  | 35200 |  |  |  |
|------------------|--|-------|--|--|--|

|    |  |  |     |      |                          |
|----|--|--|-----|------|--------------------------|
| 18 |  |  | 106 | 9018 | IMPEDANCE OUTPUT 50 OHMS |
|----|--|--|-----|------|--------------------------|

|           |  |       |     |      |           |
|-----------|--|-------|-----|------|-----------|
| 1020      |  | 04901 | 106 | 8037 | OPTION 02 |
| 8640B/004 |  | 28480 | 106 | 8036 | 50 OHMS   |

|            |       |     |      |           |
|------------|-------|-----|------|-----------|
| AN/ARM-26C | 87793 | 106 | 0109 | 50 OHMS   |
| AN/URM-181 | 28480 | 106 | 0404 | 50 OHMS   |
| AN/URM-26  | 21900 | 106 | 0345 | 50 OHMS   |
| AN/URM-26A |       | 106 | 0346 | 50 OHMS   |
| AN/URM-26B |       | 106 | 0347 | 50 OHMS   |
| AN/USM-313 | 24655 | 106 | 0523 | 50 OHMS   |
| TS-497/URP |       | 106 | 1031 | 53.5 OHMS |

|                    |  |       |  |  |  |
|--------------------|--|-------|--|--|--|
| MODULATION VOLTAGE |  | 42600 |  |  |  |
|--------------------|--|-------|--|--|--|

|    |  |  |     |      |                                                    |
|----|--|--|-----|------|----------------------------------------------------|
| 18 |  |  | 106 | 9018 | DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHALL NOT VARY |
|----|--|--|-----|------|----------------------------------------------------|

+/-10 PCT

|                   |  |       |  |  |  |
|-------------------|--|-------|--|--|--|
| PULSE MOD (PM)-EX |  | 56000 |  |  |  |
|-------------------|--|-------|--|--|--|

|    |  |  |     |      |                                |
|----|--|--|-----|------|--------------------------------|
| 18 |  |  | 106 | 9018 | EXTERNAL SIGNAL MOD CAPABILITY |
|----|--|--|-----|------|--------------------------------|

|        |       |     |      |                      |
|--------|-------|-----|------|----------------------|
| TF2008 | 09553 | 106 | 8039 | 30HZ TO 125KHZ       |
| 1020   | 04901 | 106 | 8037 | RF FROM OTHER SOURCE |

H-59



## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - GENERATOR, SIGNAL, VHF

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE | IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|--------------|--------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|--------------|--------|-----------|--------------------------------|

PULSE MOD (PM)-INT 56400

|    |  |     |      |  |                                                          |   |
|----|--|-----|------|--|----------------------------------------------------------|---|
| 18 |  | 106 | 9018 |  | INTERNAL PM CAPABILITY AT 50 TO 5000PPS W/10-40USEC WIDT | H |
|----|--|-----|------|--|----------------------------------------------------------|---|

|            |       |     |      |  |                                         |  |
|------------|-------|-----|------|--|-----------------------------------------|--|
| AN/ARM-26C | 87793 | 106 | 0109 |  | 50-5000PPS                              |  |
| AN/URM-26  | 21900 | 106 | 0345 |  | 50-5000PPS                              |  |
| AN/URM-26A |       | 106 | 0346 |  | 50-5000PPS                              |  |
| AN/URM-26B |       | 106 | 0347 |  | 50-5000PPS 2-40USEC PULSE WIDTH         |  |
| TS-497/URR |       | 106 | 1031 |  | 60HZ TO 100KHZ PPS 1-40USEC PULSE WIDTH |  |

RF SPURIOUS OUTPUT 68000

|    |  |     |      |  |                                                       |  |
|----|--|-----|------|--|-------------------------------------------------------|--|
| 18 |  | 106 | 9018 |  | HARMONIC CONTENT LEVEL 40DB BELOW UNMODULATED CARRIER |  |
|----|--|-----|------|--|-------------------------------------------------------|--|

|        |       |     |      |  |                    |  |
|--------|-------|-----|------|--|--------------------|--|
| TF2008 | 09553 | 106 | 8039 |  | -40 TO -30DB BELOW |  |
|--------|-------|-----|------|--|--------------------|--|

|            |       |     |      |  |                         |  |
|------------|-------|-----|------|--|-------------------------|--|
| AN/URM-181 | 28480 | 106 | 0404 |  | 300B BELOW DESIRED FREQ |  |
|------------|-------|-----|------|--|-------------------------|--|

RF NOISE LEVEL 68400

|    |  |     |      |  |                                                  |  |
|----|--|-----|------|--|--------------------------------------------------|--|
| 18 |  | 106 | 9018 |  | RF NOISE LEVEL AT LEAST 350B BELOW CARRIER LEVEL |  |
|----|--|-----|------|--|--------------------------------------------------|--|

STANDING WAVE RATIO (SWR) 69600

|    |  |     |      |  |        |  |
|----|--|-----|------|--|--------|--|
| 18 |  | 106 | 9018 |  | LT 1.2 |  |
|----|--|-----|------|--|--------|--|

|        |       |     |      |  |        |  |
|--------|-------|-----|------|--|--------|--|
| TF2008 | 09553 | 106 | 8039 |  | LT 1.2 |  |
| 1020   | 04901 | 106 | 8037 |  | LT 1.5 |  |

H-60

# OFFINITIALIZATION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY VAMF - GENERATOR, SIGNAL, VHF

SPEC DTS ETE TYPE DESIGNATOR/ FAM TMDE ACCURACY -PCT-  
 NO MFR'S MDL NO MFR'S MODEL NO FSCM CODE ID NO. PARAMETER OR AS STATED

RF VOLTAGE OUTPUT 85600

18 106 9018 RF VOLTAGE VARIABLE 10V TO 1V ACROSS 50 OHM LOAD +/-1DB

TF2008 09553 106 8039 .20V-200MV ACROSS 50 OHM LOAD  
 1020 04901 106 8037 1V ACROSS 50 OHM LOAD  
 8640B/004 28480 106 8036 2V AT 50 OHM LOAD

AN/ARM-26C 87793 106 0109 .10V TO 100,000V  
 AN/URM-181 28480 106 0404 1000V TO 200MV  
 AN/URM-26 21900 106 0345 1000V TO 100MV  
 AN/URM-26B 106 0347 1000V TO 100MV  
 AN/USM-313 24655 106 0523 .32V  
 SG-1112(V)1/U 28480 106 2072 180V TO 1.3V  
 TS-497/URR 106 1031 1000V TO 100MV  
 TS-497A/URR 106 1032 1000V TO 100MV  
 211A 28480 106 1638 1000V TO 200MV VOR&ILS LOCALIZER RECEIVERS  
 8640A 28480 106 1591 130V TO 2V  
 8640R 28480 106 2071 130V TO 2V  
 8640B-001 28493 106 1593 130V TO 2V

+/-2 PCT

H-61

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - STROBOSCOPE

| SPEC OTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

00100

95

065 9095 STROBOSCOPE

1531A  
165  
410  
932

|       |     |      |                            |
|-------|-----|------|----------------------------|
| 24655 | 065 | 8046 | STROBOSCOPE                |
| 05611 | 065 | 8048 | STROBOSCOPE                |
| 16902 | 065 | 8049 | STROBOSCOPE/PHOTOTACOMETER |
| 15806 | 065 | 8047 | STROBOSCOPE                |

|           |       |     |      |                         |
|-----------|-------|-----|------|-------------------------|
| TS-805/U  | 24655 | 065 | 1108 | STROBOSCOPE             |
| TS-805A/U | 24655 | 065 | 1109 | STROBOSCOPE             |
| TS-805B/U | 83490 | 065 | 1110 | STROBOSCOPE             |
| TS-805C/U | 00708 | 065 | 1111 | STROBOSCOPE             |
| TS-805D/U | 83490 | 065 | 1112 | STROBOSCOPE             |
| 1531AB    | 24655 | 065 | 1717 | TACHOMETER STROBOSCOPIC |
| 1538-A    | 24655 | 065 | 1718 | STROBOSCOPE             |

DIMENSIONS IN MM/INS 00110

95

065 9095 305MM(12IN)WX203MM(8IN)HX381MM(15IN)D

1531A  
932

|       |     |      |                                    |
|-------|-----|------|------------------------------------|
| 24655 | 065 | 8046 | 27CM(11IN)WX17CM(7IN)HX16CM(13IN)D |
| 15806 | 065 | 8047 | 15CM(6IN)WX23CM(9IN)HX20CM(8IN)D   |

|           |       |     |      |                                                     |
|-----------|-------|-----|------|-----------------------------------------------------|
| TS-805/U  | 24655 | 065 | 1108 | 16.51CM(6.5IN)WX23.50CM(9.25IN)HX24.77CM(9.75IN)D   |
| TS-805A/U | 24655 | 065 | 1109 | 19.30CM(7.6IN)WX22.86CM(9IN)HX25.40CM(10IN)D        |
| 1531AB    | 24655 | 065 | 1717 | 26.99CM(10.63IN)WX15.56CM(6.13IN)HX16.83CM(6.63IN)D |
| 1538-A    | 24655 | 065 | 1718 | 27CM(10.63IN)WX16.84CM(6.63IN)HX33.02CM(13IN)D      |

WEIGHT IN KG/LBS 00120

95

065 9095 5.44KG(12LBS)

1531A  
165

|       |     |      |               |
|-------|-----|------|---------------|
| 24655 | 065 | 8046 | 3.5KG(7.5LBS) |
| 05611 | 065 | 8048 | 4KG(8LBS)     |

|          |       |     |      |                |
|----------|-------|-----|------|----------------|
| TS-805/U | 24655 | 065 | 1108 | 4.31KG(9.5LBS) |
|----------|-------|-----|------|----------------|

H-62

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - STROBOSCOPE

| SPEC OTS ETE<br>NO MFR'S MOL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOE<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

WEIGHT IN KG/LBS 00120

|        |       |     |      |                 |
|--------|-------|-----|------|-----------------|
| 15314d | 24655 | 065 | 1717 | 3.29KG(7.55LBS) |
| 1538-A | 24655 | 065 | 1718 | 3.41KG(7.5LBS)  |

PWR SOURCE(S)/CONSUMPTION 00140

|           |       |      |                                                 |                                                  |
|-----------|-------|------|-------------------------------------------------|--------------------------------------------------|
| 95        | 065   | 9095 | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/30W |                                                  |
| 1531A     | 24655 | 065  | 8046                                            | 50-400HZ S-PHASE 115/230VAC/25W BATTERY OPTIONAL |
| 165       | 05611 | 065  | 8048                                            | 60HZ, S-PHASE 130VAC                             |
| 932       | 15806 | 065  | 8047                                            | 50,60HZ S-PHASE 115/230VAC                       |
| TS-805/U  | 24655 | 065  | 1108                                            | 60HZ S-PHASE 105/125VAC/35W                      |
| TS-805A/U | 24655 | 065  | 1109                                            | 60HZ S-PHASE 105/125VAC                          |
| TS-805C/U | 00708 | 065  | 1111                                            | 60HZ S-PHASE 115VAC                              |
| TS-8050/U | 83490 | 065  | 1112                                            | 60HZ S-PHASE 115VAC                              |

MTBF SPECIFIED/PREDICTED 00150

|    |     |      |              |
|----|-----|------|--------------|
| 95 | 065 | 9095 | NLT 2000 HRS |
|----|-----|------|--------------|

PRIMARY CONNECTORS 00170

|       |       |      |                            |                                |
|-------|-------|------|----------------------------|--------------------------------|
| 95    | 065   | 9095 | TIP-RING SLEEVE AUDIO PLUG |                                |
| 1531A | 24655 | 065  | 8046                       | PHONE JACKS FOR EXT TRIGGERING |

H-63

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - STROBOSCOPE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM TMDE<br>CODE ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------------------|-----------|
|---------------------------------|------------------------------------|------|-------------------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

|                          |       |
|--------------------------|-------|
| ENVIRONMENTAL CONDITIONS | 00200 |
|--------------------------|-------|

95

065 9095 MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR R

|                         |       |
|-------------------------|-------|
| TEMP OPER/NON-OPERATING | 00210 |
|-------------------------|-------|

95

065 9095 0 TO 50C/-55 TO 75C

|                   |       |
|-------------------|-------|
| RELATIVE HUMIDITY | 00220 |
|-------------------|-------|

95

065 9095 95(+5-0)

|                        |       |
|------------------------|-------|
| ALTITUDE OPER/NON-OPER | 00230 |
|------------------------|-------|

95

065 9095 3050M(10000FT)/1200M(40000FT)

|                           |       |
|---------------------------|-------|
| VIBRATION LIMIT (MAXIMUM) | 00240 |
|---------------------------|-------|

95

065 9095 2G

|                    |       |
|--------------------|-------|
| SHOCK, PULSE LEVEL | 00250 |
|--------------------|-------|

95

065 9095 30G

H-64

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - STROBOSCOPE

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOF<br>ID NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

## FLASH CHARACTERISTICS 24400

|       |           |       |      |                                              |                                               |          |
|-------|-----------|-------|------|----------------------------------------------|-----------------------------------------------|----------|
| 95    |           | 065   | 9095 | 60 TO 150,000 FLASHES PER MINUTE IN 4 RANGES | +/-1 PCT                                      |          |
| 1531A | 24655     | 065   | 8046 | 110 TO 25,000 FLASHES PER MINUTE             |                                               |          |
| 165   | 05611     | 065   | 8048 | 115 TO 25,000 FLASHES PER MINUTE             |                                               |          |
| 410   | 16902     | 065   | 8049 | 0 TO 50,000 FLASHES PER MINUTE IN 4 RANGES   |                                               |          |
| 932   | 15806     | 065   | 8047 | 0 TO 30,000 FLASHES PER MINUTE               |                                               |          |
|       | TS-805/U  | 24655 | 065  | 1108                                         | 600 TO 14,400 FLASHES PER MIN IN 2 RANGES     | +/-1 PCT |
|       | TS-805A/U | 24655 | 065  | 1109                                         | 60 TO 14400 FLASHES PER MINUTE IN 2 RANGES    | +/-1 PCT |
|       | TS-805B/U | 83490 | 065  | 1110                                         | 60 TO 15,000 FLASHES PER MINUTE IN 2 RANGES   | +/-1 PCT |
|       | TS-805C/U | 00708 | 065  | 1111                                         | 60 TO 14,400 FLASHES PER MINUTE IN 2 RANGES   | +/-1 PCT |
|       | TS-805D/U | 83490 | 065  | 1112                                         | 600 TO 15,000 FLASHES PER MINUTE IN 2 RANGES  | +/-1 PCT |
|       | 1531A8    | 24655 | 065  | 1717                                         | 110 TO 25,000 FLASHES PER MINUTE IN 3 RANGES  |          |
|       | 1538-A    | 24655 | 065  | 1718                                         | 110 TO 150,000 FLASHES PER MINUTE IN 4 RANGES | +/-1 PCT |

## LIGHT INTENSITY 39600

|       |       |     |      |                  |
|-------|-------|-----|------|------------------|
| 95    |       | 065 | 9095 | .5X10 CANDELAS   |
| 1531A | 24655 | 065 | 8046 | 06 TO +0 CANDELA |

## SYNCHRONIZATION, INPUT 74000

|        |       |     |      |                                          |
|--------|-------|-----|------|------------------------------------------|
| 95     |       | 065 | 9095 | EXTERNAL SOURCE SYNC CAPABILITY          |
| 1531A  | 24655 | 065 | 8046 | EXT TRIGGER +60 PULSE OR 2VOLT SINE WAVE |
| 165    | 05611 | 065 | 8048 | EXT TRIGGER AND SYNC SIGNALING           |
| 932    | 15806 | 065 | 8047 | EXT TRIGGERING                           |
| 1531A8 | 24655 | 065 | 1717 | EXTERNAL TRIGGER INPUT CAPABILITY        |
| 1538-A | 24655 | 065 | 1718 | INPUT TRIGGERING CAPABILITY              |

H-65

## DEFINITION OF OTS ETC SPECIFICATIONS

06/21/78

## FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC OTS ETC<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMOF<br>CODE | ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|--------------|--------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|--------------|--------|-----------|--------------------------------|

00100

38

021 9038 VOLTMETER DIFFERENTIAL

|       |  |       |     |      |                        |  |
|-------|--|-------|-----|------|------------------------|--|
| 1002  |  | 25778 | 121 | 8043 | VOLTMETER DIFFERENTIAL |  |
| 1412  |  | 25778 | 121 | 8044 | VOLTMETER DIFFERENTIAL |  |
| 7408  |  | 28480 | 121 | 8041 | VOLTMETER DIFFERENTIAL |  |
| 887A8 |  | 89536 | 121 | 8042 | VOLTMETER DIFFERENTIAL |  |

|           |       |     |      |                                             |
|-----------|-------|-----|------|---------------------------------------------|
| ME-202/U  | 89536 | 121 | 0682 | VOLTMETER ELECTRONIC                        |
| MF-2028/U | 89536 | 121 | 0683 | VOLTMETER ELECTRONIC                        |
| TS-2843/U | 89536 | 121 | 1210 | VOLTMETER                                   |
| 335A      | 89536 | 121 | 3456 | CALIBRATOR VOLTMETER                        |
| 7408      | 28480 | 121 | 1965 | DC STANDARD DIFFERENTIAL VOLTMETER          |
| 7418      | 28480 | 121 | 1966 | DIFFERENTIAL VOLTMETER                      |
| 803       | 89536 | 121 | 2559 | VOLTMETER ELECTRONIC PRECISION DIFFERENTIAL |
| 803BR     | 89536 | 121 | 1967 | VOLTMETER DIFFERENTIAL                      |
| 803DAG    | 89536 | 121 | 1969 | VOLTMETER ELECTRONIC                        |
| 887-ABAN  | 89536 | 121 | 2550 | VOLTMETER DIFFERENTIAL                      |
| 887A      | 89536 | 121 | 1971 | VOLTMETER DIFFERENTIAL                      |
| 891A      | 89536 | 121 | 1972 | VOLTMETER DC DIFFERENTIAL                   |
| 893A      | 89536 | 121 | 1973 | VOLTMETER DIFFERENTIAL                      |

DIMENSIONS IN MM/INS 00110

38

021 9038 260MM(10IN)WX235MM(9IN)HX405MM(15.5IN)D

|       |       |     |      |                                                  |
|-------|-------|-----|------|--------------------------------------------------|
| 1002  | 25778 | 121 | 8043 | 30CM(12IN)WX28CM(11IN)HX45CM(18IN)D              |
| 1412  | 25778 | 121 | 8044 | 23CM(9IN)WX18CM(7IN)HX25CM(10IN)D                |
| 7408  | 28480 | 121 | 8041 | 42.5CM(6.75IN)WX17.5CM(6.88IN)HX46.4CM(18.25IN)D |
| 887A8 | 89536 | 121 | 8042 | 23CM(9IN)WX18CM(7IN)HX38CM(15IN)D                |

|           |       |     |      |                                                      |
|-----------|-------|-----|------|------------------------------------------------------|
| ME-202/U  | 89536 | 121 | 0682 | 24.77CM(9.75IN)WX40.64CM(16IN)HX33.02CM(13IN)D       |
| ME-2028/U | 89536 | 121 | 0683 | 24.77CM(9.75IN)WX40.64CM(16IN)HX33.02CM(13IN)D       |
| TS-2843/U | 89536 | 121 | 1210 | 21.59CM(8.5IN)WX17.78CM(7IN)HX37.47CM(14.75IN)D      |
| 335A      | 89536 | 121 | 3456 | 48.26CM(19IN)WX46.99CM(18.5IN)HX17.78CM(7IN)D        |
| 7408      | 28480 | 121 | 1965 | 42.55CM(16.75IN)WX17.46CM(6.88IN)HX46.36CM(18.25IN)D |
| 7418      | 28480 | 121 | 1966 | 42.55CM(16.75IN)WX17.78CM(7IN)HX46.36CM(18.25IN)D    |
| 803       | 89536 | 121 | 2559 | 24.38CM(9.75IN)WX40.64CM(16IN)HX33.02CM(13IN)D       |
| 803BR     | 89536 | 121 | 1967 | 48.26CM(19IN)WX17.78CM(7IN)HX39.37CM(15.50IN)D       |

H-66



## DEFINITION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC DTS ETE<br>NO MFR'S MFL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TIME<br>CODE TO NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|

| ACCURACY -PCT-<br>OR AS STATED |
|--------------------------------|
|--------------------------------|

| DIMENSIONS IN MM/INS | 00110 |
|----------------------|-------|
|----------------------|-------|

|          |       |     |      |                                                      |
|----------|-------|-----|------|------------------------------------------------------|
| 803DAG   | 89536 | 121 | 1969 | 34.14CM(13.44IN)WX24.33CM(9.62IN)HX43.82CM(17.25IN)D |
| 887-ABAN | 89536 | 121 | 2560 | 21.59CM(8.5IN)WX38.10CM(15IN)HX17.78CM(7IN)D         |
| 887A     | 89536 | 121 | 1971 | 21.59CM(8.5IN)WX37.47CM(14.75IN)HX17.78CM(7IN)D      |
| 891A     | 89536 | 121 | 1972 | 24.77CM(9.75IN)WX17.78CM(7IN)HX33.98CM(13.38IN)D     |
| 893A     | 89536 | 121 | 1973 | 21.59CM(8.5IN)WX17.78CM(7IN)HX26.04CM(10.25IN)D      |

| WEIGHT IN KG/LBS | 00120 |
|------------------|-------|
|------------------|-------|

|    |     |      |                  |
|----|-----|------|------------------|
| 38 | 021 | 903R | 9.07KG(20LBS)MAX |
|----|-----|------|------------------|

|       |       |     |      |             |
|-------|-------|-----|------|-------------|
| 1002  | 25778 | 121 | 8043 | 13KG(29LBS) |
| 1412  | 25778 | 121 | 8044 | 5KG(11LBS)  |
| 7408  | 28480 | 121 | 8041 | 13KG(29LBS) |
| 887A8 | 89536 | 121 | 8042 | 6KG(14LBS)  |

|           |       |     |      |                  |
|-----------|-------|-----|------|------------------|
| ME-202/U  | 89536 | 121 | 0682 | 13.62KG(30LBS)   |
| ME-202H/U | 89536 | 121 | 0633 | 17.25KG(38LBS)   |
| TS-2843/U | 89536 | 121 | 1210 | 6.36KG(14LBS)    |
| 3354      | 89536 | 121 | 3456 | 27.24KG(60LBS)   |
| 7408      | 28480 | 121 | 1965 | 21.47KG(47.3LBS) |
| 7418      | 28480 | 121 | 1966 | 20.88KG(46LBS)   |
| 803       | 89536 | 121 | 2559 | 11.35KG(25LBS)   |
| 8038R     | 89536 | 121 | 1967 | 11.35KG(25LBS)   |
| 803DAG    | 89536 | 121 | 1969 | 9.99KG(22LBS)    |
| 887-ABAN  | 89536 | 121 | 2560 | 6.81KG(15LBS)    |
| 887A      | 89536 | 121 | 1971 | 5.90KG(13LBS)    |
| 891A      | 89536 | 121 | 1972 | 5.45KG(12LBS)    |
| 893A      | 89536 | 121 | 1973 | 5.45KG(12LBS)    |

| ENCLOSURE (STYLE) | 00130 |
|-------------------|-------|
|-------------------|-------|

|    |     |      |                                             |
|----|-----|------|---------------------------------------------|
| 38 | 021 | 903R | MIL-T-28000 STYLE E W/RACK MOUNT CAPABILITY |
|----|-----|------|---------------------------------------------|

|       |       |     |      |                       |
|-------|-------|-----|------|-----------------------|
| 887A8 | 89536 | 121 | 8042 | RACK MOUNT CAPABILITY |
|-------|-------|-----|------|-----------------------|

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|----------------|-----------|--------------------------------|

PWR SOURCE(S)/CONSUMPTION 00140

|       |           |       |          |                                                     |   |
|-------|-----------|-------|----------|-----------------------------------------------------|---|
| 38    |           | 021   | 9038     | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/12W     | W |
| 1002  |           | 25778 | 121 8043 | 50,60,400 S-PHASE 115/230VAC/12                     |   |
| 1412  |           | 25778 | 121 8044 | 50-500HZ S-PHASE 115/230VAC                         |   |
| 7404  |           | 28480 | 121 8041 | 50,60,400HZ S-PHASE 115/230VAC/12W                  |   |
| 887AB |           | 89536 | 121 8042 | 50-400HZ 115/230VAC/4W W/BATTERY CAPABILITY         |   |
|       | ME-202/U  | 89536 | 121 0682 | 50-60HZ S-PHASE 117/234VAC/175W                     |   |
|       | ME-2028/U | 89536 | 121 0693 | 50-60HZ S-PHASE 117/234VAC/175W                     |   |
|       | TS-2843/U | 89536 | 121 1210 | 50-440HZ S-PHASE 115/230VAC/6W W/BATTERY CAPABILITY |   |
|       | 335A      | 89536 | 121 3456 | 50-60HZ S-PHASE 115/230VAC                          |   |
|       | 740B      | 28480 | 121 1965 | 50-400HZ S-PHASE 115/230VAC/125W                    |   |
|       | 741B      | 28480 | 121 1966 | 50-1000HZ S-PHASE 115/230VAC/125W                   |   |
|       | 803       | 89536 | 121 2559 | 50-440HZ S-PHASE 115/230VAC/85W                     |   |
|       | 803BR     | 89536 | 121 1967 | 400HZ S-PHASE 120VAC/75W                            |   |
|       | 803DAG    | 89536 | 121 1969 | 50-400HZ S-PHASE 115/230VAC/85W                     |   |
|       | 887-ABAN  | 89536 | 121 2560 | 50-400HZ S-PHASE 115/230VAC/5W                      |   |
|       | 887A      | 89536 | 121 1971 | 50-400HZ S-PHASE 115/230VAC/7W                      |   |
|       | 891A      | 89536 | 121 1972 | 50-500HZ S-PHASE 115/230VAC/4W                      |   |
|       | 893A      | 89536 | 121 1973 | 50-500HZ S-PHASE 115/230VAC/4W W/BATTERY CAPABILITY |   |

MTBF SPECIFIED/PREDICTED 00150

|    |  |     |      |          |
|----|--|-----|------|----------|
| 38 |  | 021 | 9038 | 7500 HRS |
|----|--|-----|------|----------|

PRIMARY CONNECTORS 00170

|    |  |     |      |                         |
|----|--|-----|------|-------------------------|
| 38 |  | 021 | 9038 | DUAL FEMALE BANANA PLUG |
|----|--|-----|------|-------------------------|

|      |       |     |      |               |
|------|-------|-----|------|---------------|
| 893A | 89536 | 121 | 1973 | BINDING POSTS |
|------|-------|-----|------|---------------|

H-68

## DEFINITIZATION OF QTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC QTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>CODE | TMDE<br>IO NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

ENVIRONMENTAL CONDITIONS 00200

38

021 9038 MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR 2

TEMP OPER/NON-OPERATING 00210

38

021 9038 0 TO 50C/-55 TO 75C

1412  
887AB

|       |     |      |             |
|-------|-----|------|-------------|
| 25778 | 121 | 8044 | -40 TO +70C |
| 89536 | 121 | 8042 | 0-50C       |

RELATIVE HUMIDITY 00220

38

021 9038 95(+5-0)

ALTITUDE OPER/NON-OPER 00230

38

021 9038 3050M(10000FT)/12000M(40000FT)

VIBRATION LIMIT (MAXIMUM) 00240

38

021 9038 2G

SHOCK, PULSE LEVEL 00250

38

021 9038 30G

69-H

## DEFINITIZATION OF DTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC DTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FSCM | FAM<br>CODE | TMOF<br>IO NO. | PARAMETER |
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|
|---------------------------------|------------------------------------|------|-------------|----------------|-----------|

ACCURACY -PCT-  
OR AS STATED

OUTPUT FREQUENCY 26650

38 021 9038 20HZ TO 5KHZ +/-2PCT, TOTAL RANGE 5HZ TO 100KHZ +/-5PCT

|       |       |     |      |               |
|-------|-------|-----|------|---------------|
| 1412  | 25778 | 121 | 8044 | 5HZ TO 100KHZ |
| 887A8 | 89536 | 121 | 8042 | 20HZ TO 5KHZ  |

|           |       |     |      |                |
|-----------|-------|-----|------|----------------|
| ME-202/U  | 89536 | 121 | 0682 | 5HZ TO 10KHZ   |
| ME-202B/U | 89536 | 121 | 0693 | 5HZ TO 10KHZ   |
| TS-2843/U | 89536 | 121 | 1210 | 20HZ TO 5KHZ   |
| 741R      | 28480 | 121 | 1966 | 20HZ TO 100KHZ |
| 803BR     | 89536 | 121 | 1967 | 5HZ TO 10KHZ   |
| 803DAG    | 89536 | 121 | 1969 | 0 TO 100KHZ    |

IMPEDANCE, INPUT 34400

38 021 9038 NLT 10MEGOHM-DC AND 1MEGOHM AC

|       |       |     |      |                           |
|-------|-------|-----|------|---------------------------|
| 1002  | 25778 | 121 | 8043 | 100 MEGOHMS               |
| 1412  | 25778 | 121 | 8044 | 100 MEGOHM-DC, 1MEGOHM-AC |
| 740B  | 28480 | 121 | 8041 | 0-100MEGOHM INPUT         |
| 887A8 | 89536 | 121 | 8042 | 10MEGOHMS DC 1MEGOHM AC   |

|           |       |     |      |                                    |
|-----------|-------|-----|------|------------------------------------|
| ME-202B/U | 89536 | 121 | 0683 | 1MEGOHM AT AC, INFINITE AT NULL DC |
| TS-2843/U | 89536 | 121 | 1210 | INFINITE AT NULL                   |

NULL MODE 46800

38 021 9038 VOLTAGE VARIATION MEASUREMENT TO 100UVDC &amp; 1MV AC

|       |       |     |      |                                |
|-------|-------|-----|------|--------------------------------|
| 1002  | 25778 | 121 | 8043 | 100UV                          |
| 1412  | 25778 | 121 | 8044 | .001-TO 100V AC/DC             |
| 740B  | 28480 | 121 | 8041 | 100UV TO 100MV IN 4 RANGES     |
| 887A8 | 89536 | 121 | 8042 | 100UV THROUGH 100V IN 7 RANGES |

|          |       |     |      |            |
|----------|-------|-----|------|------------|
| ME-202/U | 89536 | 121 | 0682 | .01 TO 10V |
|----------|-------|-----|------|------------|

H-70

## DEFINITIZATION OF DTS ETE SPECIFICATIONS

06/21/78

## FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC DTS ETE<br>NO MFR'S MOD ID | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>FSCM | TMDE<br>CODE ID NO. | PARAMETER | ACCURACY -PCT-<br>OR AS STATED |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|--------------------------------|

|           |       |  |  |  |  |
|-----------|-------|--|--|--|--|
| NULL MODE | 46800 |  |  |  |  |
|-----------|-------|--|--|--|--|

|             |       |  |  |  |  |
|-------------|-------|--|--|--|--|
| VOLTAGE, AC | 84000 |  |  |  |  |
|-------------|-------|--|--|--|--|

|    |  |     |      |              |                 |             |
|----|--|-----|------|--------------|-----------------|-------------|
| 38 |  | 021 | 9038 | 0 TO 1000VAC | IN NMT 8 RANGES | +/- .02 PCT |
|----|--|-----|------|--------------|-----------------|-------------|

|       |  |       |     |      |              |  |
|-------|--|-------|-----|------|--------------|--|
| 88748 |  | 89536 | 121 | 8042 | 0 TO 1000VAC |  |
|-------|--|-------|-----|------|--------------|--|

|           |       |     |      |              |             |             |
|-----------|-------|-----|------|--------------|-------------|-------------|
| ME-202/U  | 89536 | 121 | 0682 | 0 TO 500VAC  | IN 8 RANGES | +/- .2 PCT  |
| MF-202B/U | 89536 | 121 | 0683 | 0 TO 500VAC  | IN 8 RANGES | +/- .2 PCT  |
| TS-2843/U | 89536 | 121 | 1210 | 0 TO 1000VAC | IN 7 RANGES | +/- .3 PCT  |
| 741B      | 28480 | 121 | 1966 | 0 TO 1000VAC | IN 4 RANGES | +/- .1 PCT  |
| 803BR     | 89536 | 121 | 1967 | 0 TO 500VAC  | IN 8 RANGES | +/- .2 PCT  |
| 803DAG    | 89536 | 121 | 1969 | 0 TO 500VAC  | IN 4 RANGES | +/- .02 PCT |
| 887-ABAN  | 89536 | 121 | 2560 | 0 TO 1000VAC |             |             |
| 887A      | 89536 | 121 | 1971 | 0 TO 1100VAC | IN 4 RANGES | +/- .05 PCT |
| 893A      | 89536 | 121 | 1973 | 0 TO 1100VAC | IN 7 RANGES |             |

|             |       |  |  |  |  |
|-------------|-------|--|--|--|--|
| VOLTAGE, DC | 84400 |  |  |  |  |
|-------------|-------|--|--|--|--|

|    |  |     |      |                  |                 |             |
|----|--|-----|------|------------------|-----------------|-------------|
| 38 |  | 021 | 9038 | -1000 TO 1000VDC | IN NMT 8 RANGES | +/- .02 PCT |
|----|--|-----|------|------------------|-----------------|-------------|

|      |       |     |      |                 |                        |  |
|------|-------|-----|------|-----------------|------------------------|--|
| 1002 | 25778 | 121 | 8043 | +/-0-1100VDC    | AND 15000VDC W/DIVIDER |  |
| 1412 | 25778 | 121 | 8044 | +/-0 TO 1000VDC |                        |  |
| 7403 | 28480 | 121 | 8041 | 1-1000VDC       | W/DIVIDER-15000VDC     |  |

|           |       |     |      |                  |             |              |
|-----------|-------|-----|------|------------------|-------------|--------------|
| ME-202/U  | 89536 | 121 | 0682 | 0 TO 500VDC      |             | +/- .05 PCT  |
| MF-202B/U | 89536 | 121 | 0683 | 0 TO 500VDC      | IN 8 RANGES | +/- .05 PCT  |
| TS-2843/U | 89536 | 121 | 1210 | 0 TO 1000VDC     | IN 7 RANGES | +/- .3 PCT   |
| 335A      | 89536 | 121 | 3456 | -100UV TO 10KVDC |             | +/- .3 PCT   |
| 740B      | 28480 | 121 | 1965 | 0 TO 1000VDC     | IN 4 RANGES | +/- .2 PCT   |
| 741B      | 28480 | 121 | 1966 | 0 TO 1000VDC     | IN 4 RANGES | +/- .001 PCT |
| 803       | 89536 | 121 | 2559 | 0 TO 500VDC      |             | +/- .02 PCT  |
| 803BR     | 89536 | 121 | 1967 | 0 TO 500VDC      | IN 8 RANGES | +/- .05 PCT  |
| 803DAG    | 89536 | 121 | 1969 | 0 TO 500VDC      | IN 4 RANGES | +/- .1 PCT   |
| 887-ABAN  | 89536 | 121 | 2560 | 0 TO 1000VDC     |             |              |
| 887A      | 89536 | 121 | 1971 | 0 TO 1100VDC     | IN 4 RANGES |              |
| 891A      | 89536 | 121 | 1972 | 0 TO 1100VDC     |             | +/- .3 PCT   |

H-71

## DEFINITIZATION OF OTS ETE SPECIFICATIONS

06/21/78

FAMILY NAME - VOLTMETER DIFFERENTIAL

| SPEC OTS ETE<br>NO MFR'S MDL NO | TYPE DESIGNATOR/<br>MFR'S MODEL NO | FAM<br>PSCM | TMDE<br>CODE ID NO. | PARAMETER |
|---------------------------------|------------------------------------|-------------|---------------------|-----------|
|---------------------------------|------------------------------------|-------------|---------------------|-----------|

ACCURACY -PCT-  
OR AS STATEDVOLTAGE, DC 84400  
-----

893A

89536 121 1973 0 TO 110DVDC

IN 7 RANGES

## APPENDIX I

### PARAMETER DATA FOR MILITARY (OTS ETE) SPECIFICATIONS

#### 1. INTRODUCTION

This appendix presents technical data for the Military (OTS ETE) Specifications contained in Appendixes A through G. It is structured to permit CERCOM to review the technical parameters included in each specification.

#### 2. ABBREVIATIONS

The following nonelectronic abbreviations are used throughout the computer listings:

|     |                    |
|-----|--------------------|
| EXT | - External         |
| GT  | - Greater Than     |
| NGT | - Not Greater Than |
| INT | - Internal         |
| LT  | - Less Than        |
| NLT | - Not Less Than    |
| PCT | - Percent          |
| W/  | - With             |



## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | TMOE ID NO |
|----------------------------|---------|---------|-----------|-------------|------------|
| BRIDGE UNIVERSAL           | 25      | 2       | R         | 008         | 9025       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                          | ACCURACY (PCT)<br>OR AS STATED |
|---------------------------|----------------|----------------------------------------------------|--------------------------------|
| DIMENSIONS IN MM/INS      | 00100          | BRIDGE, UNIVERSAL                                  |                                |
| WEIGHT IN KG/LBS          | 00110          | 482.6MM(19 IN)WX317.5MM(12.50IN)HX292.1MM(11.50IN) |                                |
| ENCLOSURE (STYLE)         | 00120          | 17KG/37LBS                                         |                                |
| PWR SOURCE(S)/CONSUMPTION | 00130          | MIL-T-28000 STYLE E W/RACKMOUNT CAPABILITY         |                                |
| MTRF SPECIFIED/PREDICTED  | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/15W    |                                |
| PRIMARY OUTPUT CONNECTOR  | 00150          | 3500 HRS                                           |                                |
| ENVIRONMENTAL CONDITIONS  | 00180          | DUAL FEMALE BANANA JACK                            |                                |
| TEMP OPER/NON-OPERATING   | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR R        |                                |
| RELATIVE HUMIDITY         | 00210          | 0 TO 50 C / -55 TO 75 C                            |                                |
| ALTITUDE OPER/NON-OPER    | 00220          | 95                                                 |                                |
| VIBRATION LIMIT (MAXIMUM) | 00230          | 3050M(10000FT)/12000M(40000FT)                     |                                |
| SHOCK, PULSE LEVEL        | 00240          | 2G                                                 |                                |
| CAPACITANCE RANGE         | 00250          | 30G                                                |                                |
| DC TEST VOLTAGE           | 08400          | 1 PF TO 1200 UF IN NMT 8 RANGES                    | +/-0.2 PCT                     |
| DISSIPATION FACTOR        | 16000          | DC TEST VOLTAGE 0-500 VDC                          |                                |
| INTERNAL SIGNAL SOURCE    | 18400          | RANGE 0.001 TO 1.0                                 | +/-5 PCT                       |
| EXTERNAL SIGNAL SOURCE    | 25410          | SIGNAL SOURCE 1KHZ                                 | +/-3 PCT                       |
| INDUCTANCE                | 25420          | SIGNAL SOURCE VARIABLE FROM 50HZ TO 20KHZ          |                                |
| RESISTANCE MEASUREMENT    | 36800          | 1 OH TO 1100 HENRYS IN NMT 8 RANGES                | +/-0.1 PCT                     |
| STORAGE FACTOR (Q)        | 59600          | 10 OHMS TO 50 MEGOHMS IN NMT 8 RANGES              | +/-0.1 PCT                     |
|                           | 69700          | RANGE 0.05 TO 1000                                 | +/-5 PCT                       |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME  | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | TMDE ID NO |
|-----------------------------|---------|---------|-----------|-------------|------------|
| GENERATOR, SIGNAL, FUNCTION | 02      | 2       | A         | 047         | 9002       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                                 | ACCURACY (PCT)<br>OR AS STATED |
|---------------------------|----------------|-----------------------------------------------------------|--------------------------------|
| DIMENSIONS IN MM/INS      | 00100          | GENERATOR, SIGNAL, FUNCTION                               |                                |
| WEIGHT IN KG/LBS          | 00110          | 482.6MM(19IN)WX152.4MM(6IN)HX381.0MM(15IN)H               |                                |
| ENCLOSURE (STYLE)         | 00120          | 9KG(20LBS)                                                |                                |
| PWR SOURCE(S)/CONSUMPTION | 00130          | MIL-T-28800 STYLE E W/RACK MOUNT CAPABILITY               |                                |
| MTBF SPECIFIED/PREDICTED  | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/50W           |                                |
| PRIMARY CONNECTORS        | 00150          | 2500 HRS                                                  |                                |
| ENVIRONMENTAL CONDITIONS  | 00170          | BNC                                                       |                                |
| TEMP OPER/NON-OPERATING   | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE E COLDR                 |                                |
| RELATIVE HUMIDITY         | 00210          | 0 TO 50C/-55 TO 75C                                       |                                |
| ALTITUDE OPER/NON-OPER    | 00220          | 95(+5-0)                                                  |                                |
| VIBRATION LIMIT (MAXIMUM) | 00230          | 3050M(10000FT)/12000M(40000FT)                            |                                |
| SHOCK, PULSE LEVEL        | 00240          | 2G                                                        |                                |
| OUTPUT ATTENUATION        | 00250          | 30G                                                       |                                |
| DC OFFSET                 | 03600          | NLT 50DB W/10DB VERNIER CALIBRATED IN 10A STEPS           |                                |
| DISTORTION                | 15600          | ADJUSTABLE FROM -10VDC TO +10VDC                          |                                |
| FREQUENCY OUTPUT RANGE    | 19200          | DISTORTION NGT .5 PCT                                     |                                |
| OUTPUT FREQUENCY RESPONSE | 25400          | .1HZ TO 10MHZ IN NMT 10 RANGES                            | +/-5 PCT                       |
| HARMONICS                 | 26800          | VARIATION OF OUT PUT LEVEL BETWEEN BANDS NGT              | +/-10B                         |
| OUTPUT IMPEDANCE          | 29000          | SINE WAVE NLT 30DB BELOW FUNDAMENTAL FREQ                 |                                |
| LINEARITY                 | 35200          | 50 OHMS IMPEDANCE OUTPUT                                  |                                |
| OUTPUT SIGNALS            | 39500          | SAWTOOTH & TRIANGLE WAVE LINEARITY ERROR AT 100HZ         | LT 1 PCT                       |
| PULSE WIDTH               | 50000          | SELECT WAVEFORMS SINE, SQUARE, PULSE, TRIANGLE & SAWTOOTH |                                |
| PULSE MOD, TRANS TIME     | 56010          | NLT .1US TO 5SEC CONTINUOUSLY VARIABLE                    |                                |
| SYNCHRONIZATION OUTPUT    | 56430          | THE RISE & FALL TIME OF SQ-WAVE & PULSE LT 2INSEC EACH    |                                |
| RF VOLTAGE OUTPUT         | 74800          | SYNC OUTPUT TO 1V P/P SQ-WAVE W/500HM IMPED +/-100HMS     |                                |
|                           | 85600          | 10V P/P AT 50 OHM LOAD                                    | +/-10B                         |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | TMOE IO NO |
|----------------------------|---------|---------|-----------|-------------|------------|
| GENERATOR, SIGNAL, PULSE   | 04      | 2       | A         | 050         | 9004       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                        | ACCURACY (PCT) OR AS STATED |
|---------------------------|----------------|--------------------------------------------------|-----------------------------|
|                           | 00100          | GENERATOR, SIGNAL, PULSE                         |                             |
| DIMENSIONS IN MM/INS      | 00110          | 440MM(17IN)WX180MM(6.5IN)HX360MM(13.5IN)D        |                             |
| WEIGHT IN KG/LBS          | 00120          | 10KG(22.1 LBS)                                   |                             |
| ENCLOSURE (STYLE)         | 00130          | MIL-T-28800 STYLE F W/PACK MOUNT CAPABILITY      |                             |
| PWR SOURCE(S)/CONSUMPTION | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230 VAC/75W |                             |
| MTBE SPECIFIED/PREDICTED  | 00150          | 2000 HRS                                         |                             |
| PRIMARY CONNECTORS        | 00170          | SEPIES-BNC                                       |                             |
| ENVIRONMENTAL CONDITIONS  | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE F COLP R       |                             |
| TEMP OPER/NON-OPERATING   | 00210          | 0 TO 50C/-55 TO 75C                              |                             |
| RELATIVE HUMIDITY         | 00220          | 95(+5-7)                                         |                             |
| ALTITUDE OPER/NON-OPER    | 00230          | 3050M(10000FT)/12000M(40000FT)                   |                             |
| VIBRATION LIMIT (MAXIMUM) | 00240          | 2G                                               |                             |
| SHOCK, PULSE LEVEL        | 00250          | 30G                                              |                             |
| OUTPUT ATTENUATION        | 03600          | 0-900B IN 100B STEPS W/100B VERNIER IN 10B STEPS |                             |
| OUTPUT IMPEDANCE          | 35200          | 50 OHMS                                          |                             |
| OUTPUT SIGNALS            | 50000          | PULSE OUTPUT W/VARIABLE PULSE WIDTH              |                             |
| PULSE WIDTH               | 56010          | VARIABLE FROM 10 NANOSECOND TO 1 SECOND          | +/- .002 PCT                |
| PULSE MOD, TRANS TIME     | 56430          | LT 5 NANOSECONDS                                 |                             |
| PULSE RATE                | 56600          | 10 TO 50MHZ                                      | .005 PCT                    |
| SYNCHRONIZATION, MODE OE  | 74400          | INTERNAL & EXTERNAL SYNC PULSE MODE CAPABILITY   |                             |
| RF VOLTAGE OUTPUT         | 85600          | VARIABLE W/MAXIMUM OF 3V ACROSS 50 OHM LOAD      |                             |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | THOE ID NO |
|----------------------------|---------|---------|-----------|-------------|------------|
| GENERATOR, SIGNAL, UHF     | 16      | 2       | A         | 107         | 9016       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                             | ACCURACY (PCT)<br>OR AS STATED |
|---------------------------|----------------|-------------------------------------------------------|--------------------------------|
| DIMENSIONS IN MM/INS      | 00100          | GENERATOR, SIGNAL, UHF                                |                                |
| WEIGHT IN KG/LBS          | 00110          | 482MM(19IN)WX315MM(12IN)HX525MM(21IN)D                |                                |
| ENCLOSURE (STYLE)         | 00120          | 27KG(60LBS)                                           |                                |
| PWR SOURCE(S)/CONSUMPTION | 00130          | MIL-T-28800 STYLE F W/PACK MOUNT CAPABILITY           |                                |
| MTBF SPECIFIED/PREDICTED  | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/240W      |                                |
| PRIMARY CONNECTORS        | 00150          | 2000 HRS                                              |                                |
| ENVIRONMENTAL CONDITIONS  | 00170          | BNC SERIES, RE N-SEPIES                               |                                |
| TEMP OPER/NOH-OPERATING   | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR 2           |                                |
| RELATIVE HUMIDITY         | 00210          | 0 TO 50C/-55 TO 75C                                   |                                |
| ALTITUDE OPER/NOH-OPER    | 00220          | 95(+5-3)                                              |                                |
| VIBRATION LIMIT (MAXIMUM) | 00230          | 3050M(10000FT)/12000M(40000FT)                        |                                |
| SHOCK, PULSE LEVEL        | 00240          | 2G                                                    |                                |
| AMPLITUDE MODULATION      | 00250          | 306                                                   |                                |
| EXTERNAL AM SENSITIVITY   | 01200          | 20HZ TO 20KHZ BY SINE OR SQ WAVE EXT AM               |                                |
| AMP MOD-INT               | 01230          | NGT 5V R/P SINE OR SQ-WAVE TO PRODUCE 90 PCT MOD      | 10+ PCT                        |
| AM INTERNAL DISTORTION    | 01600          | SELECTIVE BETWEEN 400-1000HZ SINE & SQ-WAVE           |                                |
| AM SPURIOUS MODULATION    | 01640          | DISTORTION OF AM CARRIER NOT TO EXCEED 2 PCT          | 5 PCT                          |
| OUTPUT ATTENUATION        | 01650          | AT ANY FREQ AND DEV SET AT 40KHZ SPURIOUS AM NGT      | +/- .208                       |
| FM INTERNAL DISTORTION    | 03600          | RANGE NLT 100DB W/100R VERNIER DIAL AT 10R STEPS      | 2 PCT                          |
| FM DEVIATION              | 19600          | MOD SIGNAL DISTORTION ON ALL FREQ NGT                 |                                |
| RF MOD DUE TO VIBRATION   | 26020          | INT & EXT 3 TO 300KHZ DEV CAPABILITY                  |                                |
| OUTPUT FREQUENCY          | 26440          | WHEN VIBRATED-NGT 200HZ DEVIATION AT 900/1600/2200MHZ | +/-2 PCT                       |
| OUTPUT FREQUENCY RESPONSE | 26650          | 800MHZ TO 2.4GHZ W/NMT 5 BANOS                        | +/-108                         |
| FREQ SHIFT                | 26800          | FREQ OUTPUT LEVEL VARIATION NGT +/-108 ON ANY BAND    | .005 PCT                       |
| PE DRIFT DUE TO TEMP      | 27000          | CARRIER SHIFT W/MOD FREQ NGT                          |                                |
| IMPEOANCE, INPUT          | 27220          | FREQ DRIFT NGT .01 PCT AFTER 1 HR WARM UP             | +/-5 PCT                       |
| OUTPUT IMPEOANCE          | 34400          | 600 OHM AM INPUT                                      |                                |
| MODULATION VOLTAGE        | 35200          | 50 OHMS                                               | +/-10 PCT                      |
| PULSE MOD (RM)-EX         | 42600          | DIFERENCE BETWEEN 10KHZ & 1KHZ DEV SHOULD NOT VARY    |                                |
| PULSE MOD (PM)-INT        | 56000          | EXTERNAL PULSE MODULATION CAPABILITY                  |                                |
| RE SPURIOUS OUTPUT        | 56400          | INTERNAL PULSE MODULATION OF 40-4000PPS               |                                |
| RE NOISE LEVEL            | 68000          | 300B BELOW LEVEL OF UNMODULATED CARRIER               | +/-108                         |
| STANDING WAVE RATIO (SWR) | 68400          | NGT 25HZ AT ANY FREQ                                  |                                |
| RF VOLTAGE OUTPUT         | 69600          | LT 2.0 TO 1                                           |                                |
|                           | 85600          | RE NLT .5V RMS ACROSS 50 OHM LOAD                     |                                |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTP | FAMILY CODE | TIME NO |
|----------------------------|---------|---------|-----------|-------------|---------|
| GENERATOR, SIGNAL, VHF     | 19      | 2       | A         | 106         | 9018    |

| PARAMETER NAME              | PARAMETER CODE | PARAMETER                                                 | ACCURACY (PCT) OR AS STATED |
|-----------------------------|----------------|-----------------------------------------------------------|-----------------------------|
| GENERATOR, SIGNAL, VHF      | 00100          | GENERATOR, SIGNAL, VHF                                    |                             |
| DIMENSIONS IN MM/INS        | 00110          | 482.6MM(19IN)WX609.6MM(24IN)HX533.4MM(21IN)D              |                             |
| WEIGHT IN KG/LBS            | 00120          | 22.7KG(50LBS)                                             |                             |
| ENCLOSURE (STYLE)           | 00130          | MIL-T-28800R STYLE E W/PACKMOUNT CAPABILITY               |                             |
| POWER SOURCE(S)/CONSUMPTION | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/125W          |                             |
| MTBF SPECIFIED/PREDICTED    | 00150          | 2000 HRS                                                  |                             |
| PRIMARY CONNECTORS          | 00170          | BNC SERIES RF-N-SERIES                                    |                             |
| ENVIRONMENTAL CONDITIONS    | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR R               |                             |
| TEMP OPER/NON-OPERATING     | 00210          | 0 TO 50C/-55 TO 75C                                       |                             |
| RELATIVE HUMIDITY           | 00220          | 95(+5-0)                                                  |                             |
| ALTITUDE OPER/NON-OPER      | 00230          | 3050M(10000FT)/12000M(40000FT)                            |                             |
| VIBRATION LIMIT (MAXIMUM)   | 00240          | 2G                                                        |                             |
| SHOCK, PULSE LEVEL          | 00250          | 30G                                                       |                             |
| AMPLITUDE MODULATION        | 01200          | 20HZ TO 20KHZ BY INT OR EXTERNAL SINE OR SQ WAVE          |                             |
| EXTERNAL AM SENSITIVITY     | 01230          | SINE OR SQ-WAVE LT 5V P/P TO PRODUCE MOD OF 95PCT         |                             |
| AMP MOD-INT                 | 01600          | SELECTIVE BETWEEN 400-1000HZ                              | +/-5 PCT                    |
| PERCENT MODULATION          | 01620          | 0-95 PCT AM BY INT OR EXT SIGNAL SOURCES                  |                             |
| AM INTERNAL DISTORTION      | 01640          | DISTORTION OF AM CARRIER NGT                              | 2 PCT                       |
| OUTPUT ATTENUATION          | 03600          | NLT 120DB W/10DB VERNIER IN 10B STEPS                     | +/-2DB                      |
| FM DEVIATION                | 26020          | INTERNAL AND EXTERNAL DEV CAPABILITY OF 0-40KHZ RMS       |                             |
| RF MOD DUE TO VIBRATION     | 26440          | AT ANY FREQ W/DEVIATION SET AT 40KHZ NGT                  | 5 PCT                       |
| OUTPUT FREQUENCY            | 26650          | 450KHZ TO 512MHZ                                          | +/-5 PCT                    |
| OUTPUT FREQUENCY RESPONSE   | 26800          | OVER ANY BAND NGT                                         | +/-2DB                      |
| CARRIER FREQUENCY SHIFT     | 27200          | CARRIER FREQUENCY SHIFT W/MOD FREQ NGT                    | .005 PCT                    |
| IMPEDANCE, INPUT            | 34400          | 600 OHMS                                                  | +/-5 PCT                    |
| OUTPUT IMPEDANCE            | 35200          | IMPEDANCE OUTPUT 50 OHMS                                  |                             |
| MODULATION VOLTAGE          | 42600          | DIFFERENCE BETWEEN 10KHZ & 1KHZ DEV SHALL NOT VARY        | +/-10 PCT                   |
| PULSE MOD (PM)-EX           | 56000          | EXTERNAL SIGNAL MOD CAPABILITY                            |                             |
| PULSE MOD (PM)-INT          | 56400          | INTERNAL PM CAPABILITY AT 50 TO 5000PPS W/10-40USEC WIDTH |                             |
| RF SPURIOUS OUTPUT          | 68000          | HARMONIC CONTENT LEVEL 40DB BELOW UNMODULATED CARRIER     |                             |
| RF NOISE LEVEL              | 68400          | RF NOISE LEVEL AT LEAST 35DB BELOW CARRIER LEVEL          |                             |
| STANDING WAVE RATIO (SWR)   | 69600          | LT 1.2                                                    |                             |
| RF VOLTAGE OUTPUT           | 85600          | RF VOLTAGE VARIABLE 10V TO 1V ACROSS 50 OHM LOAD          | +/-10DB                     |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | TMOE ID NO |
|----------------------------|---------|---------|-----------|-------------|------------|
| STROBOSCOPE                | 95      | 2       | F         | 065         | 3095       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                       | ACCURACY (PCT)<br>OR AS STATED |
|---------------------------|----------------|-------------------------------------------------|--------------------------------|
| DIMENSIONS IN MM/INS      | 00100          | STROBOSCOPE                                     |                                |
| WEIGHT IN KG/LBS          | 00110          | 305MM(12IN)WX203MM(8IN)HX381MM(15IN)D           |                                |
| PWR SOURCE(S)/CONSUMPTION | 00120          | 5.44KG(12LBS)                                   |                                |
| MTBF SPECIFIED/PREDICTED  | 00140          | TYPE II 50,60,400HZ SINGLE PHASE 115/230VAC/30W |                                |
| PRIMARY CONNECTORS        | 00150          | NLT 2000 HRS                                    |                                |
| ENVIRONMENTAL CONDITIONS  | 00170          | TIP-RING SLEEVE AUDIO PLUG                      |                                |
| TEMP OPER/NON-OPERATING   | 00200          | MIL-T-28900 TYPE II CLASS 5 STYLE E COLOR R     |                                |
| RELATIVE HUMIDITY         | 00210          | 0 TO 50C/-55 TO 75C                             |                                |
| ALTITUDE OPER/NON-OPER    | 00220          | 95(+5-0)                                        |                                |
| VIBRATION LIMIT (MAXIMUM) | 00230          | 3050M(1000HFT)/1200M(40000FT)                   |                                |
| SHOCK, PULSE LEVEL        | 00240          | 2G                                              |                                |
| FLASH CHARACTERISTICS     | 00250          | 30G                                             |                                |
| LIGHT INTENSITY           | 24400          | 60 TO 150,000 FLASHES PER MINUTE IN 4 RANGES    | +/-1 PCT                       |
| SYNCHRONIZATION, INPUT    | 39600          | .5X10 CANDELAS                                  |                                |
|                           | 74000          | EXTERNAL SOURCE SYNC CAPABILITY                 |                                |

## MILITARY OTS ETE SPECIFICATION PARAMETERS

06/22/78

| OTS ETE SPECIFICATION NAME | SPEC NO | TASK NO | GROUP LTR | FAMILY CODE | TMDE ID NO |
|----------------------------|---------|---------|-----------|-------------|------------|
| VOLTMETER DIFFERENTIAL     | 38      | 2       | R         | 021         | 9038       |

| PARAMETER NAME            | PARAMETER CODE | PARAMETER                                               | ACCURACY (PCT)<br>OR AS STATED |
|---------------------------|----------------|---------------------------------------------------------|--------------------------------|
|                           | 00100          | VOLTMETER DIFFERENTIAL                                  |                                |
| DIMENSIONS IN MM/INS      | 00110          | 260MM(10IN)WX235MM(9IN)HX405MM(15.5IN)D                 |                                |
| WEIGHT IN KG/LBS          | 00120          | 9.07KG(20LBS)MAX                                        |                                |
| ENCLOSURE (STYLE)         | 00130          | MIL-T-28000 STYLE E W/RACK MOUNT CAPABILITY             |                                |
| PWR SOURCE(S)/CONSUMPTION | 00140          | TYPE II 50.60,400HZ SINGLE PHASE 115/230VAC/12W         |                                |
| MTBF SPECIFIED/PREDICTED  | 00150          | 7500 HRS                                                |                                |
| PRIMARY CONNECTORS        | 00170          | DUAL FEMALE BANANA PLUG                                 |                                |
| ENVIRONMENTAL CONDITIONS  | 00200          | MIL-T-28800 TYPE II CLASS 5 STYLE E COLOR R             |                                |
| TEMP OPER/NON-OPERATING   | 00210          | 0 TO 50C/-55 TO 75C                                     |                                |
| RELATIVE HUMIDITY         | 00220          | 95(+5-0)                                                |                                |
| ALTITUDE OPER/NON-OPER    | 00230          | 3050M(10000FT)/12000M(40000FT)                          |                                |
| VIBRATION LIMIT (MAXIMUM) | 00240          | 2G                                                      |                                |
| SHOCK, PULSE LEVEL        | 00250          | 30G                                                     |                                |
| OUTPUT FREQUENCY          | 26650          | 20HZ TO 5KHZ +/-2PCT, TOTAL RANGE 5HZ TO 100KHZ +/-5PCT |                                |
| IMPEDANCE, INPUT          | 34400          | NLT 10MEGOHM-DC AND 1MEGOHM AC                          |                                |
| VOLT. MODE                | 46800          | VOLTAGE VARIATION MEASUREMENT TO 100UVDC & 1MV AC       |                                |
| VOLTAGE, AC               | 84000          | 0 TO 1000VAC IN NMT 8 RANGES                            | +/- .02 PCT                    |
| VOLTAGE, DC               | 84400          | -1000 TO 1000DC IN NMT 8 RANGES                         | +/- .02 PCT                    |



## APPENDIX J

### TMDE CROSS-REFERENCE LIST

#### 1. INTRODUCTION

This appendix cross-references compatibility data of TMDE with the definitized specifications contained in Appendixes A through G. It is structured to permit CERCOM to review and evaluate the available TMDE that are functionally compatible or partially compatible with the Military OTS ETE Specifications.

In addition, the TMDE Cross-Reference List contains the cross-reference data for the other 91 TMDE families established under a previous contract.

#### 2. ABBREVIATIONS

The following nonelectronic abbreviations are used throughout the computer listings:

|     |                    |
|-----|--------------------|
| EXT | - External         |
| GT  | - Greater Than     |
| NGT | - Not Greater Than |
| INT | - Internal         |
| LT  | - Less Than        |
| NLT | - Not Less Than    |
| PCT | - Percent          |
| W/  | - With             |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| AMMETER, CLAMP-ON          | 23      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | AP-9           | 03516     | AMMETER AC                          | 001         | B      | 1976        |
|                            |         |                         | AX             | 13648     | AMMETER AC/DC TONG PICKUP           | 002         | B      | 1977        |
|                            |         |                         | P-3            | 29834     | AMMETER AC                          | 001         | B      | 1995        |
|                            |         |                         | PA-151         | 88416     | AMMETER                             | 001         | B      | 1999        |
|                            |         |                         | PA-5           | 89315     | AMMETER AC                          | 001         | B      | 1997        |
|                            |         |                         | 0-50 AMPS      | 33333     | AMMETER AC                          | 001         | B      | 2034        |
|                            |         |                         | 155            | 65092     | AMMETER AC                          | 001         | B      | 2046        |
|                            |         |                         | 373            | 55026     | MILLIAMMETER                        | 001         | B      | 3709        |
|                            |         |                         | 433A           | 65092     | AMMETER AC                          | 001         | B      | 1951        |
|                            |         |                         | 433B           | 65092     | AMMETER AC                          | 001         | B      | 1953        |
|                            |         | ME-156/U                | 904            | 65092     | AMMETER                             | 001         | B      | 1974        |
|                            |         | ME-488/U                | 4288           | 28480     | AMMETER DC CLIP-ON                  | 002         | B      | 2019        |
|                            |         | ME-65/U                 | 131-173        | 28569     | AMMETER                             | 001         | B      | 3729        |
|                            |         | ME-65A/U                | 196645         | 65092     | AMMETER                             | 001         | B      | 0669        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | AK4            | 24446     | MULTIMETER ELEC SPLIT CORE TYPE     | 002         | B      | 3689        |
|                            |         |                         | AK4            | 03927     | MULTIMETER ELEC SPLIT CORE TYPE     | 002         | B      | 3688        |
|                            |         |                         | CH-7           | 13688     | VOLT-AMMETER                        | 032         | B      | 3690        |
|                            |         |                         | RS-3           | 15566     | MULTIMETER                          | 032         | B      | 1303        |
|                            |         |                         | RS-3A          | 15566     | MULTIMETER                          | 032         | B      | 1304        |
|                            |         |                         | RS-300         | 15566     | METER AC VOLT AMMETER               | 001         | B      | 1305        |
|                            |         |                         | SER-508B       | 82386     | TEST STAND GENERATOR LOAD           | 116         | B      | 2491        |
|                            |         |                         | SIO-558220     | 92674     | T S FILTER ANTENNA                  | 063         | C      | 1306        |
|                            |         |                         | UP             | 54085     | MICROAMMETER                        | 003         | B      | 2031        |
|                            |         |                         | VAT 26         | 82386     | MULTITESTER GENERATORS & REGULATORS | 116         | B      | 3409        |
|                            |         |                         | 225-01-52638   | 52638     | T S GENERATOR & VOLTAGE REG AUTO    | 116         | B      | 3453        |
|                            |         |                         | 27-37          | 01216     | TESTER ALTERNATOR VOLT AMP          | 116         | E      | 3519        |
|                            |         |                         | 301 SERIES G   | 64359     | TEST STAND AUTO GENERATOR & STARTER | 116         | E      | 3454        |
|                            |         |                         | 310C           | 60741     | MULTIMETER                          | 032         | B      | 1343        |
|                            |         |                         | 428A           | 28480     | MILLIAMMETER                        | 001         | B      | 2018        |
|                            |         |                         | 445A           | 28569     | MULTIMETER                          | 032         | B      | 1355        |
|                            |         |                         | 633            | 65092     | AMMETER                             | 002         | B      | 1961        |
|                            |         |                         | 639 TYPE 3     | 65092     | T S ELECTRICAL-POWER                | 039         | C      | 1749        |
|                            |         | AN/USM-262              | 560T010-12     | 33441     | AMMETER                             | 001         | B      | 0495        |
|                            |         | AN/USM-33               |                | 65092     | MULTITESTER                         | 002         | B      | 0414        |
|                            |         | ME-221/U                | 622            | 65092     | AMMETER                             | 001         | B      | 0684        |
| AMMETER, DC                | 24      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | 1400           | 31946     | AMMETER DC                          | 003         | B      | 1929        |
|                            |         |                         | 417-29         | 80164     | AMMETER MICRO MICRO                 | 003         | B      | 2017        |
|                            |         | TS-563A/FT              | ALAW           | 64959     | T S WIRING                          | 003         | B      | 1050        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------|-------------|--------|-------------|
| AMMETER, DC                | 24      | PARTIALLY COMPATIBLE    |                |           |                             |             |        |             |
|                            |         |                         | PX4            | 88416     | AMMETER OC                  | 003         | B      | 2024        |
|                            |         |                         | 0-750 AMPS     | 33333     | AMMETER OC                  | 003         | B      | 2036        |
|                            |         |                         | 1477           | 29318     | MULTIMETER                  | 032         | B      | 1380        |
|                            |         |                         | 3469B          | 28480     | MULTIMETER DIGITAL          | 032         | B      | 1398        |
|                            |         |                         | 412            | 80164     | AMMETER OC                  | 003         | B      | 2065        |
|                            |         |                         | 417            | 80164     | AMMETER                     | 003         | B      | 2016        |
|                            |         |                         | 425A           | 28480     | AMMETER OC MICROVOLT        | 077         | B      | 1351        |
|                            |         |                         | 425AP          | 28480     | AMMETER OC MICROVOLT        | 077         | B      | 1352        |
|                            |         |                         | 430            | 65092     | MILLIVOLT-AMMETER OC        | 032         | B      | 1354        |
|                            |         |                         | 836820         | 65054     | MILLIAMMETER                | 003         | B      | 2053        |
|                            |         |                         | 931            | 65092     | AMMETER OC                  | 003         | B      | 1925        |
|                            |         | AN/USM-262              | 560T010-12     | 33441     | AMMETER                     | 001         | B      | 0495        |
|                            |         | MF-452/U                | 12792 MOO 9    | 55026     | AMMETER PORTABLE DC         | 003         | B      | 0711        |
| AUDIO INTENSITY METER      | 87      | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         | TS-2677/FRM    | 22821     | 50040 SOUND MEASURING SET   | 004         | E      | 1208        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                             |             |        |             |
|                            |         |                         | 1551C          | 24655     | METERS LEVEL                | 004         | E      | 2559        |
|                            |         |                         | 1933-9714      | 24655     | ANALYSIS SOUND SYSTEM       | 004         | E      | 1723        |
|                            |         | AN/USH-10               | 651A           | 80138     | ANALYZER SET VIBRATION      | 004         | E      | 0410        |
| AUDIO OSCILLATOR           | 1       | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         | CVO-100PM      | 65092     | OSCILLATOR PRECISION        | 006         | A      | 3264        |
|                            |         |                         | WA44C          | 49671     | GENERATOR SIGNAL AUDIO FREQ | 006         | A      | 1875        |
|                            |         |                         | 1022C          | R0009     | OSCILLATOR BEAT FREQUENCY   | 006         | A      | 1653        |
|                            |         |                         | 1210B          | 24655     | OSCILLATOR                  | 006         | A      | 1828        |
|                            |         |                         | 1307A          | 24655     | OSCILLATOR AF               | 006         | A      | 1832        |
|                            |         |                         | 1311A          | 24655     | OSCILLATOR AUDIO            | 006         | A      | 2553        |
|                            |         |                         | 200A           | 28480     | AUDIO OSCILLATOR            | 006         | A      | 1633        |
|                            |         |                         | 200C0          | 28480     | OSCILLATOR AUDIO            | 006         | A      | 3343        |
|                            |         |                         | 200J           | 28480     | OSCILLATOR AF               | 006         | A      | 1898        |
|                            |         |                         | 201CR-C60      | 28480     | OSCILLATOR AUDIO            | 006         | A      | 1634        |
|                            |         |                         | 202CR          | 28480     | GENERATOR SIGNAL            | 006         | A      | 3346        |
|                            |         |                         | 208A           | 28480     | OSCILLATOR ELECTRONIC       | 006         | A      | 1637        |
|                            |         |                         | 4204A          | 28480     | OSCILLATOR DIGITAL          | 006         | A      | 1845        |
|                            |         |                         | 650AR-C03      | 28480     | GENERATOR SIGNAL            | 006         | A      | 1900        |
|                            |         |                         | 651A           | 28480     | TEST SET OSCILLATOR         | 006         | A      | 1647        |
|                            |         |                         | 651B           | 28480     | OSCILLATOR TEST             | 006         | A      | 1867        |
|                            |         |                         | 651B-01        | 28480     | OSCILLATOR TEST             | 006         | A      | 1648        |
|                            |         | AN/URM-127              |                | 51865     | GENERATOR SIGNAL            | 006         | A      | 0392        |
|                            |         | AN/USM-253              | 12188          | 24655     | GENERATOR SIGNAL            | 006         | A      | 0488        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------------|-------------|--------|-------------|
| AUDIO OSCILLATOR           | 1       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         | AN/USM-269              | 1310-A         | 24655     | GENERATOR SIGNAL                   | 006         | A      | 0498        |
|                            |         | O-450/U                 | 200A8R         | 28480     | OSCILLATOR AUDIO                   | 006         | A      | 3720        |
|                            |         | O-850/U                 | 1302A          | 24655     | OSCILLATOR                         | 006         | A      | 1831        |
|                            |         | SG-1023/U               | 209A           | 28480     | OSCILLATOR                         | 006         | A      | 0893        |
|                            |         | SG-107/MSA-6            | 206A           | 28480     | GENERATOR SIGNAL AUDIO             | 006         | A      | 3659        |
|                            |         | SG-1128/U               | 654A           | 28480     | TEST OSCILLATOR                    | 006         | A      | 1858        |
|                            |         | SG-15/PCM               | 5490           |           | GENERATOR SIGNAL                   | 006         | A      | 0824        |
|                            |         | SG-42/URM-18            | 1107A          | 24655     | GENERATOR SIGNAL                   | 006         | A      | 0826        |
|                            |         | SG-510/U                | 201C           | 28480     | OSCILLATOR AF                      | 006         | A      | 0857        |
|                            |         | SG-543A/U               | 2048-H07       | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0859        |
|                            |         | SG-578/U                | 650A           | 28480     | TEST OSCILLATOR                    | 006         | A      | 0862        |
|                            |         | SG-621/U                | 202C           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0864        |
|                            |         | SG-632/U                | 204801         | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0865        |
|                            |         | SG-632A/U               | 2048           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0866        |
|                            |         | SG-632B/U               | 204802         | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0857        |
|                            |         | SG-71/FCC               | 233A           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0832        |
|                            |         | SG-71A/FCC              | 233A           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0833        |
|                            |         | SG-71B/FCC              | 233A           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0834        |
|                            |         | SG-71C/FCC              | 190            | 67116     | GENERATOR SIGNAL                   | 006         | A      | 0835        |
|                            |         | SG-763/U                | 652A           | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0873        |
|                            |         | SG-763A/U               | 652A-H02       | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0874        |
|                            |         | SG-770/U                | 241A           | 28480     | OSCILLATOR PUSHBUTTON              | 006         | A      | 0876        |
|                            |         | SG-837/U                | 1210C          | 24655     | OSCILLATOR                         | 006         | A      | 1655        |
|                            |         | SG-981/U                | TTS39A-4       | 06819     | GENERATOR TONE                     | 006         | A      | 0888        |
|                            |         | SG-984/U                | 6518002        | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0889        |
|                            |         | TS-312/FSM-1            | 200CR          | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0997        |
|                            |         | TS-312A/FSM-1           | 200COR         | 28480     | GENERATOR SIGNAL                   | 006         | A      | 0995        |
|                            |         | TS-312B/FSM-1           | 20-200         | 01486     | GENERATOR SIGNAL                   | 006         | A      | 0996        |
|                            |         | TS-3329/U               | 236A           | 28480     | T S TELEPHONE                      | 006         | A      | 1241        |
|                            |         | TS-3401/TSC-388         | 577087-1       | 49956     | T S VOICE FREQUENCY TONE GENERATOR | 006         | A      | 1242        |
|                            |         | TS-382/U                | 200C           | 28480     | AUDIO OSCILLATOR                   | 006         | A      | 1001        |
|                            |         | TS-382A/U               | 200C           | 99872     | GENERATOR SIGNAL                   | 006         | A      | 1002        |
|                            |         | TS-382B/U               |                |           | GENERATOR SIGNAL                   | 006         | A      | 1003        |
|                            |         | TS-382C/U               |                | 99872     | GENERATOR SIGNAL                   | 006         | A      | 1004        |
|                            |         | TS-382D/U               |                | 78796     | GENERATOR SIGNAL                   | 006         | A      | 1005        |
|                            |         | TS-382E/U               |                | 82076     | GENERATOR SIGNAL                   | 006         | A      | 1006        |
|                            |         | TS-421/U                | 205AG          | 28480     | GENERATOR SIGNAL                   | 006         | A      | 1016        |
|                            |         | TS-421A/U               | 205AG-H02      | 28480     | GENERATOR SIGNAL                   | 006         | A      | 1017        |
|                            |         | TS-421B/U               | 2975M          | 28569     | GENERATOR SIGNAL                   | 006         | A      | 1018        |
|                            |         | TS-421C/U               | F370A          | 29805     | GENERATOR SIGNAL                   | 006         | A      | 1019        |

## PART I TMOF CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOF

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE OF SIGNATOR     | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|----------------------|----------------|-----------|-----------------------------------|-------------|--------|-------------|
| AUDIO OSCILLATOR           | 1       | PARTIALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         |                      | F53A           | 07421     | GENERATOR SIGNAL                  | 006         | A      | 1599        |
|                            |         |                      | 1003           | 24655     | GENERATOR SIGNAL                  | 051         | A      | 1652        |
|                            |         |                      | 13108          | 24655     | OSCILLATOR                        | 006         | A      | 1656        |
|                            |         |                      | 134A           | 21461     | OSCILLATOR AUDIO RF               | 006         | A      | 3341        |
|                            |         |                      | 190A           | 80009     | GENERATOR SIGNAL                  | 051         | A      | 1632        |
|                            |         |                      | 190B           | 80009     | GENERATOR SINE WAVE               | 051         | A      | 1897        |
|                            |         |                      | 2028           | 28480     | CONVERTER FREQ                    | 051         | A      | 1769        |
|                            |         |                      | 204C           | 28480     | OSCILLATOR AUDIO                  | 006         | A      | 1636        |
|                            |         |                      | 440-AR         | 88865     | OSCILLATOR PUSHBUTTON             | 006         | A      | 1860        |
|                            |         |                      | 440A           | 88865     | OSCILLATOR AUDIO FREQ             | 006         | A      | 1879        |
|                            |         |                      | 5105A/51108    | 28480     | SYNTHESIZER FREQ                  | 106         | A      | 1846        |
|                            |         |                      | 51108          | 28480     | SYNTHESIZER DRIVER                | 051         | A      | 1847        |
|                            |         |                      | 6068           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 1643        |
|                            |         |                      | 7127           | 06811     | GENERATOR SIGNAL TWO-TONE AUDIO   | 048         | A      | 1683        |
|                            |         |                      | 739AR          | 28480     | T S FREQ RESPONSE                 | 051         | A      | 1871        |
|                            |         |                      | 8660B-001      | 28480     | SYNTHESIZED SIGNAL GENERATOR      | 107         | A      | 2073        |
|                            |         |                      | 86601A         | 28480     | RF SECTION                        | 051         | A      | 2089        |
|                            |         |                      | 8708A          | 28480     | GENERATOR SIGNAL R I SYNCHRONIZER | 106         | A      | 2081        |
| AN/GRM-50                  |         |                      | 606A           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0174        |
| AN/GRM-50A                 |         |                      | 11507A         | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0175        |
| AN/GRM-50B                 |         |                      | 606A-C15       | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0176        |
| AN/GRM-50C                 |         |                      | 921A           | 33013     | GENERATOR SIGNAL                  | 051         | A      | 0177        |
| AN/URM-2580                |         |                      | 315            | 21900     | GENERATOR SIGNAL                  | 051         | A      | 0341        |
| AN/URM-25F                 |         |                      | 162-0-003      | 92428     | GENERATOR SIGNAL                  | 051         | A      | 0342        |
| AN/URM-25H                 |         |                      | 152-2-6-1      | 66150     | GENERATOR SIGNAL                  | 051         | A      | 0343        |
| AN/URM-25J                 |         |                      |                | 26648     | GENERATOR SIGNAL                  | 051         | A      | 0344        |
| AN/URM-93                  |         |                      | 245-A          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0377        |
| AN/URM-93A                 |         |                      | 245-D          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0378        |
| AN/USM-205                 |         |                      | 650A           | 28480     | GENERATOR SIGNAL                  | 006         | A      | 0469        |
| AN/USM-205A                |         |                      | 6205-1         | 25778     | GENERATOR SIGNAL                  | 006         | A      | 0470        |
| AN/USM-212                 |         |                      | 758-0047-001   | 13499     | GENERATOR SIGNAL                  | 051         | A      | 0476        |
| AN/USM-272                 |         |                      | 191            | 80009     | GENERATOR SIGNAL                  | 051         | A      | 0501        |
| CP-1100/U                  |         |                      | 51008/51108    | 28480     | COUNTER ELEC DIGITAL              | 051         | A      | 0550        |
| SG-20/U                    |         |                      | 658            | 14140     | SIGNAL GENERATOR                  | 051         | A      | 0825        |
| SG-298A/U                  |         |                      | 180            | 21764     | GENERATOR SIGNAL                  | 047         | A      | 0840        |
| SG-321/U                   |         |                      | 5533           | 83563     | GENERATOR SIGNAL                  | 047         | A      | 0844        |
| SG-321A/U                  |         |                      |                | 80063     | GENERATOR SIGNAL                  | 047         | A      | 0845        |
| SG-3218/U                  |         |                      |                | 24635     | GENERATOR SIGNAL                  | 047         | A      | 0846        |
| SG-479/GRM-50              |         |                      | 606A           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0856        |
| SG-511/U                   |         |                      | 606A           | 28480     | GENERATOR SIGNAL HF               | 051         | A      | 0858        |
| TS-420/U                   |         |                      | 76A            | 64959     | T S TELEPHONE                     | 006         | A      | 1013        |
| TS-420A/U                  |         |                      | 76A            | 64959     | T S TELEPHONE                     | 006         | A      | 1014        |
| TS-420B/U                  |         |                      | 76C            | 64959     | T S TELEPHONE                     | 006         | A      | 1015        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

DTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| DTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                          | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------------------|-------------|--------|-------------|
| AUDIO SYSTEM TEST SET      | 71      | FUNCTIONALLY COMPATIBLE |                |           |                                       |             |        |             |
|                            |         |                         | 10215019       | 18876     | CALIBRATOR ASSY SOUND LEVEL           | 112         | D      | 2436        |
|                            |         |                         | 8100A-W        | 12578     | T S SOUND RECORDING                   | 112         | D      | 2325        |
|                            |         | ME-254/U                | 590-A1         | 73446     | METER FLUTTER AND WOW                 | 112         | D      | 0689        |
|                            |         | ME-254A/U               | FL-3D-1        | B3003     | METER FLUTTER AND WOW                 | 112         | D      | 0690        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                       |             |        |             |
|                            |         | ME-356/U                | OP-182B        | 14140     | METER AUDIO LEVEL                     | 005         | D      | 0702        |
| BRIDGE, UNIVERSAL          | 25      | FUNCTIONALLY COMPATIBLE |                |           |                                       |             |        |             |
|                            |         |                         | DPI70          | 28569     | BRIDGE RESISTANCE DIGITAL             | 008         | B      | 1990        |
|                            |         |                         | E1002          | 07239     | BRIDGE IMPEDANCE                      | 008         | B      | 3267        |
|                            |         |                         | E3108          | 07239     | BRIDGE RESISTANCE                     | 008         | B      | 1295        |
|                            |         |                         | M-3            | 56289     | T S CAPACITOR COMPACT                 | 011         | B      | 1300        |
|                            |         |                         | DIB-2          | 19482     | IMPEDANCE BRIDGE HIGH FREQ            | 008         | B      | 1562        |
|                            |         |                         | PN-1600        | 08987     | RESISTANCE BRIDGE                     | 008         | B      | 2000        |
|                            |         |                         | SP2280         | 11837     | IMPEDANCE MEASURING SYSTEM            | 022         | B      | 3292        |
|                            |         |                         | 1610-B2        | 24655     | CAPACITANCE MEASURING ASSEMBLY        | 011         | B      | 1384        |
|                            |         |                         | 1611A          | 24655     | BRIDGE CAPACITANCE                    | 008         | B      | 1385        |
|                            |         |                         | 1615AM         | 24655     | CAPACITANCE BRIDGE                    | 011         | B      | 2570        |
|                            |         |                         | 1620A          | 24655     | CAPACITANCE MEASUREMENT SYSTEM        | 011         | B      | 2571        |
|                            |         |                         | 1632           | 24655     | BRIDGE INDUCTANCE                     | 024         | B      | 2572        |
|                            |         |                         | 1650B          | 24655     | BRIDGE IMPEDANCE                      | 008         | B      | 1475        |
|                            |         |                         | 1652A          | 24655     | BRIDGE RESISTANCE                     | 008         | B      | 1931        |
|                            |         |                         | 2700           | 09553     | BRIDGE UNIVERSAL IMPEDANCE            | 008         | B      | 1487        |
|                            |         |                         | 290-A-MCD      | 11837     | IMPEDANCE BRIDGE                      | 008         | B      | 3350        |
|                            |         |                         | 300U27         | 01216     | TESTER CAPACITOR                      | 011         | B      | 3186        |
|                            |         |                         | 315A           | 11837     | BRIDGE IMPEDANCE                      | 008         | B      | 3592        |
|                            |         |                         | 5430A          | 31922     | BRIDGE RESISTANCE                     | 008         | B      | 1949        |
|                            |         |                         | 7040           | 79409     | TESTER IMPEDANCE GROUNDLOOP           | 022         | O      | 1420        |
|                            |         |                         | 716C           | 24655     | BRIDGE CAPACITANCE                    | 011         | B      | 1367        |
|                            |         |                         | 750            | 04901     | BRIDGE CAPACITANCE                    | 011         | B      | 1369        |
|                            |         | AN/URM-90               | 402-D-7046     | 83777     | T S CAPACITANCE INDUCTANCE RESISTANCE | 024         | B      | 0375        |
|                            |         | AN/LSM-263              | 300            | 11837     | BRIDGE VOLTAGE RESISTANCE             | 008         | B      | 0496        |
|                            |         | AN/LSM-357              | 130            | 80009     | METER INDUCTANCE AND CAPACITANCE      | 011         | B      | 0536        |
|                            |         | ZM-11/U                 | 712            | 13259     | BRIDGE CAPACITANCE INDUCTANCE RESIS   | 011         | B      | 1276        |
|                            |         | ZM-11A/U                |                |           | BRIDGE CAPACITANCE INDUCTANCE RESIS   | 011         | B      | 1277        |
|                            |         | ZM-11B/U                |                |           | BRIDGE CAPACITANCE INDUCTANCE RESIS   | 011         | B      | 1278        |
|                            |         | ZM-3/U                  |                |           | T S CAPACITOR                         | 011         | B      | 1271        |
|                            |         | ZM-3A/U                 |                |           | ANALYZER CAPACITOR                    | 011         | B      | 1272        |
|                            |         | ZM-4/U                  | 5300           | 31922     | BRIDGE RESISTANCE                     | 008         | B      | 1273        |
|                            |         | ZM-4A/U                 | 3015L          | 66150     | BRIDGE RESISTANCE                     | 008         | B      | 1274        |
|                            |         | ZM-4B/U                 |                |           | BRIDGE RESISTANCE                     | 008         | B      | 1275        |
|                            |         | ZM-61/U                 | 250B           | 28480     | BRIDGE CAPACITANCE INDUCTANCE RESIS   | 008         | B      | 1284        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO.                   | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GR LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------------------------|-----------|-------------------------------------|-------------|--------|-------------|
| BRIDGE, UNIVERSAL          | 25      | FUNCTIONALLY COMPATIBLE |                                  |           |                                     |             |        |             |
|                            |         | ZM-68/U                 | OSR-5C-4R                        | 88869     | BRIDGE IMPEDANCE                    | 008         | B      | 1285        |
|                            |         | ZM-69                   | 1650-9701                        | 24655     | BRIDGE IMPEDANCE                    | 008         | B      | 3630        |
|                            |         | ZM-69A                  | 1650-9702                        | 24655     | BRIDGE IMPEDANCE                    | 008         | B      | 3631        |
|                            |         | ZM-70/U                 | 2500E                            | 11837     | BRIDGE CAPACITANCE INDUCTANCE RESIS | 008         | B      | 1286        |
|                            |         | ZM-71/U                 | 4263A                            | 28480     | BRIDGE IMPEDANCE                    | 008         | B      | 1287        |
|                            |         | PARTIALLY COMPATIBLE    |                                  |           |                                     |             |        |             |
|                            |         |                         | 8F60                             | 93790     | TESTER CAPACITOR RESISTOR           | 011         | B      | 1289        |
|                            |         |                         | E3067                            | 07239     | POTENTIOMETER                       | 008         | B      | 1982        |
|                            |         |                         | SR2979                           | 11837     | BRIDGE KELVIN                       | 008         | B      | 3293        |
|                            | TN-5    | 56289                   | BRIDGE CAPACITANCE               | 011       | B                                   | 1337        |        |             |
|                            | ZB-2A   | 80740                   | BRIDGE IMPEDANCE                 | 011       | B                                   | 1314        |        |             |
|                            | 1050    | 28009                   | WHEATSTONE BRIDGE                | 008       | B                                   | 1926        |        |             |
|                            | 1080    | 28009                   | WHEATSTONE BRIDGE HIGH PRECISION | 008       | B                                   | 1379        |        |             |
|                            | 1212A   | 24655                   | DETECTOR NULL                    | 008       | B                                   | 1714        |        |             |
|                            | 1290    |                         | INDUCTANCE STANDARD              | FRE 024   | B                                   | 3493        |        |             |
|                            | 1604A   | 24655                   | COMPARATOR IMPEDANCE             | 008       | B                                   | 1474        |        |             |
|                            | 231B    | 11837                   | WHEATSTONE BRIDGE                | 008       | B                                   | 1333        |        |             |
|                            | 250-A   | 04901                   | METER RX                         | 022       | B                                   | 1334        |        |             |
|                            | 4271    | 31922                   | BRIDGE RESISTANCE                | 008       | B                                   | 1405        |        |             |
|                            | 4285    | 31922                   | BRIDGE RESISTANCE                | 008       | B                                   | 1948        |        |             |
|                            | 4735    | 31922                   | BRIDGE RESISTANCE                | 008       | B                                   | 1408        |        |             |
|                            | 5305    | 31922                   | WHEATSTONE BRIDGE                | 008       | B                                   | 1414        |        |             |
| CABLE TEST SET             | 28      | FUNCTIONALLY COMPATIBLE |                                  |           |                                     |             |        |             |
|                            |         |                         | 1501/323                         | 80009     | REFLECTOMETER TIME-DOMAIN           | 009         | E      | 1381        |
|                            |         |                         | 1502                             | 80009     | TIME-DOMAIN REFLECTOMETER           | 009         | E      | 1382        |
|                            |         | PARTIALLY COMPATIBLE    |                                  |           |                                     |             |        |             |
|                            |         |                         | 1580A                            | 28480     | SAMPLER NARROW BAND TOR             | 009         | E      | 1383        |
|                            |         |                         | 4910B                            | 28480     | LOCATOR OPEN FAULT                  | 009         | E      | 1411        |
|                            |         | TS-3187/U               | 4910A                            | 28480     | LOCATOR CABLE FAULT                 | 009         | E      | 1228        |
|                            |         | TS-3606(V)1/U           | 4910F                            | 28480     | OPEN FAULT LOCATOR                  | 009         | E      | 1412        |
| CALORIMETER                | 42      | FUNCTIONALLY COMPATIBLE |                                  |           |                                     |             |        |             |
|                            |         |                         | CRM-500                          | 91161     | METER CALORIMETRIC POWER            | 010         | C      | 1809        |
|                            |         |                         | 434A                             | 28480     | CALORIMETER OIL TYRE 10 WATTS       | 010         | C      | 1731        |
|                            |         |                         | 6300                             | 70998     | WATTMETER THERMAL RF                | 010         | C      | 2119        |
|                            |         |                         | AN/USM-83                        | 94987     | WATTMETER CALORIMETRIC              | 010         | C      | 0433        |



## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFP. MODEL NO.  | MFR. CODE | NOMENCLATURE           | FAMILY CODE | GP LTP | TMDE IO NO. |
|----------------------------|---------|-------------------------|-----------------|-----------|------------------------|-------------|--------|-------------|
| CALORIMETER                | 42      | PARTIALLY COMPATIBLE    |                 |           |                        |             |        |             |
|                            |         |                         | TLCG-100K       | 91161     | WATTMETER CALORIMETRIC | 010         | C      | 1796        |
| DATA ERROR TEST SET        | 72      | FUNCTIONALLY COMPATIBLE |                 |           |                        |             |        |             |
|                            |         |                         | J79902C111-902C | 64959     | T S DATA               | 013         | 0      | 2388        |
|                            |         |                         | 1645A           | 28480     | ANALYZER DATA ERROR    | 013         | 0      | 1662        |
|                            |         |                         | 7003            | 91417     | ANALYZER ERROR BIT     | 013         | 0      | 1682        |
|                            |         |                         | 901             | 51277     | TESTER BIT ERROR RATE  | 013         | 0      | 2387        |
|                            |         | AN/GCM-4                | J7990182        | 64959     | T S TELEPHONE          | 013         | 0      | 3542        |
|                            |         | TS-3478/U               | 1200            | 50572     | T S MODEM              | 013         | 0      | 2390        |
| DIAL EQUIPMENT TEST SET    | 73      | FUNCTIONALLY COMPATIBLE |                 |           |                        |             |        |             |
|                            |         | AN/TSM-86               | 900-26600-01    | 83744     | TELEPHONE T S          | 122         | 0      | 0287        |
|                            |         | AN/TSM-86A              | 900-26600-00    | 83744     | SIGNALING TEST SET     | 122         | 0      | 2386        |
|                            |         | TS-3176/USM-378         | TTS-268         | 06819     | T S PULSE SIGNALING    | 122         | 0      | 1226        |
|                            |         | TS-3629/U               | 7078            | 27364     | QUICK CHECK TEST SET   | 122         | 0      | 2385        |
|                            |         | PARTIALLY COMPATIBLE    |                 |           |                        |             |        |             |
|                            |         |                         | TTI-1110A       | 50137     | T S TELEPHONE          | 071         | 0      | 2364        |
|                            |         |                         | TTS-48NH        | 06819     | TELEPHONE TEST SET     | 071         | 0      | 2362        |
|                            |         |                         | 13-8            | 14100     | T S PULSING LIMITS     | 122         | 0      | 2371        |
|                            |         |                         | 25              | 04773     | SIGNAL TEST SET        | 122         | 0      | 2372        |
|                            |         | TS-27/TSM               | 0166237         | 64959     | T S TELEPHONE          | 032         | 8      | 0956        |
|                            |         | TS-27A/TSM              | 71-3003         |           | T S TELEPHONE          | 032         | 8      | 0957        |
|                            |         | TS-27R/TSM              | ETS-278         | 00798     | T S TELEPHONE          | 032         | 8      | 0958        |
|                            |         | TS-3178/U               | J940020(2D)     | 64959     | T S TELEPHONE          | 122         | 8      | 1227        |
| DISTORTION ANALYZER        | 74      | FUNCTIONALLY COMPATIBLE |                 |           |                        |             |        |             |
|                            |         |                         | 334A            | 28480     | ANALYZER DISTORTION    | 014         | 0      | 3359        |
|                            |         | AN/UPM-180              | 333A            | 28480     | INDICATOR DISTORTION   | 014         | 0      | 0403        |
|                            |         | AN/URM-184              | 334A-C10-001    | 28480     | DISTORTION ANALYZER    | 014         | 0      | 0406        |
|                            |         | AN/URM-184A             | 334-A01-C10     | 28480     | ANALYZER DISTORTION    | 014         | 0      | 0407        |
|                            |         | AN/USM-259              | 331A            | 28480     | ANALYZER DISTORTION    | 014         | 0      | 0492        |
|                            |         | ME-153/U                | 1932-A          | 24655     | INDICATOR DISTORTION   | 014         | 0      | 0678        |
|                            |         | ME-336/U                | 332A            | 28480     | INDICATOR DISTORTION   | 014         | 0      | 0698        |
|                            |         | TS-2394/G               | 331AP           | 28480     | ANALYZER DISTORTION    | 014         | 0      | 1194        |
|                            |         | TS-723/U                | 3308            | 28480     | ANALYZER SPECTRUM      | 014         | 0      | 1092        |
|                            |         | TS-723A/U               | 3308            | 28480     | ANALYZER SPECTRUM      | 014         | 0      | 1093        |
|                            |         | TS-7238/U               | 36A             | 14140     | ANALYZER SPECTRUM      | 014         | 0      | 1094        |
|                            |         | TS-723C/U               | 10000           | 99395     | ANALYZER SPECTRUM      | 014         | 0      | 1095        |
|                            |         | TS-7230/U               | 10000           | 99395     | ANALYZER SPECTRUM      | 014         | 0      | 1096        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL RURPDSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATDP         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| DISTORTION ANALYZER        | 74      | PARTIALLY CDMRATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | VZM-3          | 04598     | SET DISTORTION MEASURING            | 014         | D      | 1616        |
| ENVELOPE DELAY TEST SET    | 75      | FUNCTIONALLY CDMRATIBLE |                |           |                                     |             |        |             |
|                            |         | TS-2395/G               | 3408           | 94668     | ENVELOPE DELAY T S                  | 016         | O      | 1195        |
|                            |         | TS-2395A/G              | 340A           | 94668     | ENVELOPE DELAY T S                  | 016         | D      | 1196        |
|                            |         | TS-2669/GCM             | 490A           | 03860     | MEASURING SET ENVELOPE DELAY DISTOR | 016         | D      | 1206        |
|                            |         | TS-2669A/GCM            | 490B           | 03860     | MEASURING SET ENVELOPE DELAY DISTOR | 016         | D      | 1207        |
| FIELD STRENGTH METER A     | 43      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | NM-17/27       | 88869     | METER EMI FIELD INTENSITY           | 043         | C      | 1782        |
|                            |         |                         | NM-26T         | 88869     | ELECTROMAGNETIC NOISE METER         | 043         | C      | 1783        |
|                            |         | AN/PRM-1                | 9D300-1        | 88869     | RADIO T S                           | 043         | C      | 3597        |
|                            |         | ME-61/GRC               |                | 80063     | METER FIELD STRENGTH                | 043         | C      | 0668        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | 5110A          | 28480     | METER FREQ                          | 020         | C      | 2105        |
|                            |         |                         | 59             | 14140     | METER GRID DIR                      | 020         | C      | 1753        |
|                            |         | AN/LRM-178              | EMC-25R        | 18581     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0402        |
|                            |         | AN/URM-47A              |                | 88869     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0352        |
|                            |         | AN/LRM-478              | NM-30A         | 88869     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0353        |
|                            |         | AN/LRM-47C              | 218            | 06053     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0354        |
|                            |         | AN/LRM-501              | NF-105         | 16665     | MEASURING SET RADIO INTERFERENCE    | 043         | C      | 3724        |
|                            |         | AN/URM-85               |                | 16665     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0371        |
|                            |         | AN/LRM-85A              |                | 16665     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0372        |
|                            |         | AN/URM-91               | TM-275         | 30040     | METER FIELD STRENGTH                | 043         | C      | 0376        |
| FIELD STRENGTH METER B     | 44      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | NM-37/57       | 88869     | METER EMI FIELD INTENSITY           | 043         | C      | 1784        |
|                            |         |                         | 5024           | 20905     | T S STABILITY                       | 020         | C      | 2104        |
|                            |         | PARTIALLY CDMRATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | 59             | 14140     | METER GRID DIR                      | 020         | C      | 1763        |
|                            |         | AN/URM-178              | EMC-25R        | 18581     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0402        |
|                            |         | AN/URM-47A              |                | 88869     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0352        |
|                            |         | AN/URM-478              | NM-30A         | 88869     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0353        |
|                            |         | AN/URM-47C              | 218            | 06053     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0354        |
|                            |         | AN/URM-501              | NF-105         | 16665     | MEASURING SET RADIO INTERFERENCE    | 043         | C      | 3724        |
|                            |         | AN/URM-85               |                | 16665     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0371        |
|                            |         | AN/URM-85A              |                | 16665     | RADIO INTERFERENCE MEASURING SET    | 043         | C      | 0372        |
|                            |         | AN/URM-91               | TM-275         | 30040     | METER FIELD STRENGTH                | 043         | C      | 0376        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO          | TYPE DESIGNATOR         | MFR. MODEL NO.                   | MFR. CODE                                 | NOMENCLATURE                      | FAMILY CODE                    | GP LTR | TMDE IO NO. |
|----------------------------|------------------|-------------------------|----------------------------------|-------------------------------------------|-----------------------------------|--------------------------------|--------|-------------|
| FIELD STRENGTH METER C     | 45               | FUNCTIONALLY COMPATIBLE | AN/USM-227                       | N-F-157                                   | 03782 MEASURING SET POWER DENSITY | 043                            | C      | 0484        |
|                            |                  |                         | PARTIALLY COMPATIBLE             |                                           |                                   |                                |        |             |
|                            |                  | AN/LRM-110A             | EMA-910                          | 88869 METER RADIO INTERFER AND FIELD INTE | 043                               | C                              | 2352   |             |
|                            |                  |                         | RADIO INTERFERENCE MEASURING SET | 043                                       | C                                 | 3681                           |        |             |
| FIELD STRENGTH METER D     | 46               | FUNCTIONALLY COMPATIBLE | EMA-910                          | 88869 METER RADIO INTERFER AND FIELD INTE | 043                               | C                              | 2352   |             |
|                            |                  |                         | PARTIALLY COMPATIBLE             |                                           |                                   |                                |        |             |
|                            |                  | AN/LSM-227              | N-F-157                          | 03782 MEASURING SET POWER DENSITY         | 043                               | C                              | 0484   |             |
|                            |                  |                         |                                  |                                           |                                   |                                |        |             |
| FREQUENCY METER A          | 47               | FUNCTIONALLY COMPATIBLE | CL-400                           | 14704 METER ELECTRICAL FREQ               | 020                               | C                              | 1808   |             |
|                            |                  |                         | PFM 6048                         | 03927 METER FREQ                          | 020                               | C                              | 1785   |             |
|                            |                  | 90662                   | 76487 METER GRID DIP             | 020                                       | C                                 | 2448                           |        |             |
|                            |                  | PARTIALLY COMPATIBLE    |                                  |                                           |                                   |                                |        |             |
|                            |                  |                         |                                  |                                           |                                   |                                |        |             |
|                            |                  | AN/TSM-16               | MF10                             | METER RESONANT REED FREQ                  | 020                               | E                              | 1779   |             |
|                            |                  |                         | 339                              | 65092 METER FREQ                          | 020                               | C                              | 1773   |             |
|                            |                  |                         | 404                              | 80053 DISCRIMINATOR FREQ                  | 020                               | C                              | 1726   |             |
|                            |                  |                         |                                  | 99395 METER FREQ                          | 020                               | C                              | 0277   |             |
|                            |                  | FREQUENCY METER B       | 48                               | FUNCTIONALLY COMPATIBLE                   | 1142A                             | 24655 METER/DISCRIMINATOR FREQ | 020    | C           |
| 291A                       | 06424 METER FREQ |                         |                                  |                                           | 020                               | C                              | 1770   |             |
| AN/URM-79                  | 5248             |                         |                                  | 56118 METER FREQ                          | 020                               | C                              | 0368   |             |
|                            | FR-38A/U         |                         |                                  | 28480 FREQ METER                          | 020                               | C                              | 0564   |             |
| FR-380/U                   | 109000           |                         |                                  | 94033 METER FREQ                          | 020                               | C                              | 0565   |             |
| FR-38F/U                   | 00346 METER FREQ |                         |                                  | 020                                       | C                                 | 0566                           |        |             |
| FR-4/U                     | 56118 METER FREQ |                         |                                  | 020                                       | C                                 | 0563                           |        |             |
| PARTIALLY COMPATIBLE       |                  |                         |                                  |                                           |                                   |                                |        |             |
|                            |                  |                         |                                  |                                           |                                   |                                |        |             |
|                            | FM-7             |                         |                                  | METER FREQ                                | 020                               | C                              | 1813   |             |
|                            | 1144A            |                         |                                  | 24655 DIGITAL FREQ METER                  | 020                               | C                              | 3553   |             |
|                            | 2006             |                         |                                  | 27593 VOLTMETER HETERODYNE                | 020                               | C                              | 2099   |             |
|                            | 339              | 65092 METER FREQ        | 020                              | C                                         | 1773                              |                                |        |             |
|                            | 5008             | 28480 METER FREQ        | 020                              | C                                         | 1735                              |                                |        |             |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE              | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------|-------------|--------|-------------|
| FREQUENCY METER B          | 48      | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         |                         | 5008R          | 28480     | METER FREQ                | 020         | C      | 3364        |
|                            |         |                         | 7350A          | 80053     | FREQ METER                | 020         | C      | 3549        |
|                            |         | AN/TSM-16               |                | 99395     | METER FREQ                | 020         | C      | 0277        |
|                            |         | AN/URM-32               | SCL-1341       | 49673     | METER FREQ                | 020         | C      | 0348        |
|                            |         | AN/LPM-32A              |                | 49673     | METER FREQ                | 020         | C      | 0349        |
|                            |         | AN/URM-30               |                | 35225     | METER FREQ                | 020         | C      | 0369        |
|                            |         | AN/USM-159              | K50110500      | 35225     | METER FREQ                | 020         | C      | 0450        |
|                            |         | AN/LSM-159A             | K50110200      | 35225     | METER FREQ                | 020         | C      | 0451        |
|                            |         | AN/USM-275              | 90651          | 76487     | METER GPID DIP            | 020         | C      | 0504        |
|                            |         | I-129                   | 71-1398        | 80063     | WAVEMETER                 | 020         | C      | 0577        |
|                            |         | TS-186D/UP              |                | 21900     | METER FREQ                | 020         | C      | 0982        |
|                            |         | TS-186E/UP              | 317-0          | 37093     | METER FREQ                | 020         | C      | 0983        |
|                            |         | TS-186F/UP              | T-737-317-D    | 51865     | METER FREQ                | 020         | C      | 0984        |
| FREQUENCY METER C          | 49      | FUNCTIONALLY COMPATIBLE |                |           |                           |             |        |             |
|                            |         | AN/UPM-81               |                | 35225     | METER FREQ                | 020         | C      | 0370        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         |                         | FM-7           |           | METER FREQ                | 020         | C      | 1813        |
|                            |         |                         | 1144A          | 24655     | DIGITAL FREQ METER        | 020         | C      | 3553        |
|                            |         |                         | 2006           | 27593     | VOLTMETER HETERODYNE      | 020         | C      | 2099        |
|                            |         |                         | 536A           | 28480     | WAVEMETER ABSORPTION TYPE | 020         | C      | 2802        |
|                            |         | AN/URM-32               | SCL-1341       | 49673     | METER FREQ                | 020         | C      | 0348        |
|                            |         | AN/URM-32A              |                | 49673     | METER FREQ                | 020         | C      | 0349        |
|                            |         | AN/URM-30               |                | 35225     | METER FREQ                | 020         | C      | 0369        |
|                            |         | AN/USM-159              | K50110500      | 35225     | METER FREQ                | 020         | C      | 0450        |
|                            |         | AN/USM-159A             | K50110200      | 35225     | METER FREQ                | 020         | C      | 0451        |
|                            |         | AN/USM-275              | 90651          | 76487     | METER GPID DIP            | 020         | C      | 0504        |
|                            |         | I-129                   | 71-1398        | 80063     | WAVEMETER                 | 020         | C      | 0577        |
|                            |         | TS-186D/UP              |                | 21900     | METER FREQ                | 020         | C      | 0982        |
|                            |         | TS-186E/UP              | 317-0          | 37093     | METER FREQ                | 020         | C      | 0983        |
|                            |         | TS-186F/UP              | T-737-317-D    | 51865     | METER FREQ                | 020         | C      | 0984        |
| FREQUENCY METER D          | 50      | FUNCTIONALLY COMPATIBLE |                |           |                           |             |        |             |
|                            |         |                         | TF 1026/1      | 09335     | METER FREQ                | 020         | C      | 1791        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         |                         | FM-7           |           | METER FREQ                | 020         | C      | 1813        |
|                            |         |                         | 2006           | 27593     | VOLTMETER HETERODYNE      | 020         | C      | 2099        |
|                            |         |                         | 536A           | 28480     | WAVEMETER ABSORPTION TYPE | 020         | C      | 2802        |
|                            |         |                         | 587A           | 77327     | METER FREQ                | 020         | C      | 3365        |

J-12

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

QTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| QTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFP. MODEL NO. | MFR. CODE | NOMENCLATURE              | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------|-------------|--------|-------------|
| FREQUENCY METER D          | 50      | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         | AN/USM-159              | K50110500      | 35225     | METER FREQ                | 020         | C      | 0450        |
|                            |         | AN/USM-159A             | K50110200      | 35225     | METER FREQ                | 020         | C      | 0451        |
| FREQUENCY METER F          | 51      | FUNCTIONALLY COMPATIBLE |                |           |                           |             |        |             |
|                            |         | TF 1026/2               |                | 09335     | METER FREQ                | 020         | C      | 1792        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         | FM-7                    |                |           | METER FREQ                | 020         | C      | 1813        |
|                            |         | 536A                    |                | 28480     | WAVEMETER ABSORPTION TYPE | 020         | C      | 2802        |
|                            |         | 587A                    |                | 77327     | METER FREQ                | 020         | C      | 3365        |
|                            |         | AN/USM-159              | K50110500      | 35225     | METER FREQ                | 020         | C      | 0450        |
|                            |         | AN/USM-159A             | K50110200      | 35225     | METER FREQ                | 020         | C      | 0451        |
| FREQUENCY METER F          | 52      | FUNCTIONALLY COMPATIBLE |                |           |                           |             |        |             |
|                            |         | TF 1026/3               |                | 09335     | METER FREQ                | 020         | C      | 1793        |
|                            |         | TF 1026/4               |                | 09335     | METER FREQ                | 020         | C      | 1794        |
|                            |         | WCF-1217-4N             |                | 16786     | METER FREQ                | 020         | C      | 1797        |
|                            |         | 12L1                    |                | 06424     | FREQ METER                | 020         | C      | 3554        |
|                            |         | FR-146/U                | N410A          | 00929     | WAVEMETER                 | 020         | C      | 0571        |
|                            |         | FR-91/U                 | FS-C-173B      | 16786     | WAVEMETER                 | 020         | C      | 0569        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                           |             |        |             |
|                            |         | 536A                    |                | 28480     | WAVEMETER ABSORPTION TYPE | 020         | C      | 2802        |
|                            |         | TS-1860/UP              |                | 21900     | METER FREQ                | 020         | C      | 0982        |
|                            |         | TS-186E/UP              | 317-0          | 37093     | METER FREQ                | 020         | C      | 0983        |
|                            |         | TS-186F/UP              | T-737-317-0    | 51865     | METER FREQ                | 020         | C      | 0984        |
| FREQUENCY METER G          | 53      | FUNCTIONALLY COMPATIBLE |                |           |                           |             |        |             |
|                            |         | C410B                   |                | 00929     | METER FREQ                | 020         | C      | 1807        |
|                            |         | G532A                   |                | 28480     | FREQ METER                | 020         | C      | 3270        |
|                            |         | H530A                   |                | 28480     | METER FREQ                | 020         | C      | 1816        |
|                            |         | J532A                   |                | 28480     | METER FREQ                | 020         | C      | 1821        |
|                            |         | N414A                   |                | 00929     | METER FREQ                | 020         | C      | 1781        |
|                            |         | WDA3712                 |                | 16786     | METER WAVF                | 020         | C      | 3318        |
|                            |         | X410A                   |                | 00929     | METER FREQ                | 020         | C      | 1798        |
|                            |         | X532A                   |                | 28480     | METER FREQ                | 020         | C      | 1799        |
|                            |         | X551                    |                | 28480     | WAVEMETER                 | 020         | C      | 1750        |
|                            |         | FR-126/U                | X532B          | 28480     | WAVEMETER                 | 020         | C      | 0570        |
|                            |         | FR-194/U                | H532A          | 28480     | METER FREQ                | 020         | C      | 0574        |
|                            |         | ME-495/U                | 537A           | 28480     | METER FREQ                | 020         | C      | 1741        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME  | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                  | FAMILY CODE | GP LTR | TMDE IO NO. |
|-----------------------------|---------|-------------------------|----------------|-----------|-------------------------------|-------------|--------|-------------|
| FREQUENCY METER G           | 53      | PARTIALLY COMPATIBLE    |                |           |                               |             |        |             |
|                             |         | TS-1860/UP              |                | 21900     | METER FREQ                    | 020         | C      | 0982        |
|                             |         | TS-186E/UP              | 317-0          | 37093     | METER FRFQ                    | 020         | C      | 0983        |
|                             |         | TS-186F/UP              | T-737-317-D    | 51865     | METER FREQ                    | 020         | C      | 0984        |
| FREQUENCY METER H           | 54      | FUNCTIONALLY COMPATIBLE |                |           |                               |             |        |             |
|                             |         | Y410A                   |                | 00929     | METER FREQ                    | 020         | C      | 1751        |
| FREQUENCY METER I           | 55      | FUNCTIONALLY COMPATIBLE |                |           |                               |             |        |             |
|                             |         | K410A                   |                | 00929     | WAVEMETER                     | 020         | C      | 1822        |
|                             |         | K532A                   |                | 28480     | METER FREQ                    | 020         | C      | 3272        |
|                             |         | P532A                   |                | 28480     | METER FREQ                    | 020         | C      | 3282        |
| GAUSS METER                 | 89      | FUNCTIONALLY COMPATIBLE |                |           |                               |             |        |             |
|                             |         | R-79                    |                | 22336     | GAUSSMETER                    | 021         | E      | 1893        |
|                             |         | 1890                    |                | 49673     | GAUSSMETER                    | 021         | E      | 1722        |
|                             |         | 660                     |                | 18479     | GAUSSMETER                    | 021         | F      | 3368        |
|                             |         | 750                     |                | 49673     | GAUSSMETER                    | 021         | E      | 1702        |
|                             |         | TS-150/AP               | S-01           |           | FLUXMETER                     | 021         | E      | 0952        |
|                             |         | PARTIALLY COMPATIBLE    |                |           |                               |             |        |             |
|                             |         | 1965                    |                | 49673     | GAUSSMETER                    | 021         | E      | 1724        |
|                             |         | 2470-350                |                | 49673     | CHARTER MAGNET                | 021         | E      | 2101        |
| GENERATOR, SIGNAL, FUNCTION | 2       | FUNCTIONALLY COMPATIBLE |                |           |                               |             |        |             |
|                             |         | F51A                    |                | 07421     | GENERATOR SIGNAL              | 047         | A      | 1902        |
|                             |         | F55A                    |                | 07421     | GENERATOR FUNCTION            | 047         | A      | 1812        |
|                             |         | IG-115                  |                | 03782     | GENERATOR SIGNAL              | 047         | A      | 1908        |
|                             |         | 10182653                |                | 04164     | GENERATOR MULTIFUNCTION       | 047         | A      | 2097        |
|                             |         | 106 TYPE 2              |                | 80009     | GENERATOR SQUARE WAVE         | 054         | A      | 3340        |
|                             |         | 107                     |                | 80009     | SQUARE WAVE GENERATOR         | 054         | A      | 1884        |
|                             |         | 116 VCC                 |                | 23338     | GENERATOR PHASE LOCK FUNCTION | 047         | A      | 1887        |
|                             |         | 1410                    |                | 65092     | ANALYZER FREQUENCY RESPONSE   | 047         | A      | 1657        |
|                             |         | 3301A                   |                | 28480     | AUXILLARY P I                 | 047         | A      | 1841        |
|                             |         | 3310A                   |                | 28480     | GENERATOR FUNCTION            | 047         | A      | 1842        |
|                             |         | 5048                    |                | 10597     | GENERATOR WAVEFORM            | 047         | A      | 1852        |
|                             |         | 71                      |                | 14140     | GENERATOR SQUARE WAVE         | 054         | A      | 1881        |
|                             |         | AN/USM-256              | 791A           | 72314     | GENERATOR SIGNAL              | 054         | A      | 0491        |
|                             |         | AN/USM-271              | 184            | 80009     | GENERATOR ELEC MARKER         | 050         | A      | 0500        |
|                             |         | AN/USM-358              | 106            | 80009     | GENERATOR SIGNAL              | 054         | A      | 0537        |
|                             |         | SG-106/U                | 105            | 80009     | GENERATOR SQUARE WAVE         | 054         | A      | 0838        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME  | SPEC NO | TYPE DESIGNATOR         | MFP. MODEL NO. | MFP. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTP | TMOE IO NO. |
|-----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| GENERATOR, SIGNAL, FUNCTION | 2       | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                             |         | SG-298/U                | W-1            | 08775     | GENERATOR SIGNAL                    | 047         | A      | 0839        |
|                             |         | SG-298A/U               | 180            | 21764     | GENERATOR SIGNAL                    | 047         | A      | 0840        |
|                             |         | SG-299/U                | 802-296        | 28569     | GENERATOR SIGNAL                    | 054         | A      | 0841        |
|                             |         | SG-2998/U               | 902-333        | 28569     | GENERATOR SIGNAL                    | 054         | A      | 0842        |
|                             |         | SG-321/U                | 5533           | 83563     | GENERATOR SIGNAL                    | 047         | A      | 0844        |
|                             |         | SG-321A/U               |                | 80063     | GENERATOR SIGNAL                    | 047         | A      | 0845        |
|                             |         | SG-321B/U               |                | 24635     | GENERATOR SIGNAL                    | 047         | A      | 0846        |
|                             |         | SG-747                  | 3300A          | 28480     | GENERATOR SIGNAL                    | 047         | A      | 0872        |
|                             |         | SG-769/U                | 111            | 23338     | GENERATOR SIGNAL                    | 047         | A      | 0875        |
|                             |         | SG-772/G                | 105 M001498    | 80009     | GENERATOR SIGNAL                    | 054         | A      | 0877        |
|                             |         | TS-583/U                | 210A           | 28480     | GENERATOR SIGNAL                    | 054         | A      | 3636        |
|                             |         | TS-583A/U               | E-136204       | 35225     | GENERATOR SIGNAL                    | 054         | A      | 3637        |
|                             |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                             |         |                         | 1854           | 30669     | GENERATOR SQUAPE WAVE AND ELEC SWIT | 054         | A      | 1896        |
|                             |         |                         | 202A           | 28480     | GENERATOR SIGNAL                    | 047         | A      | 3345        |
|                             |         |                         | 214A-C38       | 28480     | GENERATOR PULSE                     | 050         | A      | 3253        |
|                             |         |                         | 440-AR         | 88865     | OSCILLATOR PUSHBUTTON               | 006         | A      | 1860        |
|                             |         | AN/USM-108              | 180A           | 28569     | GENERATOR TIME MARK                 | 047         | A      | 0440        |
|                             |         | AN/USM-108B             |                | 28569     | GENERATOR TIME MARK                 | 047         | A      | 0441        |
|                             |         | AN/USM-269              | 1317-A         | 24655     | GENERATOR SIGNAL                    | 006         | A      | 0498        |
|                             |         | PL-1178/U               | 3304A          | 28480     | SWEEP/OFFSET PLUG-IN                | 047         | A      | 0791        |
| GENERATOR, SIGNAL, PULSE    | 4       | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                             |         |                         | 87B            | 06692     | GENERATOR PULSE                     | 050         | A      | 3251        |
|                             |         |                         | MP-1           | 04596     | PULSER MINI                         | 050         | A      | 1912        |
|                             |         |                         | PG-32          | 24141     | GENERATOR PULSE                     | 050         | A      | 1914        |
|                             |         |                         | 101            | 15933     | PULSE GENERATOR                     | 050         | A      | 1883        |
|                             |         |                         | 1013           | 82199     | GENERATOR PULSE                     | 050         | A      | 1874        |
|                             |         |                         | 10182657       | 04164     | GENERATOR PULSE                     | 050         | A      | 2098        |
|                             |         |                         | 1217C          | 24655     | GENERATOR PULSE                     | 050         | A      | 1830        |
|                             |         |                         | 132A           | 13488     | GENERATOR PULSE                     | 050         | A      | 1889        |
|                             |         |                         | 2138           | 28480     | GENERATOR PULSE                     | 050         | A      | 1850        |
|                             |         |                         | 214A           | 28480     | GENERATOR PULSE                     | 050         | A      | 3348        |
|                             |         |                         | 222A           | 28480     | GENERATOR PULSE                     | 050         | A      | 1853        |
|                             |         |                         | 2901           | 80009     | GENERATOR TIME MARK                 | 050         | A      | 1840        |
|                             |         |                         | 8151832        | 18876     | GENERATOR PULSE                     | 050         | A      | 2093        |
|                             |         |                         | 9142834        | 88600     | GENERATOR PULSE                     | 050         | A      | 2094        |
|                             |         | AN/GPM-15               |                | 82076     | GENERATOR SIGNAL                    | 050         | A      | 0159        |
|                             |         | AN/GPM-15A              | CA-748         | 82076     | GENERATOR SIGNAL                    | 050         | A      | 0160        |
|                             |         | AN/PPM-1                | 212A           | 28480     | GENERATOR PULSE                     | 050         | A      | 0239        |
|                             |         | AN/PPM-1A               | 212A           | 28480     | GENERATOR PULSE                     | 050         | A      | 3596        |
|                             |         | AN/UPM-15               |                | 98179     | GENERATOR PULSE                     | 050         | A      | 0316        |



## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                    | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------------|-------------|--------|-------------|
| GENERATOR, SIGNAL, PULSE   | 4       | FUNCTIONALLY COMPATIBLE |                |           |                                 |             |        |             |
|                            |         | AN/UPM-15A              | 1-1997         | 15196     | GENERATOR PULSE                 | 050         | A      | 0317        |
|                            |         | AN/USM-255              | 792A           | 72314     | GENERATOR SIGNAL                | 050         | A      | 0490        |
|                            |         | AN/USM-359              | 115            | 80009     | PULSE GENERATOR                 | 050         | A      | 3617        |
|                            |         | AN/USM-374              | 111            | 80009     | GENERATOR PULSE                 | 050         | A      | 0541        |
|                            |         | SG-343/UPM-15A          |                | 15196     | GENERATOR PULSE                 | 050         | A      | 0850        |
|                            |         | SG-475/APS-94           | 100720         | 06344     | OSCILLATOR PULSE DELAY          | 050         | A      | 0855        |
|                            |         | SG-63B/UPM-10           | 15802          | 36004     | GENERATOR PULSE                 | 050         | A      | 0827        |
|                            |         | SG-69/PPM               | 212A           | 28480     | GENERATOR PULSE                 | 050         | A      | 0818        |
|                            |         | SG-69A/PPM-1            | 212A           | 28480     | GENERATOR PULSE                 | 050         | A      | 0830        |
|                            |         | SG-69B/PPM-1            | 212A           | 28480     | GENERATOR PULSE                 | 050         | A      | 0831        |
|                            |         | TS-592/UPM-15           | 382663F        |           | GENERATOR PULSE                 | 050         | A      | 1058        |
|                            |         | TS-592A/UPM-15          | AS1019         | 88585     | GENERATOR PULSE                 | 050         | A      | 1059        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                 |             |        |             |
|                            |         |                         | K7006          | 28480     | GENERATOR SIGNAL P I            | 050         | A      | 3273        |
|                            |         |                         | RCO 20006      | 23405     | OSCILLATOR DUAL PHASE           | 050         | A      | 3287        |
|                            |         |                         | TC-501         | 80009     | TIME MARK GENERATOR             | 050         | A      | 1795        |
|                            |         |                         | 109            | 80009     | GENERATOR PULSE                 | 054         | A      | 1885        |
|                            |         |                         | 1105A          | 28480     | GENERATOR PULSE                 | 050         | A      | 2562        |
|                            |         |                         | 1398           | 13488     | GENERATOR PULSE                 | 050         | A      | 1890        |
|                            |         |                         | 1920A          | 28480     | GENERATOR PULSE                 | 050         | A      | 1838        |
|                            |         |                         | 214A-C38       | 28480     | GENERATOR PULSE                 | 050         | A      | 3253        |
|                            |         |                         | 216A           | 28480     | GENERATOR PULSE                 | 050         | A      | 1851        |
|                            |         |                         | 218A           | 28480     | GENERATOR DIGITAL DELAY         | 050         | A      | 1852        |
|                            |         |                         | 3450D          | 92110     | GENERATOR PULSE                 | 050         | A      | 1844        |
|                            |         |                         | 5070B          | 80138     | GENERATOR PULSE                 | 050         | A      | 2576        |
|                            |         |                         | 6254-5         | 13222     | GENERATOR SIGNAL                | 050         | A      | 1848        |
|                            |         |                         | 8005B          | 28480     | GENERATOR PULSE                 | 050         | A      | 1849        |
|                            |         | AN/USM-271              | 184            | 80009     | GENERATOR ELEC MARKER           | 050         | A      | 0530        |
|                            |         | SG-1105/U               | 8013B          | 28480     | GENERATOR PULSE                 | 050         | A      | 2057        |
|                            |         | SG-366/U                | 570A           | 80138     | GENERATOR PULSE                 | 050         | A      | 0851        |
|                            |         | SG-366A/U               | 5070B          | 80138     | GENERATOR PULSE                 | 050         | A      | 0852        |
| GENERATOR, SIGNAL, UHF     | 16      | FUNCTIONALLY COMPATIBLE |                |           |                                 |             |        |             |
|                            |         |                         | L7006          | 77327     | GENERATOR SIGNAL                | 107         | A      | 3275        |
|                            |         |                         | 12058F         | 82199     | MODULAR MICROWAVE SIGNAL SOURCE | 107         | A      | 1713        |
|                            |         |                         | 1205F          | 82199     | SIGNAL GENERATOR MICROWAVE      | 107         | A      | 1827        |
|                            |         |                         | 18500B         | 99899     | GENERATOR SIGNAL                | 107         | A      | 2581        |
|                            |         |                         | 470A-1800      | 94668     | GENERATOR SIGNAL                | 107         | A      | 1851        |
|                            |         | AN/URM-64-1             |                | 76809     | GENERATOR SIGNAL                | 107         | A      | 0363        |
|                            |         | AN/URM-64-2             |                | 76809     | GENERATOR SIGNAL                | 107         | A      | 0364        |
|                            |         | AN/URM-64A-1            | C-016-04001    | 03877     | GENERATOR SIGNAL                | 107         | A      | 0365        |
|                            |         | AN/LRM-64A-2            | C-0161-04001   | 03877     | GENERATOR SIGNAL                | 107         | A      | 0366        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE            | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------|-------------|--------|-------------|
| GENERATOR, SIGNAL, UHF     | 16      | FUNCTIONALLY COMPATIBLE |                |           |                         |             |        |             |
|                            |         | AN/USM-213              | 8614A          | 28480     | GENERATOR SIGNAL        | 107         | A      | 0477        |
|                            |         | AN/USM-213A             | 8614B          | 28480     | GENERATOR SIGNAL        | 107         | A      | 0478        |
|                            |         | SG-97/FRC               | 614A           | 28480     | GENERATOR SIGNAL        | 107         | A      | 0837        |
|                            |         | TS-419/U                | H-12           |           | GENERATOR SIGNAL        | 107         | A      | 1012        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         |                         | 2650A          | 28480     | OSCILLATOR SYNCHRONIZER | 053         | A      | 1667        |
|                            |         |                         | 86632A         | 28480     | RF SECTION              | 107         | A      | 2090        |
|                            |         | AN/URM-149              | SM-0-630000    | 82199     | GENERATOR SIGNAL        | 107         | A      | 0396        |
|                            |         | AN/URM-56               | 9008           | 01113     | GENERATOR SIGNAL        | 107         | A      | 0361        |
|                            |         | AN/URM-61A              | C-0-153-03007  | 99180     | GENERATOR SIGNAL        | 053         | A      | 0362        |
|                            |         | AN/USM-251              | 1209C          | 24655     | GENERATOR SIGNAL        | 107         | A      | 0758        |
| GENERATOR, SIGNAL, VHF     | 18      | FUNCTIONALLY COMPATIBLE |                |           |                         |             |        |             |
|                            |         | 8C-376M                 |                | 94486     | GENERATOR SIGNAL        | 106         | A      | 2349        |
|                            |         | M185-4                  |                | 16469     | GENERATOR SIGNAL        | 106         | A      | 3277        |
|                            |         | M186-4                  |                | 16469     | GENERATOR RF POWER P I  | 106         | A      | 3278        |
|                            |         | TF-1066A                |                | 09553     | SIGNAL GENERATOR        | 106         | A      | 1612        |
|                            |         | TF-1247                 |                | 09553     | OSCILLATOR              | 106         | A      | 1920        |
|                            |         | TF1066/B6               |                | 09553     | GENERATOR SIGNAL        | 106         | A      | 1919        |
|                            |         | 102A                    |                | 04901     | GENERATOR SIGNAL        | 106         | A      | 1630        |
|                            |         | 10668/6                 |                | 09553     | GENERATOR SIGNAL FM     | 106         | A      | 1825        |
|                            |         | 1203A                   |                | 24655     | OSCILLATOR UNIT         | 106         | A      | 1654        |
|                            |         | 1215B                   |                | 24655     | OSCILLATOR UNIT         | 106         | A      | 1829        |
|                            |         | 202E                    |                | 28480     | GENERATOR SIGNAL        | 106         | A      | 1635        |
|                            |         | 211A                    |                | 28480     | GENERATOR SIGNAL        | 106         | A      | 1638        |
|                            |         | 406A                    |                | 98278     | OSCILLATOR              | 106         | A      | 1858        |
|                            |         | 608C <sup>0</sup>       |                | 28480     | GENERATOR SIGNAL VHF    | 106         | A      | 3366        |
|                            |         | 608CR(MOD)              |                | 28480     | GENERATOR SIGNAL VHF    | 106         | A      | 3367        |
|                            |         | 608D                    |                | 28480     | GENERATOR SIGNAL        | 106         | A      | 1744        |
|                            |         | 608E                    |                | 28480     | GENERATOR SIGNAL VHF    | 106         | A      | 1863        |
|                            |         | 750-S138                |                | 33013     | GENERATOR SIGNAL        | 106         | A      | 1872        |
|                            |         | 8640A                   |                | 28480     | GENERATOR SIGNAL        | 106         | A      | 1591        |
|                            |         | 8640B                   |                | 28480     | GENERATOR SIGNAL AM-FM  | 106         | A      | 2071        |
|                            |         | 8640B-001               |                | 28480     | GENERATOR SIGNAL        | 106         | A      | 1593        |
|                            |         | 8654A                   |                | 28480     | GENERATOR SIGNAL VHF    | 106         | A      | 1594        |
|                            |         | AN/APM-26C              | 100190         | 87793     | GENERATOR SIGNAL        | 106         | A      | 0139        |
|                            |         | AN/RRM-10               |                | 13094     | TEST OSCILLATOR         | 106         | A      | 0240        |
|                            |         | AN/URM-109              | 31-0-141       | 79300     | GENERATOR SIGNAL        | 106         | A      | 0388        |
|                            |         | AN/URM-181              | 202H           | 28480     | GENERATOR SIGNAL        | 106         | A      | 0434        |
|                            |         | AN/URM-26               | 294            | 21900     | GENERATOR SIGNAL        | 106         | A      | 0345        |
|                            |         | AN/URM-26A              | 136015         |           | GENERATOR SIGNAL        | 106         | A      | 0346        |
|                            |         | AN/LRM-268              | 136015         |           | GENERATOR SIGNAL        | 106         | A      | 0347        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------------|-------------|--------|-------------|
| GENERATOR, SIGNAL, VHF     | 18      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         | AN/URM-48               |                | 15196     | GENERATOR SIGNAL                  | 106         | A      | 0355        |
|                            |         | AN/URM-70               |                | 07450     | GENERATOR SIGNAL                  | 106         | A      | 0367        |
|                            |         | AN/USM-252              | 1215C          | 24655     | GENERATOR SIGNAL                  | 106         | A      | 0487        |
|                            |         | AN/USM-313              | 1211C          | 24655     | GENERATOR SIGNAL                  | 106         | A      | 0523        |
|                            |         | AN/USM-44               |                | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0421        |
|                            |         | AN/USM-44A              | 608D-F02       | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0422        |
|                            |         | RC-376                  |                | 80063     | GENERATOR SIGNAL                  | 106         | A      | 0546        |
|                            |         | SG-1038/U               | 3701A          | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0894        |
|                            |         | SG-12/U                 |                | 15196     | GENERATOR SIGNAL                  | 106         | A      | 0822        |
|                            |         | SG-13/ARN               |                | 16636     | GENERATOR SIGNAL                  | 106         | A      | 0823        |
|                            |         | SG-309/GRC-47           | 608C           | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0843        |
|                            |         | SG-867/U                | 470A-500       | 98329     | GENERATOR SIGNAL                  | 106         | A      | 0880        |
|                            |         | SG-969/U                | 608F           | 28480     | VHF SIGNAL GENERATOR              | 106         | A      | 0883        |
|                            |         | SG-975/U                | 32038          | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0885        |
|                            |         | TS-497/URR              |                |           | GENERATOR SIGNAL                  | 106         | A      | 1031        |
|                            |         | TS-497A/URR             |                |           | GENERATOR SIGNAL                  | 106         | A      | 1032        |
|                            |         | TS-497B/URR             |                |           | GENERATOR SIGNAL                  | 106         | A      | 1033        |
|                            |         | TS-4978/URR             | SM-8-334504    | 04423     | GENERATOR SIGNAL                  | 106         | A      | 1034        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                   |             |        |             |
|                            |         |                         | 10046503       | 18876     | OSCILLATOR RADIO FREQUENCY        | 051         | A      | 1597        |
|                            |         |                         | 5105A/51108    | 28480     | SYNTHESIZER FREQ                  | 106         | A      | 1846        |
|                            |         |                         | 6068           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 1643        |
|                            |         |                         | 86602B         | 28480     | P I UNIT RE SECTION               | 051         | A      | 3587        |
|                            |         |                         | 86631B         | 28480     | AUXILIARY SECTION                 | 107         | A      | 2091        |
|                            |         |                         | 86632A         | 28480     | MODULATION SECTION                | 107         | A      | 2092        |
|                            |         |                         | 8708A          | 28480     | GENERATOR SIGNAL P I SYNCHRONIZER | 106         | A      | 2081        |
|                            |         | AN/GPM-15               |                | 82076     | GENERATOR SIGNAL                  | 050         | A      | 0159        |
|                            |         | AN/GPM-15A              | CA-748         | 82076     | GENERATOR SIGNAL                  | 050         | A      | 0160        |
|                            |         | AN/GRM-50               | 606A           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0174        |
|                            |         | AN/GRM-50A              | 11507A         | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0175        |
|                            |         | AN/GRM-50B              | 606A-C15       | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0176        |
|                            |         | AN/GRM-50C              | 921A           | 33013     | GENERATOR SIGNAL                  | 051         | A      | 0177        |
|                            |         | AN/URM-93               | 245-A          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0377        |
|                            |         | AN/URM-93A              | 245-O          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0378        |
|                            |         | AN/USM-251              | 1209C          | 24655     | GENERATOR SIGNAL                  | 107         | A      | 0758        |
|                            |         | AN/USM-272              | 191            | 80009     | GENERATOR SIGNAL                  | 051         | A      | 0501        |
|                            |         | AN/USM-312              | 1362           | 24655     | GENERATOR SIGNAL                  | 107         | A      | 0522        |
|                            |         | CP-1100/U               | 51008/51108    | 28480     | COUNTER ELEC DIGITAL              | 051         | A      | 0550        |
|                            |         | SG-340A/U               | 612A           | 28480     | GENERATOR SIGNAL                  | 107         | A      | 0849        |
|                            |         | SG-366/U                | 570A           | 80138     | GENERATOR PULSE                   | 050         | A      | 0851        |
|                            |         | SG-366A/U               | 5070B          | 80138     | GENERATOR PULSE                   | 050         | A      | 0852        |
|                            |         | TS-452D/U               |                | 36004     | GENERATOR SIGNAL                  | 052         | A      | 1027        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                   | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|--------------------------------|-------------|--------|-------------|
| IMPULSE NOISE COUNTER      | 76      | FUNCTIONALLY COMPATIBLE |                |           |                                |             |        |             |
|                            |         |                         | 1018           | 16152     | COUNTER TIMER                  | 023         | 0      | 2198        |
|                            |         | CP-1101/U               | TTS58A         | 06819     | COUNTER ELEC DIGITAL           | 023         | 0      | 0551        |
| INSULATION, TEST SET       | 26      | FUNCTIONALLY COMPATIBLE |                |           |                                |             |        |             |
|                            |         |                         | HD125XC        |           | TESTER HIGH POTENTIAL          | 025         | 8      | 1298        |
|                            |         |                         | KS50-40        | 92656     | T S HIGH VOLTAGE               | 025         | 8      | 1299        |
|                            |         |                         | 1294012        | 79500     | T S INSULATION BREAKDOWN       | 025         | 8      | 1442        |
|                            |         |                         | 1862/BS1       | 24655     | OHMMETER                       | 025         | 8      | 1389        |
|                            |         |                         | 1862A          | 24655     | OHMMETER ELECTRONIC            | 025         | 8      | 1934        |
|                            |         |                         | 1862B          | 24655     | MEG OHMMETER                   | 025         | 8      | 1390        |
|                            |         |                         | 1862C          | 24655     | MEG OHMMETER                   | 025         | 8      | 1391        |
|                            |         |                         | 1864           | 24655     | MEG OHMMETER                   | 025         | 8      | 1392        |
|                            |         |                         | 1864-9700      | 24655     | MEG OHMMETER                   | 025         | 8      | 1393        |
|                            |         |                         | 4045           | 04237     | TESTER INSULATION BREAKDOWN    | 025         | 8      | 1433        |
|                            |         |                         | 63GH00         | 24446     | METER INSULATION               | 025         | 8      | 1319        |
|                            |         |                         | 79X831         | 24446     | T S INSULATION BREAKDOWN       | 025         | 8      | 1321        |
|                            |         |                         | 8174880        | 24617     | MEG OHMMETER TESTER INSULATION | 025         | 8      | 1443        |
|                            |         | ZM-214/U                | 561000         | 66150     | OHMMETER                       | 025         | 8      | 1280        |
|                            |         | ZM-218/U                | A98400020      | 66150     | OHMMETER                       | 025         | 8      | 1281        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                |             |        |             |
|                            |         |                         | ESH MIX        | 88869     | VOLTMETER                      | 035         | 8      | 1297        |
|                            |         |                         | K1B            |           | TESTER TURF CONTRAST TRSER     | 072         | 8      | 2547        |
|                            |         |                         | 1050           | 28009     | WHEATSTONE BRIDGE              | 008         | 8      | 1926        |
|                            |         |                         | 136X           | 77068     | TESTER CAPACITOR HI-POT        | 025         | 8      | 1324        |
|                            |         |                         | 1620-B         | 73396     | MEG OHMMETER                   | 025         | 8      | 1386        |
|                            |         |                         | 1644A          | 24655     | OHMMETER BRIDGE                | 035         | 8      | 1387        |
|                            |         |                         | 178-C          | 83490     | TESTER INSULATION LEAKAGE      | 025         | 8      | 1327        |
|                            |         |                         | 21J1052        | 07239     | TESTER INSULATION MEGGER       | 025         | 8      | 1315        |
|                            |         |                         | 21158          | 07239     | OHMMETER LOW RESISTANCE        | 025         | 8      | 1437        |
|                            |         |                         | 313            | 55026     | MULTIMETER                     | 032         | 8      | 1345        |
|                            |         |                         | 3202P          | 28569     | SYSTEM DIGITAL MEASURING       | 077         | 8      | 1939        |
|                            |         |                         | 36C            | 30119     | TESTER INSULATION              | 025         | 8      | 1317        |
|                            |         |                         | 41-001         | 30119     | T S PORTABLE HI-POT            | 025         | 8      | 1318        |
|                            |         |                         | 4735           | 31922     | BRIDGE RESISTANCE              | 008         | 8      | 1408        |
|                            |         |                         | 6048-1A1061094 | 77820     | TESTER AC-DC INSULATION        | 025         | 8      | 1358        |
|                            |         | AN/GSM-13A              | 7659240        | 19200     | ELECTRICAL CABLE TEST SET      | 077         | 8      | 0193        |
|                            |         | AN/GSM-45               | 8213077        | 19200     | T S ELECTRICAL CABLE           | 077         | 8      | 0196        |

## PART I TMDE CPDSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------------|-------------|--------|-------------|
| LOGIC ANALYZER             | 77      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         |                         | 1601L          | 28480     | ANALYZER LOGIC STATE              | 027         | 0      | 2522        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                   |             |        |             |
|                            |         |                         | 10525A         | 28480     | LOGIC PROBE                       | 027         | 0      | 2701        |
|                            |         |                         | 10528A         | 28480     | LOGIC CLIR                        | 027         | 0      | 2702        |
|                            |         |                         | 10529A         | 28480     | LOGIC COMPARATOR                  | 027         | 0      | 2703        |
|                            |         |                         | 5011T          | 28480     | LOGIC TPDOUBLESHOOTING KIT        | 027         | 0      | 2545        |
| MEGOhmmETER                | 27      | FUNCTIONALLY COMRATIBLE |                |           |                                   |             |        |             |
|                            |         |                         | 0-1            | 88416     | OhmmETER PORTABLE                 | 029         | B      | 2033        |
|                            |         |                         | 1620           | 73386     | MEGOhmmETER                       | 029         | B      | 1930        |
|                            |         |                         | 269            | 04237     | TESTER VIBROTEST                  | 029         | B      | 2005        |
|                            |         |                         | 679            | 07239     | MEGOhmmETER                       | 029         | B      | 1366        |
|                            |         |                         | 7676-1         | 07239     | MEGOhmmETER                       | 025         | B      | 1424        |
|                            |         | AN/PSM-1                |                |           | INSULATION T S                    | 025         | B      | 3564        |
|                            |         | PAPTIALLY COMRATIBLE    |                |           |                                   |             |        |             |
|                            |         |                         | MIL-T-10314    | 65092     | T S OhmmETER                      | 035         | B      | 1990        |
|                            |         |                         | 1080           | 28009     | WHEATSTONE BRIDGE HIGH PRECISION  | 008         | B      | 1379        |
|                            |         |                         | 1620-B         | 73386     | MEGOhmmETER                       | 025         | B      | 1386        |
|                            |         |                         | 1644A          | 24655     | OhmmETER BRIDGE                   | 035         | B      | 1387        |
|                            |         |                         | 21J1052        | 07239     | TESTER INSULATION MEGGER          | 025         | B      | 1315        |
|                            |         |                         | 21158          | 07239     | OhmmETER LOW RESISTANCE           | 025         | B      | 1437        |
|                            |         |                         | 313            | 55026     | MULTIMETER                        | 032         | B      | 1345        |
|                            |         |                         | 36C            | 30119     | TESTER INSULATION                 | 025         | B      | 1317        |
|                            |         |                         | 41-001         | 30119     | T S PORTABLE HI-POT               | 025         | B      | 1318        |
|                            |         | AN/GSM-13A              | 7659240        | 19200     | ELECTRICAL CABLE TEST SET         | 077         | B      | 0193        |
|                            |         | AN/GSM-45               | 8213077        | 19200     | T S ELECTRICAL CABLE              | 077         | B      | 0196        |
|                            |         | AN/RRM-15               | 282-76         | 82680     | MULTIMETER                        | 032         | B      | 0241        |
|                            |         | MF-36B/U                | 610            | 96332     | OhmmETER                          | 035         | B      | 0703        |
|                            |         | ZM-54/U                 | LRO-1          | 05721     | OhmmETER                          | 035         | B      | 1282        |
| MICROWAVE LINK ANALYZER    | 56      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         |                         | 3737A          | 28480     | DOWN CONVERTER P Y                | 030         | C      | 3719        |
|                            |         | CV-3427(VII)/U          | 3730A-004      | 28480     | DOWN CONVERTER RF TO IF           | 030         | C      | 1676        |
|                            |         | DT-542/U                | 3703A          | 28480     | DETECTOR SIGNAL DELAY             | 030         | C      | 0561        |
|                            |         | DT-550/U                | 3703B          | 28480     | DETECTOR SIGNAL DELAY             | 030         | C      | 0562        |
|                            |         | MD-913(P)/U             | 3702A          | 28480     | ANALYZER MICROWAVE LINK           | 030         | C      | 0646        |
|                            |         | C-1736/U                | 3736A          | 28480     | PLUG IN DOWN CONVERTER OSCILLATOR | 030         | C      | 1677        |

## PART 1 TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE 10 NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MICROWAVE LINK ANALYZER    | 56      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | PL-1394/U               | 3705A          | 28480     | DETECTOR DIFFERENTIAL PHASE PLUG IN | 061         | C      | 1673        |
|                            |         | PL-1401/U               | 3738A          | 28480     | PLUG IN DOWN CONVERTER OSCILLATOR   | 030         | C      | 1678        |
|                            |         | PL-1405(V)1/U           | 3716A-004      | 28480     | BASEBAND TRANSMITTER                | 030         | C      | 1675        |
|                            |         | R-2049(V)1/U            | 3702B          | 28480     | RECEIVER 1F/8B                      | 061         | C      | 1672        |
|                            |         | T-1353(V)1/U            | 3710A-004      | 28480     | 1F 8B TRANSMITTER                   | 030         | C      | 1674        |
| MODULATION METER           | 57      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | AR-1C                   |                | 15196     | METER DEVIATION FM                  | 031         | C      | 1598        |
|                            |         | MM-120                  |                | 98282     | METER AMPLITUDE MODULATION          | 031         | C      | 1602        |
|                            |         | TF-934                  |                | 09553     | METER DEVIATION FM                  | 031         | C      | 1611        |
|                            |         | 934                     |                | 09553     | METER FM DEVIATION                  | 031         | C      | 1651        |
|                            |         | ME-57/U                 |                | 81865     | METER MODULATION                    | 031         | C      | 0656        |
|                            |         | ME-57A/U                |                | 81865     | METER MODULATION                    | 031         | C      | 0657        |
|                            |         | ME-57B/U                |                |           | MODULATION METER                    | 031         | C      | 3624        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | TF-2300-1               |                | 09553     | METER AM FM MODULATION              | 031         | C      | 1614        |
|                            |         | TF-2300A                |                | 09553     | METER MODULATION AM/FM              | 031         | C      | 1613        |
|                            |         | TF-7910                 |                | 09553     | METER CARRIER DEVIATION             | 031         | C      | 1610        |
| MULTIMETER A               | 28      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | APE-1292                |                | 04468     | TESTER CONTINUITY SHIELDING         | 118         | E      | 2416        |
|                            |         | TTS-28                  |                | 06819     | MEASURING SET                       | 032         | B      | 3683        |
|                            |         | 101-58F                 |                | 98202     | TESTER IGNITER CKT CONTINUITY       | 118         | E      | 1323        |
|                            |         | 160                     |                | 55026     | MULTIMETER                          | 032         | A      | 1325        |
|                            |         | 200                     |                | 80164     | VOLTMETER ELEC                      | 032         | B      | 1329        |
|                            |         | 230                     |                | 55026     | MULTIMETER                          | 032         | B      | 1332        |
|                            |         | 501905                  |                | 97424     | MULTIMETER                          | 032         | B      | 1441        |
|                            |         | 564                     |                | 65092     | OHMMETER VOLT                       | 032         | B      | 1356        |
|                            |         | 600                     |                | 60741     | VOLT-OHMMETER                       | 032         | B      | 1357        |
|                            |         | 630                     |                | 60741     | VOLT-OHM-MILLIAMMETER               | 032         | B      | 1360        |
|                            |         | 631                     |                | 60741     | MULTIMETER ELEC                     | 032         | B      | 1361        |
|                            |         | 666H                    |                | 60741     | MULTIMETER                          | 032         | B      | 1364        |
|                            |         | 666HH                   |                | 60741     | MULTIMETER                          | 032         | B      | 1365        |
|                            |         | 666RW669RL              |                | 60741     | MULTIMETER                          | 032         | B      | 1418        |
|                            |         | 7000                    |                | 96662     | AMMETER AC VOLT                     | 032         | B      | 1419        |
|                            |         | 779                     |                | 65092     | MULTIMETER                          | 032         | B      | 1370        |
|                            |         | 785                     |                | 65092     | MULTIMETER PORTABLE                 | 032         | B      | 1372        |
|                            |         | 801                     |                | 60741     | MULTIMETER                          | 032         | B      | 1373        |
|                            |         | 827X51                  |                | 24446     | MULTIMETER                          | 032         | B      | 1374        |
|                            |         | 850                     |                | 60741     | MULTIMETER                          | 032         | B      | 1375        |
|                            |         | 990                     |                | 60741     | T S INDUSTRIAL ANALYZER             | 032         | B      | 2520        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

QTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| QTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MULTIMETER A               | 28      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | AN/PSM-6                |                | 95325     | MULTIMETER                          | 032         | B      | 0254        |
|                            |         | AN/PSM-6A               |                | 95325     | MULTIMETER                          | 032         | B      | 0255        |
|                            |         | AN/PSM-6B               | 199-5002       | 95325     | MULTIMETER                          | 032         | B      | 0246        |
|                            |         | AN/URM-105              |                |           | MULTIMETER                          | 032         | B      | 0385        |
|                            |         | AN/URM-105B             |                | 06833     | MULTIMETER                          | 032         | B      | 0386        |
|                            |         | AN/LPM-105C             | R105           | 12510     | MULTIMETER                          | 032         | B      | 0387        |
|                            |         | AN/LSM-183              | 412A           | 28480     | MULTIMETER                          | 032         | B      | 3633        |
|                            |         | ME-26/U                 | 410A           | 28480     | MULTIMETER                          | 032         | B      | 0655        |
|                            |         | ME-26A/U                | 410B           | 28480     | MULTIMETER                          | 032         | B      | 0656        |
|                            |         | ME-26B/U                |                | 91820     | MULTIMETER                          | 032         | B      | 0657        |
|                            |         | ME-26C/U                | 260000         | 99395     | MULTIMETER                          | 032         | B      | 0658        |
|                            |         | ME-260/U                |                |           | MULTIMETER                          | 032         | B      | 0659        |
|                            |         | ME-262/U                | 305A           | 50423     | VOLTMETER                           | 076         | B      | 0692        |
|                            |         | ME-264/U                | 300M           | 50423     | VOLTMETER ELECTRONIC                | 076         | B      | 3628        |
|                            |         | ME-450/U                | 260-6          | 16902     | MULTIMETER                          | 032         | B      | 0709        |
|                            |         | ME-489/U                | 749            | 65092     | MULTIMETER                          | 032         | B      | 1368        |
|                            |         | ME-77                   |                |           | MULTITESTER                         | 032         | B      | 3626        |
|                            |         | ME-87/U                 | 280            | 65092     | MULTIMETER                          | 032         | B      | 0676        |
|                            |         | TS-26/TSM               |                |           | T S TELEPHONE                       | 032         | B      | 0953        |
|                            |         | TS-26A/TSM              | 121956         | 82066     | T S TELEPHONE                       | 032         | B      | 0954        |
|                            |         | TS-26B/TSM              |                | 88562     | T S TELEPHONE                       | 032         | B      | 0955        |
|                            |         | TS-297/U                |                | 71440     | MULTIMETER                          | 032         | B      | 0994        |
|                            |         | TS-352/U                | 972            | 65092     | MULTIMETER                          | 032         | B      | 0999        |
|                            |         | TS-352B/U               |                | 77221     | MULTIMETER                          | 032         | B      | 1030        |
|                            |         | TS-816/U                | KS-14103       | 64959     | T S TELEPHONE                       | 118         | B      | 1115        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | CH-7                    |                | 13688     | VOLT-AMMETER                        | 032         | B      | 3690        |
|                            |         | CT3                     |                | 31989     | TESTER CKT CONTINUITY AUDIBLE       | 118         | B      | 1293        |
|                            |         | OCHI                    |                | 03782     | VOLTMETER                           | 077         | B      | 2654        |
|                            |         | K1B                     |                |           | TESTER TUBE CONTRAST TRSER          | 072         | B      | 2547        |
|                            |         | PM-32                   |                | 65054     | MULTIMETER ELEC                     | 032         | B      | 1301        |
|                            |         | RS-3                    |                | 15566     | MULTIMETER                          | 032         | B      | 1303        |
|                            |         | RS-3A                   |                | 15566     | MULTIMETER                          | 032         | B      | 1304        |
|                            |         | RS-300                  |                | 15566     | METER AC VOLT AMMETER               | 001         | B      | 1305        |
|                            |         | SER-508B                |                | 82386     | TEST STANO GENERATOR LOAD           | 116         | B      | 2491        |
|                            |         | T-4                     |                | 88273     | TRACER SIGNAL                       | 118         | E      | 2496        |
|                            |         | TVCM-3                  |                | 25778     | METER OHM                           | 032         | B      | 1308        |
|                            |         | VA-35                   |                | 88416     | VOLTMETER AC                        | 076         | B      | 3693        |
|                            |         | VAT 26                  |                | 82386     | MULTITESTER GENERATORS & REGULATORS | 116         | B      | 3409        |
|                            |         | WV-98C                  |                | 49671     | MULTIMETER                          | 032         | B      | 1310        |
|                            |         | 1007                    |                | 15566     | MULTIMETER                          | 032         | B      | 1378        |
|                            |         | 12890                   |                | 91547     | VIBRATION ANALYZER ENGINE           | 111         | B      | 2052        |
|                            |         | 167                     |                | 80164     | MULTIMETER AUTORANGING DIGITAL      | 032         | B      | 1326        |



## PART 1 TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR      | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE 10 NO. |
|----------------------------|---------|----------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MULTIMETER A               | 2B      | PARTIALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                      | 1806A          | 24655     | VOLTMETER ELECTRONIC                | 032         | B      | 1624        |
|                            |         |                      | 195A           | 49671     | MULTIMETER                          | 032         | B      | 1328        |
|                            |         |                      | 201            | 04237     | MULTIMETER PORTABLE                 | 032         | B      | 1330        |
|                            |         |                      | 225-01-52638   | 52638     | T S GENERATOR & VOLTAGE REG AUTO    | 116         | B      | 3453        |
|                            |         |                      | 255            | 04237     | VIBROGROUND                         | 035         | B      | 2004        |
|                            |         |                      | 260-5          | 55026     | MULTIMETER                          | 032         | B      | 1336        |
|                            |         |                      | 27-37          | 01216     | TESTER ALTERNATOR VOLT AMP          | 116         | E      | 3519        |
|                            |         |                      | 301 SERIES G   | 64359     | TEST STAND AUTO GENERATOR & STARTER | 116         | E      | 3454        |
|                            |         |                      | 303            | 55026     | MULTIMETER                          | 032         | B      | 1340        |
|                            |         |                      | 310            | 60741     | MULTIMETER                          | 032         | B      | 1341        |
|                            |         |                      | 310C           | 60741     | MULTIMETER                          | 032         | B      | 1343        |
|                            |         |                      | 311            | 55026     | METER VOLT OHM                      | 032         | B      | 1344        |
|                            |         |                      | 313            | 55026     | MULTIMETER                          | 032         | B      | 1345        |
|                            |         |                      | 360B           | 14506     | MULTIMETER DIGITAL                  | 032         | B      | 1346        |
|                            |         |                      | 41-132         | 38474     | VOLTMETER DC                        | 077         | B      | 2037        |
|                            |         |                      | 427A           | 28480     | MULTIMETER                          | 032         | B      | 1353        |
|                            |         |                      | 445A           | 28569     | MULTIMETER                          | 032         | B      | 1355        |
|                            |         |                      | 51B            | 49932     | VOLTMETER ELECTROSTATIC             | 076         | B      | 1958        |
|                            |         |                      | 610FH          | 03438     | ANALYZER CKT                        | 118         | E      | 1359        |
|                            |         |                      | 622            | 65092     | VOLTMETER DC                        | 077         | B      | 1960        |
|                            |         |                      | 633VA1         | 65092     | MULTIMETER                          | 032         | B      | 1362        |
|                            |         |                      | 639 TYPE 3     | 65092     | T S ELECTRICAL POWER                | 039         | C      | 1749        |
|                            |         |                      | 689            | 65092     | OHMMETER                            | 035         | B      | 1962        |
|                            |         |                      | 901            | 50423     | VOLTMETER DC                        | 077         | B      | 3701        |
|                            |         | AN/GSM-13A           | 7659240        | 19200     | ELECTRICAL CABLE TEST SET           | 077         | B      | 0193        |
|                            |         | AN/GSM-45            | B213077        | 19200     | T S ELECTRICAL CABLE                | 077         | B      | 0196        |
|                            |         | AN/PRM-15            | 282-76         | 82680     | MULTIMETER                          | 032         | B      | 0241        |
|                            |         | AN/PSM-4             | 979            | 65092     | MULTIMETER                          | 032         | B      | 0247        |
|                            |         | AN/PSM-4A            |                | 55026     | MULTIMETER                          | 032         | B      | 0248        |
|                            |         | AN/PSM-4B            | 0-2667         |           | MULTIMETER                          | 032         | B      | 0249        |
|                            |         | AN/PSM-4C            |                | 91820     | MULTIMETER                          | 032         | B      | 0250        |
|                            |         | AN/PSM-4D            | 127160         | 19913     | MULTIMETER                          | 032         | B      | 0251        |
|                            |         | AN/PSM-4E            | PSM-4          | 12510     | MULTIMETER                          | 032         | B      | 0252        |
|                            |         | AN/PSM-4F            |                | 12510     | MULTIMETER                          | 032         | B      | 0253        |
|                            |         | AN/PSM-4G            | 11000-2        |           | MULTIMETER                          | 032         | B      | 0258        |
|                            |         | AN/USM-123           | 269            | 55026     | VOLT-OHM-AMMETER                    | 032         | B      | 3561        |
|                            |         | AN/USM-189           | 630A           | 60741     | MULTIMETER                          | 032         | B      | 0464        |
|                            |         | AN/USM-210           | 260            | 55026     | MULTIMETER                          | 032         | B      | 1335        |
|                            |         | AN/USM-223           |                | 28569     | MULTIMETER                          | 032         | B      | 0482        |
|                            |         | AN/USM-262           | 560T010-12     | 33441     | AMMETER                             | 001         | B      | 0495        |
|                            |         | AN/USM-98            | 801            | 89536     | VOLTMETER ELEC                      | 077         | B      | 0437        |
|                            |         | IS-185               | 433            | 65092     | VOLTMETER                           | 076         | B      | 0632        |
|                            |         | ME-147/U             | ESH            | 54085     | VOLTMETER                           | 076         | B      | 0677        |
|                            |         | ME-227/U             | MV-17C         | 85711     | VOLTMETER ELEC                      | 077         | B      | 0686        |
|                            |         | ME-227A/U            | 353            | 33430     | VOLTMETER ELEC                      | 077         | B      | 0687        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MULTIMETER A               | 28      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | ME-260/U                | 4038           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0691        |
|                            |         | ME-30/U                 | 400C           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0650        |
|                            |         | ME-30A/U                | 4000           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0661        |
|                            |         | ME-30B/U                | 513A           | 26687     | VOLTMETER ELEC                      | 076         | 8      | 0662        |
|                            |         | ME-303A/U               | 410C           | 28480     | VOLTMETER ELEC                      | 032         | 8      | 0694        |
|                            |         | ME-338/U                | 345            | 50423     | MULTIMETER                          | 032         | 8      | 0699        |
|                            |         | ME-368/U                | 610            | 96332     | OHMMETER                            | 035         | 8      | 0703        |
|                            |         | ME-370/U                | 427A W/11075A  | 28480     | MULTIMETER                          | 032         | 8      | 0704        |
|                            |         | ME-419/U                | 270            | 55026     | MULTIMETER ELEC                     | 032         | 8      | 0705        |
|                            |         | ME-448/U                | 4288           | 28480     | AMMETER                             | 002         | 8      | 3728        |
|                            |         | ME-452/U                | 12792 MOD 9    | 55026     | AMMETER PORTABLE OC                 | 003         | 8      | 0711        |
|                            |         | TS-27/TSM               | D166237        | 64959     | T S TELEPHONE                       | 032         | 8      | 0956        |
|                            |         | TS-27A/TSM              | 71-3003        |           | T S TELEPHONE                       | 032         | 8      | 0957        |
|                            |         | TS-27B/TSM              | ETS-278        | 00798     | T S TELEPHONE                       | 032         | 8      | 0958        |
|                            |         | TS-505/U                | 123            |           | MULTIMETER                          | 032         | 8      | 1035        |
|                            |         | TS-505A/U               | PL3000         | 77221     | MULTIMETER                          | 032         | 8      | 1036        |
|                            |         | TS-505B/U               | 011700         | 94066     | MULTIMETER                          | 032         | 8      | 1037        |
|                            |         | TS-505C/U               |                |           | MULTIMETER                          | 032         | 8      | 1038        |
|                            |         | TS-505D/U               |                |           | MULTIMETER                          | 032         | 8      | 1039        |
|                            |         | TS-505E/U               | EA0-197/129    | 02581     | MULTIMETER                          | 032         | 8      | 1040        |
|                            |         | ZM-54/U                 | LRQ-1          | 05721     | OHMMETER                            | 035         | 8      | 1282        |
| MULTIMETER B               | 29      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | DM501                   |                | 80009     | MULTIMETER DIGITAL                  | 032         | 8      | 3747        |
|                            |         | OPZ                     |                | 04244     | VOLTMETER OC                        | 077         | 8      | 3702        |
|                            |         | E9500B1400              |                | 15381     | MULTIMETER DIGITAL                  | 035         | 8      | 1296        |
|                            |         | PM-32                   |                | 65054     | MULTIMETER ELEC                     | 032         | 8      | 1301        |
|                            |         | RR-139-X                |                | 86270     | T S CURRENT RESISTANCE SEMIAUTOMATI | 029         | 8      | 2028        |
|                            |         | TO-700542               |                | 06840     | TEST CONSOLE BASIC                  | 032         | 8      | 3140        |
|                            |         | U-SP(400)               |                | 03782     | MULTIMETER                          | 032         | 8      | 1309        |
|                            |         | 167                     |                | 80164     | MULTIMETER AUTORANGING DIGITAL      | 032         | 8      | 1326        |
|                            |         | 2019                    |                | 03626     | DIGITAL MULTIMETER                  | 032         | 8      | 3704        |
|                            |         | 261C                    |                | 14031     | MULTIMETER DIGITAL                  | 032         | 8      | 1337        |
|                            |         | 3430A                   |                | 28480     | VOLTMETER DIGITAL                   | 078         | 8      | 1942        |
|                            |         | 3439A-C-28              |                | 28480     | VOLTOHM MILLIAMMETER MAINFRAME DIGI | 032         | 8      | 1292        |
|                            |         | 3444A                   |                | 28480     | OC MULTIFUNCTION UNIT               | 032         | 8      | 1395        |
|                            |         | 3444A-C15               |                | 28480     | P I UNIT ELEC TEST EQUIP            | 032         | 8      | 1291        |
|                            |         | 3445A                   |                | 28480     | VOLTMETER P I UNIT                  | 076         | 8      | 1944        |
|                            |         | 3445A-C06               |                | 28480     | AC OC RANGE P I UNIT                | 032         | 8      | 1978        |
|                            |         | 34508                   |                | 28480     | MULTIFUNCTION METER                 | 032         | 8      | 1397        |
|                            |         | 3608                    |                | 14506     | MULTIMETER DIGITAL                  | 032         | 8      | 1346        |
|                            |         | 4324                    |                | 21793     | MULTIMETER DIGITAL                  | 032         | 8      | 1406        |
|                            |         | 4440                    |                | 29318     | MULTIMETER                          | 032         | 8      | 1407        |
|                            |         | 570352127               |                | 21793     | VOLTMETER DIGITAL RATIO METER       | 078         | 8      | 2578        |

## PART 1 TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR      | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|----------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MULTIMETER A               | 28      | PARTIALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                      | 1806A          | 24655     | VOLTMETER ELECTRONIC                | 032         | B      | 1624        |
|                            |         |                      | 195A           | 49671     | MULTIMETER                          | 032         | B      | 1328        |
|                            |         |                      | 201            | 04237     | MULTIMETER PORTABLE                 | 032         | B      | 1330        |
|                            |         |                      | 225-01-52638   | 52638     | T S GENERATOR & VOLTAGE REG AUTO    | 116         | B      | 3453        |
|                            |         |                      | 255            | 04237     | VIBROGROUND                         | 035         | B      | 2004        |
|                            |         |                      | 260-5          | 55026     | MULTIMETER                          | 032         | B      | 1336        |
|                            |         |                      | 27-37          | 01216     | TESTER ALTERNATOR VOLT AMP          | 116         | E      | 3519        |
|                            |         |                      | 301 SERIES G   | 64359     | TEST STAND AUTO GENERATOR & STARTER | 116         | E      | 3454        |
|                            |         |                      | 303            | 55026     | MULTIMETER                          | 032         | B      | 1340        |
|                            |         |                      | 310            | 60741     | MULTIMETER                          | 032         | B      | 1341        |
|                            |         |                      | 310C           | 60741     | MULTIMETER                          | 032         | B      | 1343        |
|                            |         |                      | 311            | 55026     | METER VOLT OHM                      | 032         | B      | 1344        |
|                            |         |                      | 313            | 55026     | MULTIMETER                          | 032         | B      | 1345        |
|                            |         |                      | 360B           | 14506     | MULTIMETER DIGITAL                  | 032         | B      | 1346        |
|                            |         |                      | 41-132         | 38474     | VOLTMETER DC                        | 077         | B      | 2037        |
|                            |         |                      | 427A           | 28480     | MULTIMETER                          | 032         | B      | 1353        |
|                            |         |                      | 445A           | 28569     | MULTIMETER                          | 032         | B      | 1355        |
|                            |         |                      | 518            | 49932     | VOLTMETER ELECTROSTATIC             | 076         | B      | 1958        |
|                            |         |                      | 610FH          | 03438     | ANALYZER CKT                        | 118         | E      | 1359        |
|                            |         |                      | 622            | 65092     | VOLTMETER DC                        | 077         | B      | 1950        |
|                            |         |                      | 633VA1         | 65092     | MULTIMETER                          | 032         | B      | 1362        |
|                            |         |                      | 639 TYPE 3     | 65092     | T S ELECTRICAL POWER                | 039         | C      | 1749        |
|                            |         |                      | 689            | 65092     | OHMMETER                            | 035         | B      | 1962        |
|                            |         |                      | 901            | 50423     | VOLTMETER DC                        | 077         | B      | 3701        |
|                            |         | AN/GSM-13A           | 7659240        | 19200     | ELECTRICAL CABLE TEST SET           | 077         | B      | 0193        |
|                            |         | AN/GSM-45            | 8213077        | 19200     | T S ELECTRICAL CABLE                | 077         | B      | 0196        |
|                            |         | AN/PRM-15            | 282-76         | 82680     | MULTIMETER                          | 032         | B      | 0241        |
|                            |         | AN/PSM-4             | 979            | 65092     | MULTIMETER                          | 032         | B      | 0247        |
|                            |         | AN/PSM-4A            |                | 55026     | MULTIMETER                          | 032         | B      | 0248        |
|                            |         | AN/PSM-4B            | D-2667         |           | MULTIMETER                          | 032         | B      | 0249        |
|                            |         | AN/PSM-4C            |                | 91820     | MULTIMETER                          | 032         | B      | 0250        |
|                            |         | AN/PSM-4D            | 127160         | 19913     | MULTIMETER                          | 032         | B      | 0251        |
|                            |         | AN/PSM-4E            | PSM-4          | 12510     | MULTIMETER                          | 032         | B      | 0252        |
|                            |         | AN/PSM-4F            |                | 12510     | MULTIMETER                          | 032         | B      | 0253        |
|                            |         | AN/PSM-4G            | 11000-2        |           | MULTIMETER                          | 032         | B      | 0258        |
|                            |         | AN/USM-123           | 269            | 55026     | VOLT-OHM-AMMETER                    | 032         | B      | 3551        |
|                            |         | AN/USM-189           | 630A           | 60741     | MULTIMETER                          | 032         | B      | 0464        |
|                            |         | AN/USM-210           | 260            | 55026     | MULTIMETER                          | 032         | B      | 1335        |
|                            |         | AN/USM-223           |                | 28569     | MULTIMETER                          | 032         | B      | 0482        |
|                            |         | AN/USM-262           | 560T010-12     | 33441     | AMMETER                             | 001         | B      | 0495        |
|                            |         | AN/USM-98            | 801            | 89536     | VOLTMETER ELEC                      | 077         | B      | 0437        |
|                            |         | IS-185               | 433            | 65092     | VOLTMETER                           | 076         | B      | 0632        |
|                            |         | ME-147/U             | ESH            | 54085     | VOLTMETER                           | 076         | B      | 0677        |
|                            |         | ME-227/U             | MV-17C         | 85711     | VOLTMETER ELEC                      | 077         | B      | 0686        |
|                            |         | ME-227A/U            | 353            | 33430     | VOLTMETER ELEC                      | 077         | B      | 0687        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| MULTIMETER A               | 28      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | ME-260/U                | 4038           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0691        |
|                            |         | ME-30/U                 | 400C           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0650        |
|                            |         | ME-30A/U                | 4000           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0661        |
|                            |         | ME-30B/U                | 513A           | 26687     | VOLTMETER ELEC                      | 076         | 8      | 0662        |
|                            |         | ME-303A/U               | 410C           | 28480     | VOLTMETER ELEC                      | 032         | 8      | 0694        |
|                            |         | ME-338/U                | 345            | 50423     | MULTIMETER                          | 032         | 8      | 0699        |
|                            |         | ME-368/U                | 610            | 96332     | OHMMETER                            | 035         | 8      | 0703        |
|                            |         | ME-370/U                | 427A W/11075A  | 28480     | MULTIMETER                          | 032         | 8      | 0704        |
|                            |         | ME-419/U                | 270            | 55026     | MULTIMETER ELEC                     | 032         | 8      | 0705        |
|                            |         | ME-448/U                | 4288           | 28480     | AMMETER                             | 002         | 8      | 3728        |
|                            |         | ME-452/U                | 12792 MDD 9    | 55026     | AMMETER PORTABLE DC                 | 003         | 8      | 0711        |
|                            |         | TS-27/TSM               | 0166237        | 64959     | T S TELEPHONE                       | 032         | 8      | 0956        |
|                            |         | TS-27A/TSM              | 71-3003        |           | T S TELEPHONE                       | 032         | 8      | 0957        |
|                            |         | TS-27B/TSM              | ETS-278        | 00798     | T S TELEPHONE                       | 032         | 8      | 0958        |
|                            |         | TS-505/U                | 123            |           | MULTIMETER                          | 032         | 8      | 1035        |
|                            |         | TS-505A/U               | PL3000         | 77221     | MULTIMETER                          | 032         | 8      | 1036        |
|                            |         | TS-505B/U               | D11700         | 94066     | MULTIMETER                          | 032         | 8      | 1037        |
|                            |         | TS-505C/U               |                |           | MULTIMETER                          | 032         | 8      | 1038        |
|                            |         | TS-505D/U               |                |           | MULTIMETER                          | 032         | 8      | 1039        |
|                            |         | TS-505E/U               | EAD-197/129    | 02581     | MULTIMETER                          | 032         | 8      | 1040        |
|                            |         | ZM-54/U                 | LRQ-1          | 05721     | OHMMETER                            | 035         | 8      | 1282        |
| MULTIMETER B               | 29      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | DM501                   |                | 80009     | MULTIMETER DIGITAL                  | 032         | 8      | 3747        |
|                            |         | DPZ                     |                | 04244     | VOLTMETER DC                        | 077         | 8      | 3702        |
|                            |         | E95DD81400              |                | 15381     | MULTIMETER DIGITAL                  | 035         | 8      | 1296        |
|                            |         | PM-32                   |                | 65054     | MULTIMETER ELEC                     | 032         | 8      | 1301        |
|                            |         | RR-139-X                |                | 86270     | T S CURRENT RESISTANCE SEMIAUTOMATI | 029         | 8      | 2028        |
|                            |         | TD-700542               |                | 06840     | TEST CONSOLE BASIC                  | 032         | 8      | 3140        |
|                            |         | U-SP(MOD)               |                | 03782     | MULTIMETER                          | 032         | 8      | 1309        |
|                            |         | 167                     |                | 80164     | MULTIMETER AUTORANGING DIGITAL      | 032         | 8      | 1326        |
|                            |         | 2019                    |                | 03626     | DIGITAL MULTIMETER                  | 032         | 8      | 3704        |
|                            |         | 261C                    |                | 14031     | MULTIMETER DIGITAL                  | 032         | 8      | 1337        |
|                            |         | 3430A                   |                | 28480     | VOLTMETER DIGITAL                   | 078         | 8      | 1942        |
|                            |         | 3439A-C-28              |                | 28480     | VOLTOHM MILLIAMMETER MAINFRAME DIGI | 032         | 8      | 1292        |
|                            |         | 3444A                   |                | 28480     | DC MULTIFUNCTION UNIT               | 032         | 8      | 1395        |
|                            |         | 3444A-C15               |                | 28480     | P I UNIT ELEC TEST EQUIP            | 032         | 8      | 1291        |
|                            |         | 3445A                   |                | 28480     | VOLTMETER P I UNIT                  | 076         | 8      | 1944        |
|                            |         | 3445A-C06               |                | 28480     | AC DC RANGE P I UNIT                | 032         | 8      | 1978        |
|                            |         | 34508                   |                | 28480     | MULTIFUNCTION METER                 | 032         | 8      | 1397        |
|                            |         | 3608                    |                | 14506     | MULTIMETER DIGITAL                  | 032         | 8      | 1346        |
|                            |         | 4324                    |                | 21793     | MULTIMETER DIGITAL                  | 032         | 8      | 1406        |
|                            |         | 4440                    |                | 29318     | MULTIMETER                          | 032         | 8      | 1407        |
|                            |         | 5703S2127               |                | 21793     | VOLTMETER DIGITAL RATIO METER       | 078         | 8      | 2578        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE            | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------|-------------|--------|-------------|
| MULTIMETER B               | 29      | FUNCTIONALLY COMPATIBLE |                |           |                         |             |        |             |
|                            |         |                         | 7050           | 06811     | MULTIMETER              | 032         | B      | 1421        |
|                            |         |                         | 8000A-01       | 89536     | MULTIMETER DIGITAL      | 032         | B      | 1426        |
|                            |         |                         | 8200A          | 89536     | VOLTMETER DIGITAL       | 078         | B      | 1432        |
|                            |         |                         | 8200A          | 89536     | VOLTMETER DIGITAL       | 032         | B      | 1425        |
|                            |         |                         | 901            | 50423     | VOLTMETER OC            | 077         | B      | 3701        |
|                            |         |                         | 970A           | 28480     | MULTIMETER DIGITAL      | 032         | B      | 1377        |
|                            |         | AN/USM-303              | 300M           | 13913     | MULTIMETER              | 032         | B      | 0513        |
|                            |         | AN/USM-303A             | 300MA          | 13913     | MULTIMETER              | 032         | B      | 0514        |
|                            |         | ID-2101/U               | 34750A         | 28480     | P I MULTIMETER DISPLAY  | 032         | B      | 1439        |
|                            |         | ME-338/U                | 345            | 50423     | MULTIMETER              | 032         | B      | 0699        |
|                            |         | ME-370/U                | 427A W/11075A  | 28480     | MULTIMETER              | 032         | B      | 0704        |
|                            |         | ME-498/U                | 34702A         | 28480     | MULTIMETER              | 032         | B      | 3565        |
|                            |         | PL-1344/U               | 5265A          | 28480     | VOLTMETER DIGITAL P I   | 078         | B      | 0809        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         |                         | CH-7           | 13688     | VOLT-AMMETER            | 032         | B      | 3690        |
|                            |         |                         | OY-2401A-M19   | 06401     | VOLTMETER DIGITAL       | 078         | B      | 1981        |
|                            |         |                         | ELECCI         | 32590     | VOLTMETER               | 076         | B      | 1983        |
|                            |         |                         | ESV            | 32590     | VOLTMETER               | 076         | B      | 3268        |
|                            |         |                         | MIL-T-10314    | 65092     | T S OHMMETER            | 035         | B      | 1990        |
|                            |         |                         | M1             | 03782     | VOLTMETER ELEC          | 076         | B      | 1989        |
|                            |         |                         | P-93008        | 98438     | VOLTMETER               | 077         | B      | 1996        |
|                            |         |                         | PT-3L          | 89954     | VOLTMETER AC            | 076         | B      | 3686        |
|                            |         |                         | PX151          | 79500     | VOLTMETER PORTABLE      | 077         | B      | 2026        |
|                            |         |                         | PX5            | 79500     | VOLTMETER OC            | 077         | B      | 2025        |
|                            |         |                         | SI0558209      | 64959     | T S SWR IMPEDANCE       | 063         | C      | 3100        |
|                            |         |                         | X1             | 03626     | MULTIMETER DIGITAL      | 032         | B      | 1311        |
|                            |         |                         | 101            | 89497     | MULTIMETER BLASTING     | 032         | B      | 1322        |
|                            |         |                         | 111            | 55026     | VOLTMETER               | 077         | B      | 2040        |
|                            |         |                         | 1346           | 24655     | MICROVOLTAGE AUDIO FREQ | 076         | A      | 1927        |
|                            |         |                         | 1477           | 29318     | MULTIMETER              | 032         | B      | 1380        |
|                            |         |                         | 18008          | 24655     | VOLTMETER ELECTRONIC    | 076         | B      | 1933        |
|                            |         |                         | 1806A          | 24655     | VOLTMETER ELECTRONIC    | 032         | B      | 1624        |
|                            |         |                         | 195A           | 49671     | MULTIMETER              | 032         | B      | 1328        |
|                            |         |                         | 2008           | 80164     | VOLTMETER AC DC         | 076         | B      | 1975        |
|                            |         |                         | 24421          | 03626     | MULTIMETER ASSEMBLY     | 032         | B      | 1438        |
|                            |         |                         | 34698          | 28480     | MULTIMETER DIGITAL      | 032         | B      | 1398        |
|                            |         |                         | 355            | 50423     | VOLTMETER AC OC         | 076         | B      | 2015        |
|                            |         |                         | 41-132         | 38474     | VOLTMETER OC            | 077         | B      | 2037        |
|                            |         |                         | 414A           | 28480     | AUTOVOLTMETER           | 077         | B      | 3569        |
|                            |         |                         | 419A           | 28480     | VOLTMETER OC NULL       | 077         | B      | 1350        |
|                            |         |                         | 425A           | 28480     | AMMETER OC MICROVOLT    | 077         | B      | 1351        |
|                            |         |                         | 425AR          | 28480     | AMMETER OC MICROVOLT    | 077         | B      | 1352        |
|                            |         |                         | 430            | 65092     | MILLIVOLT-AMMETER DC    | 032         | B      | 1354        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL BURROSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR        | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE            | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|------------------------|----------------|-----------|-------------------------|-------------|--------|-------------|
| MULTIMETER B               | 29      | PARTIALLY COMPARATIBLE |                |           |                         |             |        |             |
|                            |         |                        | 430            | 65092     | MILLIVOLTMETER DC       | 077         | 8      | 2021        |
|                            |         |                        | 500-01         | 13643     | VOLTMETER DIGITAL       | 078         | 8      | 1957        |
|                            |         |                        | 501905         | 97424     | MULTIMETER              | 032         | 8      | 1441        |
|                            |         |                        | 5400           | 21793     | MULTIMETER              | 032         | 8      | 1415        |
|                            |         |                        | 5640           | 21793     | MULTIMETER DIGITAL      | 078         | 8      | 1416        |
|                            |         |                        | 600            | 60741     | VOLT-OHMMETER           | 032         | 8      | 1357        |
|                            |         |                        | 630            | 60741     | VOLT-OHM-MILLIAMMETER   | 032         | 8      | 1360        |
|                            |         |                        | 666H           | 60741     | MULTIMETER              | 032         | 8      | 1364        |
|                            |         |                        | 666HH          | 60741     | MULTIMETER              | 032         | 8      | 1365        |
|                            |         |                        | 666RW669PL     | 60741     | MULTIMETER              | 032         | 8      | 1418        |
|                            |         |                        | 689            | 65092     | OHMMETER                | 035         | 8      | 1962        |
|                            |         |                        | 7000           | 96662     | AMMETER AC VOLT         | 032         | 8      | 1419        |
|                            |         |                        | 7100A          | 13989     | VOLTMETER               | 078         | 8      | 1422        |
|                            |         |                        | 7300A631       | 98438     | MULTIMETER DIGITAL      | 032         | 8      | 2048        |
|                            |         |                        | 7630           | 98438     | MULTIMETER DIGITAL      | 032         | 8      | 1423        |
|                            |         |                        | 779            | 65092     | MULTIMETER              | 032         | 8      | 1370        |
|                            |         |                        | 785            | 65092     | MULTIMETER PORTABLE     | 032         | 8      | 1372        |
|                            |         |                        | 801            | 60741     | MULTIMETER              | 032         | 8      | 1373        |
|                            |         |                        | 8100A-01       | 89536     | MULTIMETER DIGITAL      | 032         | 8      | 1428        |
|                            |         |                        | 81008          | 89536     | MULTIMETER DIGITAL      | 032         | 8      | 1429        |
|                            |         |                        | 8120A          | 89536     | MULTIMETER DIGITAL      | 032         | 8      | 1430        |
|                            |         |                        | 8125A          | 89536     | MULTIMETER              | 032         | 8      | 1431        |
|                            |         |                        | 8300A          | 89536     | MULTIMETER DIGITAL      | 032         | 8      | 1433        |
|                            |         |                        | 8350A          | 89536     | MULTIMETER DIGITAL      | 032         | 8      | 1434        |
|                            |         |                        | 8400A          | 89536     | VOLTMETER DIGITAL       | 078         | 8      | 1435        |
|                            |         |                        | 990            | 60741     | T S INDUSTRIAL ANALYZER | 032         | 8      | 2520        |
|                            |         | AN/LSM-319A            | 269-2          | 55026     | MULTIMETER DIGITAL      | 032         | 8      | 3718        |
|                            |         | AN/USM-98              | 801            | 89536     | VOLTMETER ELEC          | 077         | 8      | 0437        |
|                            |         | IS-185                 | 433            | 65092     | VOLTMETER               | 076         | 8      | 0632        |
|                            |         | ME-147/U               | ESH            | 54085     | VOLTMETER               | 076         | 8      | 0677        |
|                            |         | ME-202/U               | 803            | 89536     | VOLTMETER ELEC          | 121         | 8      | 0682        |
|                            |         | ME-202R/U              | 803R           | 89536     | VOLTMETER ELEC          | 121         | 8      | 0683        |
|                            |         | ME-227/U               | MV-17C         | 85711     | VOLTMETER ELEC          | 077         | 8      | 0686        |
|                            |         | ME-227A/U              | 353            | 33430     | VOLTMETER ELEC          | 077         | 8      | 0687        |
|                            |         | ME-26/U                | 410A           | 28480     | MULTIMETER              | 032         | 8      | 0655        |
|                            |         | ME-26A/U               | 4108           | 28480     | MULTIMETER              | 032         | 8      | 0656        |
|                            |         | ME-268/U               |                | 91820     | MULTIMETER              | 032         | 8      | 0657        |
|                            |         | ME-26C/U               | 260000         | 99395     | MULTIMETER              | 032         | 8      | 0658        |
|                            |         | ME-260/U               |                |           | MULTIMETER              | 032         | 8      | 0659        |
|                            |         | ME-260/U               | 4038           | 28480     | VOLTMETER ELEC          | 076         | 8      | 0691        |
|                            |         | ME-262/U               | 305A           | 50423     | VOLTMETER               | 076         | 8      | 0692        |
|                            |         | ME-264/U               | 300M           | 50423     | VOLTMETER ELECTRONIC    | 076         | 8      | 3628        |
|                            |         | ME-30/U                | 400C           | 28480     | VOLTMETER ELEC          | 076         | 8      | 0650        |
|                            |         | ME-30A/U               | 4000           | 28480     | VOLTMETER ELEC          | 076         | 8      | 0661        |
|                            |         | ME-308/U               | 513A           | 26687     | VOLTMETER ELEC          | 076         | 8      | 0652        |



## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME    | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                   | FAMILY CODE | GP LTR | TMOE ID NO. |
|-------------------------------|---------|-------------------------|----------------|-----------|--------------------------------|-------------|--------|-------------|
| MULTIMETER B                  | 29      | PARTIALLY COMPATIBLE    |                |           |                                |             |        |             |
|                               |         | ME-303A/U               | 410C           | 28480     | VOLTMETER ELEC                 | 032         | B      | 0694        |
|                               |         | ME-333/U                | 217A           | 16335     | MULTIMETER                     | 032         | B      | 0696        |
|                               |         | ME-334/U                | 309-1          | 00638     | VOLTMETER ELEC                 | 076         | B      | 0697        |
|                               |         | ME-368/U                | 610            | 96332     | OHMMETER                       | 035         | B      | 0733        |
|                               |         | ME-419/U                | 270            | 55026     | MULTIMETER ELEC                | 032         | B      | 0735        |
|                               |         | ME-444/U                | 320A           | 50423     | VOLTMETER ELEC                 | 076         | B      | 0708        |
|                               |         | ME-448/U                | 428B           | 28480     | AMMETER                        | 002         | B      | 3728        |
|                               |         | ME-450/U                | 260-6          | 16902     | MULTIMETER                     | 032         | B      | 0709        |
|                               |         | ME-452/U                | 12792 MOD 9    | 55026     | AMMETER PORTABLE OC            | 003         | B      | 0711        |
|                               |         | ME-489/U                | 749            | 65092     | MULTIMETER                     | 032         | B      | 1368        |
|                               |         | ME-77                   |                |           | MULTITESTER                    | 032         | B      | 3626        |
|                               |         | ME-87/U                 | 280            | 65092     | MULTIMETER                     | 032         | B      | 0676        |
|                               |         | TS-26/TSM               |                |           | T S TELEPHONE                  | 032         | B      | 0953        |
|                               |         | TS-26A/TSM              | 121956         | 82066     | T S TELEPHONE                  | 032         | B      | 0954        |
|                               |         | TS-26B/TSM              |                | 88562     | T S TELEPHONE                  | 032         | B      | 0955        |
|                               |         | TS-2843/U               | 883AB          | 89536     | VOLTMETER                      | 121         | B      | 1210        |
|                               |         | TS-297/U                |                | 71440     | MULTIMETER                     | 032         | B      | 0994        |
|                               |         | TS-340/U                | 182092         | 65092     | VOLTMETER                      | 076         | B      | 0998        |
|                               |         | TS-352/U                | 972            | 65092     | MULTIMETER                     | 032         | B      | 0999        |
|                               |         | TS-352B/U               |                | 77221     | MULTIMETER                     | 032         | B      | 1000        |
|                               |         | TS-443/U                | 1              | 65092     | VOLTMETER                      | 077         | B      | 1021        |
|                               |         | TS-505/U                | 123            |           | MULTIMETER                     | 032         | B      | 1035        |
|                               |         | TS-505A/U               | PL3000         | 77221     | MULTIMETER                     | 032         | B      | 1036        |
|                               |         | TS-505B/U               | D11700         | 94066     | MULTIMETER                     | 032         | B      | 1037        |
|                               |         | TS-505C/U               |                |           | MULTIMETER                     | 032         | B      | 1038        |
|                               |         | TS-5050/U               |                |           | MULTIMETER                     | 032         | B      | 1039        |
|                               |         | TS-505E/U               | EAO-197/129    | 02581     | MULTIMETER                     | 032         | B      | 1040        |
|                               |         | TS-B16/U                | KS-14103       | 64959     | T S TELEPHONE                  | 118         | B      | 1115        |
| NOISE GENERATOR, TWELVE CHANN | 59      | FUNCTIONALLY COMPATIBLE |                |           |                                |             |        |             |
|                               |         | SG-1114/U               | TM-7B16        | 09553     | GENERATOR INTERFERENCE         | 034         | C      | 1923        |
|                               |         | SG-1114/U               | TM-7B16A       | 09553     | TWELVE CHANNEL NOISE GENERATOR | 034         | C      | 1922        |
| NOISE POWER RATIO TEST SET    | 58      | FUNCTIONALLY COMPATIBLE |                |           |                                |             |        |             |
|                               |         | AN/GSM-161              | 0A2090         | 09553     | T S NOISE LOADING              | 034         | C      | 0208        |
|                               |         | AN/GSM-161A             | 0A2090A        | 09553     | T S NOISE LOADING              | 034         | C      | 0209        |
|                               |         | O-1321/GSM              | TM7794/4       | 09553     | OSCILLATOR RF                  | 034         | C      | 1921        |



## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SREC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------------|-------------|--------|-------------|
| NOISE POWER RATIO TEST SET | 58      | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         | PL-1244/U               | 1402           | 27591     | GENERATOR SIGNAL                   | 055         | A      | 1835        |
| OHMMETER                   | 30      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 362            | 55026     | OHMMETER                           | 035         | B      | 1347        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | B-2500         | 00426     | T S INSULATION BREAKDOWN           | 025         | B      | 1288        |
|                            |         |                         | MIL-T-10314    | 65092     | T S OHMMETER                       | 035         | B      | 1990        |
|                            |         |                         | RO-152         | 80740     | METER PH                           | 035         | B      | 2172        |
|                            |         |                         | 1050           | 28009     | WHEATSTONE BRIDGE                  | 008         | B      | 1926        |
|                            |         |                         | 1104118-1      | 18876     | OHMMETER LOW RESISTANCE            | 035         | B      | 2058        |
|                            |         |                         | 617            | 54294     | BRIDGE RESISTANCE                  | 035         | B      | 1959        |
|                            |         |                         | 72-439         | 07239     | KELVIN BRIDGE                      | 035         | B      | 1320        |
|                            |         | ME-368/U                | 610            | 96332     | OHMMETER                           | 035         | B      | 0703        |
|                            |         | ZM-54/U                 | LRO-1          | 05721     | OHMMETER                           | 035         | B      | 1282        |
| OHMMETER, EARTH TESTER     | 31      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 280            | 04237     | TESTER GROUND RESISTANCE           | 035         | B      | 1339        |
|                            |         | TS-3221/U               | 63220          | 07239     | T S NULL BALANCE EARTH TESTER      | 035         | B      | 1237        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | B-2500         | 00426     | T S INSULATION BREAKDOWN           | 025         | B      | 1288        |
|                            |         |                         | RO-152         | 80740     | METER PH                           | 035         | B      | 2172        |
|                            |         |                         | 255            | 04237     | VIBROGROUND                        | 035         | B      | 2004        |
|                            |         |                         | 617            | 54294     | BRIDGE RESISTANCE                  | 035         | B      | 1959        |
|                            |         |                         | 72-439         | 07239     | KELVIN BRIDGE                      | 035         | B      | 1320        |
| OPTICAL TEST SET           | 50      | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | K221           | 34228     | AUTOCOLLIMATOR                     | 119         | E      | 3271        |
|                            |         |                         | 1415-U8        | 92434     | METER SPOT BRIGHTNESS              | 119         | E      | 1716        |
| OSCILLOGRAPHIC RECORDER A  | 91      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | AW-55-65C      | 72264     | RECORDER FREQUENCY                 | 064         | E      | 1540        |
|                            |         |                         | AW-60-400C     | 72264     | VOLTMETER GRAPHIC                  | 064         | E      | 1541        |
|                            |         |                         | 322A           | 15859     | OSCILLOGRAPH                       | 036         | E      | 1536        |
|                            |         |                         | 680            | 28480     | RECORDER COORDINATE DATA SPIR CHAR | 064         | E      | 3369        |
|                            |         | AM-6681(V)1/U           | BB08A          | 28480     | P I RECORDER                       | 036         | E      | 1461        |
|                            |         | AN/USM-46               | 8L-202-931     | 96795     | OSCILLOGRAPH SET MAGNETIC          | 036         | E      | 0425        |
|                            |         | RO-425/U                | 322            | 28480     | RECORDER DUAL CHANNEL              | 064         | E      | 0815        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

DTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| DTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| OSCILLOGRAPHIC RECORDER A  | 51      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | RD-460(V)1/U            | 77028          | 28480     | RECORDER DUAL CHANNEL               | 036         | E      | 0816        |
|                            |         | TS-5848/U               | AW SERIES 400  | 72264     | MILLIAMMETER RECORDER               | 064         | E      | 1052        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | LAV8600        | 15566     | VOLTMETER RECORDING AC              | 064         | E      | 1988        |
|                            |         |                         | 906            | 28009     | VISICORDER OSCILLOGRAPH RECORDER    | 036         | E      | 3648        |
|                            |         |                         | 906A           | 72264     | OSCILLOGRAPH RECORDER               | 036         | E      | 1550        |
|                            |         | AN/USM-365(V)1          | 77068/OPT14    | 28480     | RECORDER THERMAL OSCILLOGRAPH       | 036         | E      | 0539        |
|                            |         | IM-156-1008N-2          |                | 15859     | OSCILLOGRAPH                        | 036         | E      | 1549        |
|                            |         | PL-1306A/U              | 8803A          | 28480     | P I PREAMPLIFIER                    | 036         | E      | 3732        |
|                            |         | PL-1390/U               | 8801A          | 28480     | P I PREAMPLIFIER LOW GAIN DC        | 036         | E      | 1459        |
|                            |         | RD-426/U                | 7418A          | 28480     | OSCILLOGRAPHIC RECORDER             | 036         | E      | 1547        |
|                            |         | RD-49/U                 | AW             | 72264     | RECORDER MILLIAMMETER               | 064         | E      | 0812        |
|                            |         | RD-189/G                | RD2642-00      | 96795     | OSCILLOGRAPH                        | 036         | E      | 0813        |
| OSCILLOGRAPHIC RECORDER B  | 52      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | RD25522-2D     | 96795     | RECORDER DUAL CHANNEL               | 036         | E      | 1553        |
|                            |         | AN/USM-365(V)1          | 77068/OPT14    | 28480     | RECORDER THERMAL OSCILLOGRAPH       | 036         | E      | 0539        |
|                            |         | PD-426/U                | 7418A          | 28480     | OSCILLOGRAPHIC RECORDER             | 036         | E      | 1547        |
|                            |         | RD-189/G                | RD2642-00      | 96795     | OSCILLOGRAPH                        | 036         | E      | 0813        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | AW-55-65C      | 72264     | RECORDER FREQUENCY                  | 064         | E      | 1540        |
|                            |         |                         | AW-6D-400C     | 72264     | VOLTMETER GRAPHIC                   | 064         | E      | 1541        |
|                            |         |                         | LAV8600        | 15566     | VOLTMETER RECORDING AC              | 064         | E      | 1988        |
|                            |         |                         | 322A           | 15859     | OSCILLOGRAPH                        | 036         | E      | 1536        |
|                            |         |                         | 680            | 28480     | RECORDER COORDINATE DATA STRIP CHAR | 064         | E      | 3369        |
|                            |         |                         | 906            | 28009     | VISICORDER OSCILLOGRAPH RECORDER    | 036         | E      | 3648        |
|                            |         |                         | 906A           | 72264     | OSCILLOGRAPH RECORDER               | 036         | E      | 1550        |
|                            |         | AM-6681(V)1/U           | 8808A          | 28480     | P I RECORDER                        | 036         | F      | 1451        |
|                            |         | IM-156-1008N-2          |                | 15859     | OSCILLOGRAPH                        | 036         | E      | 1549        |
|                            |         | PL-1306A/U              | 8803A          | 28480     | P I PREAMPLIFIER                    | 036         | E      | 3732        |
|                            |         | PL-1390/U               | 8801A          | 28480     | P I PREAMPLIFIER LOW GAIN DC        | 036         | E      | 1459        |
|                            |         | RD-49/U                 | AW             | 72264     | RECORDER MILLIAMMETER               | 064         | E      | 0812        |
|                            |         | RD-425/U                | 322            | 28480     | RECORDER DUAL CHANNEL               | 064         | E      | 0815        |
|                            |         | RD-460(V)1/U            | 77028          | 28480     | RECORDER DUAL CHANNEL               | 036         | E      | 0816        |
|                            |         | TS-5848/U               | AW SERIES 400  | 72264     | MILLIAMMETER RECORDER               | 064         | E      | 1052        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

DTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| DTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                 | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------|-------------|--------|-------------|
| PHASE JITTER METER         | 78      | FUNCTIONALLY COMPATIBLE |                |           |                              |             |        |             |
|                            |         |                         | DA 410         | 65092     | ANALYZER TRANSFER FUNCTION   | 037         | O      | 1546        |
|                            |         |                         | TTI-1200       | 50137     | T S PHASE JITTER             | 037         | O      | 2366        |
|                            |         |                         | 1201A          | 50137     | MONITOR HIT                  | 037         | O      | 2223        |
|                            |         | ME-490/U                | 48 (A3)        | 50319     | METER PHASE JITTER           | 037         | O      | 1629        |
| PHASE METER                | 60      | FUNCTIONALLY COMPATIBLE |                |           |                              |             |        |             |
|                            |         |                         | 202-1          | 90101     | METER PHASE                  | 038         | C      | 1526        |
|                            |         |                         | 250            | 05606     | INDICATOR PHASE ANGLE        | 038         | C      | 1530        |
|                            |         |                         | 3575A          | 28480     | GAIN/PHASE METER             | 038         | C      | 1488        |
|                            |         |                         | 740            | 23338     | METER PHASE ANGLE            | 038         | C      | 1514        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                              |             |        |             |
|                            |         |                         | W-3            |           | ANALYZER IMPEDANCE COMPONENT | 038         | C      | 1560        |
| POWER METER, RF            | 61      | FUNCTIONALLY COMPATIBLE |                |           |                              |             |        |             |
|                            |         |                         | 61             | 70998     | WATTMETER RF THERMALINE      | 040         | C      | 1764        |
|                            |         |                         | 611            | 70998     | WATTMETER RF ABSORPTION      | 040         | C      | 1745        |
|                            |         |                         | 612            | 70998     | WATTMETER RADIO FREQ         | 040         | C      | 1746        |
|                            |         | AN/URM-182              | 4110-102       | 70998     | T S RADIO FREQ POWER         | 040         | C      | 0405        |
|                            |         | AN/URM-43               | 61             | 70998     | RF WATTMETER                 | 040         | C      | 3637        |
|                            |         | AN/URM-43A              |                | 91161     | RF WATTMETER                 | 040         | C      | 3608        |
|                            |         | ME-11/U                 | 750-3          | 70998     | WATTMETER RF                 | 040         | C      | 0648        |
|                            |         | ME-11A/U                |                | 91161     | WATTMETER RF                 | 040         | C      | 0649        |
|                            |         | ME-118/U                |                | 02230     | WATTMETER RF                 | 040         | C      | 0650        |
|                            |         | MF-11C/U                |                | 91161     | WATTMETER RF                 | 040         | C      | 0651        |
|                            |         | MF-162/U                | 432            | 65092     | WATTMETER                    | 039         | C      | 0680        |
|                            |         | MF-69/U                 | 6151-000       | 70998     | WATTMETER                    | 040         | C      | 3625        |
|                            |         | ME-82/U                 | MM-265         | 65092     | WATTMETER                    | 040         | C      | 0674        |
|                            |         | TS-118/AP               |                | 70998     | T S WATTMETER                | 040         | C      | 0960        |
|                            |         | TS-118A/AP              | 693011         | 70998     | RADIO FREQ WATTMETER         | 040         | C      | 0961        |
|                            |         | TS-2609/U               | 4110-000       | 70998     | T S RADIO FREQ POWER         | 040         | C      | 1199        |
|                            |         | TS-2609A/U              | 4110-000       | 70998     | T S RADIO FREQ POWER         | 040         | C      | 1200        |
|                            |         | TS-730/URM              | 57-560-1       | 01723     | BRIDGE SUMMATION             | 040         | C      | 1097        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                              |             |        |             |
|                            |         |                         | 1223           | 94668     | METER POWER                  | 040         | C      | 3647        |
|                            |         |                         | 164A           | 94668     | WATTMETER                    | 082         | C      | 1767        |
|                            |         |                         | 310            | 65092     | WATTMETER                    | 039         | C      | 1771        |
|                            |         |                         | 89008          | 28480     | CALIBRATOR PEAK POWER        | 040         | C      | 2579        |
|                            |         | AN/URM-86               | 67C            | 70998     | WATTMETER                    | 040         | C      | 0373        |
|                            |         | AN/URM-86A              | 6733-00        | 70998     | WATTMETER                    | 040         | C      | 0374        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFP. MODEL NO. | MFR. CODE | NOMENCLATURE                    | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------------|-------------|--------|-------------|
| POWER METER, PF            | 61      | PARTIALLY COMPATIBLE    |                |           |                                 |             |        |             |
|                            |         | AN/USM-161              | 457            | 11332     | T S RADIO FREQ POWER            | 040         | C      | 0452        |
|                            |         | AN/USM-260              | 431C           | 28480     | T S RADIO FREQ POWER            | 041         | C      | 0493        |
|                            |         | ME-6/U                  | 300A           | 50423     | VOLTMETER ELEC                  | 076         | 8      | 0647        |
| POWER METER, RF IN-LINE    | 62      | FUNCTIONALLY COMPATIBLE |                |           |                                 |             |        |             |
|                            |         |                         | 1223           | 94668     | METER POWER                     | 040         | C      | 3647        |
|                            |         |                         | 164A           | 94668     | WATTMETER                       | 082         | C      | 1767        |
|                            |         | AN/URM-120              | SK13009-4      | 54778     | WATTMETER                       | 082         | C      | 0391        |
|                            |         | AN/URM-86               | 67C            | 70998     | WATTMETER                       | 040         | C      | 0373        |
|                            |         | AN/URM-86A              | 6733-00        | 70998     | WATTMETER                       | 040         | C      | 0374        |
|                            |         | ME-165/G                | 52-500         | 12991     | STANDING WAVE RATIO POWER METER | 063         | C      | 0681        |
|                            |         | TS-1285/URM-120         | 164FMN         | 94668     | WATTMETER                       | 082         | C      | 1138        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                 |             |        |             |
|                            |         |                         | 310            | 65092     | WATTMETER                       | 039         | C      | 1771        |
|                            |         | AN/URM-167              | 6151A          | 70998     | T S RF POWER                    | 040         | C      | 0399        |
|                            |         | AN/USM-298              | 43             | 70998     | T S RADIO FREQ POWER            | 082         | C      | 0512        |
|                            |         | ME-441/U                | 432A           | 28480     | METER POWER                     | 041         | C      | 0707        |
| POWER METER, SHF           | 63      | FUNCTIONALLY COMPATIBLE |                |           |                                 |             |        |             |
|                            |         |                         | 430B           | 28480     | METER POWER                     | 041         | C      | 1728        |
|                            |         |                         | 432A           | 28480     | METER POWER                     | 041         | C      | 1729        |
|                            |         |                         | 432B           | 28480     | METER POWER                     | 041         | C      | 1730        |
|                            |         |                         | 435A           | 28480     | METER POWER                     | 041         | C      | 1732        |
|                            |         |                         | 454A           | 11332     | POWER METER RADIO FREQ          | 041         | C      | 3678        |
|                            |         | AN/URM-988              | 430CW/477      | 28480     | WATTMETER                       | 040         | C      | 0380        |
|                            |         | AN/USM-193              | 431B           | 28480     | RADIO FREQUENCY POWER T S       | 041         | C      | 3677        |
|                            |         | AN/USM-260              | 431C           | 28480     | T S RADIO FREQ POWER            | 041         | C      | 0493        |
|                            |         | ME-441/U                | 432A           | 28480     | METER POWER                     | 041         | C      | 0707        |
|                            |         | ME-51/UP                | GS-15094       | 65092     | T S FREQ COUNTER                | 041         | C      | 0652        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                 |             |        |             |
|                            |         |                         | 450            | 11332     | WATTMETER                       | 041         | C      | 1734        |
|                            |         |                         | 89008          | 28480     | CALIBRATOR PEAK POWER           | 040         | C      | 2579        |
|                            |         | AN/URM-167              | 6151A          | 70998     | T S RF POWER                    | 040         | C      | 0399        |
|                            |         | AN/USM-161              | 457            | 11332     | T S RADIO FREQ POWER            | 040         | C      | 0452        |
|                            |         | TS-125/AP               |                | 82057     | T S RADIO FREQ POWER            | 040         | C      | 0962        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

QTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| QTS ETE SPECIFICATION NAME | SPEC ND | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| Q-METER                    | 53      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | TS-617/U                | 1604           | 04901     | METER Q                             | 042         | E      | 1063        |
|                            |         | TS-617B/U               | TS617          | 51865     | METER Q                             | 042         | E      | 1064        |
|                            |         | TS-617C/U               |                | 51865     | Q METER                             | 042         | E      | 1055        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | TF-1245        | 09553     | Q METER                             | 042         | E      | 1558        |
|                            |         |                         | 190A           | 28480     | Q METER                             | 042         | E      | 1525        |
|                            |         |                         | 260-A          | 04901     | Q METER                             | 042         | E      | 1531        |
| SEMICONDUCTOR TEST SET     | 94      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | 240            | 93346     | T S SEMICONDUCTOR                   | 045         | E      | 2508        |
|                            |         |                         | 300            | 96641     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 3051        |
|                            |         |                         | 650            | 55026     | TESTER TRANSISTOR                   | 045         | E      | 2516        |
|                            |         |                         | 870            | 28569     | TESTER TRANSISTOR AND DIODE         | 045         | E      | 2518        |
|                            |         |                         | 890A           | 28569     | TESTER TRANSISTOR                   | 045         | E      | 2519        |
|                            |         | AN/USM-171              |                | 93346     | IN CIRCUIT SEMICONDUCTOR TESTER     | 045         | E      | 3615        |
|                            |         | AN/USM-206              | 245MA          | 93346     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 0472        |
|                            |         | AN/USM-206A             | 902-470        | 28569     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 0473        |
|                            |         | TS-1100/U               |                | 94668     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 1131        |
|                            |         | TS-1100A/U              |                | 93346     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 1132        |
|                            |         | TS-1836/U               | 219B           | 94668     | T S TRANSISTOR                      | 045         | E      | 1158        |
|                            |         | TS-1836A/U              | 219C           | 24624     | T S TRANSISTOR                      | 045         | F      | 1169        |
|                            |         | TS-1836B/U              | 245MF          | 24624     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 1170        |
|                            |         | TS-1836C/U              |                | 34639     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 1171        |
|                            |         | TS-1836D/U              |                | 8005R     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 3716        |
|                            |         | TS-2086/U               | TT-22          | 14558     | T S TRANSISTOR                      | 045         | E      | 1193        |
|                            |         | TS-268/U                | TMN-10RL       | 80077     | T S CRYSTAL RECTIFIER               | 045         | E      | 0988        |
|                            |         | TS-268A/U               | C11603A        | 80077     | T S CRYSTAL RECTIFIER               | 045         | E      | 0989        |
|                            |         | TS-268B/U               | C11603A        | 80077     | T S CRYSTAL RECTIFIER               | 045         | E      | 0990        |
|                            |         | TS-268C/U               |                | 74096     | T S CRYSTAL RECTIFIER               | 045         | E      | 0991        |
|                            |         | TS-268D/U               | J-105          | 82854     | T S CRYSTAL RECTIFIER               | 045         | E      | 0992        |
|                            |         | TS-268E/U               | TS-268         | 94518     | T S CRYSTAL RECTIFIER               | 045         | E      | 0993        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | K18            |           | TESTER TUBE CONTRAST TRFR           | 072         | B      | 2547        |
|                            |         |                         | 575            | 80009     | OSCILLOSCOPE TRANSISTOR CURVETRACER | 045         | E      | 2514        |
|                            |         |                         | 576            | 80009     | TRACEP SEMICONDUCTOR CURVE          | 045         | E      | 2515        |
|                            |         |                         | 7620           | 92860     | T S SEMICONDUCTOR DEVICE            | 045         | E      | 2696        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR | MFR. MODEL NO.          | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTP | TMDE ID NO. |
|----------------------------|---------|-----------------|-------------------------|-----------|-----------------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, HF       | 3       |                 | FUNCTIONALLY COMPATIBLE |           |                                   |             |        |             |
|                            |         |                 | M184-4                  | 16469     | GENERATOR SIGNAL                  | 051         | A      | 3276        |
|                            |         |                 | 10046503                | 18876     | OSCILLATOR RADIO FREQUENCY        | 051         | A      | 1597        |
|                            |         |                 | 10182039                | 04164     | GENERATOR SIGNAL                  | 051         | A      | 2095        |
|                            |         | AN/URM-103      | SM-0-630500             | 82199     | GENERATOR SIGNAL                  | 051         | A      | 0384        |
|                            |         |                 | PARTIALLY COMPATIBLE    |           |                                   |             |        |             |
|                            |         |                 | BC-376M                 | 94486     | GENERATOR SIGNAL                  | 106         | A      | 2349        |
|                            |         |                 | F53A                    | 07421     | GENERATOR SIGNAL                  | 006         | A      | 1599        |
|                            |         |                 | M5-X8                   | 04423     | GENERATOR DUAL SIGNAL             | 048         | A      | 1911        |
|                            |         |                 | 1003                    | 24655     | GENERATOR SIGNAL                  | 051         | A      | 1652        |
|                            |         |                 | 13108                   | 24655     | OSCILLATOR                        | 006         | A      | 1656        |
|                            |         |                 | 1344                    | 21461     | OSCILLATOR AUDIO RF               | 006         | A      | 3341        |
|                            |         |                 | 190A                    | 80009     | GENERATOR SIGNAL                  | 051         | A      | 1632        |
|                            |         |                 | 1908                    | 80009     | GENERATOR SINE WAVE               | 051         | A      | 1897        |
|                            |         |                 | 2028                    | 28480     | CONVERTER FREQ                    | 051         | A      | 1769        |
|                            |         |                 | 5105A/5110B             | 28480     | SYNTHESIZER FREQ                  | 106         | A      | 1846        |
|                            |         |                 | 5110B                   | 28480     | SYNTHESIZER DRIVER                | 051         | A      | 1847        |
|                            |         |                 | 606B                    | 28480     | GENERATOR SIGNAL                  | 051         | A      | 1643        |
|                            |         |                 | 739AR                   | 28480     | T S FREQ RESPONSE                 | 051         | A      | 1871        |
|                            |         |                 | 7808                    | 77327     | GENERATOR SIGNAL AM/FM            | 052         | A      | 1684        |
|                            |         |                 | 8660B-001               | 28480     | SYNTHESIZED SIGNAL GENERATOR      | 107         | A      | 2073        |
|                            |         |                 | 86601A                  | 28480     | RF SECTION                        | 051         | A      | 2089        |
|                            |         |                 | 86602B                  | 28480     | P I UNIT RF SECTION               | 051         | A      | 3587        |
|                            |         |                 | 8708A                   | 28480     | GENERATOR SIGNAL P I SYNCHRONIZER | 106         | A      | 2081        |
|                            |         | AN/GPM-15       |                         | 82076     | GENERATOR SIGNAL                  | 050         | A      | 0159        |
|                            |         | AN/GPM-15A      | CA-748                  | 82076     | GENERATOR SIGNAL                  | 050         | A      | 0160        |
|                            |         | AN/GPM-50       | 606A                    | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0174        |
|                            |         | AN/GPM-50A      | 11507A                  | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0175        |
|                            |         | AN/GPM-50B      | 606A-C15                | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0176        |
|                            |         | AN/GPM-50C      | 921A                    | 33013     | GENERATOR SIGNAL                  | 051         | A      | 0177        |
|                            |         | AN/URM-25B0     | 315                     | 21900     | GENERATOR SIGNAL                  | 051         | A      | 0341        |
|                            |         | AN/URM-25F      | 162-0-003               | 92428     | GENERATOR SIGNAL                  | 051         | A      | 0342        |
|                            |         | AN/URM-25H      | 152-2-6-1               | 66150     | GENERATOR SIGNAL                  | 051         | A      | 0343        |
|                            |         | AN/URM-25J      |                         | 26648     | GENERATOR SIGNAL                  | 051         | A      | 0344        |
|                            |         | AN/URM-93       | 245-A                   | 04901     | VOLTAGE STANDARO RADIO FREQ       | 051         | A      | 0377        |
|                            |         | AN/URM-93A      | 245-0                   | 04901     | VOLTAGE STANDARO RADIO FREQ       | 051         | A      | 0378        |
|                            |         | AN/USM-205      | 650A                    | 28480     | GENERATOR SIGNAL                  | 006         | A      | 0469        |
|                            |         | AN/USM-205A     | 6205-1                  | 25778     | GENERATOR SIGNAL                  | 006         | A      | 0470        |
|                            |         | AN/USM-212      | 758-0047-001            | 13499     | GENERATOR SIGNAL                  | 051         | A      | 0476        |
|                            |         | AN/USM-269      | 1310-A                  | 24655     | GENERATOR SIGNAL                  | 006         | A      | 0498        |
|                            |         | AN/USM-272      | 191                     | 80009     | GENERATOR SIGNAL                  | 051         | A      | 0501        |
|                            |         | AN/USM-313      | 1211C                   | 24655     | GENERATOR SIGNAL                  | 106         | A      | 0523        |
|                            |         | BC-376          |                         | 80063     | GENERATOR SIGNAL                  | 106         | A      | 0546        |
|                            |         | CP-1100/U       | 51008/5110B             | 28480     | COUNTER ELEC DIGITAL              | 051         | A      | 0550        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, HF       | 3       | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         | SG-1038/U               | 3701A          | 28480     | GENERATOR SIGNAL                   | 106         | A      | 0894        |
|                            |         | SG-12/U                 |                | 15196     | GENERATOR SIGNAL                   | 106         | A      | 0822        |
|                            |         | SG-20/U                 | 658            | 14140     | SIGNAL GENERATOR                   | 051         | A      | 0825        |
|                            |         | SG-479/GRM-50           | 606A           | 28480     | GENERATOR SIGNAL                   | 051         | A      | 0856        |
|                            |         | SG-511/U                | 606A           | 28480     | GENERATOR SIGNAL HF                | 051         | A      | 0858        |
| SIGNAL GENERATOR, SHF A    | 5       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 6168           | 28480     | GENERATOR SIGNAL                   | 053         | A      | 1644        |
|                            |         | AN/URM-61A              | C-0-153-03007  | 99180     | GENERATOR SIGNAL                   | 053         | A      | 0362        |
|                            |         | TS-4038/U               | 0-0153-03006   | 11242     | GENERATOR SIGNAL                   | 053         | A      | 1010        |
|                            |         | TS-4038/U               | 0-0153-03006   | 11242     | GENERATOR SIGNAL                   | 107         | A      | 1011        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | CX-7006        | 77327     | GENERATOR SIGNAL P I               | 053         | A      | 3265        |
|                            |         |                         | U661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3317        |
|                            |         |                         | 2650A          | 28480     | OSCILLATOR SYNCHRONIZER            | 053         | A      | 1667        |
|                            |         | AN/USM-315              | 8616A          | 28480     | SIGNAL GENERATOR                   | 053         | A      | 0527        |
|                            |         | TS-419/U                | H-12           |           | GENERATOR SIGNAL                   | 107         | A      | 1012        |
| SIGNAL GENERATOR, SHF B    | 6       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 6188R          | 28480     | GENERATOR SIGNAL                   | 053         | A      | 1864        |
|                            |         |                         | 618C           | 28480     | GENERATOR SIGNAL                   | 053         | A      | 1645        |
|                            |         | AN/URM-170              | 618C           | 28480     | GENERATOR SIGNAL                   | 053         | A      | 0400        |
|                            |         | AN/URM-52               | 6188F106       | 28480     | GENERATOR SIGNAL                   | 053         | A      | 0358        |
|                            |         | AN/URM-52A              | 6188-E-118     | 28480     | GENERATOR SIGNAL                   | 053         | A      | 0359        |
|                            |         | AN/URM-528              | C-674-100      | D2572     | GENERATOR SIGNAL                   | 053         | A      | 0360        |
|                            |         | SG-676/G                | 1220-A5        | 24655     | GENERATOR SIGNAL                   | 053         | A      | 0868        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | CX-7006        | 77327     | GENERATOR SIGNAL P I               | 053         | A      | 3265        |
|                            |         |                         | U661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3317        |
|                            |         |                         | 1107           | 82199     | GENERATOR MODULAR MICROWAVE SIGNAL | 053         | A      | 1826        |
|                            |         |                         | 2650A          | 28480     | OSCILLATOR SYNCHRONIZER            | 053         | A      | 1667        |
|                            |         |                         | 6168           | 28480     | GENERATOR SIGNAL                   | 053         | A      | 1644        |
|                            |         | AN/USM-315              | 8616A          | 28480     | SIGNAL GENERATOR                   | 053         | A      | 0527        |



## PART. I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, SHF C.   | 7       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         | AN/USM-190              | 6204R-H01      | 28480     | GENERATOR SIGNAL                   | 053         | A      | 0465        |
|                            |         | SG-944/U                | 6208           | 28480     | GENERATOR SIGNAL                   | 053         | A      | 0882        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | U661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3317        |
|                            |         |                         | 1107           | 82199     | GENERATOR MODULAR MICROWAVE SIGNAL | 053         | A      | 1826        |
| SIGNAL GENERATOR, SHF D    | 8       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 1709A          | 82199     | SIGNAL GENERATOR                   | 053         | A      | 1836        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | K661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3274        |
| SIGNAL GENERATOR, SHF E    | 9       | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 1710A          | 82199     | SIGNAL GENERATOR                   | 053         | A      | 1837        |
|                            |         | AN/USM-48               | 628A           | 28480     | GENERATOR SIGNAL                   | 053         | E      | 0426        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | K661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3274        |
| SIGNAL GENERATOR, SHF G    | 11      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | A661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3247        |
|                            |         |                         | S7006          | 77327     | GENERATOR SIGNAL P I               | 053         | A      | 3290        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | A7006          | 77327     | GENERATOR SIGNAL P I               | 053         | A      | 3246        |
| SIGNAL GENERATOR, SHF H    | 12      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | CX-7006        | 77327     | GENERATOR SIGNAL P I               | 053         | A      | 3255        |
|                            |         |                         | K661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3274        |
|                            |         |                         | U661159        | 77327     | MULTIPLIER FREQ                    | 053         | A      | 3317        |
|                            |         | AN/USM-315              | 8616A          | 28480     | SIGNAL GENERATOR                   | 053         | A      | 0527        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

QTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDF

| QTS ETE SPECIFICATION NAME    | SREC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE             | FAMILY CODE | GP LTR | TMDE ID NO. |
|-------------------------------|---------|-------------------------|----------------|-----------|--------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, SHF H       | 12      | PARTIALLY COMPATIBLE    |                |           |                          |             |        |             |
|                               |         |                         | 2650A          | 28480     | OSCILLATOR SYNCHRONIZER  | 053         | A      | 1667        |
|                               |         |                         | 6188R          | 28480     | GENERATOR SIGNAL         | 053         | A      | 1864        |
|                               |         |                         | 618C           | 28480     | GENERATOR SIGNAL         | 053         | A      | 1645        |
|                               |         | AN/URM-52               | 6188E106       | 28480     | GENERATOR SIGNAL         | 053         | A      | 0358        |
|                               |         | AN/URM-52A              | 6188E-118      | 28480     | GENERATOR SIGNAL         | 053         | A      | 0359        |
|                               |         | AN/URM-528              | C-674-100      | 02572     | GENERATOR SIGNAL         | 053         | A      | 0360        |
|                               |         | AN/URM-61A              | C-0-153-03007  | 99180     | GENERATOR SIGNAL         | 053         | A      | 0362        |
|                               |         | AN/USM-190              | 620AR-H01      | 28480     | GENERATOR SIGNAL         | 053         | A      | 0455        |
|                               |         | AN/USM-48               | 628A           | 28480     | GENERATOR SIGNAL         | 053         | E      | 0426        |
|                               |         | TS-4038/U               | D-0153-03006   | 11242     | GENERATOR SIGNAL         | 107         | A      | 1011        |
|                               |         | TS-4038/U               | D-0153-03006   | 11242     | GENERATOR SIGNAL         | 053         | A      | 1010        |
| SIGNAL GENERATOR, THER NOISEA | 13      | FUNCTIONALLY COMPATIBLE |                |           |                          |             |        |             |
|                               |         |                         | H347A          | 28480     | NOISE SOURCE             | 055         | A      | 1937        |
|                               |         |                         | P347A          | 28480     | GENERATOR THERMAL NOISE  | 055         | A      | 1913        |
|                               |         |                         | X347A          | 28480     | NOISE SOURCE             | 055         | A      | 1877        |
|                               |         |                         | 10182651       | 04164     | GENERATOR THERMAL NOISE  | 055         | A      | 2096        |
|                               |         |                         | 344A           | 28480     | METER NOISE FIGURE       | 033         | C      | 1725        |
|                               |         |                         | 904A           | 77327     | GENERATOR NOISE          | 055         | A      | 1873        |
|                               |         | SG-1018/U               | J347A          | 28480     | NOISE SOURCE             | 055         | C      | 0892        |
|                               |         | SG-419/U                | 503            | 11332     | GENERATOR THERMAL NOISE  | 055         | A      | 0854        |
|                               |         | SG-678/G                | G347A          | 28480     | NOISE SOURCE             | 055         | A      | 3541        |
|                               |         | SG-978/U                | 343A           | 28480     | GENERATOR SOURCE         | 055         | A      | 0886        |
|                               |         | SG-979/U                | 349A           | 28480     | NOISE SOURCE             | 055         | A      | 0887        |
|                               |         | SG-996/U                | 3458           | 28480     | NOISE SOURCE             | 055         | A      | 0471        |
|                               |         | TS-2436/G               | 342A           | 28480     | T S AMP                  | 033         | C      | 1197        |
|                               |         | PARTIALLY COMPATIBLE    |                |           |                          |             |        |             |
|                               |         |                         | 1G115          | 03782     | MICROWAVE IMPULSE SOURCE | 012         | A      | 1878        |
|                               |         |                         | 3408           | 28480     | METER NOISE FIGURE       | 033         | C      | 1774        |
|                               |         | SG-337/U                | 51U-ARGON      | 80138     | GENERATOR THERMAL NOISE  | 055         | A      | 0848        |
| SIGNAL GENERATOR, THER NOISEB | 14      | FUNCTIONALLY COMPATIBLE |                |           |                          |             |        |             |
|                               |         |                         | TTS-56         | 06819     | GENERATOR NOISE          | 055         | A      | 1924        |
|                               |         | SG-4538/U               | 1390A          | 24655     | GENERATOR THERMAL NOISE  | 055         | A      | 1833        |
|                               |         | SG-827/U                | 13908          | 24655     | GENERATOR RANDOM NOISE   | 055         | A      | 1834        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

## OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME   | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE ID NO. |
|------------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, THER NOISE | 14      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                              |         |                         | 1G115          | 03782     | MICROWAVE IMPULSE SOURCE            | 012         | A      | 1878        |
|                              |         |                         | 3403           | 28480     | METER NOISE FIGURE                  | 033         | C      | 1774        |
| SIGNAL GENERATOR, TRACKING   | 64      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                              |         |                         | SG-1122/U      | 28480     | TRACKING GENERATOR/COUNTER          | 056         | C      | 3585        |
|                              |         |                         | SG-1125/U      | 28480     | GENERATOR, TRACKING                 | 056         | C      | 1690        |
|                              |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                              |         |                         | 305            | 94668     | COMM TRANSMISSION MEASUREMENT SYSTE | 110         | C      | 2433        |
|                              |         |                         | 305A           | 94668     | TRANSMISSION MEASUREMENT SYSTEM     | 110         | C      | 2380        |
|                              |         |                         | 313A           | 28480     | OSCILLATOR TRACKING                 | 056         | C      | 1640        |
| SIGNAL GENERATOR, UHF A      | 15      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                              |         |                         | W187-4         | 16469     | GENERATOR RF POWER P I              | 107         | A      | 3279        |
|                              |         |                         | P7006          | 77327     | GENERATOR SIGNAL P I                | 107         | A      | 3283        |
|                              |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                              |         |                         | 4704-1000      | 94668     | GENERATOR SIGNAL                    | 107         | A      | 1642        |
|                              |         |                         | 86608-001      | 28480     | SYNTHESIZED SIGNAL GENERATOR        | 107         | A      | 2073        |
|                              |         |                         | 86602A         | 28480     | PF SECTION                          | 107         | A      | 2090        |
|                              |         |                         | 86602B         | 28480     | P I UNIT RF SECTION                 | 051         | A      | 3587        |
|                              |         |                         | 86631B         | 28480     | AUXILIARY SECTION                   | 107         | A      | 2091        |
|                              |         |                         | 86632A         | 28480     | MODULATION SECTION                  | 107         | A      | 2092        |
|                              |         | AN/URM-149              | SM-0-630000    | 82199     | GENERATOR SIGNAL                    | 107         | A      | 0396        |
|                              |         | AN/URM-49               |                | 35225     | GENERATOR SIGNAL                    | 107         | A      | 0356        |
|                              |         | AN/URM-49A              | K00300149      | 35225     | GENERATOR SIGNAL                    | 107         | A      | 0357        |
|                              |         | AN/URM-56               | 9008           | 01113     | GENERATOR SIGNAL                    | 107         | A      | 0361        |
|                              |         | AN/URM-64-1             |                | 76809     | GENERATOR SIGNAL                    | 107         | A      | 0363        |
|                              |         | AN/URM-64-2             |                | 76809     | GENERATOR SIGNAL                    | 107         | A      | 0364        |
|                              |         | AN/URM-64A-1            | C-016-04001    | 03877     | GENERATOR SIGNAL                    | 107         | A      | 0365        |
|                              |         | AN/URM-64A-2            | C-0161-04001   | 03877     | GENERATOR SIGNAL                    | 107         | A      | 0366        |
|                              |         | AN/USM-213              | 8614A          | 28480     | GENERATOR SIGNAL                    | 107         | A      | 0477        |
|                              |         | AN/USM-213A             | 8614B          | 28480     | GENERATOR SIGNAL                    | 107         | A      | 0478        |
|                              |         | AN/USM-251              | 1209C          | 24655     | GENERATOR SIGNAL                    | 107         | A      | 0758        |
|                              |         | AN/USM-312              | 1362           | 24655     | GENERATOR SIGNAL                    | 107         | A      | 0522        |
|                              |         | SG-340A/U               | 612A           | 28480     | GENERATOR SIGNAL                    | 107         | A      | 0849        |
|                              |         | SG-97/FRC               | 614A           | 28480     | GENERATOR SIGNAL                    | 107         | A      | 0837        |
|                              |         | TS-419/U                | H-12           |           | GENERATOR SIGNAL                    | 107         | A      | 1012        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SREC NO | TYPE DESIGNATOR         | MFP. MODEL NO. | MFP. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTP | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------------|-------------|--------|-------------|
| SIGNAL GENERATOR, VHF A    | 17      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         | AN/USM-448              | 6080-E02       | 28480     | GENERATOR SIGNAL                  | 106         | A      | 0423        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                   |             |        |             |
|                            |         |                         | M184-4         | 16469     | GENERATOR SIGNAL                  | 051         | A      | 3276        |
|                            |         |                         | 10046503       | 18876     | OSCILLATOR RADIO FREQUENCY        | 051         | A      | 1597        |
|                            |         |                         | 470A-1000      | 94668     | GENERATOR SIGNAL                  | 107         | A      | 1642        |
|                            |         |                         | 5105A/5110B    | 28480     | SYNTHESIZER FREQ                  | 106         | A      | 1846        |
|                            |         |                         | 6068           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 1643        |
|                            |         |                         | 750-S138       | 33013     | GENERATOR SIGNAL                  | 106         | A      | 1872        |
|                            |         |                         | 8640A          | 28480     | GENERATOR SIGNAL                  | 106         | A      | 1591        |
|                            |         |                         | 8640B          | 28480     | GENERATOR SIGNAL AM-FM            | 106         | A      | 2071        |
|                            |         |                         | 8640B-001      | 28480     | GENERATOR SIGNAL                  | 106         | A      | 1593        |
|                            |         |                         | 8660B-001      | 28480     | SYNTHESIZED SIGNAL GENERATOR      | 107         | A      | 2073        |
|                            |         |                         | 86601A         | 28480     | PF SECTION                        | 051         | A      | 2089        |
|                            |         |                         | 8708A          | 28480     | GENERATOR SIGNAL P T SYNCHRONIZER | 106         | A      | 2081        |
|                            |         | AN/ARM-26C              | 100190         | 87793     | GENERATOR SIGNAL                  | 106         | A      | 0109        |
|                            |         | AN/GPM-50               | 606A           | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0174        |
|                            |         | AN/GRM-50A              | 11507A         | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0175        |
|                            |         | AN/GRM-50B              | 606A-C15       | 28480     | GENERATOR SIGNAL                  | 051         | A      | 0176        |
|                            |         | AN/GPM-50C              | 921A           | 33013     | GENERATOR SIGNAL                  | 051         | A      | 0177        |
|                            |         | AN/URM-49               |                | 35225     | GENERATOR SIGNAL                  | 107         | A      | 0356        |
|                            |         | AN/LRM-49A              | K00000149      | 35225     | GENERATOR SIGNAL                  | 107         | A      | 0357        |
|                            |         | AN/URM-56               | 9008           | 01113     | GENERATOR SIGNAL                  | 107         | A      | 0361        |
|                            |         | AN/URM-93               | 245-A          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0377        |
|                            |         | AN/URM-93A              | 245-D          | 04901     | VOLTAGE STANDARD RADIO FREQ       | 051         | A      | 0378        |
|                            |         | AN/LSM-251              | 1209C          | 24655     | GENERATOR SIGNAL                  | 107         | A      | 0758        |
|                            |         | AN/LSM-272              | 191            | 80009     | GENERATOR SIGNAL                  | 051         | A      | 0501        |
|                            |         | AN/USM-312              | 1362           | 24655     | GENERATOR SIGNAL                  | 107         | A      | 0522        |
|                            |         | AN/USM-313              | 1211C          | 24655     | GENERATOR SIGNAL                  | 106         | A      | 0523        |
|                            |         | CP-1100/U               | 51008/51108    | 28480     | COUNTER FREQ DIGITAL              | 051         | A      | 0550        |
|                            |         | SG-340A/U               | 612A           | 28480     | GENERATOR SIGNAL                  | 107         | A      | 0849        |
|                            |         | TS-4520/U               |                | 36004     | GENERATOR SIGNAL                  | 052         | A      | 1027        |
|                            |         | TS-497/URR              |                |           | GENERATOR SIGNAL                  | 106         | A      | 1031        |
|                            |         | TS-497A/URP             |                |           | GENERATOR SIGNAL                  | 106         | A      | 1032        |
|                            |         | TS-497B/URR             |                |           | GENERATOR SIGNAL                  | 106         | A      | 1033        |
|                            |         | TS-497B/URR             | SM-8-334504    | 04423     | GENERATOR SIGNAL                  | 106         | A      | 1034        |
| SPECTRUM ANALYZER, AUDIO   | 65      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                            |         |                         | 1558A          | 24655     | ANALYZER NOISE AUDIO FREQUENCY    | 059         | C      | 1651        |
|                            |         |                         | 3570A-101      | 28480     | NETWORK ANALYZER                  | 059         | C      | 1659        |
|                            |         | AN/GSH-13               |                |           | SPECTRUM ANALYZER                 | 059         | C      | 3650        |
|                            |         | AN/GSH-15               |                |           | SPECTRUM ANALYZER                 | 059         | C      | 3651        |
|                            |         | TS-3628(V)1/U           | 3580A          | 28480     | SPECTRUM ANALYZER                 | 059         | C      | 1670        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS EYE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS EYE SPECIFICATION NAME  | SPEC NO | TYPE DESIGNATOR         | MFP. MODEL NO.  | MFP. CODE | NOMFNCLATURE                         | FAMILY CODE | GP LTP | TMOE IO NO. |
|-----------------------------|---------|-------------------------|-----------------|-----------|--------------------------------------|-------------|--------|-------------|
| SPECTRUM ANALYZER, AUDIO    | 65      | FUNCTIONALLY COMPATIBLE |                 |           |                                      |             |        |             |
|                             |         | TS-615/U                | 736A            | 24655     | ANALYZER SOUND                       | 059         | C      | 1060        |
|                             |         | TS-615A/U               | 300A            | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1061        |
|                             |         | TS-615B/U               | 300A            | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1062        |
|                             |         | PARTIALLY COMPATIBLE    |                 |           |                                      |             |        |             |
|                             |         |                         | SPA-1 STYLE D   | 03782     | ANALYZER SPECTRUM                    | 061         | C      | 1698        |
|                             |         |                         | 3591A           | 28480     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 1947        |
|                             |         |                         | 3594A           | 28480     | OSCILLATOR SWEEPING LOCAL PLUG IN    | 059         | C      | 1671        |
|                             |         | AN/USM-424              | 3040A           | 28480     | ANALYZER                             | 059         | C      | 1668        |
|                             |         | PL-1387/U               | 8556A           | 28480     | ANALYZER SPECTRUM LF TUNING SECTION  | 081         | A      | 2692        |
|                             |         | TS-1830A/U              | 302A            | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1166        |
|                             |         | TS-1830D/U              | 302AP           | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1157        |
| SPECTRUM ANALYZER, BASEBAND | 66      | FUNCTIONALLY COMPATIBLE |                 |           |                                      |             |        |             |
|                             |         | TS-1871/FPN             | LCA-1           | 06181     | ANALYZER SPECTRUM                    | 060         | C      | 3737        |
|                             |         | TS-2333/USM             | 310A            | 28480     | ANALYZER SPECTRUM                    | 060         | C      | 1192        |
|                             |         | TS-3150/U               | PTAG/UP3P3      | 03782     | ANALYZER SPECTRUM                    | 060         | C      | 1222        |
|                             |         | TS-3170A/U              | 360B            | 94668     | ANALYZER SPECTRUM                    | 060         | C      | 3352        |
|                             |         | PARTIALLY COMPATIBLE    |                 |           |                                      |             |        |             |
|                             |         |                         | 305             | 94668     | COMM TRANSMISSION MEASUREMENT SYSTEM | 110         | C      | 2433        |
|                             |         |                         | 305A            | 94668     | TRANSMISSION MEASUREMENT SYSTEM      | 110         | C      | 2380        |
|                             |         |                         | 8553A           | 28480     | ANALYZER SPECTRUM                    | 061         | C      | 1695        |
|                             |         | AN/USM-424              | 3040A           | 28480     | ANALYZER                             | 059         | C      | 1668        |
|                             |         | PL-1387/U               | 8556A           | 28480     | ANALYZER SPECTRUM LF TUNING SECTION  | 081         | A      | 2692        |
|                             |         | TS-1830A/U              | 302A            | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1166        |
|                             |         | TS-1830D/U              | 302AR           | 28480     | ANALYZER SPECTRUM                    | 059         | C      | 1167        |
| SPECTRUM ANALYZER, PF       | 67      | FUNCTIONALLY COMPATIBLE |                 |           |                                      |             |        |             |
|                             |         |                         | PSA-231         | 23369     | ANALYZER SPECTRUM PLUG IN            | 061         | C      | 1693        |
|                             |         |                         | SA70A           | 03782     | ANALYZER SPECTRUM                    | 061         | C      | 1695        |
|                             |         |                         | SPA 325A        | 03782     | ANALYZER SPECTRUM                    | 061         | C      | 1699        |
|                             |         |                         | 1110            | 80009     | ANALYZER SPECTRUM PLUG IN            | 061         | C      | 1617        |
|                             |         |                         | 7113            | 80009     | ANALYZER SPECTRUM                    | 061         | C      | 1627        |
|                             |         |                         | 8552A           | 28480     | ANALYZER SPECTRUM IF SECTION PI      | 061         | C      | 1693        |
|                             |         |                         | 8553A           | 28480     | ANALYZER SPECTRUM                    | 061         | C      | 1695        |
|                             |         |                         | 8554B           | 28480     | SPECTRUM ANALYZER PF SECTION         | 061         | C      | 1697        |
|                             |         |                         | 8554L           | 28480     | ANALYZER SPECTRUM TUNING SECTION     | 061         | C      | 1698        |
|                             |         |                         | 8554L-H06 8522A | 28480     | ANALYZER SPECTRUM PLUG-IN            | 061         | C      | 1600        |
|                             |         | IP-173/U                | S8-8            | 03782     | INDICATOR PANORAMIC                  | 061         | C      | 0598        |
|                             |         | IP-173A/U               | S8-8A           | 03782     | INDICATOR PANORAMIC                  | 061         | C      | 0599        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO.  | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GP LTP | TMOE IO NO. |
|----------------------------|---------|-------------------------|-----------------|-----------|-----------------------------------|-------------|--------|-------------|
| SPECTRUM ANALYZER, PF      | 67      | FUNCTIONALLY COMPATIBLE |                 |           |                                   |             |        |             |
|                            |         | IP-1739/U               | S8-8A           | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0620        |
|                            |         | IP-173C/U               |                 | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0582        |
|                            |         | PL-1399/U               | 8553B           | 28480     | ANALYZER SPECTRUM RF SECTION      | 061         | C      | 1696        |
|                            |         | TS-3237/U               | 725             | 06811     | ANALYZER SPECTRUM                 | 061         | C      | 1238        |
|                            |         | PARTIALLY COMPATIBLE    |                 |           |                                   |             |        |             |
|                            |         | SPA-1 STYLE O           |                 | 03782     | ANALYZER SPECTRUM                 | 061         | C      | 1628        |
|                            |         | 3594A                   |                 | 28480     | OSCILLATOR SWEEPING LOCAL PLUG IN | 059         | C      | 1671        |
|                            |         | 707-SI                  |                 | 12678     | ANALYZER SPECTRUM                 | 061         | C      | 1649        |
|                            |         | 8407A                   |                 | 28480     | ANALYZER NETWORK MAINFRAME        | 061         | C      | 1685        |
|                            |         | 8412A                   |                 | 28480     | DISPLAY PHASE-MAGNITUDE           | 061         | C      | 1688        |
|                            |         | 8414A                   |                 | 28480     | POLAR DISPLAY                     | 062         | C      | 1689        |
|                            |         | AN/USM-366              | 491             | 80009     | ANALYZER SPECTRUM                 | 061         | C      | 0540        |
|                            |         | AN/USM-424              | 3040A           | 28480     | ANALYZER                          | 059         | C      | 1658        |
|                            |         | F-1414/U                | 8445B           | 28480     | PRESELECTOR AUTOMATIC TRACKING    | 062         | C      | 1692        |
|                            |         | IP-1216(P)/GR           | 141T            | 28480     | ANALYZER SPECTRUM DISPLAY SECTION | 061         | C      | 1699        |
|                            |         | PL-1388/U               | 8552R/017       | 28480     | ANALYZER SPECTRUM IF SECTION PI   | 061         | C      | 1694        |
| SPECTRUM ANALYZER, SHF     | 68      | FUNCTIONALLY COMPATIBLE |                 |           |                                   |             |        |             |
|                            |         | P491                    |                 | 80009     | ANALYZER SPECTRUM RACKMOUNTED     | 062         | C      | 3284        |
|                            |         | S884WA                  |                 | 82199     | ANALYZER SPECTRUM                 | 062         | C      | 1626        |
|                            |         | S87                     |                 | 03782     | ANALYZER SPECTRUM                 | 062         | C      | 1607        |
|                            |         | 1L20                    |                 | 80009     | ANALYZER SPECTRUM PLUG IN         | 062         | C      | 1618        |
|                            |         | 707-SI                  |                 | 12678     | ANALYZER SPECTRUM                 | 061         | C      | 1649        |
|                            |         | 8410S OPT 210           |                 | 28480     | ANALYZER MICROWAVE NETWORK        | 062         | C      | 1686        |
|                            |         | 8410S OPT 310           |                 | 28480     | ANALYZER MICROWAVE NETWORK        | 062         | C      | 1687        |
|                            |         | R51A/852A               |                 | 28480     | ANALYZER SPECTRUM                 | 061         | C      | 1650        |
|                            |         | 851A/8551A              |                 | 28480     | ANALYZER SPECTRUM                 | 062         | C      | 3760        |
|                            |         | 8552B/017               |                 | 28480     | ANALYZER SPECTRUM                 | 062         | C      | 3761        |
|                            |         | LA18M                   |                 | 35225     | ANALYZER SPECTRUM                 | 061         | C      | 0820        |
|                            |         | AN/LPM-110              | SC-DL-169906    | 80063     | ANALYZER SPECTRUM                 | 061         | C      | 0324        |
|                            |         | AN/LPM-58               | 8554L-H06 8552A | 28480     | ANALYZER SPECTRUM                 | 061         | C      | 0328        |
|                            |         | AN/LPM-84               |                 | 28480     | ANALYZER NETWORK                  | 062         | C      | 0517        |
|                            |         | AN/USM-307(V)           |                 | 28480     | ANALYZER NETWORK                  | 062         | C      | 0518        |
|                            |         | AN/USM-307(V)1          | 8410A-E14       | 28480     | ANALYZER NETWORK                  | 061         | C      | 0540        |
|                            |         | AN/USM-366              | 491             | 80009     | ANALYZER SPECTRUM                 | 061         | C      | 0540        |
|                            |         | F-1414/U                | 8445B           | 28480     | PRESELECTOR AUTOMATIC TRACKING    | 062         | C      | 1692        |
|                            |         | IP-1216(P)/GR           | 141T            | 28480     | ANALYZER SPECTRUM DISPLAY SECTION | 061         | C      | 1699        |
|                            |         | PL-1391/U               | 7L5             | 80009     | SPECTRUM ANALYZER                 | 059         | C      | 1625        |
|                            |         | PL-1392/U               | 7L12            | 80009     | SPECTRUM ANALYZER PLUG IN         | 061         | C      | 1626        |
|                            |         | PL-1400/U               | 8555A           | 28480     | SPECTRUM ANALYZER                 | 062         | C      | 3586        |
|                            |         | TS-622/U                | P-1265I         | 94486     | GENERATOR SIGNAL                  | 062         | C      | 1056        |
|                            |         | TS-6224/U               | 135-D-0500      | 77327     | GENERATOR SIGNAL                  | 062         | C      | 1073        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME    | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | FAMILY CODE | GR LTR | TMDE ID NO. |
|-------------------------------|---------|-------------------------|----------------|-----------|-----------------------------------|-------------|--------|-------------|
| SPECTRUM ANALYZER, SHF        | 68      | PARTIALLY COMPATIBLE    |                |           |                                   |             |        |             |
|                               |         | AN/LPM-84A              | 8445A          | 28480     | RESELECTION AUTOMATIC             | 062         | C      | 1691        |
|                               |         |                         | AI52161        | 25778     | ANALYZER SPECTRUM                 | 061         | C      | 0329        |
|                               |         | IR-173/U                | S8-8           | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0598        |
|                               |         | IP-173A/U               | S8-8A          | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0599        |
|                               |         | IR-173B/U               | S8-8A          | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0630        |
|                               |         | IP-173C/U               |                | 03782     | INDICATOR PANORAMIC               | 061         | C      | 0582        |
|                               |         | TS-3237/U               | 725            | 06811     | ANALYZER SPECTRUM                 | 061         | C      | 1238        |
| STANDING WAVE RATIO (SWR) MET | 69      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                               |         |                         | 219            | 77327     | DETECTOR VSWR                     | 063         | C      | 3349        |
|                               |         |                         | 415-Y10F       | 28480     | METER STANDING WAVE RATIO         | 063         | C      | 3320        |
|                               |         |                         | 416A           | 28480     | INDICATOR STANDING WAVE RATIO     | 063         | C      | 1349        |
|                               |         | AN/URM-108              | 4158           | 28480     | METER STANDING WAVE RATIO         | 063         | C      | 1348        |
|                               |         | AN/LSM-261              | 415E-ED7       | 28480     | INDICATOR STANDING WAVE RATIO     | 063         | C      | 0494        |
|                               |         | AN/USM-322(V)1          | 219L           | 77327     | DETECTOR STANDING WAVE            | 063         | C      | 0530        |
|                               |         | AN/USM-322(V)2          | 219            | 77327     | DETECTOR STANDING WAVE            | 063         | C      | 0531        |
|                               |         | AN/USM-322(V)3          | 219-HH         | 77327     | DETECTOR STANDING WAVE            | 063         | C      | 0532        |
|                               |         | AN/USM-37               | 415A           | 28480     | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0415        |
|                               |         | AN/LSM-37A              | 415E           | 28480     | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0416        |
|                               |         | AN/LSM-37B              | 809B           | 28480     | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0417        |
|                               |         | AN/USM-37C              |                |           | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0418        |
|                               |         | AN/USM-37D              | 415E-001       | 28480     | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0419        |
|                               |         | AN/USM-37E              | 236            | 77327     | MEASURING SET STANDING WAVE RATIO | 063         | C      | 0420        |
|                               |         | IM-157/U                | 4158           | 28480     | STANDING WAVE RATIO INDICATOR     | 063         | C      | 0591        |
|                               |         | IM-157B/U               | 415D           | 28480     | INDICATOR STANDING WAVE RATIO     | 063         | C      | 0593        |
|                               |         | IM-157C/U               | B813A          |           | STANDING WAVE RATIO INDICATOR     | 063         | C      | 0594        |
|                               |         | IM-157E/U               | 227-D-S37      | 77327     | STANDING WAVE RATIO INDICATOR     | 063         | C      | 0595        |
|                               |         | IM-175/U                | 351            | 11332     | STANDING WAVE RATIO INDICATOR     | 063         | C      | 0596        |
|                               |         | ME-339/U                | 415E           | 28480     | INDICATOR STANDING WAVE RATIO     | 063         | C      | 0700        |
|                               |         | PARTIALLY COMPATIBLE    |                |           |                                   |             |        |             |
|                               |         |                         | SID-558220     | 92674     | T S FILTER ANTENNA                | 063         | C      | 1306        |
|                               |         |                         | SID558209      | 64959     | T S SWR IMPEDANCE                 | 063         | C      | 3100        |
|                               |         | IM-175B/U               | 351            | 11332     | STANDING WAVE RATIO INDICATOR     | 063         | C      | 0597        |
|                               |         | ME-165/G                | 52-500         | 12991     | STANDING WAVE RATIO POWER METER   | 063         | C      | 0681        |
| STROBOSCOPE                   | 95      | FUNCTIONALLY COMPATIBLE |                |           |                                   |             |        |             |
|                               |         |                         | 1531A8         | 24655     | TACHOMETER STROBOSCOPE            | 065         | E      | 1717        |
|                               |         |                         | 1538-A         | 24655     | STROBOSCOPE                       | 065         | E      | 1718        |



## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFP. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| STROBOSCOPE                | 95      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | TS-805/U                | 631-B          | 24655     | STROBOSCOPE                         | 065         | E      | 1108        |
|                            |         | TS-805A/U               | 631-BL         | 24655     | STROBOSCOPE                         | 065         | E      | 1109        |
|                            |         | TS-805B/U               | 510AL          | 83490     | STROBOSCOPE                         | 065         | E      | 1110        |
|                            |         | TS-805C/U               | 451-AL         | 00708     | STROBOSCOPE                         | 065         | E      | 1111        |
|                            |         | TS-805D/U               | 510-B          | 83490     | STROBOSCOPE                         | 065         | E      | 1112        |
| SWEEP GENERATOR, AUDIO     | 19      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         | PL-1285/U               | 3305A          | 28480     | SWEEP P I                           | 081         | A      | 0797        |
|                            |         | TD-5033/USM             | 74-13A         | 30669     | GENERATOR SWEEP                     | 081         | A      | 0948        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | 100A           | 80138     | OSCILLATOR MEG A SWEEP              | 109         | A      | 1882        |
|                            |         |                         | 1120           | 04423     | GENERATOR SWEEP                     | 109         | A      | 1886        |
|                            |         |                         | 2000-1         | 04423     | GENERATOR SWEEP                     | 108         | A      | 1839        |
|                            |         |                         | 3308-501       | 28480     | AUTOMATIC SYNTHESIZER               | 052         | A      | 1843        |
|                            |         | PL-1387/U               | 8556A          | 28480     | ANALYZER SPECTRUM LF TUNING SECTION | 081         | A      | 2692        |
|                            |         | SG-92/U                 | 110-A          | 80138     | GENERATOR SWEEP                     | 052         | A      | 0836        |
| SWEEP GENERATOR, HF        | 20      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | L5-XA          | 04423     | GENERATOR SWEEP                     | 108         | A      | 1909        |
|                            |         |                         | 8601A          | 28480     | GENERATOR SWEEP                     | 052         | A      | 2069        |
|                            |         | PL-12414/USM308         | 8698B          | 28480     | P I UNIT ELEC TEST EQUIP            | 052         | A      | 0794        |
|                            |         | PL-12413/USM308         | 8698B-001      | 28480     | RF P I SWEEP GENERATOR              | 052         | A      | 3590        |
|                            |         | TS-452/U                |                | 50304     | GENERATOR SIGNAL                    | 052         | A      | 1023        |
|                            |         | TS-452A/U               |                | 34184     | GENERATOR SIGNAL                    | 052         | A      | 1024        |
|                            |         | TS-452B/U               |                | 36004     | GENERATOR SIGNAL                    | 052         | A      | 1025        |
|                            |         | TS-452C/U               |                | 36004     | GENERATOR SIGNAL                    | 052         | A      | 1026        |
|                            |         | TS-452E/U               |                |           | GENERATOR SIGNAL                    | 052         | A      | 1028        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | 100A           | 80138     | OSCILLATOR MEG A SWEEP              | 109         | A      | 1882        |
|                            |         |                         | 1120           | 04423     | GENERATOR SWEEP                     | 109         | A      | 1886        |
|                            |         |                         | 2000-1         | 04423     | GENERATOR SWEEP                     | 108         | A      | 1839        |
|                            |         |                         | 3308-501       | 28480     | AUTOMATIC SYNTHESIZER               | 052         | A      | 1843        |
|                            |         |                         | 8699A          | 28480     | OSCILLATOR SWEEP                    | 052         | A      | 2074        |
|                            |         | AN/USM-203              | 912-423        | 01113     | GENERATOR SWEEP SIGNAL              | 109         | A      | 0457        |
|                            |         | AN/USM-203A             | 200-441        | 23042     | GENERATOR SWEEP SIGNAL              | 109         | A      | 0468        |
|                            |         | SG-407/U                | 1000           | 80138     | GENERATOR SWEEP                     | 109         | A      | 0853        |
|                            |         | SG-575/U                | TF866A         | 80138     | GENERATOR SWEEP                     | 108         | A      | 0861        |
|                            |         | SG-593/U                | 9008           | 01113     | GENERATOR SWEEP                     | 052         | A      | 0863        |
|                            |         | SG-681/U                | 866A           | 80138     | GENERATOR SWEEP                     | 052         | A      | 0870        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                     | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|----------------------------------|-------------|--------|-------------|
| SWEEP GENERATOR, HF        | 20      | PARTIALLY COMPATIBLE    |                |           |                                  |             |        |             |
|                            |         | SG-888/U                | 200-315        | 23042     | GENERATOR SWEEP                  | 109         | A      | 0881        |
|                            |         | SG-92/U                 | 110-A          | 80138     | GENERATOR SWEEP                  | 052         | A      | 0836        |
|                            |         | TS-452D/U               |                | 36004     | GENERATOR SIGNAL                 | 052         | A      | 1027        |
| SWEEP GENERATOR, SHF       | 21      | FUNCTIONALLY COMPATIBLE |                |           |                                  |             |        |             |
|                            |         | 404                     |                | 92110     | MICROWAVE SWEPT SIGNAL GENERATOR | 049         | A      | 1857        |
|                            |         | 641B                    |                | 03782     | OSCILLATOR SWEEP                 | 109         | A      | 1646        |
|                            |         | 641K                    |                | 03782     | GENERATOR SWEEP                  | 109         | A      | 1856        |
|                            |         | 686A                    |                | 28480     | SWEEP OSCILLATOR                 | 049         | A      | 1859        |
|                            |         | 694C                    |                | 28480     | OSCILLATOR SWEEP                 | 049         | A      | 1870        |
|                            |         | 694C-H01                |                | 28480     | OSCILLATOR SWEEP                 | 049         | A      | 1935        |
|                            |         | 8620A                   |                | 28480     | SWEEP OSCILLATOR                 | 049         | A      | 2070        |
|                            |         | 86230B CPT H80          |                | 28480     | SINGLE BAND P I                  | 049         | A      | 2084        |
|                            |         | 86241A OPT H80          |                | 28480     | SINGLE BAND P I                  | 049         | A      | 2085        |
|                            |         | 86242A OPT H80          |                | 28480     | SINGLE BAND P I                  | 049         | A      | 2086        |
|                            |         | 86250B CPT H80          |                | 28480     | SINGLE BAND P I                  | 049         | A      | 2087        |
|                            |         | 86260A OPT H80          |                | 28480     | SINGLE BAND P I                  | 049         | A      | 2088        |
|                            |         | 89038-H12               |                | 28480     | OSCILLATOR SWEEP                 | 049         | A      | 1936        |
| AN/USM-274                 |         | 22D                     |                | 18786     | GENERATOR SWEEP                  | 049         | A      | 0533        |
| AN/USM-308(V)1             |         | 86908-E75               |                | 28480     | GENERATOR SWEEP                  | 049         | A      | 0519        |
| AN/USM-47                  |         | 626A                    |                | 28480     | GENERATOR SWEEP                  | 049         | A      | 1865        |
| MX-83644/USM308            |         | 86908                   |                | 28480     | OSCILLATOR SWEEP                 | 049         | A      | 0756        |
| PL-12401/USM308            |         | 86938-H01               |                | 28480     | GENERATOR RF PLUG-IN             | 049         | A      | 1904        |
| PL-1243/USM-308            |         | 8706A                   |                | 28480     | ELEC TEST EQUIP P I UNIT         | 049         | A      | 0796        |
| PL-1304/USM-308            |         | 8694B                   |                | 28480     | P I UNIT ELEC TEST EQUIP         | 049         | A      | 0831        |
| SG-1121(V)1/U              |         | 8620C                   |                | 28480     | SWEEP OSCILLATOR                 | 049         | A      | 3714        |
| SG-735/URM                 |         | 8616A                   |                | 28480     | GENERATOR SIGNAL                 | 049         | A      | 3733        |
| SG-987/U                   |         | 6310BS1                 |                | 03782     | GENERATOR SWEEP                  | 109         | A      | 0890        |
| SG-990/U                   |         | 694D-H01                |                | 28480     | GENERATOR SWEEP                  | 049         | A      | 0891        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                  |             |        |             |
|                            |         | 869DA                   |                | 28480     | OSCILLATOR SWEEP                 | 052         | A      | 2074        |
|                            |         | 8693A                   |                | 28480     | RF UNIT                          | 049         | A      | 2075        |
|                            |         | 8695A                   |                | 28480     | GENERATOR RF SWEEP P I           | 049         | A      | 2077        |
|                            |         | 8696A                   |                | 28480     | GENERATOR SWEEP RF P I           | 049         | A      | 2079        |
|                            |         | 8697A                   |                | 28480     | GENERATOR SWEEP RF P I           | 049         | A      | 3589        |
| AN/USM-222                 |         | SM2000                  |                | 04423     | GENERATOR SIGNAL                 | 109         | A      | 0481        |
| O-1637/U                   |         | E2M                     |                | 04423     | P I HEAD SWEEP GENERATOR         | 109         | A      | 1901        |
| PL-1242/USM-308            |         | 8599B                   |                | 28480     | OSCILLATOR SWEEP P I             | 049         | A      | 0795        |
| SG-407/U                   |         | 1000                    |                | 80138     | GENERATOR SWEEP                  | 109         | A      | 0853        |
| SG-688P/USM-219            |         | SM-2000                 |                | 04423     | GENERATOR SIGNAL                 | 052         | A      | 0871        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                | FAMILY CODE | GR LTR | TMDE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------|-------------|--------|-------------|
| SWEEP GENERATOR, UHF/VHF   | 22      | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         | L5-XA-1        | 04423     | GENERATOR SIGNAL            | 108         | A      | 1910        |
|                            |         |                         | SH-1           | 04423     | GENERATOR SWEEP             | 109         | A      | 1916        |
|                            |         |                         | 86220A         | 28480     | SINGLE BAND R I             | 109         | A      | 2083        |
|                            |         |                         | 990J           | 01113     | SWEEP SYSTEM TEST SFT       | 108         | A      | 1596        |
|                            |         | AN/USM-203              | 912-423        | 01113     | GENERATOR SWEEP SIGNAL      | 109         | A      | 0467        |
|                            |         | AN/USM-203A             | 200-441        | 23042     | GENERATOR SWEEP SIGNAL      | 109         | A      | 0468        |
|                            |         | AN/USM-220              | SM2000         | 04423     | GENERATOR SIGNAL            | 109         | A      | 0479        |
|                            |         | AN/USM-222              | SM2000         | 04423     | GENERATOR SIGNAL            | 109         | A      | 0481        |
|                            |         | SG-336/U                | 380-A          | 80138     | GENERATOR SWEEP             | 108         | A      | 0847        |
|                            |         | SG-972/U                | 601            | 01113     | GENERATOR SWEEP             | 108         | A      | 0884        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                             |             |        |             |
|                            |         |                         | L5-XA          | 04423     | GENERATOR SWEEP             | 108         | A      | 1909        |
|                            |         |                         | 100A           | 80138     | OSCILLATOR MEG A SWEEP      | 109         | A      | 1882        |
|                            |         |                         | 1120           | 04423     | GENERATOR SWEEP             | 109         | A      | 1886        |
|                            |         |                         | 2000-1         | 04423     | GENERATOR SWEEP             | 108         | A      | 1839        |
|                            |         |                         | 86631B         | 28480     | AUXILIARY SECTION           | 107         | A      | 2091        |
|                            |         |                         | 86632A         | 28480     | MODULATION SECTION          | 107         | A      | 2092        |
|                            |         |                         | 8690A          | 28480     | OSCILLATOR SWEEP            | 052         | A      | 2074        |
|                            |         |                         | 86998          | 28480     | OSCILLATOR SWEEP P I        | 109         | A      | 2080        |
|                            |         | AN/LSM-221              | SM2000         | 04423     | GENERATOR SIGNAL            | 109         | A      | 0480        |
|                            |         | C-1637/U                | E2M            | 04423     | P I HEAD SWEEP GENERATOR    | 109         | A      | 1901        |
|                            |         | RL-1242/USM-308         | 86998          | 28480     | OSCILLATOR SWEEP P I        | 049         | A      | 0795        |
|                            |         | RL-1343/U               | L6M            | 04423     | P I HEAD SWEEP GENERATOR    | 108         | A      | 0808        |
|                            |         | SG-407/U                | 1000           | 80138     | GENERATOR SWEEP             | 109         | A      | 0853        |
|                            |         | SG-575/U                | IF8664         | 80138     | GENERATOR SWEEP             | 108         | A      | 0861        |
|                            |         | SG-593/U                | 9008           | 01113     | GENERATOR SWEEP             | 052         | A      | 0863        |
|                            |         | SG-677/U                | 8S-800H        | 23042     | SWEEP GENERATOR             | 109         | A      | 0859        |
|                            |         | SG-688R/USM-219         | SM-2000        | 04423     | GENERATOR SIGNAL            | 052         | A      | 0871        |
|                            |         | SG-888/U                | 200-315        | 23042     | GENERATOR SWEEP             | 109         | A      | 0881        |
|                            |         | SG-92/U                 | 110-A          | 80138     | GENERATOR SWEEP             | 052         | A      | 0836        |
| TACHOMETER ELECTRONIC      | 32      | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         |                |           |                             |             |        |             |
|                            |         |                         | C              | 55719     | T S TACH OWELL              | 117         | B      | 2681        |
|                            |         |                         | TDT-12         | 82386     | TACHOMETER OWELL            | 117         | B      | 3404        |
|                            |         |                         | 17-23-3        | 30120     | TESTER PRECISION TACHOMETER | 117         | B      | 2464        |
|                            |         |                         | 27-55          | 01216     | SCOPE ANALYZER              | 117         | B      | 3520        |
|                            |         |                         | 27-83          | 01216     | TACHOMETER OWELL            | 117         | B      | 3521        |
|                            |         |                         | 36FE           |           | TACHOMETER PHOTO            | 117         | B      | 1762        |

J-44

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

DTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| DTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE            | FAMILY CODE | GP LTR | TMDE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------|-------------|--------|-------------|
| TACHOMETER ELECTRONIC      | 32      | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         |                         | MT-650         | 16764     | ANALYZER ENGINE         | 117         | B      | 3393        |
|                            |         |                         | TDS-2          | 55026     | T S TACHOMETER DWELL    | 117         | R      | 3403        |
|                            |         |                         | 500C           | 28480     | FREQUENCY METER         | 117         | R      | 3548        |
|                            |         | TS-B06/U                | 441            | 80740     | TACHOMETER ELEC         | 117         | B      | 1113        |
|                            |         | TTU-27/E                | F5000          | 84997     | T S TACHOMETER          | 117         | B      | 1257        |
| TELETYPE TEST SET          | 35      | FUNCTIONALLY COMPATIBLE |                |           |                         |             |        |             |
|                            |         | AN/GGM-1                | DAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0145        |
|                            |         | AN/GGM-1A               | DAC-V          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0141        |
|                            |         | AN/GGM-11(V)            | 9D0670D3-002   | 96238     | T S TELETYPEWRITER      | 066         | B      | 0147        |
|                            |         | AN/GGM-15(V)            | 9600           | 14031     | T S TELEGRAPH           | 066         | B      | 0148        |
|                            |         | AN/GGM-15(V)1           | 9600           | 14031     | T S TELEGRAPH           | 066         | B      | 0149        |
|                            |         | AN/GGM-15(V)2           | 9600PM         | 14031     | T S TELEGRAPH           | 066         | B      | 0150        |
|                            |         | AN/GGM-2                | DAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0142        |
|                            |         | AN/GGM-20               | DTS-531A       | 31935     | T S TELETYPEWRITER      | 066         | B      | 0151        |
|                            |         | AN/GGM-3                | DAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0144        |
|                            |         | AN/GGM-4                | DAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0140        |
|                            |         | AN/GGM-5                | DAC-5-F        | 96238     | T S TYPEWRITER          | 066         | B      | 0146        |
|                            |         | AN/PGM-1                | EMTS-200       | 02036     | T S TELEGRAPH           | 067         | B      | 0236        |
|                            |         | AN/PGM-1A               | 249            | 06053     | T S TELEGRAPH           | 067         | B      | 0237        |
|                            |         | AN/PGM-1B               | KEC-775-0      | 09043     | T S TELEGRAPH           | 067         | B      | 0238        |
|                            |         | TS-657/FG               | 119A           | 64959     | T S TELETYPEWRITER      | 067         | B      | 3654        |
|                            |         | TS-659(I)/UG            | ED-5B-ME       | 59433     | T S TELETYPEWRITER      | 067         | B      | 3639        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         |                         | DA-404A        | 96238     | PORTABLE DATA ANALYZER  | 066         | B      | 2350        |
|                            |         | AN/UGM-1                |                | 96238     | T S TELETYPEWRITER      | 066         | B      | 0307        |
|                            |         | AN/UGM-5                |                | 06763     | T S TELETYPEWRITER      | 067         | B      | 0308        |
|                            |         | SG-1054/G               | PG-3D3A        | 96238     | GENERATOR PATTERN       | 067         | B      | 0895        |
|                            |         | TS-1060/GG              | TQA-2NH        | 96238     | T S TELETYPEWRITER      | 066         | B      | 1127        |
|                            |         | TS-1060A/GG             | TQA-2NB        | 96238     | T S TELETYPEWRITER      | 066         | B      | 1128        |
|                            |         | TS-1060B/GG             | ASD-100A       | 05729     | T S TELETYPEWRITER      | 066         | B      | 1129        |
|                            |         | TS-1512,A,B/GGM         | DD-5/DAC-V     | 96238     | T S TELETYPEWRITER      | 067         | B      | 1141        |
|                            |         | TS-2255/G               | 7412           | 80257     | T S TELETYPEWRITER      | 067         | B      | 1187        |
|                            |         | TS-2256/G               | DT-603         | 14031     | T S TELETYPEWRITER      | 066         | B      | 1188        |
|                            |         | TS-2393/G               | BAC-7          | 96238     | ANALYZER TELEDATA       | 066         | B      | 1193        |
|                            |         | TS-3378/G               | DMS303A        | 96238     | ANALYZER DATA TELEGRAPH | 066         | B      | 2361        |
|                            |         | TS-383/GG               | DXD4           | 59433     | T S TELETYPEWRITER      | 066         | B      | 1007        |
|                            |         | TS-383A/GG              | DXD4-DTS       | 59433     | T S TELETYPEWRITER      | 066         | B      | 1008        |
|                            |         | TS-383B/GG              | BXD4/MU26      | 59433     | T S TELETYPEWRITER      | 066         | B      | 1009        |
|                            |         | TS-658(I)/UG            | ED-51-DT       | 59433     | T S TELETYPEWRITER      | 067         | B      | 3638        |
|                            |         | TS-660/UG               | 161A1          | 64959     | T S TELETYPEWRITER      | 067         | B      | 3655        |
|                            |         | TS-785/GG               | X75041A        | 64959     | T S TELETYPEWRITER      | 066         | B      | 1104        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE            | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------|-------------|--------|-------------|
| TELETYPE TEST SET          | 35      | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         | TS-7B5A/GG              | GA-10767       | 64959     | T S TELETYPEWRITER      | 066         | B      | 1105        |
|                            |         | TS-917/GG               | TTA-2          | 96238     | T S TELETYPEWRITER      | 066         | B      | 1119        |
|                            |         | TS-917A/GG              |                | 96238     | T S TELETYPEWRITER      | 066         | B      | 1120        |
| TELETYPE TEST SET ANALYZER | 33      | FUNCTIONALLY COMPATIBLE |                |           |                         |             |        |             |
|                            |         | AN/LGM-1                | DA-404A        | 96238     | PORTABLE DATA ANALYZER  | 066         | B      | 2350        |
|                            |         | TS-1060/GG              | TDA-2NB        | 96238     | T S TELETYPEWRITER      | 066         | B      | 0307        |
|                            |         | TS-1060A/GG             | TDA-2NB        | 96238     | T S TELETYPEWRITER      | 066         | B      | 1127        |
|                            |         | TS-1060B/GG             | ASD-100A       | 96238     | T S TELETYPEWRITER      | 066         | B      | 1128        |
|                            |         | TS-2256/G               | OT-603         | 05729     | T S TELETYPEWRITER      | 066         | B      | 1129        |
|                            |         | TS-2393/G               | RAC-7          | 14031     | T S TELETYPEWRITER      | 066         | B      | 1188        |
|                            |         | TS-3378/G               | DMS303A        | 96238     | ANALYZER TELEDATA       | 066         | B      | 1193        |
|                            |         | TS-383/GG               | DX04           | 96238     | ANALYZER DATA TELEGRAPH | 066         | B      | 2361        |
|                            |         | TS-383A/GG              | OXD4-OTS       | 59433     | T S TELETYPEWRITER      | 066         | B      | 1007        |
|                            |         | TS-383B/GG              | BXD4/MJ26      | 59433     | T S TELETYPEWRITER      | 066         | B      | 1008        |
|                            |         | TS-611C/FG              | GA-11672       | 59433     | T S TELETYPEWRITER      | 066         | B      | 1039        |
|                            |         | TS-611C/U               | GA-11672       | 64959     | TELETYPEWRITER T S      | 066         | B      | 3558        |
|                            |         | TS-660/UG               | 16141          | 64959     | T S TELETYPEWRITER      | 066         | B      | 3653        |
|                            |         | TS-785/GG               | X75041A        | 64959     | T S TELETYPEWRITER      | 067         | B      | 3655        |
|                            |         | TS-785A/GG              | GA-10767       | 64959     | T S TELETYPEWRITER      | 066         | B      | 1104        |
|                            |         | TS-800/UGM-1            |                | 64959     | T S TELETYPEWRITER      | 066         | B      | 1105        |
|                            |         | TS-917/GG               | TTA-2          | 96238     | T S TELETYPEWRITER      | 066         | B      | 1107        |
|                            |         | TS-917A/GG              |                | 96238     | T S TELETYPEWRITER      | 066         | B      | 1119        |
|                            |         |                         |                | 96238     | T S TELETYPEWRITER      | 066         | B      | 1120        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                         |             |        |             |
|                            |         | AN/GGM-1                | OAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0145        |
|                            |         | AN/GGM-1A               | OAC-V          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0141        |
|                            |         | AN/GGM-11(V)            | 90067003-002   | 96238     | T S TELETYPEWRITER      | 066         | B      | 0147        |
|                            |         | AN/GGM-15(V)            | 9600           | 14031     | T S TELEGRAPH           | 066         | B      | 0148        |
|                            |         | AN/GGM-15(V)1           | 9600           | 14031     | T S TELEGRAPH           | 066         | B      | 0149        |
|                            |         | AN/GGM-15(V)2           | 9600RM         | 14031     | T S TELEGRAPH           | 066         | B      | 0150        |
|                            |         | AN/GGM-2                | OAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0142        |
|                            |         | AN/GGM-20               | DTS-531A       | 31935     | T S TELETYPEWRITER      | 066         | B      | 0151        |
|                            |         | AN/GGM-3                | OAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0144        |
|                            |         | AN/GGM-4                | OAC-5          | 96238     | T S TELETYPEWRITER      | 066         | B      | 0140        |
|                            |         | AN/GGM-5                | OAC-5-E        | 96238     | T S TELETYPEWRITER      | 066         | B      | 0146        |
|                            |         | TS-657/FG               | 119A           | 64959     | T S TELETYPEWRITER      | 067         | B      | 3654        |
|                            |         | TS-659(I)/UG            | EO-5B-ME       | 59433     | T S TELETYPEWRITER      | 067         | B      | 3639        |

## PART I TMDE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMDE

| OTS ETE SPECIFICATION NAME  | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMDE ID NO. |
|-----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| TELETYPE TEST SET GENERATOR | 34      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                             |         |                         | PG-404         | 96238     | PORTABLE PATTERN GENERATOR          | 067         | B      | 2483        |
|                             |         | AN/UGM-5.               |                | 06763     | T S TELETYPEWRITER                  | 067         | B      | 0308        |
|                             |         | SG-1054/G               | PG-303A        | 96238     | GENERATOR PATTERN                   | 067         | B      | 0895        |
|                             |         | TS-1512,A,B/GGM         | DD-5/DAC-V     | 96238     | T S TELETYPEWRITER                  | 067         | B      | 1141        |
|                             |         | TS-28/TG                |                |           | T S TELETYPEWRITER                  | 067         | B      | 0950        |
|                             |         | TS-2255/G               | 7412           | 80257     | T S TELETYPEWRITER                  | 067         | B      | 1187        |
|                             |         | TS-658(I)/UG            | ED-51-OT       | 59433     | T S TELETYPEWRITER                  | 067         | B      | 3638        |
|                             |         | TS-799/UGM-1            |                | 96238     | T S TELETYPEWRITER                  | 067         | B      | 1136        |
|                             |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                             |         | AN/GGM-1                | DAC-5          | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0145        |
|                             |         | AN/GGM-1A               | DAC-V          | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0141        |
|                             |         | AN/GGM-11(V)            | 90067003-002   | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0147        |
|                             |         | AN/GGM-15(V)            | 9600           | 14031     | T S TELEGRAPH                       | 066         | B      | 0148        |
|                             |         | AN/GGM-15(V)1           | 9600           | 14031     | T S TELEGRAPH                       | 066         | B      | 0149        |
|                             |         | AN/GGM-15(V)2           | 9600RM         | 14031     | T S TELEGRAPH                       | 066         | B      | 0150        |
|                             |         | AN/GGM-2                | DAC-5          | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0142        |
|                             |         | AN/GGM-20               | DTS-531A       | 31935     | T S TELETYPEWRITER                  | 066         | B      | 0151        |
|                             |         | AN/GGM-3                | DAC-5          | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0144        |
|                             |         | AN/GGM-4                | DAC-5          | 96238     | T S TELETYPEWRITER                  | 066         | B      | 0140        |
|                             |         | AN/GGM-5                | DAC-5-E        | 96238     | T S TYPEWRITER                      | 066         | B      | 0146        |
|                             |         | TS-657/FG               | 1194           | 64959     | T S TELETYPEWRITER                  | 067         | B      | 3654        |
|                             |         | TS-659(I)/UG            | ED-5B-ME       | 59433     | T S TELETYPEWRITER                  | 067         | B      | 3639        |
| TELEVISION GENERATOR A      | 79      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                             |         |                         | 415            | 08098     | GENERATOR SWEEP/MARKER              | 068         | D      | 1859        |
|                             |         | AN/USM-221              | SM2000         | 04423     | GENERATOR SIGNAL                    | 109         | A      | 0480        |
|                             |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                             |         |                         | SS-117         | 33347     | ANALYZER SWEEP CKT                  | 068         | D      | 1917        |
|                             |         | AN/USM-222              | SM2000         | 04423     | GENERATOR SIGNAL                    | 109         | A      | 0491        |
| TELEVISION GENERATOR C      | 80      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                             |         |                         | WR-515A        | 02734     | MASTER CHRO-BAR GENERATOR/SIGNALYST | 068         | D      | 1876        |
| TEMPERATURE INDICATOR       | 96      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                             |         | AN/AAM-15               | 388-SL         | 55026     | THERMOCOUPLE TEMPERATURE INDICATOR  | 070         | E      | 3594        |

J-47

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| TRANSMISSION TEST SET A    | 81      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | TTI-11038      | 50137     | T S TRANSMISSION                    | 071         | 0      | 2363        |
|                            |         |                         | TTI-1140       | 50137     | T S TELEPHONE                       | 071         | 0      | 2365        |
|                            |         |                         | 12-B           | 14140     | MEASURING SET TELEPHONE TRANSMISSIO | 071         | 0      | 2369        |
|                            |         | AN/USM-181              | 3550A          | 28480     | T S TELEPHONE                       | 071         | 0      | 0455        |
|                            |         | AN/USM-181B             | 3550B-C15      | 28480     | T S TELEPHONE                       | 071         | 0      | 0456        |
|                            |         | AN/USM-343              | 3550A-C24      | 28480     | T S TELEPHONE                       | 071         | 0      | 0534        |
|                            |         | AN/USM-423              | 3550B-H03      | 28480     | TELEPHONE TEST SET                  | 071         | 0      | 1787        |
|                            |         | ME-22/PCM               | 5491           | 92161     | METER DECIBEL                       | 071         | 0      | 0653        |
|                            |         | ME-22A/PCM              |                | 92161     | METER DECIBEL                       | 071         | 0      | 0654        |
|                            |         | ME-71A/FCC              | 108A           | 94668     | METER AUDIO LEVEL                   | 005         | 0      | 0671        |
|                            |         | ME-71B/FCC              | 108B           | 94668     | METER AUDIO LEVEL                   | 005         | 0      | 0672        |
|                            |         | ME-71C/FCC              | 52D074         | 07450     | METER AUDIO LEVEL                   | 005         | 0      | 0673        |
|                            |         | TA-885/U                | 3555B          | 28480     | T S TELEPHONE                       | 071         | 0      | 2357        |
|                            |         | TS-140/PCM              | 5489           | 11975     | T S TELEPHONE                       | 071         | 0      | 0963        |
|                            |         | TS-3171/U               | TTS-37B        | 06819     | T S AUDIO                           | 071         | 0      | 1225        |
|                            |         | TS-3483/U               | TTS-4CR        | 06819     | TRANSMISSION T S                    | 071         | 0      | 1615        |
|                            |         | TS-559/FT               | 2B             | 64959     | TRANSMISSION MEASURING SET          | 071         | 0      | 1044        |
|                            |         | TS-559A                 | 2809           | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1045        |
|                            |         | TS-559B                 | 34B            | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1046        |
|                            |         | TS-559C                 | 34C            | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1047        |
|                            |         | TS-559D                 | T335-TS-559    | 51865     | TRANSMISSION MEASURING SET          | 071         | 0      | 0734        |
|                            |         | TS-559E                 | 2020-3A        | 13175     | TRANSMISSION MEASURING SET          | 071         | 0      | 1049        |
|                            |         | TS-569/FT               | 30A            | 64959     | T S TELEPHONE                       | 071         | 0      | 1051        |
|                            |         | TS-629/U                | 920            | 14140     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 1068        |
|                            |         | TS-629A/U               |                | 50304     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 1069        |
|                            |         | TS-629B/U               |                | 14140     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 3736        |
|                            |         | TS-629C/U               |                | 53527     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 1070        |
|                            |         | TS-629D/U               | TR-924         | 14140     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 1071        |
|                            |         | TS-629E/U               | 0211A03        | 25572     | AUDIO LEVEL TEST PANEL              | 005         | 0      | 1072        |
|                            |         | TS-716/U                | 224            | 02230     | T S TELEPHONE                       | 071         | 0      | 1091        |
|                            |         | TS-762/TC               | NUS-2120       | 14140     | T S AUDIO                           | 071         | 0      | 1100        |
|                            |         | TS-903/G                | I-142          | 90649     | T S TELEPHONE                       | 122         | 0      | 1117        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | T-4            | 88273     | TRACER SIGNAL                       | 118         | E      | 2496        |
|                            |         |                         | TTS-4BNH       | 06819     | TELEPHONE TEST SET                  | 071         | 0      | 2362        |
|                            |         |                         | 9041           | 20944     | TRANSM LEVEL & RETURN LOSS MEAS SET | 071         | 0      | 2391        |
|                            |         | ME-260/U                | 403B           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0691        |
|                            |         | ME-30/U                 | 400C           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0650        |
|                            |         | ME-30A/U                | 400D           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0661        |
|                            |         | ME-30B/U                | 513A           | 26687     | VOLTMETER ELEC                      | 076         | 8      | 0652        |
|                            |         | ME-30C                  | 513A           | 26687     | VOLTMETER                           | 076         | 8      | 3622        |
|                            |         | ME-30D/U                | 111A           | 35124     | VOLTMETER ELEC                      | 076         | 8      | 0663        |
|                            |         | ME-30E                  | 998-101        | 12365     | ELECTRONIC VOLTMETER                | 076         | 8      | 3623        |



## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-------------------------------------|-------------|--------|-------------|
| TRANSMISSION TEST SET A    | 81      | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         | ME-356/U                | OP-1828        | 14140     | METER AUDIO LEVEL                   | 005         | 0      | 0702        |
|                            |         | TS-27/TSM               | 0166237        | 64959     | T S TELEPHONE                       | 032         | 8      | 0956        |
|                            |         | TS-27A/TSM              | 71-3003        |           | T S TELEPHONE                       | 032         | 8      | 0957        |
|                            |         | TS-27B/TSM              | ETS-278        | 00798     | T S TELEPHONE                       | 032         | 8      | 0958        |
| TRANSMISSION TEST SET B    | 82      | FUNCTIONALLY COMPATIBLE |                |           |                                     |             |        |             |
|                            |         |                         | 4940A-01       | 28480     | SET MEASURING TRANSMISSION IMPAIRME | 014         | 0      | 1680        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                     |             |        |             |
|                            |         |                         | 1018           | 16152     | COUNTER TIMER                       | 023         | 0      | 2198        |
|                            |         |                         | 9041           | 20944     | TRANSM LEVEL & RETURN LOSS MEAS SET | 071         | 0      | 2391        |
|                            |         | AN/USM-181              | 3550A          | 28480     | T S TELEPHONE                       | 071         | 0      | 0455        |
|                            |         | AN/USM-1818             | 35508-C15      | 28480     | T S TELEPHONE                       | 071         | 0      | 0456        |
|                            |         | AN/USM-343              | 3550A-C24      | 28480     | T S TELEPHONE                       | 071         | 0      | 0534        |
|                            |         | AN/LSM-423              | 35508-H03      | 28480     | TELEPHONE TEST SET                  | 071         | 0      | 1787        |
|                            |         | CP-1101/U               | TTS58A         | 06819     | COUNTER ELEC DIGITAL                | 023         | 0      | 0551        |
|                            |         | ME-22/PCM               | 5491           | 92161     | METER DECIBEL                       | 071         | 0      | 0653        |
|                            |         | ME-22A/PCM              |                | 92161     | METER DECIBEL                       | 071         | 0      | 0654        |
|                            |         | ME-260/U                | 4038           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0691        |
|                            |         | ME-30/U                 | 400C           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0660        |
|                            |         | ME-30A/U                | 400D           | 28480     | VOLTMETER ELEC                      | 076         | 8      | 0661        |
|                            |         | ME-308/U                | 513A           | 26687     | VOLTMETER ELEC                      | 076         | 8      | 0662        |
|                            |         | ME-30C                  | 513A           | 26687     | VOLTMETER                           | 076         | 8      | 3622        |
|                            |         | ME-300/U                | 111A           | 35124     | VOLTMETER ELEC                      | 076         | 8      | 0663        |
|                            |         | ME-30E                  | 998-101        | 12365     | ELECTRONIC VOLTMETER                | 076         | 8      | 3623        |
|                            |         | ME-356/U                | OP-1828        | 14140     | METER AUDIO LEVEL                   | 005         | 0      | 0702        |
|                            |         | ME-490/U                | 48(A3)         | 50319     | METER PHASE JITTER                  | 037         | 0      | 1629        |
|                            |         | ME-71A/FCC              | 108A           | 94668     | METER AUDIO LEVEL                   | 005         | 0      | 0671        |
|                            |         | ME-71B/FCC              | 108B           | 94668     | METER AUDIO LEVEL                   | 005         | 0      | 0672        |
|                            |         | ME-71C/FCC              | 520074         | 07450     | METER AUDIO LEVEL                   | 005         | 0      | 0673        |
|                            |         | TA-885/U                | 35558          | 28480     | T S TELEPHONE                       | 071         | 0      | 2357        |
|                            |         | TS-140/PCM              | 5489           | 11975     | T S TELEPHONE                       | 071         | 0      | 0963        |
|                            |         | TS-2395/G               | 340B           | 94668     | ENVELOPE DELAY T S                  | 016         | 0      | 1195        |
|                            |         | TS-2395A/G              | 340A           | 94668     | ENVELOPE DELAY T S                  | 016         | 0      | 1196        |
|                            |         | TS-2669/GCM             | 490A           | 03860     | MEASURING SET ENVELOPE DELAY DISTOR | 016         | 0      | 1206        |
|                            |         | TS-2669A/GCM            | 490B           | 03860     | MEASURING SET ENVELOPE DELAY DISTOR | 016         | 0      | 1207        |
|                            |         | TS-3171/U               | TTS-378        | 06819     | T S AUDIO                           | 071         | 0      | 1225        |
|                            |         | TS-3483/U               | TTS-4CR        | 06819     | TRANSMISSION T S                    | 071         | 0      | 1615        |
|                            |         | TS-559/FT               | 28             | 64959     | TRANSMISSION MEASURING SET          | 071         | 0      | 1044        |
|                            |         | TS-559A                 | 2809           | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1045        |
|                            |         | TS-559B                 | 34B            | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1046        |
|                            |         | TS-559C                 | 34C            | 14140     | TRANSMISSION MEASURING SET          | 071         | 0      | 1047        |
|                            |         | TS-559D                 | T335-TS-559    | 51865     | TRANSMISSION MEASURING SET          | 071         | 0      | 0734        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SREC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                | FAMILY CODE | GP LTR | TMOE ID NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------|-------------|--------|-------------|
| TRANSMISSION TEST SET B    | B2      | PARTIALLY COMRATIBLE    |                |           |                             |             |        |             |
|                            |         | TS-559E                 | 2020-3A        | 13175     | TRANSMISSION MEASURING SET  | 071         | D      | 1049        |
|                            |         | TS-569/5T               | 30A            | 64959     | T S TELERHONE               | 071         | D      | 1051        |
|                            |         | TS-716/U                | 224            | 02230     | T S TELERHONE               | 071         | O      | 1091        |
|                            |         | TS-762/TS               | NUS-2120       | 14140     | T S AUDIO                   | 071         | O      | 1130        |
| TUBE TESTER                | 36      | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         | KS-15750L2     | 28569     | TESTER ELEC TUBE            | 072         | E      | 2548        |
|                            |         |                         | 123A           | 28569     | T S ELECTRON TUBE           | 072         | B      | 2480        |
|                            |         |                         | 533            | 28569     | T S ELEC TUBE               | 072         | B      | 2513        |
|                            |         |                         | 6000           | 28569     | T S ELEC TUBE               | 072         | B      | 2530        |
|                            |         |                         | 6000A          | 28569     | T S ELEC TUBE               | 072         | B      | 2694        |
|                            |         |                         | 8VR4           | 28569     | T S CATHODE RAY TUBE        | 072         | B      | 2460        |
|                            |         |                         | B566309        | 19200     | TESTER TUBE                 | 072         | B      | 2717        |
|                            |         | TV-13/U                 | K-100          | 82199     | T S ELECTRON TUBE           | 072         | B      | 1255        |
|                            |         | TV-13A/I                | K-200          | 82199     | T S ELECTRON TUBE           | 072         | B      | 1266        |
|                            |         | TV-2/U                  |                | 60741     | T S ELECTRON TUBE           | 072         | B      | 1258        |
|                            |         | TV-2A/U                 |                |           | T S ELECTRON TUBE           | 072         | B      | 1259        |
|                            |         | TV-2B/U                 |                |           | T S ELECTRON TUBE           | 072         | B      | 1250        |
|                            |         | TV-2C/U                 |                |           | T S ELECTRON TUBE           | 072         | B      | 1261        |
|                            |         | TV-6/U                  | 602            | 86270     | T S ELECTRON TUBE           | 072         | B      | 1252        |
|                            |         | TV-7/U                  |                | 28569     | T S ELECTRON TUBE           | 072         | B      | 1263        |
|                            |         | TV-7D/U                 |                | 00641     | T S ELECTRON TUBE           | 072         | B      | 1264        |
|                            |         | PARTIALLY COMRATIBLE    |                |           |                             |             |        |             |
|                            |         |                         | C-2767         | 32385     | TESTER IMAGE TUBE           | 072         | E      | 2537        |
|                            |         |                         | TT-125         | 04071     | TESTER TUBE IMAGE           | 072         | B      | 2503        |
|                            |         |                         | YTW-3          | 13688     | ANALYZER INDUSTRIAL TUBE    | 072         | B      | 2456        |
|                            |         |                         | 1200           | 88273     | TESTER ELEC TUBE            | 072         | B      | 2521        |
|                            |         |                         | 122001         | 89944     | TESTER THREE STAGE          | 072         | B      | 2711        |
|                            |         |                         | 18-20017       | 89944     | TESTER TUBE ONE STAGE       | 072         | B      | 2455        |
|                            |         |                         | 18-20018       | 89944     | TESTER TUBE THREE STAGES    | 072         | B      | 2466        |
|                            |         |                         | 1820016        | 89944     | TESTER TUBE ONE STAGE IMAGE | 072         | B      | 2714        |
|                            |         |                         | 31T-1875       | 86270     | T S STATIC TUBE             | 072         | B      | 2470        |
|                            |         |                         | 350334         | 97312     | T S ELECTRON TUBE           | 072         | B      | 2713        |
| VECTOR IMPEDANCE METER A   | 83      | FUNCTIONALLY COMRATIBLE |                |           |                             |             |        |             |
|                            |         |                         | 212A           | 07342     | VOLTMETER PHASE ANGLE       | 073         | O      | 1331        |
|                            |         | ZM-74/U                 | 4803A          | 28480     | METER VECTOR IMPEDANCE      | 073         | O      | 1489        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|------------------------------------|-------------|--------|-------------|
| VECTOR IMPEQANCE METER A   | 83      | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | 301A           | 07342     | VOLTMETER                          | 074         | 0      | 2009        |
| VECTOR IMPEQANCE METER B   | 84      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 4B15A          | 28480     | METER RF VECTOR IMPEDANCE          | 073         | 0      | 1490        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | 212A           | 07342     | VOLTMETER PHASE ANGLE              | 073         | D      | 1331        |
|                            |         |                         | 301A           | 07342     | VOLTMETER                          | 074         | 0      | 2009        |
| VECTOR VOLTMETER           | 85      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 8405A          | 28480     | VOLTMETER VECTOR                   | 074         | 0      | 1436        |
|                            |         | ME-223/APN-129          | 2028R          | 07342     | VOLTMETER PHASE ANGLE              | 074         | D      | 0685        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | R-12           | 88416     | VOLTMETER AC                       | 073         | D      | 3685        |
|                            |         |                         | 212A           | 07342     | VOLTMETER PHASE ANGLE              | 073         | 0      | 1331        |
|                            |         |                         | 301A           | 07342     | VOLTMETER                          | 074         | 0      | 2009        |
| VIBRATION TEST SET         | 97      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 1-500          | 62973     | VIBRATION TESTER                   | 111         | E      | 2187        |
|                            |         |                         | 10-VA-0        | 01072     | TESTER VIBRATION                   | 111         | E      | 2190        |
|                            |         |                         | 100VP-0        | 01072     | TESTER VIBRATION                   | 111         | E      | 2197        |
|                            |         |                         | 1000-SC        | 34532     | TESTER VIBRATION                   | 111         | E      | 2218        |
|                            |         |                         | 7560085        | 19200     | TESTER VIBRATION UNIVERSAL         | 111         | E      | 2271        |
|                            |         |                         | 7661921        | 19200     | TESTER VIBRATION                   | 111         | E      | 2283        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                                    |             |        |             |
|                            |         |                         | 08-07-95       | 77272     | INDICATOR VIBRATION AMPLITUDE      | 111         | E      | 2539        |
|                            |         |                         | 1C             | 62973     | VIBROMETER                         | 111         | E      | 2186        |
|                            |         |                         | 1553-9701      | 24655     | METER VIBRATION                    | 111         | E      | 2224        |
|                            |         |                         | 330            | 21354     | ANALYZER DYNAMIC VIBRATION BALANCE | 111         | E      | 1772        |
|                            |         |                         | 36949801       | 02731     | ANALYZER VIBRATOR                  | 111         | E      | 3458        |
| VOICE BAND ANALYZER        | 86      | FUNCTIONALLY COMPATIBLE |                |           |                                    |             |        |             |
|                            |         |                         | 297A           | 28480     | SWEER ORIVE                        | 075         | 0      | 1855        |
|                            |         |                         | 302A           | 28480     | ANALYZER WAVE                      | 075         | 0      | 1639        |

J-51

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                         | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|--------------------------------------|-------------|--------|-------------|
| VOICE BAND ANALYZER        | 86      | PARTIALLY COMPATIBLE    |                |           |                                      |             |        |             |
|                            |         |                         | 127C           | 9466B     | METER LEVEL FREQ SELECTIVE           | 110         | C      | 2044        |
|                            |         |                         | 129B           | 9466B     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 2045        |
|                            |         |                         | 305            | 9466B     | COMM TRANSMISSION MEASUREMENT SYSTEM | 110         | C      | 2433        |
|                            |         |                         | 305A           | 9466B     | TRANSMISSION MEASUREMENT SYSTEM      | 110         | C      | 2380        |
|                            |         |                         | 3591A          | 28480     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 1947        |
|                            |         |                         | 3594A          | 28480     | OSCILLATOR SWEEPING LOCAL PLUG IN    | 059         | C      | 1671        |
|                            |         | MF-295/U                | 125A           | 9466B     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 0693        |
| VOLTMETER, AC              | 37      | FUNCTIONALLY COMPATIBLE |                |           |                                      |             |        |             |
|                            |         |                         | M853W450ACVV   | 04423     | VOLTMETER AC                         | 076         | B      | 1991        |
|                            |         |                         | M1             | 03782     | VOLTMETER ELEC                       | 076         | B      | 1989        |
|                            |         |                         | S-49M          | 28569     | VOLTMETER AC                         | 076         | B      | 2029        |
|                            |         |                         | V-100M         | 12365     | VOLTMETER                            | 076         | B      | 2032        |
|                            |         |                         | 124K           | 80164     | VOLTMETER AC                         | 076         | B      | 2041        |
|                            |         |                         | 2005           | 0809B     | VOLTMETER                            | 076         | B      | 1935        |
|                            |         |                         | 291B712A17     | 79500     | VOLTMETER AC                         | 076         | B      | 2036        |
|                            |         |                         | 400FL          | 28480     | VOLTMETER                            | 076         | B      | 2062        |
|                            |         |                         | 400FL          | 28480     | VOLTMETER ELECTRONIC                 | 076         | B      | 2063        |
|                            |         |                         | 400HR          | 28480     | VOLTMETER ELEC                       | 076         | B      | 3361        |
|                            |         |                         | 433            | 65092     | VOLTMETER AC                         | 076         | B      | 2023        |
|                            |         |                         | 433A           | 65092     | VOLTMETER AC                         | 076         | B      | 1950        |
|                            |         |                         | 433R           | 65092     | VOLTMETER AC                         | 076         | B      | 1952        |
|                            |         |                         | 704 HSP        | 95800     | VOLTMETER                            | 076         | B      | 1963        |
|                            |         |                         | 727            | 01113     | SIGNAL LEVEL METER                   | 076         | B      | 1964        |
|                            |         |                         | 365-1          | 66150     | T S ELECTRICAL POWER                 | 076         | B      | 0336        |
|                            |         | AN/UPM-100              |                |           | T S ELECTRICAL POWER                 | 076         | B      | 0330        |
|                            |         | AN/UPM-93               |                |           | T S ELECTRICAL POWER                 | 076         | B      | 0331        |
|                            |         | AN/UPM-93A/U            |                |           | T S ELECTRICAL POWER                 | 076         | B      | 0332        |
|                            |         | AN/UPM-93C              | 15-001         | 24635     | T S ELECTRICAL POWER                 | 076         | B      | 3571        |
|                            |         | AN/UPM-155              | 411A-11025A    | 28480     | VOLTMETER ELECTRONIC                 | 076         | B      | 0497        |
|                            |         | AN/USM-265              | 400EL02        | 28480     | VOLTMETER ELEC                       | 076         | B      | 0632        |
|                            |         | IS-185                  | 433            | 65092     | VOLTMETER                            | 076         | B      | 0677        |
|                            |         | ME-147/U                | ESH            | 54085     | VOLTMETER                            | 076         | B      | 0691        |
|                            |         | ME-260/U                | 403B           | 28480     | VOLTMETER ELEC                       | 076         | B      | 0650        |
|                            |         | ME-30/U                 | 400C           | 28480     | VOLTMETER ELEC                       | 076         | B      | 0661        |
|                            |         | ME-30A/U                | 4000           | 28480     | VOLTMETER ELEC                       | 076         | B      | 0662        |
|                            |         | ME-30B/U                | 513A           | 26687     | VOLTMETER                            | 076         | B      | 0663        |
|                            |         | ME-30C                  | 513A           | 26687     | VOLTMETER                            | 076         | B      | 0663        |
|                            |         | ME-30D/U                | 111A           | 35124     | VOLTMETER ELEC                       | 076         | B      | 0623        |
|                            |         | ME-30E                  | 99B-101        | 12365     | ELECTRONIC VOLTMETER                 | 076         | B      | 0697        |
|                            |         | ME-334/U                | 309-1          | 0063B     | VOLTMETER ELEC                       | 076         | B      | 0701        |
|                            |         | ME-340/U                | 400EL/002      | 28480     | VOLTMETER ELEC                       | 076         | B      | 0708        |
|                            |         | ME-444/U                | 320A           | 50423     | VOLTMETER ELEC                       | 076         | B      | 0710        |
|                            |         | ME-451/U                | 303A           | 9466B     | VOLTMETER ELEC                       | 076         | B      | 0712        |
|                            |         | ME-459/U                | 400EL          | 28480     | VOLTMETER ELEC                       | 076         | B      |             |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

JTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| JTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                          | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|---------------------------------------|-------------|--------|-------------|
| VOLTMETER, AC              | 37      | PARTIALLY COMPATIBLE    |                |           |                                       |             |        |             |
|                            |         |                         | 87848-2        | 13327     | CONVERTER THERMAL                     | 076         | B      | 3252        |
|                            |         |                         | PA-140C        | 79500     | VOLTMETER PORTABLE TYRE AC            | 076         | B      | 1998        |
|                            |         |                         | RT-BL          | 89954     | VOLTMETER AC                          | 076         | B      | 3686        |
|                            |         |                         | VA-35          | 88416     | VOLTMETER AC                          | 076         | B      | 3693        |
|                            |         |                         | 1346           | 24655     | MICROVOLTAGE AUDIO FREQ               | 076         | A      | 1927        |
|                            |         |                         | 18009          | 24655     | VOLTMETER ELECTRONIC                  | 076         | B      | 1933        |
|                            |         |                         | 2008           | 80164     | VOLTMETER AC DC                       | 076         | B      | 1975        |
|                            |         |                         | 260-5          | 55026     | MULTIMETER                            | 032         | B      | 1336        |
|                            |         |                         | 300M           | 50423     | VOLTMETER ELEC                        | 076         | B      | 2037        |
|                            |         |                         | 310A           | 50423     | VOLTMETER                             | 076         | B      | 3353        |
|                            |         |                         | 310A-S2        | 50423     | VOLTMETER                             | 076         | B      | 3354        |
|                            |         |                         | 310B-S2        | 50423     | VOLTMETER ELEC                        | 076         | B      | 3355        |
|                            |         |                         | 313            | 55026     | MULTIMETER                            | 032         | B      | 1345        |
|                            |         |                         | 316S2          | 50423     | VOLTMETER                             | 076         | B      | 2011        |
|                            |         |                         | 330            | 05624     | POTENTIOMETER                         | 076         | B      | 2013        |
|                            |         |                         | 355            | 50423     | VOLTMETER AC DC                       | 076         | B      | 2015        |
|                            |         |                         | 427A           | 28480     | MULTIMETER                            | 032         | B      | 1353        |
|                            |         |                         | 430            | 65092     | VOLTMETER AC                          | 076         | B      | 0559        |
|                            |         |                         | 433-1906002    | 65092     | VOLTMETER PORTABLE AC                 | 076         | B      | 1954        |
|                            |         | ME-202/U                | 803            | 89536     | VOLTMETER ELEC                        | 121         | B      | 0682        |
|                            |         | ME-202B/U               | 803B           | 89536     | VOLTMETER ELEC                        | 121         | B      | 0683        |
|                            |         | ME-262/U                | 305A           | 50423     | VOLTMETER                             | 076         | B      | 0692        |
|                            |         | ME-264/U                | 300M           | 50423     | VOLTMETER ELECTRONIC                  | 076         | B      | 3628        |
|                            |         | ME-318/U                | 3400A          | 28480     | VOLTMETER ELEC                        | 080         | B      | 0695        |
|                            |         | ME-71A/FCC              | 108A           | 94668     | METER AUDIO LEVEL                     | 005         | O      | 0671        |
|                            |         | ME-71B/FCC              | 108B           | 94668     | METER AUDIO LEVEL                     | 005         | O      | 0672        |
|                            |         | ME-71C/FCC              | 520074         | 07450     | METER AUDIO LEVEL                     | 005         | O      | 0673        |
|                            |         | TS-2843/U               | 883AB          | 89536     | VOLTMETER                             | 121         | B      | 1210        |
| VOLTMETER, DIFFERENTIAL    | 38      | FUNCTIONALLY COMPATIBLE |                |           |                                       |             |        |             |
|                            |         |                         | 7408           | 28480     | DC STANDARD DIFFERENTIAL VOLTMETER    | 121         | B      | 1965        |
|                            |         |                         | 7418           | 28480     | VOLTMETER DIFFERENTIAL AC DC          | 121         | B      | 1966        |
|                            |         |                         | 803            | 89536     | VOLTMETER ELEC PRECISION DIFFERENTIAL | 121         | B      | 2559        |
|                            |         |                         | 803BR          | 89536     | VOLTMETER DIFFERENTIAL                | 121         | B      | 1967        |
|                            |         |                         | 803DAG         | 89536     | VOLTMETER ELEC                        | 121         | B      | 1969        |
|                            |         |                         | 887-ABAN       | 89536     | VOLTMETER DIFFERENTIAL                | 121         | B      | 2560        |
|                            |         |                         | 887A           | 89536     | VOLTMETER DIFFERENTIAL                | 121         | B      | 1971        |
|                            |         |                         | 891A           | 89536     | VOLTMETER DIFFERENTIAL DC             | 121         | B      | 1972        |
|                            |         |                         | 893A           | 89536     | VOLTMETER DIFFERENTIAL                | 121         | B      | 1973        |
|                            |         | ME-202/U                | 803            | 89536     | VOLTMETER ELEC                        | 121         | B      | 0682        |
|                            |         | ME-202B/U               | 803B           | 89536     | VOLTMETER ELEC                        | 121         | B      | 0683        |
|                            |         | TS-2843/U               | 883AB          | 89536     | VOLTMETER                             | 121         | B      | 1210        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFP. CODE | NOMENCLATURE                | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|-----------------------------|-------------|--------|-------------|
| VOLTMETER, DIFFERENTIAL    | 38      | PARTIALLY COMPATIBLE    |                |           |                             |             |        |             |
|                            |         |                         | PX936496       | 79500     | VOLTMETER PORTABLE DC       | 077         | B      | 2027        |
|                            |         |                         | 2007           | 27591     | VOLTMETER                   | 079         | B      | 1936        |
|                            |         |                         | 335A           | 89536     | CALIBRATOR VOLTMETER        | 121         | B      | 3456        |
|                            |         |                         | 853A-03        | 89536     | MULTIMETER DIFFERENTIAL     | 032         | B      | 1376        |
|                            |         |                         | 885A           | 89536     | VOLTMETER DC                | 077         | B      | 1970        |
|                            |         |                         | 9180B          | 16655     | POTENTIOMETER               | 077         | B      | 2049        |
|                            |         | ME-161/U                | 801            | 89536     | VOLTMETER DIFFERENTIAL      | 077         | B      | 0679        |
|                            |         | ME-333/U                | 217A           | 16335     | MULTIMETER                  | 032         | B      | 0696        |
| VOLTMETER, DIGITAL         | 39      | FUNCTIONALLY COMPATIBLE |                |           |                             |             |        |             |
|                            |         |                         | OY-2401A-M19   | 06401     | VOLTMETER DIGITAL           | 078         | B      | 1981        |
|                            |         |                         | MR53W750DCVV   | 04423     | VOLTMETER DC PORTABLE       | 077         | B      | 1992        |
|                            |         |                         | PX5            | 79500     | VOLTMETER DC                | 077         | B      | 2025        |
|                            |         |                         | PX936496       | 79500     | VOLTMETER PORTABLE DC       | 077         | B      | 2027        |
|                            |         |                         | X2             | 03626     | MULTIMETER DIGITAL          | 032         | B      | 1312        |
|                            |         |                         | 1018B462       | 18876     | MULTIMETER DIGITAL          | 078         | B      | 1460        |
|                            |         |                         | 111            | 55026     | VOLTMETER                   | 077         | B      | 2040        |
|                            |         |                         | 1400           | 31946     | VOLTMETER DC                | 077         | B      | 1928        |
|                            |         |                         | 210            | 80164     | ELECTROMETER                | 077         | B      | 2033        |
|                            |         |                         | 24421          | 03626     | MULTIMETER ASSEMBLY         | 032         | B      | 1438        |
|                            |         |                         | 3443A          | 28480     | VOLTMETER P I UNIT          | 077         | B      | 1943        |
|                            |         |                         | 3446A          | 28480     | VOLTMETER RANGE EXTENDER    | 076         | B      | 1945        |
|                            |         |                         | 3450A          | 28480     | MULTIMETER                  | 032         | B      | 1396        |
|                            |         |                         | 3470A          | 28480     | MEASUREMENT SYSTEM          | 078         | B      | 1399        |
|                            |         |                         | 3480A          | 28480     | VOLTMETER DIGITAL           | 078         | B      | 1946        |
|                            |         |                         | 3480C          | 28480     | DIGITAL VOLTMETER MAINFRAME | 078         | B      | 1400        |
|                            |         |                         | 3490A          | 28480     | MULTIMETER DIGITAL          | 078         | B      | 1401        |
|                            |         |                         | 3860A          | 21793     | MULTIMETER DIGITAL          | 032         | B      | 1402        |
|                            |         |                         | 4058R          | 28480     | VOLTMETER DIGITAL           | 077         | B      | 2064        |
|                            |         |                         | 41-132         | 38474     | VOLTMETER DC                | 077         | B      | 2037        |
|                            |         |                         | 4800           | 21793     | VOLTMETER DIGITAL           | 078         | B      | 1409        |
|                            |         |                         | 481            | 03626     | VOLTAGE DIGITAL             | 078         | B      | 1955        |
|                            |         |                         | 484A           | 03626     | VOLTMETER DIGITAL           | 078         | B      | 1956        |
|                            |         |                         | 500-01         | 13643     | VOLTMETER DIGITAL           | 078         | B      | 1957        |
|                            |         |                         | 5000-S-2351    | 21793     | VOLT-OHMETER                | 078         | B      | 1413        |
|                            |         |                         | 5400           | 21793     | MULTIMETER                  | 032         | B      | 1415        |
|                            |         |                         | 5600           | 21793     | VOLTMETER DIGITAL           | 078         | B      | 2577        |
|                            |         |                         | 5640           | 21793     | MULTIMETER DIGITAL          | 078         | B      | 1416        |
|                            |         |                         | 5900           | 21793     | MULTIMETER DIGITAL          | 078         | B      | 1417        |
|                            |         |                         | 7100A          | 13989     | VOLTMETER                   | 078         | B      | 1422        |
|                            |         |                         | 7300A631       | 98438     | MULTIMETER DIGITAL          | 032         | B      | 2048        |
|                            |         |                         | 7630           | 98438     | MULTIMETER DIGITAL          | 032         | B      | 1423        |
|                            |         |                         | 7679           | 07239     | OHMMETER                    | 035         | B      | 3560        |
|                            |         |                         | 784            | 03626     | OHMMETER DIGITAL            | 035         | B      | 1371        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MER. CODE | NOMENCLATURE               | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|----------------------------|-------------|--------|-------------|
| VOLTMETER, DIGITAL         | 39      | FUNCTIONALLY COMPATIBLE |                |           |                            |             |        |             |
|                            |         |                         | B03D           | 89536     | VOLTMETER ELEC             | 076         | B      | 1958        |
|                            |         |                         | 8100A          | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1427        |
|                            |         |                         | 8100A-01       | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1428        |
|                            |         |                         | 8100B          | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1429        |
|                            |         |                         | 8120A          | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1430        |
|                            |         |                         | 8125A          | 89536     | MULTIMETER                 | 032         | B      | 1431        |
|                            |         |                         | 8300A          | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1433        |
|                            |         |                         | 8350A          | 89536     | MULTIMETER DIGITAL         | 032         | B      | 1434        |
|                            |         |                         | 8400A          | 89536     | VOLTMETER DIGITAL          | 078         | B      | 1435        |
|                            |         |                         | 880            | 28009     | VOLTMETER D C DIGITAL      | 077         | B      | 3703        |
|                            |         |                         | U35A           | 03626     | VOLTMETER DIGITAL          | 078         | B      | 0199        |
|                            |         | AN/GSM-64               | 34-2           | 03626     | VOLTMETER DIGITAL          | 078         | B      | 0200        |
|                            |         | AN/GSM-64A              | 8400-AFM       | 89536     | VOLTMETER DIGITAL          | 078         | B      | 0201        |
|                            |         | AN/GSM-64B              | 801            | 89536     | VOLTMETER ELEC             | 077         | B      | 0437        |
|                            |         | ME-227/U                | MV-I7C         | 85711     | VOLTMETER ELEC             | 077         | B      | 0686        |
|                            |         | ME-227A/U               | 353            | 33430     | VOLTMETER ELEC             | 077         | B      | 0687        |
|                            |         | TS-340/U                | 182092         | 65092     | VOLTMETER                  | 076         | B      | 0998        |
|                            |         | TS-443/U                | 1              | 65092     | VOLTMETER                  | 077         | B      | 1021        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                            |             |        |             |
|                            |         |                         | B-2500         | 00426     | T S INSULATION BREAKDOWN   | 025         | B      | 1288        |
|                            |         |                         | DM501          | 80009     | MULTIMETER DIGITAL         | 032         | B      | 3747        |
|                            |         |                         | OPZ            | 04244     | VOLTMETER OC               | 077         | B      | 3702        |
|                            |         |                         | ELECCI         | 32590     | VOLTMETER                  | 076         | B      | 1983        |
|                            |         |                         | FSV            | 32590     | VOLTMETER                  | 076         | B      | 3268        |
|                            |         |                         | E950081400     | 15381     | MULTIMETER DIGITAL         | 035         | B      | 1296        |
|                            |         |                         | M1             | 03782     | VOLTMETER ELEC             | 076         | B      | 1989        |
|                            |         |                         | P-9300B        | 98438     | VOLTMETER                  | 077         | B      | 1996        |
|                            |         |                         | PA-140C        | 79500     | VOLTMETER PORTABLE TYPE AC | 076         | B      | 1998        |
|                            |         |                         | PT-BL          | 89954     | VOLTMETER AC               | 076         | B      | 3686        |
|                            |         |                         | PX15I          | 79500     | VOLTMETER PORTABLE         | 077         | B      | 2026        |
|                            |         |                         | X1             | 03626     | MULTIMETER DIGITAL         | 032         | B      | 1311        |
|                            |         |                         | 101            | 89497     | MULTIMETER BLASTING        | 032         | B      | 1322        |
|                            |         |                         | 10178145       | 04164     | MULTIMETER DIGITAL         | 078         | B      | 1445        |
|                            |         |                         | 1800B          | 24655     | VOLTMETER ELECTRONIC       | 076         | B      | 1933        |
|                            |         |                         | 195A           | 49671     | MULTIMETER                 | 032         | B      | 1328        |
|                            |         |                         | 201            | 16152     | VOLTMETER OC               | 077         | B      | 2001        |
|                            |         |                         | 2028           | 05157     | VOLTMETER                  | 077         | B      | 2032        |
|                            |         |                         | 3202P          | 28569     | SYSTEM DIGITAL MEASURING   | 077         | B      | 1939        |
|                            |         |                         | 330            | 05624     | POTENTIOMETER              | 076         | B      | 2013        |
|                            |         |                         | 3460R-H23      | 28480     | VOLTMETER DIGITAL          | 078         | B      | 1985        |
|                            |         |                         | 414A           | 28480     | AUTOVOLTMETER              | 077         | B      | 3569        |
|                            |         |                         | 419A           | 28480     | VOLTMETER OC NULL          | 077         | B      | 1350        |
|                            |         |                         | 425A           | 28480     | AMMETER OC MICROVOLT       | 077         | B      | 1351        |



## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYPE DESIGNATOR      | MFR. MODEL NO. | MFP. CODE | NOMENCLATURE                  | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|----------------------|----------------|-----------|-------------------------------|-------------|--------|-------------|
| VOLTMETER, DIGITAL         | 39      | PARTIALLY COMPATIBLE |                |           |                               |             |        |             |
|                            |         |                      | 425AR          | 28480     | AMMETER DC MICROVOLT          | 077         | 8      | 1352        |
|                            |         |                      | 430            | 65092     | MILLIVOLT-AMMETER DC          | 032         | 8      | 1354        |
|                            |         |                      | 501905         | 97424     | MULTIMETER                    | 032         | 8      | 1441        |
|                            |         |                      | 5703S2127      | 21793     | VOLTMETER DIGITAL RATIO METER | 078         | 8      | 2578        |
|                            |         |                      | 600            | 60741     | VOLT-OHM METER                | 032         | 8      | 1357        |
|                            |         |                      | 630            | 60741     | VOLT-OHM-MILLIAMMETER         | 032         | 8      | 1360        |
|                            |         |                      | 666H           | 60741     | MULTIMETER                    | 032         | 8      | 1364        |
|                            |         |                      | 666HH          | 60741     | MULTIMETER                    | 032         | 8      | 1365        |
|                            |         |                      | 666RW669RL     | 60741     | MULTIMETER                    | 032         | 8      | 1418        |
|                            |         |                      | 689            | 65092     | OHMMETER                      | 035         | 8      | 1952        |
|                            |         |                      | 7000           | 96662     | AMMETER AC VOLT               | 032         | 8      | 1419        |
|                            |         |                      | 7050           | 06811     | MULTIMETER                    | 032         | 8      | 1421        |
|                            |         |                      | 779            | 65092     | MULTIMETER                    | 032         | 8      | 1370        |
|                            |         |                      | 785            | 65092     | MULTIMETER PORTABLE           | 032         | 8      | 1372        |
|                            |         |                      | 8000A-01       | 89536     | MULTIMETER DIGITAL            | 032         | 8      | 1426        |
|                            |         |                      | 801            | 60741     | MULTIMETER                    | 032         | 8      | 1373        |
|                            |         |                      | 8200A          | 89536     | VOLTMETER DIGITAL             | 032         | 8      | 1425        |
|                            |         |                      | 8200A          | 89536     | VOLTMETER DIGITAL             | 078         | 8      | 1432        |
|                            |         |                      | 853A-03        | 89536     | MULTIMETER DIFFERENTIAL       | 032         | 8      | 1376        |
|                            |         |                      | 970A           | 28480     | MULTIMETER DIGITAL            | 032         | 8      | 1377        |
|                            |         |                      | 990            | 60741     | T S INDUSTRIAL ANALYZER       | 032         | 8      | 2520        |
| AN/GSM-13A                 |         |                      | 7659240        | 19200     | ELECTRICAL CABLE TEST SET     | 077         | 8      | 0193        |
| AN/GSM-45                  |         |                      | 8213077        | 19200     | T S ELECTRICAL CABLE          | 077         | 8      | 0196        |
| ME-333/U                   |         |                      | 217A           | 16335     | MULTIMETER                    | 032         | 8      | 0696        |
| ME-338/U                   |         |                      | 345            | 50423     | MULTIMETER                    | 032         | 8      | 0699        |
| ME-370/U                   |         |                      | 427A W/11075A  | 28480     | MULTIMETER                    | 032         | 8      | 0704        |
| ME-419/U                   |         |                      | 270            | 55026     | MULTIMETER ELEC               | 032         | 8      | 0705        |
| ME-450/U                   |         |                      | 260-6          | 16902     | MULTIMETER                    | 032         | 8      | 0709        |
| ME-489/U                   |         |                      | 749            | 65092     | MULTIMETER                    | 032         | 8      | 1368        |
| ME-498/U                   |         |                      | 34702A         | 28480     | MULTIMETER                    | 032         | 8      | 3565        |
| ME-77                      |         |                      |                |           | MULTITESTER                   | 032         | 8      | 3626        |
| ME-87/U                    |         |                      | 280            | 65092     | MULTIMETER                    | 032         | 8      | 0676        |
| PL-1344/U                  |         |                      | 5265A          | 28480     | VOLTMETER DIGITAL P I         | 078         | 8      | 0809        |
| TS-26/TSM                  |         |                      |                |           | T S TELEPHONE                 | 032         | 8      | 0953        |
| TS-26A/TSM                 |         |                      | 121956         | 82066     | T S TELEPHONE                 | 032         | 8      | 0954        |
| TS-268/TSM                 |         |                      |                | 88562     | T S TELEPHONE                 | 032         | 8      | 0955        |
| TS-2843/U                  |         |                      | 883AB          | 89536     | VOLTMETER                     | 121         | 8      | 1210        |
| TS-297/U                   |         |                      |                | 71440     | MULTIMETER                    | 032         | 8      | 0994        |
| TS-352/U                   |         |                      | 972            | 65092     | MULTIMETER                    | 032         | 8      | 0999        |
| TS-3528/U                  |         |                      |                | 77221     | MULTIMETER                    | 032         | 8      | 1000        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME    | SPEC NO | TYPE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                         | FAMILY CODE | GP LTR | TMOE TO NO. |
|-------------------------------|---------|-------------------------|----------------|-----------|--------------------------------------|-------------|--------|-------------|
| VOLTMETER, FREQUENCY SELECTIV | 70      | FUNCTIONALLY COMPATIBLE |                |           |                                      |             |        |             |
|                               |         |                         | 126B           | 9466B     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 2043        |
|                               |         |                         | 3591A          | 28480     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 1947        |
|                               |         | ME-295/U                | 125B           | 9466B     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 0693        |
|                               |         | PARTIALLY COMPATIBLE    |                |           |                                      |             |        |             |
|                               |         |                         | 127C           | 9466B     | METER LEVEL FREQ SELECTIVE           | 110         | C      | 2044        |
|                               |         |                         | 129B           | 9466B     | VOLTMETER FREQ SELECTIVE             | 110         | C      | 2045        |
|                               |         |                         | 305            | 9466B     | COMM TRANSMISSION MEASUREMENT SYSTE  | 110         | C      | 2433        |
|                               |         |                         | 305A           | 9466B     | TRANSMISSION MEASUREMENT SYSTEM      | 110         | C      | 2380        |
|                               |         | FR-205/U                | 128A           | 9466B     | METER FREQ                           | 110         | C      | 0575        |
|                               |         | TS-3066(V)2/U           | 312A           | 28480     | SPECTRUM ANALYZER                    | 110         | C      | 1220        |
|                               |         | TS-3066(V)3/U           | 312B           | 28480     | ANALYZER WAVE                        | 110         | C      | 3563        |
| VOLTMETER, RF                 | 40      | FUNCTIONALLY COMPATIBLE |                |           |                                      |             |        |             |
|                               |         |                         | MV28B          | 85711     | MICROVOLTMETER RF                    | 079         | B      | 1994        |
|                               |         |                         | 10             | 09435     | VOLTMETER ELEC                       | 080         | B      | 3338        |
|                               |         |                         | 10167653       | 80053     | DIGITAL MULTIMETER                   | 079         | B      | 1444        |
|                               |         |                         | 91HRS7         | 04901     | VOLTMETER RADIO FREQ SENSITIVE METER | 079         | B      | 2038        |
|                               |         | AN/URM-145              | 91CA           | 04901     | VOLTMETER ELEC                       | 079         | B      | 0393        |
|                               |         | AN/URM-145A             | 991000         | 24635     | VOLTMETER ELEC                       | 079         | B      | 0394        |
|                               |         | AN/URM-145B             | MV828A         | 85711     | VOLTMETER ELEC                       | 079         | B      | 0395        |
|                               |         | ME-426/U                | 3406A          | 28480     | T S BRDAD BAND                       | 079         | B      | 2791        |
|                               |         | ME-56/TSM               | 337            | 96762     | VOLTMETER ELEC                       | 079         | B      | 0665        |
|                               |         | ME-6/U                  | 300A           | 50423     | VOLTMETER ELEC                       | 076         | B      | 0647        |
|                               |         | ME-88/U                 | 411A           | 28480     | RF MILLIVOLTMETER                    | 079         | B      | 3682        |
|                               |         | PARTIALLY COMPATIBLE    |                |           |                                      |             |        |             |
|                               |         |                         | 2007           | 27591     | VOLTMETER                            | 079         | B      | 1936        |
|                               |         | ME-26/U                 | 410A           | 28480     | MULTIMETER                           | 032         | B      | 0655        |
|                               |         | ME-26A/U                | 410B           | 28480     | MULTIMETER                           | 032         | B      | 0656        |
|                               |         | ME-26B/U                |                | 91820     | MULTIMETER                           | 032         | B      | 0657        |
|                               |         | ME-26C/U                | 260000         | 99395     | MULTIMETER                           | 032         | B      | 0658        |
|                               |         | ME-26D/U                |                |           | MULTIMETER                           | 032         | B      | 0659        |
|                               |         | ME-303A/U               | 410C           | 28480     | VOLTMETER ELEC                       | 032         | B      | 0694        |
|                               |         | TS-505/U                | 123            |           | MULTIMETER                           | 032         | B      | 1035        |
|                               |         | TS-505A/U               | PL3000         | 77221     | MULTIMETER                           | 032         | B      | 1036        |
|                               |         | TS-505B/U               | 011700         | 94066     | MULTIMETER                           | 032         | B      | 1037        |
|                               |         | TS-505C/U               |                |           | MULTIMETER                           | 032         | B      | 1038        |
|                               |         | TS-505D/U               |                |           | MULTIMETER                           | 032         | B      | 1039        |
|                               |         | TS-505E/U               | EA0-197/129    | 02581     | MULTIMETER                           | 032         | B      | 1040        |

## PART I TMOE CROSS-REFERENCE LIST

06/22/78

OTS ETE SPECIFICATION TO US ARMY GENERAL PURPOSE TMOE

| OTS ETE SPECIFICATION NAME | SPEC NO | TYRE DESIGNATOR         | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE             | FAMILY CODE | GP LTR | TMOE IO NO. |
|----------------------------|---------|-------------------------|----------------|-----------|--------------------------|-------------|--------|-------------|
| VOLTMETER, RMS             | 41      | FUNCTIONALLY COMPATIBLE |                |           |                          |             |        |             |
|                            |         |                         | 10111154       | 18876     | VOLTMETER ELEC           | 080         | 8      | 2055        |
|                            |         |                         | 323            | 50423     | VOLTMETER ELEC           | 080         | 8      | 2012        |
|                            |         |                         | 3400A-Y10      | 28480     | VOLTMETER PMS            | 080         | 8      | 2574        |
|                            |         |                         | 910AR/AV       | 89536     | METER V ELECTRIC         | 080         | 8      | 2561        |
|                            |         |                         | 93AD           | 04901     | VOLTMETER TRUE RMS       | 080         | 8      | 2039        |
|                            |         | AN/USM-224              | 3400A          | 28480     | RMS VOLTMETER            | 080         | 8      | 0483        |
|                            |         | ME-31R/U                | 3400A          | 28480     | VOLTMETER FLEC           | 080         | 8      | 0695        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                          |             |        |             |
|                            |         |                         | 3403C          | 28480     | VOLTMETER TRUE RMS       | 080         | 8      | 1940        |
|                            |         |                         | 341            | 65092     | VOLTMETER AC DC          | 080         | 8      | 2014        |
|                            |         | AN/USM-265              | 400EL02        | 28480     | VOLTMETER FLEC           | 076         | 8      | 0497        |
|                            |         | ME-30C                  | 513A           | 26687     | VOLTMETER                | 076         | 8      | 3622        |
|                            |         | ME-300/U                | 111A           | 35124     | VOLTMETER ELEC           | 076         | 8      | 0663        |
|                            |         | ME-30E                  | 998-101        | 12365     | ELECTRONIC VOLTMETER     | 076         | 8      | 3623        |
|                            |         | ME-340/U                | 400EL/002      | 28480     | VOLTMETER ELEC           | 076         | 8      | 0701        |
|                            |         | ME-444/U                | 320A           | 50423     | VOLTMETER ELEC           | 076         | 8      | 0708        |
|                            |         | ME-451/U                | 303A           | 94668     | VOLTMETER ELEC           | 076         | 8      | 0710        |
|                            |         | ME-459/U                | 400EL          | 28480     | VOLTMETER ELEC           | 076         | 8      | 0712        |
| X-Y RECORDER               | 58      | FUNCTIONALLY COMPATIBLE |                |           |                          |             |        |             |
|                            |         |                         | RD2521-20      | 06743     | RECORDER ANALOG          | 084         | E      | 1552        |
|                            |         |                         | 7001AR         | 28480     | RECORDER X-Y             | 084         | E      | 1447        |
|                            |         |                         | 7035A          | 28480     | RECORDER X-Y             | 084         | E      | 1448        |
|                            |         |                         | 8CE1V8K        | 29834     | VOLTMETER RECORDING      | 084         | E      | 1587        |
|                            |         | RC-458V(1)U             | 7035B          | 28480     | RECORDER                 | 084         | E      | 3557        |
|                            |         | PARTIALLY COMPATIBLE    |                |           |                          |             |        |             |
|                            |         | TS-3012/U               | 135            | 28480     | RECORDER COORDINATE DATA | 084         | E      | 1518        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY CODE | GP LTR | TMDE ID NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
| AK4             |                | 24446     | MULTIMETER ELEC SRLIT CORE TYPE     |                             | 23                        |      |      |      | 002         | B      | 3689        |
| AK4             |                | 03927     | MULTIMETER ELEC SRLIT CORE TYRE     |                             | 23                        |      |      |      | 002         | B      | 3688        |
| AP-9            |                | 03516     | AMMETER AC                          | 23                          |                           |      |      |      | 001         | B      | 1976        |
| AP-1292         |                | 04468     | TESTER CONTINUITY SHIELDED          | 28                          |                           |      |      |      | 118         | E      | 2416        |
| AR-1C           |                | 15196     | METER DEVIATION FM                  | 57                          |                           |      |      |      | 031         | C      | 1598        |
| AW-55-65C       |                | 72264     | RECORDER FREQUENCY                  | 91                          | 92                        |      |      |      | 064         | E      | 1540        |
| AW-60-400C      |                | 72264     | VOLTMETER GRAPHIC                   | 91                          | 92                        |      |      |      | 064         | E      | 1541        |
| AX              |                | 13648     | AMMETER AC/DC TONG PICKUP           | 23                          |                           |      |      |      | 002         | B      | 1977        |
| A661159         |                | 77327     | MULTIRLIER FREQ                     | 11                          |                           |      |      |      | 053         | A      | 3247        |
| A7006           |                | 77327     | GENERATOR SIGNAL R I                |                             | 11                        |      |      |      | 053         | A      | 3246        |
| B-2500          |                | 00426     | T S INSULATION BREAKDOWN            |                             | 31                        | 30   | 39   |      | 025         | B      | 1288        |
| B-79            |                | 22336     | GAUSSMETER                          | 89                          |                           |      |      |      | 021         | E      | 1803        |
| BC-376M         |                | 54486     | GENERATOR SIGNAL                    | 18                          | 3                         |      |      |      | 106         | A      | 2349        |
| BF60            |                | 53790     | TESTER CAPACITOR RESISTOR           |                             | 25                        |      |      |      | 011         | B      | 1289        |
| B7B             |                | 06692     | GENERATOR PULSE                     | 4                           |                           |      |      |      | 050         | A      | 3251        |
| B7B48-2         |                | 13327     | CONVERTER THERMAL                   |                             | 37                        |      |      |      | 076         | B      | 3252        |
| C               |                | 55719     | T S TACH OMELL                      | 32                          |                           |      |      |      | 117         | B      | 2681        |
| C-2767          |                | 32385     | TESTER IMAGE TUBE                   |                             | 36                        |      |      |      | 072         | E      | 2537        |
| CH-7            |                | 13688     | VOLT-AMMETER                        |                             | 28                        | 29   | 23   |      | 032         | B      | 3690        |
| CL-400          |                | 14704     | METER ELECTRICAL FREQ               | 47                          |                           |      |      |      | 020         | C      | 1808        |
| CRM-500         |                | 91161     | METER CALORIMETRIC POWER            | 42                          |                           |      |      |      | 010         | C      | 1809        |
| CT3             |                | 31989     | TESTER CKT CONTINUITY AUDIBLE       |                             | 28                        |      |      |      | 118         | B      | 1293        |
| CVO-100PM       |                | 65092     | OSCILLATOR PRECISION                | 1                           |                           |      |      |      | 006         | A      | 3264        |
| CX-7006         |                | 77327     | GENERATOR SIGNAL P I                | 12                          | 5                         | 6    |      |      | 053         | A      | 3265        |
| C4108           |                | 00929     | METER FREQ                          | 53                          |                           |      |      |      | 020         | C      | 1807        |
| DA 410          |                | 65092     | ANALYZER TRANSFER FUNCTION          | 78                          |                           |      |      |      | 037         | D      | 1566        |
| DA-404A         |                | 96238     | PORTABLE DATA ANALYZER              | 33                          | 35                        |      |      |      | 066         | P      | 2350        |
| DCHI            |                | 03782     | VOLTMETER                           |                             | 28                        |      |      |      | 077         | R      | 2654        |
| DM501           |                | 80009     | MULTIMETER DIGITAL                  | 29                          | 39                        |      |      |      | 032         | B      | 3747        |
| DPZ             |                | 04244     | VOLTMETER DC                        | 29                          | 39                        |      |      |      | 077         | B      | 3702        |
| DP170           |                | 28569     | BRIDGE RESISTANCE DIGITAL           | 25                          |                           |      |      |      | 008         | B      | 1930        |
| DY-2401A-M19    |                | 06401     | VOLTMETER DIGITAL                   | 39                          | 29                        |      |      |      | 078         | B      | 1981        |
| D8-07-95        |                | 77272     | INDICATOR VIBRATION AMPLITUDE       |                             | 97                        |      |      |      | 111         | E      | 2539        |
| ELECCI          |                | 32590     | VOLTMETER                           |                             | 29                        | 39   |      |      | 076         | B      | 1983        |
| EMA-910         |                | 88869     | METER RADIO INTERFER AND FIELD INTE | 46                          | 45                        |      |      |      | 043         | C      | 2352        |
| FSH MIX         |                | 88869     | VOLTMETER                           |                             | 26                        |      |      |      | 035         | B      | 1297        |
| ESV             |                | 32590     | VOLTMETER                           |                             | 29                        | 39   |      |      | 076         | B      | 3268        |
| E1002           |                | 07239     | BRIDGE IMPEDANCE                    | 25                          |                           |      |      |      | 008         | B      | 3257        |
| F3067           |                | 07239     | POTENTIOMETER                       |                             | 25                        |      |      |      | 008         | B      | 1982        |
| F3108           |                | 07239     | BRIDGE RESISTANCE                   | 25                          |                           |      |      |      | 008         | B      | 1295        |
| E950081400      |                | 15381     | MULTIMETER DIGITAL                  | 29                          | 39                        |      |      |      | 035         | B      | 1296        |
| FM-7            |                |           | METER FREQ                          |                             | 48                        | 49   | 50   | 51   | 020         | C      | 1813        |
| F51A            |                | 07421     | GENERATOR SIGNAL                    | 2                           |                           |      |      |      | 047         | A      | 1902        |
| F53A            |                | 07421     | GENERATOR SIGNAL                    |                             | 1                         | 3    |      |      | 006         | A      | 1599        |
| F55A            |                | 07421     | GENERATOR FUNCTION                  | 2                           |                           |      |      |      | 047         | A      | 1812        |
| G532A           |                | 28480     | FREQ METER                          | 53                          |                           |      |      |      | 020         | C      | 3270        |
| HD125XC         |                |           | TESTER HIGH POTENTIAL               | 26                          |                           |      |      |      | 025         | B      | 1298        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/79

US ARMY GENERAL PURPOSE TMDE TO DTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO.  | MFR. CODE | NOMENCLATURE                | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP | LTR | TMDE ID NO. |
|-----------------|-----------------|-----------|-----------------------------|-----------------------------|---------------------------|------|------|------|-----------|-----|-------------|
|                 |                 |           |                             | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |           |     |             |
|                 | H347A           | 28480     | NOISE SOURCE                | 13                          |                           |      |      |      | 055       | A   | 1937        |
|                 | H530A           | 28480     | METER FREQ                  | 53                          |                           |      |      |      | 020       | C   | 1816        |
|                 | IG-115          | C3782     | GENERATOR SIGNAL            | 2                           |                           |      |      |      | 047       | A   | 1908        |
|                 | J532A           | 28480     | METER FREQ                  | 53                          |                           |      |      |      | 020       | C   | 1821        |
|                 | J79902C1L1-902C | 64959     | T S DATA                    | 72                          |                           |      |      |      | 013       | D   | 2388        |
|                 | KS-15750L2      | 28569     | TESTER ELEC TUBE            | 36                          |                           |      |      |      | 072       | E   | 2548        |
|                 | KS50-40         | 92656     | T S HIGH VOLTAGE            | 26                          |                           |      |      |      | 025       | B   | 1299        |
|                 | K1R             |           | TESTER TUBE CONTRAST TRSR   |                             | 26                        | 94   | 28   |      | 072       | B   | 2547        |
|                 | K221            | 34228     | AUTOCOLLIMATOR              |                             | 90                        |      |      |      | 119       | E   | 3271        |
|                 | K410A           | 00929     | WAVEMETER                   | 55                          |                           |      |      |      | 020       | C   | 1822        |
|                 | K532A           | 28480     | METER FREQ                  | 55                          |                           |      |      |      | 020       | C   | 3272        |
|                 | K661159         | 77327     | MULTIPLIER FREQ             | 12                          | 8                         | 9    |      |      | 053       | A   | 3274        |
|                 | K7006           | 28480     | GENERATOR SIGNAL P I        |                             | 4                         |      |      |      | 050       | A   | 3273        |
|                 | LAV8600         | 15566     | VOLTMETER RECORDING AC      |                             | 91                        | 92   |      |      | 064       | E   | 1988        |
|                 | L5-XA           | 04423     | GENERATOR SWEEP             | 20                          | 22                        |      |      |      | 108       | A   | 1939        |
|                 | L5-XA-1         | 04423     | GENERATOR SIGNAL            | 22                          |                           |      |      |      | 108       | A   | 1910        |
|                 | L7006           | 77327     | GENERATOR SIGNAL            | 16                          |                           |      |      |      | 107       | A   | 3275        |
|                 | M-3             | 56289     | T S CAPACITOR COMPACT       | 25                          |                           |      |      |      | 011       | B   | 1330        |
|                 | MF10            |           | METER RESONANT REED FREQ    |                             | 47                        |      |      |      | 020       | E   | 1779        |
|                 | MIL-T-10314     | 65092     | T S OHMMETER                |                             | 29                        | 27   | 30   |      | 035       | B   | 1990        |
|                 | MM-120          | 98282     | METER AMPLITUDE MODULATION  | 57                          |                           |      |      |      | 031       | C   | 1632        |
|                 | MP-1            | 04596     | PULSER MINI                 | 4                           |                           |      |      |      | 050       | A   | 1912        |
|                 | MR53W450ACVV    | 04423     | VOLTMETER AC                | 37                          |                           |      |      |      | 076       | B   | 1991        |
|                 | MR53W7500CVV    | 04423     | VOLTMETER DC PORTABLE       | 39                          |                           |      |      |      | 077       | B   | 1992        |
|                 | MT-650          | 16764     | ANALYZER ENGINE             |                             | 32                        |      |      |      | 117       | B   | 3393        |
|                 | MV288           | 85711     | MICROVOLTMETER RF           | 40                          |                           |      |      |      | 079       | B   | 1994        |
|                 | M1              | 03782     | VOLTMETER ELFC              | 37                          | 39                        | 29   |      |      | 076       | B   | 1939        |
|                 | M184-4          | 16469     | GENERATOR SIGNAL            | 3                           | 17                        |      |      |      | 051       | A   | 3276        |
|                 | M185-4          | 16469     | GENERATOR SIGNAL            | 18                          |                           |      |      |      | 106       | A   | 3277        |
|                 | M186-4          | 16469     | GENERATOR RF POWER P I      | 18                          |                           |      |      |      | 106       | A   | 3278        |
|                 | M187-4          | 16469     | GENERATOR RF POWER P I      | 15                          |                           |      |      |      | 107       | A   | 3279        |
|                 | M5-XB           | 04423     | GENERATOR DUAL SIGNAL       |                             | 3                         |      |      |      | 048       | A   | 1911        |
|                 | NM-17/27        | 88869     | METER EMI FIELD INTENSITY   | 43                          |                           |      |      |      | 043       | C   | 1782        |
|                 | NM-26T          | 88869     | ELECTROMAGNETIC NOISE METER | 43                          |                           |      |      |      | 043       | C   | 1783        |
|                 | NM-37/57        | 88869     | METER EMI FIELD INTENSITY   | 44                          |                           |      |      |      | 043       | C   | 1784        |
|                 | N414A           | C0929     | METER FREQ                  | 53                          |                           |      |      |      | 020       | C   | 1781        |
|                 | OIB-2           | 19482     | IMPEDANCE BRIDGE HIGH FREQ  | 25                          |                           |      |      |      | 008       | B   | 1562        |
|                 | P-12            | 88416     | VOLTMETER AC                |                             | 85                        |      |      |      | 073       | D   | 3685        |
|                 | P-3             | 29834     | AMMETER AC                  | 23                          |                           |      |      |      | 001       | B   | 1995        |
|                 | P-9300B         | 98438     | VOLTMETER                   |                             | 39                        | 29   |      |      | 077       | B   | 1996        |
|                 | PA-140C         | 79500     | VOLTMETER PORTABLE TYPE AC  |                             | 37                        | 39   |      |      | 076       | B   | 1998        |
|                 | PA-151          | 88416     | AMMETER                     | 23                          |                           |      |      |      | 001       | B   | 1999        |
|                 | PA-5            | 89315     | AMMETER AC                  | 23                          |                           |      |      |      | 001       | B   | 1997        |
|                 | PFM 604B        | C3927     | METER FREQ                  | 47                          |                           |      |      |      | 020       | C   | 1785        |
|                 | PG-32           | 24141     | GENERATOR PULSE             | 4                           |                           |      |      |      | 050       | A   | 1914        |
|                 | PG-404          | 96238     | PORTABLE PATTERN GENERATOR  | 34                          |                           |      |      |      | 067       | B   | 2483        |
|                 | PM-32           | 65054     | MULTIMETER ELFC             | 29                          | 28                        |      |      |      | 032       | B   | 1331        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

## US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP | LTR | TMDE ID NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|-----------|-----|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |           |     |             |
|                 | PN-1600        | 08987     | RESISTANCE BRIDGE                   | 25                          |                           |      |      |      | 008       | 8   | 2000        |
|                 | PSA-231        | 23369     | ANALYZER SPECTRUM PLUG IN           | 67                          |                           |      |      |      | 061       | C   | 1603        |
|                 | PT-8L          | 89954     | VOLTMETER AC                        |                             | 37                        | 29   | 39   |      | 076       | 8   | 3686        |
|                 | PX151          | 79500     | VOLTMETER PORTABLE                  |                             | 39                        | 29   |      |      | 077       | 8   | 2026        |
|                 | PX4            | 88416     | AMMETER DC                          |                             | 24                        |      |      |      | 003       | 8   | 2024        |
|                 | PX5            | 79500     | VOLTMETER DC                        | 39                          | 29                        |      |      |      | 077       | 8   | 2025        |
|                 | PX936496       | 79500     | VOLTMETER PORTABLE DC               | 39                          | 38                        |      |      |      | 077       | 8   | 2027        |
|                 | P347A          | 28480     | GENERATOR THERMAL NOISE             | 13                          |                           |      |      |      | 055       | A   | 1913        |
|                 | P532A          | 28480     | METER FREQ                          | 55                          |                           |      |      |      | 020       | C   | 3282        |
|                 | P7006          | 77327     | GENERATOR SIGNAL P I                | 15                          |                           |      |      |      | 107       | A   | 3283        |
|                 | RCD 20006      | 23405     | OSCILLATOR DUAL PHASE               |                             | 4                         |      |      |      | 050       | A   | 3287        |
|                 | RD-152         | 80740     | METER PH                            |                             | 30                        | 31   |      |      | 035       | 8   | 2172        |
|                 | RD2521-20      | 06743     | RECORDER ANALOG                     | 98                          |                           |      |      |      | 084       | E   | 1552        |
|                 | RD25522-20     | 96795     | RECORDER DUAL CHANNEL               | 92                          |                           |      |      |      | 036       | E   | 1553        |
|                 | RR-139-X       | 86270     | T S CURRENT RESISTANCE SEMIAUTOMATI | 29                          |                           |      |      |      | 029       | 8   | 2028        |
|                 | RS-3           | 15566     | MULTIMETER                          |                             | 28                        | 23   |      |      | 032       | 8   | 1303        |
|                 | RS-3A          | 15566     | MULTIMETER                          |                             | 28                        | 23   |      |      | 032       | 8   | 1304        |
|                 | RS-300         | 15566     | METER AC VOLT AMMETER               |                             | 28                        | 23   |      |      | 001       | 8   | 1305        |
|                 | R491           | 80009     | ANALYZER SPECTRUM RACKMOUNTED       | 68                          |                           |      |      |      | 062       | C   | 3284        |
|                 | S-49M          | 28569     | VOLTMETER AC                        | 37                          |                           |      |      |      | 076       | 8   | 2029        |
|                 | SA70A          | 03782     | ANALYZER SPECTRUM                   | 67                          |                           |      |      |      | 061       | C   | 1605        |
|                 | SAR4WA         | 82199     | ANALYZER SPECTRUM                   | 68                          |                           |      |      |      | 062       | C   | 1606        |
|                 | SB7            | 03782     | ANALYZER SPECTRUM                   | 68                          |                           |      |      |      | 062       | C   | 1607        |
|                 | SER-5088       | 82386     | TEST STAND GENERATOR LOAD           |                             | 28                        | 23   |      |      | 116       | 8   | 2491        |
|                 | SH-1           | 04423     | GENERATOR SWEEP                     | 22                          |                           |      |      |      | 109       | A   | 1916        |
|                 | SID-558220     | 52674     | T S FILTER ANTENNA                  |                             | 69                        | 23   |      |      | 063       | C   | 1306        |
|                 | SID558209      | 64959     | T S SWR IMPEDANCE                   |                             | 29                        | 69   |      |      | 063       | C   | 3100        |
|                 | SPA 325A       | 03782     | ANALYZER SPECTRUM                   | 67                          |                           |      |      |      | 061       | C   | 1609        |
|                 | SPA-1 STYLE D  | C3782     | ANALYZER SPECTRUM                   |                             | 67                        | 65   |      |      | 061       | C   | 1608        |
|                 | SP2280         | 11837     | IMPEDANCE MEASURING SYSTEM          | 25                          |                           |      |      |      | 022       | 8   | 3292        |
|                 | SP2979         | 11837     | BRIDGE KELVIN                       |                             | 25                        |      |      |      | 008       | 8   | 3293        |
|                 | SS-117         | 33347     | ANALYZER SWEEP CKT                  |                             | 79                        |      |      |      | 068       | D   | 1917        |
|                 | S7006          | 77327     | GENERATOR SIGNAL P I                | 11                          |                           |      |      |      | 053       | A   | 3290        |
|                 | T-4            | 88273     | TRACER SIGNAL                       |                             | 28                        | 81   |      |      | 118       | E   | 2496        |
|                 | TDS-2          | 55026     | T S TACHOMETER DWELL                |                             | 32                        |      |      |      | 117       | 8   | 3403        |
|                 | TDT-12         | 82386     | TACHOMETER DWELL                    | 32                          |                           |      |      |      | 117       | 8   | 3404        |
|                 | TF 1026/1      | 09335     | METER FREQ                          | 50                          |                           |      |      |      | 020       | C   | 1791        |
|                 | TF 1026/2      | 09335     | METER FREQ                          | 51                          |                           |      |      |      | 020       | C   | 1792        |
|                 | TF 1026/3      | 09335     | METER FREQ                          | 52                          |                           |      |      |      | 020       | C   | 1793        |
|                 | TF 1026/4      | 09335     | METER FREQ                          | 52                          |                           |      |      |      | 020       | C   | 1794        |
|                 | TF-1066A       | 09553     | SIGNAL GENERATOR                    | 18                          |                           |      |      |      | 106       | A   | 1612        |
|                 | TF-1245        | 09553     | Q METER                             |                             | 93                        |      |      |      | 042       | E   | 1558        |
|                 | TF-1247        | 09553     | OSCILLATOR                          | 18                          |                           |      |      |      | 106       | A   | 1920        |
|                 | TF-2300-1      | 09553     | METER AM FM MODULATION              |                             | 57                        |      |      |      | 031       | C   | 1614        |
|                 | TF-2300A       | 09553     | METER MODULATION AM/FM              |                             | 57                        |      |      |      | 031       | C   | 1613        |
|                 | TF-7910        | 09553     | METER CARRIER DEVIATION             |                             | 57                        |      |      |      | 031       | C   | 1610        |
|                 | TF-934         | 09553     | METER DEVIATION FM                  | 57                          |                           |      |      |      | 031       | C   | 1611        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)       |                           |      |      |      | FAMILY GR CODE | LTP | TMDE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-------------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPARATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
|                 | TF1D66/B6      | 09553     | GENERATOR SIGNAL                    | 18                            |                           |      |      |      | 106            | A   | 1919        |
|                 | TG-501         | 80009     | TIME MARK GENERATOR                 |                               | 4                         |      |      |      | 050            | A   | 1795        |
|                 | TLCG-100K      | 91161     | WATTMETER CALORIMETRIC              |                               | 42                        |      |      |      | 010            | C   | 1796        |
|                 | TO-5           | 56289     | BRIDGE CAPACITANCE                  |                               | 25                        |      |      |      | 011            | B   | 1307        |
|                 | TD-700542      | 06840     | TEST CONSOLE BASIC                  | 29                            |                           |      |      |      | 032            | B   | 3140        |
|                 | TT-125         | 04071     | TESTER TUBE IMAGE                   |                               | 36                        |      |      |      | 072            | B   | 2503        |
|                 | TTI-11033      | 50137     | T S TRANSMISSION                    | 81                            |                           |      |      |      | 071            | O   | 2363        |
|                 | TTI-1110A      | 50137     | T S TELEPHONE                       |                               | 73                        |      |      |      | 071            | D   | 2364        |
|                 | TTI-1140       | 50137     | T S TELEPHONE                       | 81                            |                           |      |      |      | 071            | D   | 2365        |
|                 | TTI-1200       | 50137     | T S RHASE JITTER                    | 78                            |                           |      |      |      | 037            | O   | 2366        |
|                 | TTS-2R         | 06819     | MEASURING SET                       | 28                            |                           |      |      |      | 032            | B   | 3683        |
|                 | TTS-48NH       | 06819     | TELEPHONE TEST SET                  |                               | 81                        | 73   |      |      | 071            | D   | 2362        |
|                 | TTS-56         | 06819     | GENERATOR NOISE                     | 14                            |                           |      |      |      | 055            | A   | 1924        |
|                 | TVDM-3         | 25778     | METER OHM                           |                               | 28                        |      |      |      | 032            | B   | 1308        |
|                 | U-SP(MOD)      | 03782     | MULTIMETER                          | 29                            |                           |      |      |      | 032            | B   | 1309        |
|                 | UP             | 54085     | MICROAMMETER                        |                               | 23                        |      |      |      | 003            | B   | 2031        |
|                 | U661155        | 77327     | MULTIPLIER FREQ                     | 12                            | 5                         | 6    | 7    |      | 053            | A   | 3317        |
|                 | V-130M         | 12365     | VOLTMETER                           | 37                            |                           |      |      |      | 076            | B   | 2032        |
|                 | VA-35          | 88416     | VOLTMETER AC                        |                               | 37                        | 28   |      |      | 076            | B   | 3693        |
|                 | VAT 26         | 82386     | MULTITESTER GENERATORS & REGULATORS |                               | 23                        | 28   |      |      | 116            | B   | 3409        |
|                 | VZM-3          | 04598     | SET DISTORTION MEASURING            |                               | 74                        |      |      |      | 014            | D   | 1616        |
|                 | W-3            |           | ANALYZER IMPEDANCE COMPONENT        |                               | 60                        |      |      |      | 038            | C   | 1550        |
|                 | WA44C          | 49671     | GENERATOR SIGNAL AUDIO FREQ         | 1                             |                           |      |      |      | 006            | A   | 1875        |
|                 | WC-1217-4N     | 16786     | METER FREQ                          | 52                            |                           |      |      |      | 020            | C   | 1797        |
|                 | WDA3712        | 16786     | METER WAVE                          | 53                            |                           |      |      |      | 020            | C   | 3318        |
|                 | WR-515A        | 02734     | MASTER CHFO-BAR GENERATOR/SIGNALYST | 80                            |                           |      |      |      | 068            | D   | 1876        |
|                 | WV-98C         | 49671     | MULTIMETER                          |                               | 28                        |      |      |      | 032            | B   | 1310        |
|                 | X1             | 03626     | MULTIMETER DIGITAL                  |                               | 39                        | 29   |      |      | 032            | B   | 1311        |
|                 | X2             | 03626     | MULTIMETER DIGITAL                  | 39                            |                           |      |      |      | 032            | P   | 1312        |
|                 | X347A          | 28480     | NOISE SOURCE                        | 13                            |                           |      |      |      | 055            | A   | 1877        |
|                 | X410A          | 00929     | METER FREQ                          | 53                            |                           |      |      |      | 020            | C   | 1798        |
|                 | X532A          | 28480     | METER FREQ                          | 53                            |                           |      |      |      | 020            | C   | 1799        |
|                 | Y551           | 28480     | WAVEMETER                           | 53                            |                           |      |      |      | 020            | C   | 1750        |
|                 | YTW-3          | 13688     | ANALYZER INDUSTRIAL TUBE            |                               | 36                        |      |      |      | 072            | B   | 2456        |
|                 | Y410A          | 00929     | METER FREQ                          | 54                            |                           |      |      |      | 020            | C   | 1751        |
|                 | ZB-2A          | 80740     | BRIDGE IMPEDANCE                    |                               | 25                        |      |      |      | 011            | B   | 1314        |
|                 | O-1            | 88416     | CHMMETER PORTABLE                   | 27                            |                           |      |      |      | 029            | B   | 2033        |
|                 | O-53 AMRS      | 33333     | AMMETER AC                          | 23                            |                           |      |      |      | 001            | B   | 2034        |
|                 | O-750 AMPS     | 33333     | AMMETER DC                          |                               | 24                        |      |      |      | 003            | B   | 2036        |
|                 | 1-500          | 62973     | VIBRATION TESTER                    | 97                            |                           |      |      |      | 111            | E   | 2187        |
|                 | 1C             | 62973     | VIBROMETER                          |                               | 97                        |      |      |      | 111            | E   | 2186        |
|                 | 1G115          | 03782     | MICROWAVE IMPULSE SOURCE            |                               | 13                        | 14   |      |      | 012            | A   | 1878        |
|                 | 1L10           | 80009     | ANALYZER SPECTRUM PLUG IN           | 67                            |                           |      |      |      | 061            | C   | 1617        |
|                 | 1L20           | 80009     | ANALYZER SPECTRUM PLUG IN           | 68                            |                           |      |      |      | 062            | C   | 1618        |
|                 | 10             | 09435     | VOLTMETER ELEC                      | 40                            |                           |      |      |      | 080            | R   | 3338        |
|                 | 10-VA-D        | 01072     | TESTER VIBRATION                    | 97                            |                           |      |      |      | 111            | F   | 2190        |
|                 | 1004           | 80138     | OSCILLATOR MEG A SWEEP              |                               | 22                        | 20   | 19   |      | 109            | A   | 1892        |



## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                         | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY CODE | GP LTR | TMOE IO NO. |
|-----------------|----------------|-----------|--------------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|--------|-------------|
|                 |                |           |                                      | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |             |        |             |
|                 | 100VP-D        | 01072     | TESTER VIBRATION                     | 97                          |                           |                           |                           |                           | 111         | E      | 2197        |
|                 | 1007-SC        | 34532     | TESTER VIBRATION                     | 97                          |                           |                           |                           |                           | 111         | F      | 2218        |
|                 | 1003           | 24655     | GENERATOR SIGNAL                     |                             |                           |                           |                           |                           | 051         | A      | 1652        |
|                 | 10046503       | 18876     | OSCILLATOR RADIO FREQUENCY           | 3                           | 18                        | 17                        |                           |                           | 051         | A      | 1597        |
|                 | 1007           | 15566     | MULTIMETER                           |                             | 28                        |                           |                           |                           | 032         | B      | 1378        |
|                 | 101            | 15933     | PULSE GENERATOR                      | 4                           |                           |                           |                           |                           | 050         | A      | 1883        |
|                 | 101            | 89497     | MULTIMETER BLASTING                  |                             | 29                        | 39                        |                           |                           | 032         | B      | 1322        |
|                 | 101-58F        | 98202     | TESTER IGNITER CKT CONTINUITY        | 28                          |                           |                           |                           |                           | 118         | E      | 1323        |
|                 | 1018           | 16152     | COUNTER TIMER                        | 76                          | 82                        |                           |                           |                           | 023         | O      | 2198        |
|                 | 10111154       | 18876     | VOLTMETER ELEC                       | 41                          |                           |                           |                           |                           | 080         | B      | 2055        |
|                 | 1013           | 82199     | GENERATOR PULSE                      | 4                           |                           |                           |                           |                           | 050         | A      | 1874        |
|                 | 10167653       | 80053     | DIGITAL MULTIMETER                   | 40                          |                           |                           |                           |                           | 079         | B      | 1444        |
|                 | 10178145       | 04164     | MULTIMETER DIGITAL                   |                             | 39                        |                           |                           |                           | 078         | B      | 1445        |
|                 | 10182039       | 04164     | GENERATOR SIGNAL                     | 3                           |                           |                           |                           |                           | 051         | A      | 2095        |
|                 | 10182651       | 04164     | GENERATOR THERMAL NOISE              | 13                          |                           |                           |                           |                           | 055         | A      | 2096        |
|                 | 10182653       | 04164     | GENERATOR MULTIFUNCTION              | 2                           |                           |                           |                           |                           | 047         | A      | 2097        |
|                 | 10182657       | 04164     | GENERATOR PULSE                      | 4                           |                           |                           |                           |                           | 050         | A      | 2098        |
|                 | 10188462       | 18876     | MULTIMETER DIGITAL                   | 39                          |                           |                           |                           |                           | 078         | B      | 1450        |
|                 | 102A           | 04901     | GENERATOR SIGNAL                     | 18                          |                           |                           |                           |                           | 106         | A      | 1630        |
|                 | 10215019       | 18876     | CALIBRATOR ASSY SOUND LEVEL          | 71                          |                           |                           |                           |                           | 112         | O      | 2406        |
|                 | 1022C          | 80009     | OSCILLATOR BEAT FREQUENCY            | 1                           |                           |                           |                           |                           | 006         | A      | 1653        |
|                 | 1050           | 28009     | WHEATSTONE BRIDGE                    |                             | 25                        | 30                        | 26                        |                           | 008         | B      | 1926        |
|                 | 10525A         | 28480     | LOGIC PROBE                          |                             | 77                        |                           |                           |                           | 027         | D      | 2701        |
|                 | 10528A         | 28480     | LOGIC CLIP                           |                             | 77                        |                           |                           |                           | 027         | O      | 2702        |
|                 | 10529A         | 28480     | LOGIC COMPARATOR                     |                             | 77                        |                           |                           |                           | 027         | O      | 2703        |
|                 | 106 TYPE 2     | 80009     | GENERATOR SQUARE WAVE                | 2                           |                           |                           |                           |                           | 054         | A      | 3340        |
|                 | 10668/6        | 09553     | GENERATOR SIGNAL FM                  | 18                          |                           |                           |                           |                           | 106         | A      | 1825        |
|                 | 107            | 80009     | SQUARE WAVE GENERATOR                | 2                           |                           |                           |                           |                           | 054         | A      | 1884        |
|                 | 1080           | 28009     | WHEATSTONE BRIDGE HIGH PRECISION     |                             | 25                        | 27                        |                           |                           | 008         | B      | 1379        |
|                 | 109            | 80009     | GENERATOR PULSE                      |                             | 4                         |                           |                           |                           | 054         | A      | 1885        |
|                 | 1104118-1      | 18876     | OHMMETER LOW RESISTANCE              |                             | 30                        |                           |                           |                           | 035         | B      | 2058        |
|                 | 1105A          | 28480     | GENERATOR PULSE                      |                             | 4                         |                           |                           |                           | 050         | A      | 2562        |
|                 | 1107           | 82199     | GENERATOR MODULAR MICROWAVE SIGNAL   |                             | 6                         | 7                         |                           |                           | 053         | A      | 1826        |
|                 | 111            | 55026     | VOLTMETER                            | 39                          | 29                        |                           |                           |                           | 077         | B      | 2040        |
|                 | 1120           | 04423     | GENERATOR SWEEP                      |                             | 22                        | 20                        | 19                        |                           | 109         | A      | 1886        |
|                 | 1142A          | 24655     | METER/DISCRIMINATOR FREQ             | 48                          |                           |                           |                           |                           | 020         | C      | 1709        |
|                 | 1144A          | 24655     | DIGITAL FREQ METER                   |                             | 48                        | 49                        |                           |                           | 020         | C      | 3553        |
|                 | 116 VCC        | 23338     | GENERATOR PHASE LOCK FUNCTION        | 2                           |                           |                           |                           |                           | 047         | A      | 1887        |
|                 | 12-B           | 14140     | MEASURING SET TELEPHONE TRANSMISSION | 81                          |                           |                           |                           |                           | 071         | O      | 2369        |
|                 | 12L1           | 06424     | FREQ METER                           | 52                          |                           |                           |                           |                           | 020         | C      | 3554        |
|                 | 1200           | 88273     | TESTER ELEC TUBE                     |                             | 36                        |                           |                           |                           | 072         | B      | 2521        |
|                 | 1201A          | 50137     | MONITOR HIT                          | 78                          |                           |                           |                           |                           | 037         | O      | 2223        |
|                 | 12058F         | 82199     | MODULAR MICROWAVE SIGNAL SOURCE      | 16                          |                           |                           |                           |                           | 107         | A      | 1713        |
|                 | 1205F          | 82199     | SIGNAL GENERATOR MICROWAVE           | 16                          |                           |                           |                           |                           | 107         | A      | 1827        |
|                 | 12088          | 24655     | OSCILLATOR UNIT                      | 18                          |                           |                           |                           |                           | 106         | A      | 1654        |
|                 | 12108          | 24655     | OSCILLATOR                           | 1                           |                           |                           |                           |                           | 006         | A      | 1828        |
|                 | 1212A          | 24655     | DETECTOR NULL                        |                             | 25                        |                           |                           |                           | 008         | B      | 1714        |

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                   | SPECIFICATION NUMBER(S) |                           |      |      |      | FAMILY GP CODE | LTR | TMOE IO NO. |
|-----------------|----------------|-----------|--------------------------------|-------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                                | FUNCTIONALLY            |                           |      |      |      |                |     |             |
|                 |                |           |                                | COMPATIBLE NO.          | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
|                 | 1215B          | 24655     | OSCILLATOR UNIT                | 18                      |                           |      |      |      | 106            | A   | 1829        |
|                 | 1217C          | 24655     | GENERATOR PULSE                | 4                       |                           |      |      |      | 050            | A   | 1830        |
|                 | 122001         | 89944     | TESTER THREE STAGE             |                         | 36                        |      |      |      | 072            | B   | 2711        |
|                 | 1223           | 94668     | METER POWER                    | 62                      | 61                        |      |      |      | 040            | C   | 3647        |
|                 | 123A           | 28569     | T S ELECTRON TUBE              | 36                      |                           |      |      |      | 072            | B   | 2480        |
|                 | 124K           | 80164     | VOLTMETER AC                   | 37                      |                           |      |      |      | 076            | B   | 2041        |
|                 | 126B           | 94668     | VOLTMETER FREQ SELECTIVE       | 70                      |                           |      |      |      | 110            | C   | 2043        |
|                 | 127C           | 94668     | METER LEVEL FREQ SELECTIVE     |                         | 70                        | 86   |      |      | 110            | C   | 2044        |
|                 | 12890          | 91547     | VIBRATION ANALYZER ENGINE      |                         | 28                        |      |      |      | 111            | B   | 2052        |
|                 | 129B           | 94668     | VOLTMETER FREQ SELECTIVE       |                         | 70                        | 86   |      |      | 110            | C   | 2045        |
|                 | 1290           |           | INDUCTANCE STANDARD            | FRE                     | 25                        |      |      |      | 024            | B   | 3493        |
|                 | 1294012        | 79500     | T S INSULATION BREAKDOWN       | 26                      |                           |      |      |      | 025            | B   | 1442        |
|                 | 13-3           | 14100     | T S PULSING LIMITS             |                         | 73                        |      |      |      | 122            | D   | 2371        |
|                 | 1307A          | 24655     | OSCILLATOR AF                  | 1                       |                           |      |      |      | 006            | A   | 1832        |
|                 | 1310B          | 24655     | OSCILLATOR                     |                         | 1                         | 3    |      |      | 006            | A   | 1656        |
|                 | 1311A          | 24655     | OSCILLATOR AUDIO               | 1                       |                           |      |      |      | 006            | A   | 2563        |
|                 | 132A           | 13488     | GENERATOR PULSE                | 4                       |                           |      |      |      | 050            | A   | 1889        |
|                 | 134A           | 21461     | OSCILLATOR AUDIO RF            |                         | 1                         | 3    |      |      | 006            | A   | 3341        |
|                 | 1346           | 24655     | MICROVOLTER AUDIO FREQ         |                         | 37                        | 29   |      |      | 076            | A   | 1927        |
|                 | 136X           | 7706B     | TESTER CAPACITOR HI-PO         |                         | 26                        |      |      |      | 025            | B   | 1324        |
|                 | 139B           | 13488     | GENERATOR PULSE                |                         | 4                         |      |      |      | 050            | A   | 1890        |
|                 | 1400           | 31946     | VOLTMETER DC                   | 39                      |                           |      |      |      | 077            | B   | 1928        |
|                 | 1400           | 31946     | AMMETER DC                     | 24                      |                           |      |      |      | 003            | B   | 1929        |
|                 | 1410           | 65092     | ANALYZER FREQUENCY RESPONSE    | 2                       |                           |      |      |      | 047            | A   | 1657        |
|                 | 1415-UB        | 92434     | METER SPOT BRIGHTNESS          |                         | 90                        |      |      |      | 119            | E   | 1716        |
|                 | 1477           | 29318     | MULTIMETER                     |                         | 29                        | 24   |      |      | 032            | B   | 1380        |
|                 | 1501/323       | 80009     | REFLECTOMETER TIME-DOMAIN      | 88                      |                           |      |      |      | 009            | E   | 1381        |
|                 | 1502           | 80009     | TIME-DOMAIN REFLECTOMETER      | 88                      |                           |      |      |      | 009            | E   | 1382        |
|                 | 1531AB         | 24655     | TACHOMETER STROBOSCOPE         | 95                      |                           |      |      |      | 065            | E   | 1717        |
|                 | 153B-A         | 24655     | STROBOSCOPE                    | 95                      |                           |      |      |      | 065            | E   | 1718        |
|                 | 155            | 65092     | AMMETER AC                     | 23                      |                           |      |      |      | 001            | B   | 2046        |
|                 | 1551C          | 24655     | METERS LEVEL                   |                         | 87                        |      |      |      | 004            | E   | 2569        |
|                 | 1553-9701      | 24655     | METER VIBRATION                |                         | 97                        |      |      |      | 111            | E   | 2224        |
|                 | 1558A          | 24655     | ANALYZER NOISE AUDIO FREQUENCY | 65                      |                           |      |      |      | 059            | C   | 1661        |
|                 | 1580A          | 28480     | SAMPLER NARROW BAND TOR        |                         | 88                        |      |      |      | 009            | E   | 1383        |
|                 | 160            | 55026     | MULTIMETER                     | 28                      |                           |      |      |      | 032            | A   | 1325        |
|                 | 1601L          | 28480     | ANALYZER LOGIC STATE           | 77                      |                           |      |      |      | 027            | O   | 2522        |
|                 | 1604A          | 24655     | COMPARATOR IMPEDANCE           |                         | 25                        |      |      |      | 008            | B   | 1474        |
|                 | 1610-B2        | 24655     | CAPACITANCE MEASURING ASSEMBLY | 25                      |                           |      |      |      | 011            | B   | 1384        |
|                 | 1611A          | 24655     | BRIDGE CAPACITANCE             | 25                      |                           |      |      |      | 008            | B   | 1385        |
|                 | 1615AM         | 24655     | CAPACITANCE BRIDGE             | 25                      |                           |      |      |      | 011            | B   | 2570        |
|                 | 1620           | 73386     | MEG OHMMETER                   | 27                      |                           |      |      |      | 029            | B   | 1930        |
|                 | 1620-R         | 73386     | MEG OHMMETER                   |                         | 27                        | 26   |      |      | 025            | B   | 1386        |
|                 | 1620A          | 24655     | CAPACITANCE MEASUREMENT SYSTEM | 25                      |                           |      |      |      | 011            | B   | 2571        |
|                 | 1632           | 24655     | BRIDGE INDUCTANCE              | 25                      |                           |      |      |      | 024            | B   | 2572        |
|                 | 164A           | 94668     | WATTMETER                      | 62                      | 61                        |      |      |      | 082            | C   | 1767        |
|                 | 1644A          | 24655     | OHMMETER BRIDGE                |                         | 26                        | 27   |      |      | 035            | B   | 1387        |

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY CODE | GP LTR | TMDE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |             |        |             |
|                 | 1645A          | 28480     | ANALYZER DATA ERROR                 | 72                          |                           |                           |                           |                           | 013         | D      | 1662        |
|                 | 1650R          | 24655     | BRIDGE IMPEDANCE                    | 25                          |                           |                           |                           |                           | 008         | B      | 1475        |
|                 | 1652A          | 24655     | BRIDGE RESISTANCE                   | 25                          |                           |                           |                           |                           | 008         | B      | 1931        |
|                 | 167            | 80164     | MULTIMETER AUTORANGING DIGITAL      | 29                          | 28                        |                           |                           |                           | 032         | B      | 1326        |
|                 | 17-23-3        | 30120     | TESTER PRECISION TACHOMETER         | 32                          |                           |                           |                           |                           | 117         | B      | 2464        |
|                 | 1709A          | 82199     | SIGNAL GENERATOR                    | 8                           |                           |                           |                           |                           | 053         | A      | 1836        |
|                 | 1710A          | 82199     | SIGNAL GENERATOR                    | 9                           |                           |                           |                           |                           | 053         | A      | 1837        |
|                 | 178-C          | 83490     | TESTER INSULATION LEAKAGE           |                             | 26                        |                           |                           |                           | 025         | B      | 1327        |
|                 | 18-20017       | 89944     | TESTER TUBE ONE STAGE               |                             | 36                        |                           |                           |                           | 072         | B      | 2465        |
|                 | 18-20018       | 89944     | TESTER TUBE THREE STAGES            |                             | 36                        |                           |                           |                           | 072         | B      | 2466        |
|                 | 18008          | 24655     | VOLTMETER ELECTRONIC                |                             | 37                        |                           | 39                        |                           | 076         | B      | 1933        |
|                 | 1806A          | 24655     | VOLTMETER ELECTRONIC                |                             | 28                        | 29                        |                           |                           | 032         | B      | 1624        |
|                 | 1820016        | 89944     | TESTER TUBE ONE STAGE IMAGE         |                             | 36                        |                           |                           |                           | 072         | B      | 2714        |
|                 | 185A           | 30669     | GENERATOR SQUARE WAVE AND ELEC SWIT |                             | 2                         |                           |                           |                           | 054         | A      | 1896        |
|                 | 185008         | 59899     | GENERATOR SIGNAL                    | 16                          |                           |                           |                           |                           | 107         | A      | 2581        |
|                 | 1862/BS1       | 24655     | OHMMETER                            | 26                          |                           |                           |                           |                           | 025         | B      | 1389        |
|                 | 1862A          | 24655     | OHMMETER ELECTRONIC                 | 26                          |                           |                           |                           |                           | 025         | B      | 1934        |
|                 | 1862B          | 24655     | MEGOHMMETER                         | 26                          |                           |                           |                           |                           | 025         | B      | 1390        |
|                 | 1862C          | 24655     | MEGOHMMETER                         | 26                          |                           |                           |                           |                           | 025         | B      | 1391        |
|                 | 1864           | 24655     | MEGOHMMETER                         | 26                          |                           |                           |                           |                           | 025         | B      | 1392        |
|                 | 1864-9700      | 24655     | MEGOHMMETER                         | 26                          |                           |                           |                           |                           | 025         | B      | 1393        |
|                 | 1890           | 49673     | GAUSSMETER                          | 89                          |                           |                           |                           |                           | 021         | E      | 1722        |
|                 | 190A           | 80009     | GENERATOR SIGNAL                    |                             | 3                         | 1                         |                           |                           | 051         | A      | 1632        |
|                 | 190A           | 28480     | Q METER                             |                             | 93                        |                           |                           |                           | 042         | E      | 1525        |
|                 | 190B           | 80009     | GENERATOR SINE WAVE                 |                             | 3                         | 1                         |                           |                           | 051         | A      | 1897        |
|                 | 1920A          | 28480     | GENERATOR PULSE                     |                             | 4                         |                           |                           |                           | 050         | A      | 1838        |
|                 | 1933-9714      | 24655     | ANALYSIS SOUND SYSTEM               |                             | 87                        |                           |                           |                           | 004         | E      | 1723        |
|                 | 195A           | 49671     | MULTIMETER                          |                             | 28                        | 29                        | 39                        |                           | 032         | B      | 1328        |
|                 | 1965           | 49673     | GAUSSMETER                          |                             | 89                        |                           |                           |                           | 021         | E      | 1724        |
|                 | 20J            | 80164     | VOLTMETER ELEC                      | 28                          |                           |                           |                           |                           | 032         | B      | 1329        |
|                 | 200A           | 28480     | AUDIO OSCILLATOR                    | 1                           |                           |                           |                           |                           | 006         | A      | 1633        |
|                 | 200B           | 80164     | VOLTMETER AC OC                     |                             | 37                        | 29                        |                           |                           | 076         | B      | 1975        |
|                 | 200C0          | 28480     | OSCILLATOR AUDIO                    | 1                           |                           |                           |                           |                           | 006         | A      | 3343        |
|                 | 200J           | 28480     | OSCILLATOR AF                       | 1                           |                           |                           |                           |                           | 006         | A      | 1898        |
|                 | 2000-1         | 04423     | GENERATOR SWEEP                     |                             | 22                        | 20                        | 19                        |                           | 108         | A      | 1839        |
|                 | 2005           | 08098     | VOLTMETER                           | 37                          |                           |                           |                           |                           | 076         | B      | 1935        |
|                 | 2006           | 27593     | VOLTMETER HETERODYNE                |                             | 48                        | 49                        | 50                        |                           | 020         | C      | 2099        |
|                 | 2007           | 27591     | VOLTMETER                           |                             | 40                        | 38                        |                           |                           | 079         | B      | 1936        |
|                 | 201            | 04237     | MULTIMETER PORTABLE                 |                             | 28                        |                           |                           |                           | 032         | B      | 1330        |
|                 | 201            | 16152     | VOLTMETER OC                        |                             | 39                        |                           |                           |                           | 077         | B      | 2001        |
|                 | 201CR-C60      | 28480     | OSCILLATOR AUDIO                    | 1                           |                           |                           |                           |                           | 006         | A      | 1634        |
|                 | 2019           | 03626     | DIGITAL MULTIMETER                  | 29                          |                           |                           |                           |                           | 032         | B      | 3704        |
|                 | 202-1          | 90101     | METER PHASE                         | 60                          |                           |                           |                           |                           | 038         | C      | 1526        |
|                 | 202A           | 28480     | GENERATOR SIGNAL                    |                             | 2                         |                           |                           |                           | 047         | A      | 3345        |
|                 | 202B           | 05157     | VOLTMETER                           |                             | 39                        |                           |                           |                           | 077         | B      | 2002        |
|                 | 202B           | 28480     | CONVERTER FREQ                      |                             | 3                         | 1                         |                           |                           | 051         | A      | 1759        |
|                 | 202CR          | 28480     | GENERATOR SIGNAL                    | 1                           |                           |                           |                           |                           | 006         | A      | 3346        |

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFP. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY CODE | GP LTP | TMOE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
|                 | 202E           | 28480     | GENERATOR SIGNAL                    | 18                          |                           |      |      |      | 106         | A      | 1635        |
|                 | 204C           | 28480     | OSCILLATOR AUDIO                    |                             | 1                         |      |      |      | 006         | A      | 1636        |
|                 | 208A           | 28480     | OSCILLATOR ELECTRONIC               | 1                           |                           |      |      |      | 006         | A      | 1637        |
|                 | 21J1052        | 07239     | TESTER INSULATION MEGGER            |                             | 26                        | 27   |      |      | 025         | B      | 1315        |
|                 | 210            | 80164     | ELECTROMETER                        | 39                          |                           |      |      |      | 077         | B      | 2003        |
|                 | 211A           | 28480     | GENERATOR SIGNAL                    | 18                          |                           |      |      |      | 106         | A      | 1638        |
|                 | 2115B          | 07239     | OHMMETER LOW RESISTANCE             |                             | 26                        | 27   |      |      | 025         | B      | 1437        |
|                 | 212A           | 07342     | VOLTMETER PHASE ANGLE               | 83                          | 84                        | 85   |      |      | 073         | O      | 1331        |
|                 | 2133           | 28480     | GENERATOR PULSE                     | 4                           |                           |      |      |      | 050         | A      | 1850        |
|                 | 214A           | 28480     | GENERATOR PULSE                     | 4                           |                           |      |      |      | 050         | A      | 3348        |
|                 | 214A-C38       | 28480     | GENERATOR PULSE                     |                             | 4                         | 2    |      |      | 050         | A      | 3253        |
|                 | 216A           | 28480     | GENERATOR PULSE                     |                             | 4                         |      |      |      | 050         | A      | 1851        |
|                 | 218AR          | 28480     | GENERATOR DIGITAL DELAY             |                             | 4                         |      |      |      | 050         | A      | 1852        |
|                 | 219            | 77327     | DETECTOR VSWR                       | 69                          |                           |      |      |      | 063         | C      | 3349        |
|                 | 222A           | 28480     | GENERATOR PULSE                     | 4                           |                           |      |      |      | 050         | A      | 1853        |
|                 | 225-01-52638   | 52638     | T S GENERATOR & VOLTAGE REG AUTO    |                             | 28                        | 23   |      |      | 116         | B      | 3453        |
|                 | 230            | 55026     | MULTIMETER                          | 28                          |                           |      |      |      | 032         | B      | 1332        |
|                 | 231B           | 11837     | WHEATSTONE BRIDGE                   |                             | 25                        |      |      |      | 008         | B      | 1333        |
|                 | 240            | 93346     | T S SEMICONDUCTOR                   | 94                          |                           |      |      |      | 045         | E      | 2508        |
|                 | 24421          | 03626     | MULTIMETER ASSEMBLY                 | 39                          | 29                        |      |      |      | 032         | B      | 1438        |
|                 | 2470-350       | 49673     | CHAPTER MAGNET                      |                             | 89                        |      |      |      | 021         | E      | 2101        |
|                 | 25             | 04773     | SIGNAL TEST SET                     |                             | 73                        |      |      |      | 122         | D      | 2372        |
|                 | 250            | 05606     | INDICATOR PHASE ANGLE               | 60                          |                           |      |      |      | 038         | C      | 1530        |
|                 | 250-A          | 04901     | METER RX                            |                             | 25                        |      |      |      | 022         | B      | 1334        |
|                 | 255            | 04237     | VIBROGROUND                         |                             | 31                        | 28   |      |      | 035         | B      | 2004        |
|                 | 260-A          | 04901     | Q METER                             |                             | 93                        |      |      |      | 042         | E      | 1531        |
|                 | 260-5          | 55026     | MULTIMETER                          |                             | 28                        | 37   |      |      | 032         | B      | 1336        |
|                 | 261C           | 14031     | MULTIMETER DIGITAL                  | 29                          |                           |      |      |      | 032         | B      | 1337        |
|                 | 2657A          | 28480     | OSCILLATOR SYNCHRONIZER             |                             | 16                        | 12   | 5    | 6    | 053         | A      | 1667        |
|                 | 269            | 04237     | TESTER VIBROTEST                    | 27                          |                           |      |      |      | 029         | B      | 2005        |
|                 | 27-37          | 01216     | TESTER ALTERNATOR VOLT AMP          |                             | 28                        | 23   |      |      | 116         | E      | 3519        |
|                 | 27-55          | 01216     | SCOPE ANALYZER                      | 32                          |                           |      |      |      | 117         | B      | 3520        |
|                 | 27-83          | 01216     | TACHOMETER DWELL                    | 32                          |                           |      |      |      | 117         | B      | 3521        |
|                 | 2700           | 09553     | BRIDGE UNIVERSAL IMPEDANCE          | 25                          |                           |      |      |      | 008         | B      | 1487        |
|                 | 280            | 04237     | TESTER GROUND RESISTANCE            | 31                          |                           |      |      |      | 035         | B      | 1339        |
|                 | 290-A-MOD      | 11837     | IMPEDANCE BRIDGE                    | 25                          |                           |      |      |      | 008         | B      | 3350        |
|                 | 2901           | 80009     | GENERATOR TIME MARK                 | 4                           |                           |      |      |      | 050         | A      | 1840        |
|                 | 291A           | 06424     | METER FREQ                          | 48                          |                           |      |      |      | 020         | C      | 1770        |
|                 | 291B712A17     | 79500     | VOLTMETER AC                        | 37                          |                           |      |      |      | 076         | B      | 2006        |
|                 | 297A           | 28480     | SWEEP OPIVE                         | 86                          |                           |      |      |      | 075         | O      | 1855        |
|                 | 300            | 96641     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 3051        |
|                 | 300M           | 50423     | VOLTMETER ELEC                      |                             | 37                        |      |      |      | 076         | B      | 2007        |
|                 | 300U27         | 01216     | TESTER CAPACITOR                    | 25                          |                           |      |      |      | 011         | B      | 3186        |
|                 | 301 SEPIES G   | 64359     | TEST STAND AUTO GENERATOR & STARTER |                             | 28                        | 23   |      |      | 116         | E      | 3454        |
|                 | 301A           | 07342     | VOLTMETER                           |                             | 85                        | 83   | 84   |      | 074         | O      | 2009        |
|                 | 302A           | 28480     | ANALYZER WAVE                       | 86                          |                           |      |      |      | 075         | O      | 1639        |
|                 | 303            | 55026     | MULTIMETER                          |                             | 28                        |      |      |      | 032         | B      | 1340        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURCHASE TMDE TO DTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)       |                           |      |      |      | FAMILY CODE | GR LTR | TMDE ID NO. |
|-----------------|----------------|-----------|-------------------------------------|-------------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPARATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
|                 | 305            | 94668     | COMM TRANSMISSION MEASUREMENT SYSTE |                               | 70                        | 86   | 66   | 64   | 110         | C      | 2433        |
|                 | 305A           | 94668     | TRANSMISSION MEASUREMENT SYSTEM     |                               | 70                        | 86   | 66   | 64   | 110         | C      | 2380        |
|                 | 31T-1875       | 86270     | T S STATIC TUBE                     |                               | 36                        |      |      |      | 072         | B      | 2470        |
|                 | 310            | 60741     | MULTIMETER                          |                               | 28                        |      |      |      | 032         | B      | 1341        |
|                 | 310            | 65092     | WATTMETER                           |                               | 61                        | 62   |      |      | 039         | C      | 1771        |
|                 | 310A           | 50423     | VOLTMETER                           |                               | 37                        |      |      |      | 076         | B      | 3353        |
|                 | 310A-S2        | 50423     | VOLTMETER                           |                               | 37                        |      |      |      | 076         | B      | 3354        |
|                 | 310B-S2        | 50423     | VOLTMETER ELEC                      |                               | 37                        |      |      |      | 076         | B      | 3355        |
|                 | 310C           | 60741     | MULTIMETER                          |                               | 28                        | 23   |      |      | 032         | B      | 1343        |
|                 | 311            | 55026     | METER VOLT OHM                      |                               | 28                        |      |      |      | 032         | B      | 1344        |
|                 | 313            | 55026     | MULTIMETER                          |                               | 28                        | 37   | 26   | 27   | 032         | B      | 1345        |
|                 | 313A           | 28480     | OSCILLATOR TRACKING                 |                               | 64                        |      |      |      | 056         | C      | 1640        |
|                 | 315A           | 11837     | RRIOGE IMREDANCE                    | 25                            |                           |      |      |      | 008         | B      | 3592        |
|                 | 316S2          | 50423     | VOLTMETER                           |                               | 37                        |      |      |      | 076         | B      | 2011        |
|                 | 3202R          | 28569     | SYSTEM DIGITAL MEASURING            |                               | 39                        | 26   |      |      | 077         | B      | 1939        |
|                 | 322A           | 15859     | OSCILLOGRAPH                        | 91                            | 92                        |      |      |      | 036         | E      | 1536        |
|                 | 323            | 50423     | VOLTMETER ELEC                      | 41                            |                           |      |      |      | 080         | B      | 2012        |
|                 | 330            | 05624     | POTENTIOMETER                       |                               | 37                        | 39   |      |      | 076         | B      | 2013        |
|                 | 330            | 21354     | ANALYZER DYNAMIC VIBRATION BALANCER |                               | 97                        |      |      |      | 111         | E      | 1772        |
|                 | 330B-501       | 28480     | AUTOMATIC SYNTHESIZED               |                               | 20                        | 19   |      |      | 052         | A      | 1843        |
|                 | 3301A          | 28480     | AUXILLARY P I                       | 2                             |                           |      |      |      | 047         | A      | 1841        |
|                 | 3310A          | 28480     | GENERATOR FUNCTION                  | 2                             |                           |      |      |      | 047         | A      | 1842        |
|                 | 334A           | 28480     | ANALYZER DISTORTION                 | 74                            |                           |      |      |      | 014         | O      | 3359        |
|                 | 335A           | 89536     | CALIBRATOR VOLTMETER                |                               | 38                        |      |      |      | 121         | B      | 3456        |
|                 | 339            | 65092     | METER FREQ                          |                               | 47                        | 48   |      |      | 020         | C      | 1773        |
|                 | 340B           | 28480     | METER NOISE FIGURE                  |                               | 13                        | 14   |      |      | 033         | C      | 1774        |
|                 | 3400A-Y10      | 28480     | VOLTMETER RMS                       | 41                            |                           |      |      |      | 080         | B      | 2574        |
|                 | 3403C          | 28480     | VOLTMETER TRUE RMS                  |                               | 41                        |      |      |      | 080         | B      | 1940        |
|                 | 341            | 65092     | VOLTMETER AC OC                     |                               | 41                        |      |      |      | 080         | B      | 2014        |
|                 | 3430A          | 28480     | VOLTMETER DIGITAL                   | 29                            |                           |      |      |      | 078         | B      | 1942        |
|                 | 3439A-C-28     | 28480     | VOLTOHM MILLIAMMETER MAINFRAME DIGI | 29                            |                           |      |      |      | 032         | B      | 1292        |
|                 | 344A           | 28480     | METER NOISE FIGURE                  | 13                            |                           |      |      |      | 033         | C      | 1725        |
|                 | 3443A          | 28480     | VOLTMETER R I UNIT                  | 39                            |                           |      |      |      | 077         | B      | 1943        |
|                 | 3444A          | 28480     | DC MULTIFUNCTION UNIT               | 29                            |                           |      |      |      | 032         | B      | 1395        |
|                 | 3444A-C15      | 28480     | P I UNIT ELFC TEST EQUIP            | 29                            |                           |      |      |      | 032         | B      | 1291        |
|                 | 3445A          | 28480     | VOLTMETER P I UNIT                  | 29                            |                           |      |      |      | 076         | B      | 1944        |
|                 | 3445A-C06      | 28480     | AC OC RANGE R I UNIT                | 29                            |                           |      |      |      | 032         | B      | 1978        |
|                 | 3446A          | 28480     | VOLTMETER RANGE EXTENDER            | 39                            |                           |      |      |      | 076         | B      | 1945        |
|                 | 3450A          | 28480     | MULTIMETER                          | 39                            |                           |      |      |      | 032         | B      | 1396        |
|                 | 3450B          | 28480     | MULTIFUNCTION METER                 | 29                            |                           |      |      |      | 032         | B      | 1397        |
|                 | 34500          | 92110     | GENERATOR PULSE                     |                               | 4                         |      |      |      | 050         | A      | 1844        |
|                 | 3460B-H23      | 28480     | VOLTMETER DIGITAL                   |                               | 39                        |      |      |      | 078         | B      | 1985        |
|                 | 3469B          | 28480     | MULTIMETER DIGITAL                  |                               | 29                        | 24   |      |      | 032         | B      | 1338        |
|                 | 3470A          | 28480     | MEASUREMENT SYSTEM                  | 39                            |                           |      |      |      | 078         | B      | 1399        |
|                 | 3480A          | 28480     | VOLTMETER DIGITAL                   | 39                            |                           |      |      |      | 078         | B      | 1946        |
|                 | 3480C          | 28480     | DIGITAL VOLTMETER MAINFRAME         | 39                            |                           |      |      |      | 078         | B      | 1400        |
|                 | 3490A          | 28480     | MULTIMETER DIGITAL                  | 39                            |                           |      |      |      | 078         | B      | 1401        |

J-67

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYRE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | SPECIFICATION NUMBER(S)     |                           |      |      | FAMILY CODE | GP LTR | TMOE IO NO. |
|-----------------|----------------|-----------|-----------------------------------|-----------------------------|---------------------------|------|------|-------------|--------|-------------|
|                 |                |           |                                   | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4        |        |             |
| 350334          |                | 57312     | T S ELECTRON TUBE                 |                             | 36                        |      |      |             | 072    | B 2713      |
| 355             |                | 50423     | VOLTMETER AC DC                   |                             | 37                        | 29   |      |             | 076    | 8 2015      |
| 3570A-101       |                | 28480     | NETWORK ANALYZER                  | 65                          |                           |      |      |             | 059    | C 1669      |
| 3575A           |                | 28480     | GAIN/PHASE METER                  | 60                          |                           |      |      |             | 038    | C 1488      |
| 3591A           |                | 28480     | VOLTMETER FREQ SELECTIVE          | 70                          | 86                        | 65   |      |             | 110    | C 1947      |
| 3594A           |                | 28480     | OSCILLATOR SWEEPING LOCAL PLUG IN |                             | 65                        | 67   | 86   |             | 059    | C 1671      |
| 36C             |                | 30119     | TESTER INSULATION                 |                             | 26                        | 27   |      |             | 025    | B 1317      |
| 36FE            |                |           | TACHOMETER PHOTO                  | 32                          |                           |      |      |             | 117    | 8 1752      |
| 360B            |                | 14506     | MULTIMETER DIGITAL                | 29                          | 28                        |      |      |             | 032    | 8 1346      |
| 362             |                | 55026     | OHMMETER                          | 30                          |                           |      |      |             | 035    | 8 1347      |
| 369A9801        |                | 02731     | ANALYZER VIBRATOR                 |                             | 97                        |      |      |             | 111    | F 3458      |
| 373             |                | 55026     | MILLIAMMETER                      | 23                          |                           |      |      |             | 001    | 8 3739      |
| 3737A           |                | 28480     | DOWN CONVERTER P I                | 56                          |                           |      |      |             | 030    | C 3719      |
| 3860A           |                | 21793     | MULTIMETER DIGITAL                | 39                          |                           |      |      |             | 032    | 8 1422      |
| 400EL           |                | 28480     | VOLTMETER                         | 37                          |                           |      |      |             | 076    | 8 2062      |
| 400FL           |                | 28480     | VOLTMETER ELECTRONIC              | 37                          |                           |      |      |             | 076    | B 2063      |
| 400HR           |                | 28480     | VOLTMETER ELEC                    | 37                          |                           |      |      |             | 076    | 8 3361      |
| 404             |                | 92110     | MICROWAVE SWERT SIGNAL GENERATOR  | 21                          |                           |      |      |             | 049    | A 1857      |
| 404             |                | 80053     | DISCRIMINATOR FREQ                |                             | 47                        |      |      |             | 020    | C 1726      |
| 4045            |                | 04237     | TESTER INSULATION BREAKDOWN       | 26                          |                           |      |      |             | 025    | 8 1403      |
| 405BR           |                | 28480     | VOLTMETER DIGITAL                 | 39                          |                           |      |      |             | 077    | 8 2064      |
| 406A            |                | 98278     | OSCILLATOR                        | 18                          |                           |      |      |             | 106    | A 1858      |
| 41-001          |                | 30119     | T S PORTABLE HI-POT               |                             | 26                        | 27   |      |             | 025    | 8 1318      |
| 41-132          |                | 38474     | VOLTMETER DC                      | 39                          | 28                        | 29   |      |             | 077    | 8 2037      |
| 412             |                | 80164     | AMMETER DC                        |                             | 24                        |      |      |             | 003    | 8 2065      |
| 414A            |                | 28480     | AUTOVOLTMETER                     |                             | 29                        | 39   |      |             | 077    | 8 3569      |
| 415             |                | 08098     | GENERATOR SWEEP/MARKER            | 79                          |                           |      |      |             | 068    | O 1859      |
| 415-Y10E        |                | 28480     | METER STANDING WAVE RATIO         | 69                          |                           |      |      |             | 063    | C 3320      |
| 416A            |                | 28480     | INDICATOR STANDING WAVE RATIO     | 69                          |                           |      |      |             | 063    | C 1349      |
| 417             |                | 80164     | AMMETER                           |                             | 24                        |      |      |             | 003    | B 2016      |
| 417-29          |                | 80164     | AMMETER MICRO MICRO               | 24                          |                           |      |      |             | 003    | 8 2017      |
| 419A            |                | 28480     | VOLTMETER DC NULL                 |                             | 39                        | 29   |      |             | 077    | B 1350      |
| 4204A           |                | 28480     | OSCILLATOR DIGITAL                | 1                           |                           |      |      |             | 006    | A 1845      |
| 425A            |                | 28480     | AMMETER DC MICROVOLT              |                             | 39                        | 24   | 29   |             | 077    | 8 1351      |
| 425AR           |                | 28480     | AMMETER DC MICROVOLT              |                             | 39                        | 24   | 29   |             | 077    | B 1352      |
| 427A            |                | 28480     | MULTIMETER                        |                             | 28                        | 37   |      |             | 032    | 8 1353      |
| 4271            |                | 31922     | BRIDGE RESISTANCE                 |                             | 25                        |      |      |             | 008    | 8 1405      |
| 428A            |                | 28480     | MILLIAMMETER                      |                             | 23                        |      |      |             | 001    | 8 2018      |
| 4285            |                | 31922     | BRIDGE RESISTANCE                 |                             | 25                        |      |      |             | 008    | B 1948      |
| 430             |                | 65092     | MILLIVOLT-AMMETER DC              |                             | 29                        | 39   | 24   |             | 032    | 8 1354      |
| 430             |                | 65092     | MILLIVOLTMETER DC                 |                             | 29                        |      |      |             | 077    | B 2021      |
| 430             |                | 65092     | VOLTMETER AC                      |                             | 37                        |      |      |             | 076    | 8 0559      |
| 430B            |                | 28480     | METER POWER                       | 63                          |                           |      |      |             | 041    | C 1728      |
| 432A            |                | 28480     | METER POWER                       | 63                          |                           |      |      |             | 041    | C 1729      |
| 432B            |                | 28480     | METER POWER                       | 63                          |                           |      |      |             | 041    | C 1730      |
| 4324            |                | 21793     | MULTIMETER DIGITAL                | 29                          |                           |      |      |             | 032    | 8 1406      |
| 433             |                | 65092     | VOLTMETER AC                      | 37                          |                           |      |      |             | 076    | 8 2023      |



## PART 11 TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)             |                                   |      |      |      | FAMILY GP | LTR | TMOE 10 NO. |
|-----------------|----------------|-----------|-------------------------------------|-------------------------------------|-----------------------------------|------|------|------|-----------|-----|-------------|
|                 |                |           |                                     | FUNCTIONALLY<br>COMPARATIBLE<br>NO. | PARTIALLY<br>COMPARATIBLE<br>NO.1 | NO.2 | NO.3 | NO.4 |           |     |             |
|                 | 433-1906092    | 65092     | VOLTMETER PORTABLE AC               |                                     | 37                                |      |      |      | 076       | 8   | 1954        |
|                 | 433A           | 65092     | VOLTMETER AC                        | 37                                  |                                   |      |      |      | 076       | B   | 1950        |
|                 | 433A           | 65092     | AMMETER AC                          | 23                                  |                                   |      |      |      | 001       | B   | 1951        |
|                 | 433B           | 65092     | VOLTMETER AC                        | 37                                  |                                   |      |      |      | 076       | B   | 1952        |
|                 | 433B           | 65092     | AMMETER AC                          | 23                                  |                                   |      |      |      | 001       | B   | 1953        |
|                 | 434A           | 28480     | CALORIMETER OIL TYPE 10 WATTS       | 42                                  |                                   |      |      |      | 010       | C   | 1731        |
|                 | 435A           | 28480     | METER POWER                         | 63                                  |                                   |      |      |      | 041       | C   | 1732        |
|                 | 440-AR         | 88865     | OSCILLATOR RUSHBUTTON               |                                     | 1                                 | 2    |      |      | 006       | A   | 1850        |
|                 | 440A           | 88865     | OSCILLATOR AUDIO FREQ               |                                     | 1                                 |      |      |      | 006       | A   | 1879        |
|                 | 444J           | 29318     | MULTIMETER                          | 29                                  |                                   |      |      |      | 032       | B   | 1437        |
|                 | 445A           | 28569     | MULTIMETER                          |                                     | 28                                | 23   |      |      | 032       | B   | 1355        |
|                 | 450            | 11332     | WATTMETER                           |                                     | 63                                |      |      |      | 041       | C   | 1734        |
|                 | 454A           | 11332     | POWER METER RADIO FREQ              | 63                                  |                                   |      |      |      | 041       | C   | 3678        |
|                 | 470A-1000      | 94668     | GENERATOR SIGNAL                    |                                     | 15                                | 17   |      |      | 107       | A   | 1642        |
|                 | 470A-1800      | 94668     | GENERATOR SIGNAL                    | 16                                  |                                   |      |      |      | 107       | A   | 1851        |
|                 | 4735           | 31922     | BRIDGE RESISTANCE                   |                                     | 25                                | 26   |      |      | 008       | B   | 1438        |
|                 | 4800           | 21793     | VOLTMETER DIGITAL                   | 39                                  |                                   |      |      |      | 078       | B   | 1409        |
|                 | 481            | 03626     | VOLTAGE DIGITAL                     | 39                                  |                                   |      |      |      | 078       | B   | 1955        |
|                 | 4815A          | 28480     | METER RF VECTOR IMPEOANCE           | 84                                  |                                   |      |      |      | 073       | D   | 1490        |
|                 | 484A           | 03626     | VOLTMETER DIGITAL                   | 39                                  |                                   |      |      |      | 078       | B   | 1956        |
|                 | 4910R          | 28480     | LOCATOR OPEN FAULT                  |                                     | 88                                |      |      |      | 009       | E   | 1411        |
|                 | 4940A-01       | 28480     | SET MEASURING TRANSMISSION IMPAIRME | 82                                  |                                   |      |      |      | 014       | D   | 1680        |
|                 | 500-01         | 13643     | VOLTMETER DIGITAL                   | 39                                  | 29                                |      |      |      | 078       | B   | 1957        |
|                 | 500B           | 28480     | METER FREQ                          |                                     | 48                                |      |      |      | 020       | C   | 1735        |
|                 | 500BP          | 28480     | METER FREQ                          |                                     | 48                                |      |      |      | 020       | C   | 3364        |
|                 | 500C           | 28480     | FREQUENCY METER                     |                                     | 32                                |      |      |      | 117       | B   | 3548        |
|                 | 5000-S-2351    | 21793     | VOLT-OHMETER                        | 39                                  |                                   |      |      |      | 078       | B   | 1413        |
|                 | 5011T          | 28480     | LOGIC TROUBLESHOOTING KIT           |                                     | 77                                |      |      |      | 027       | O   | 2545        |
|                 | 501905         | 57424     | MULTIMETER                          | 28                                  | 29                                | 39   |      |      | 032       | B   | 1441        |
|                 | 5024           | 20905     | T S STABILITY                       | 44                                  |                                   |      |      |      | 020       | C   | 2134        |
|                 | 504B           | 10597     | GENERATOR WAVEFORM                  | 2                                   |                                   |      |      |      | 047       | A   | 1852        |
|                 | 50708          | 80138     | GENERATOR PULSE                     |                                     | 4                                 |      |      |      | 050       | A   | 2576        |
|                 | 5105A/5110B    | 28480     | SYNTHESIZER FREQ                    |                                     | 1                                 | 3    | 17   | 18   | 106       | A   | 1846        |
|                 | 5110A          | 28480     | METER FREQ                          |                                     | 43                                |      |      |      | 020       | C   | 2135        |
|                 | 5110B          | 28480     | SYNTHESIZER DRIVER                  |                                     | 1                                 | 3    |      |      | 051       | A   | 1847        |
|                 | 518            | 49932     | VOLTMETER ELECTROSTATIC             |                                     | 28                                |      |      |      | 076       | B   | 1958        |
|                 | 5305           | 31922     | WHEATSTONE BRIDGE                   |                                     | 25                                |      |      |      | 008       | B   | 1414        |
|                 | 533            | 28569     | T S ELEC TUBE                       | 36                                  |                                   |      |      |      | 072       | B   | 2513        |
|                 | 536A           | 28480     | WAVEMETER ABSORPTION TYPE           |                                     | 49                                | 50   | 51   | 52   | 020       | C   | 2802        |
|                 | 5400           | 21793     | MULTIMETER                          | 39                                  | 29                                |      |      |      | 032       | B   | 1415        |
|                 | 5430A          | 31922     | BRIDGE RESISTANCE                   | 25                                  |                                   |      |      |      | 008       | B   | 1949        |
|                 | 5600           | 21793     | VOLTMETER DIGITAL                   | 39                                  |                                   |      |      |      | 078       | B   | 2577        |
|                 | 564            | 65092     | OHMMETER VOLT                       | 28                                  |                                   |      |      |      | 032       | B   | 1356        |
|                 | 5640           | 21793     | MULTIMETER DIGITAL                  | 39                                  | 29                                |      |      |      | 078       | B   | 1416        |
|                 | 5703S2127      | 21793     | VOLTMETER DIGITAL RATIO METER       | 29                                  | 39                                |      |      |      | 078       | B   | 2578        |
|                 | 575            | 80009     | OSCILLOSCOPE TRANSISTOR CURVETRACER |                                     | 94                                |      |      |      | 045       | E   | 2514        |
|                 | 576            | 80009     | TRACER SEMICONDUCTOR CURVE          |                                     | 94                                |      |      |      | 045       | E   | 2515        |



## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYRE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      | FAMILY GP CODE | LTR | TMDE NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|----------------|-----|----------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4           |     |          |
|                 | 587A           | 77327     | METER FREQ                          |                             | 50                        | 51   |      | 020            | C   | 3365     |
|                 | 59             | 14140     | METER GRID DIP                      |                             | 43                        | 44   |      | 020            | C   | 1763     |
|                 | 5900           | 21793     | MULTIMETER DIGITAL                  | 39                          |                           |      |      | 078            | 8   | 1417     |
|                 | 600            | 60741     | VOLT-OHMMETER                       | 28                          | 29                        | 39   |      | 032            | 8   | 1357     |
|                 | 6000           | 28569     | T S ELEC TUBE                       | 36                          |                           |      |      | 072            | 8   | 2530     |
|                 | 6000A          | 28569     | T S ELEC TUBE                       | 36                          |                           |      |      | 072            | 8   | 2694     |
|                 | 6043-1A1061094 | 77820     | TESTER AC-DC INSULATION             |                             | 26                        |      |      | 025            | 8   | 1358     |
|                 | 6063           | 28480     | GENERATOR SIGNAL                    |                             | 3                         | 18   | 17   | 051            | A   | 1643     |
|                 | 608CR          | 28480     | GENERATOR SIGNAL VHF                | 18                          |                           |      |      | 106            | A   | 3366     |
|                 | 608CR(MOD)     | 28480     | GENERATOR SIGNAL VHF                | 18                          |                           |      |      | 106            | A   | 3367     |
|                 | 608D           | 28480     | GENERATOR SIGNAL                    | 18                          |                           |      |      | 106            | A   | 1744     |
|                 | 608E           | 28480     | GENERATOR SIGNAL VHF                | 18                          |                           |      |      | 106            | A   | 1863     |
|                 | 61             | 70998     | WATTMETER RF THERMALINE             | 61                          |                           |      |      | 040            | C   | 1764     |
|                 | 610FH          | 03438     | ANALYZER CKT                        |                             | 28                        |      |      | 118            | E   | 1359     |
|                 | 611            | 70998     | WATTMETER RF ABSORPTION             | 61                          |                           |      |      | 040            | C   | 1745     |
|                 | 612            | 70998     | WATTMETER RADIO FREQ                | 61                          |                           |      |      | 040            | C   | 1746     |
|                 | 6163           | 28480     | GENERATOR SIGNAL                    | 5                           | 6                         |      |      | 053            | A   | 1644     |
|                 | 617            | 54294     | BRIDGE RESISTANCE                   |                             | 30                        | 31   |      | 035            | 8   | 1959     |
|                 | 6183R          | 28480     | GENERATOR SIGNAL                    | 6                           | 12                        |      |      | 053            | A   | 1864     |
|                 | 618C           | 28480     | GENERATOR SIGNAL                    | 6                           | 12                        |      |      | 053            | A   | 1645     |
|                 | 622            | 65092     | VOLTMETER DC                        |                             | 28                        |      |      | 077            | 8   | 1960     |
|                 | 6254-5         | 13222     | GENERATOR SIGNAL                    |                             | 4                         |      |      | 050            | A   | 1848     |
|                 | 63GH00         | 24446     | METER INSULATION                    | 26                          |                           |      |      | 025            | 8   | 1319     |
|                 | 630            | 60741     | VOLT-OHM-MILLIAMMETER               | 28                          | 29                        | 39   |      | 032            | 8   | 1360     |
|                 | 6300           | 70998     | WATTMETER THERMAL RF                | 42                          |                           |      |      | 010            | C   | 2119     |
|                 | 631            | 60741     | MULTIMETER ELEC                     | 28                          |                           |      |      | 032            | 8   | 1361     |
|                 | 633            | 65092     | AMMETER                             |                             | 23                        |      |      | 002            | 8   | 1961     |
|                 | 633VA1         | 65092     | MULTIMETER                          |                             | 28                        |      |      | 032            | 8   | 1362     |
|                 | 639 TYPE 3     | 65092     | T S ELECTRICAL POWER                |                             | 28                        | 23   |      | 039            | C   | 1749     |
|                 | 6413           | 03782     | OSCILLATOR SWEEP                    | 21                          |                           |      |      | 109            | A   | 1646     |
|                 | 641K           | 03782     | GENERATOR SWEEP                     | 21                          |                           |      |      | 109            | A   | 1856     |
|                 | 650            | 55026     | TESTER TRANSISTOR                   | 94                          |                           |      |      | 045            | E   | 2516     |
|                 | 650AP-C03      | 28480     | GENERATOR SIGNAL                    | 1                           |                           |      |      | 006            | A   | 1900     |
|                 | 651A           | 28480     | TEST SET OSCILLATOR                 | 1                           |                           |      |      | 006            | A   | 1647     |
|                 | 651B           | 28480     | OSCILLATOR TEST                     | 1                           |                           |      |      | 006            | A   | 1857     |
|                 | 651B-01        | 28480     | OSCILLATOR TEST                     | 1                           |                           |      |      | 006            | A   | 1648     |
|                 | 660            | 18479     | GAUSSMETER                          | 89                          |                           |      |      | 021            | E   | 3358     |
|                 | 666H           | 60741     | MULTIMETER                          | 28                          | 29                        | 39   |      | 032            | 8   | 1364     |
|                 | 666HH          | 60741     | MULTIMETER                          | 28                          | 29                        | 39   |      | 032            | 8   | 1365     |
|                 | 666RW669RL     | 60741     | MULTIMETER                          | 28                          | 29                        | 39   |      | 032            | 8   | 1418     |
|                 | 679            | 07239     | MEG OHMMETER                        | 27                          |                           |      |      | 029            | 8   | 1366     |
|                 | 680            | 28480     | RECORDER COORDINATE DATA STRIP CHAR | 91                          | 92                        |      |      | 064            | E   | 3369     |
|                 | 686A           | 28480     | SWEEP OSCILLATOR                    | 21                          |                           |      |      | 049            | A   | 1859     |
|                 | 689            | 65092     | CHMMETER                            |                             | 29                        | 39   | 28   | 035            | 8   | 1952     |
|                 | 694C           | 28480     | OSCILLATOR SWEEP                    | 21                          |                           |      |      | 049            | A   | 1870     |
|                 | 694C-H01       | 28480     | OSCILLATOR SWEEP                    | 21                          |                           |      |      | 049            | A   | 1905     |
|                 | 7L13           | 80009     | ANALYZER SPECTRUM                   | 67                          |                           |      |      | 061            | C   | 1627     |

J-70

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP CODE | LTP | TMDE ID NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
|                 | 7000           | 96662     | AMMETER AC VOLT                     | 28                          | 29                        | 39   |      |      | 032            | 8   | 1419        |
|                 | 7001AR         | 28480     | RECORDER X-Y                        | 98                          |                           |      |      |      | 084            | E   | 1447        |
|                 | 7003           | 51417     | ANALYZER ERROR BIT                  | 72                          |                           |      |      |      | 013            | D   | 1682        |
|                 | 7035A          | 28480     | RECORDER X-Y                        | 98                          |                           |      |      |      | 084            | E   | 1448        |
|                 | 704 HSR        | 55800     | VOLTMETER                           | 37                          |                           |      |      |      | 076            | 8   | 1963        |
|                 | 7040           | 79409     | TESTER IMPEDANCE GROUNDLOOP         | 25                          |                           |      |      |      | 022            | O   | 1420        |
|                 | 7050           | 06811     | MULTIMETER                          | 29                          | 39                        |      |      |      | 032            | B   | 1421        |
|                 | 707-S1         | 12678     | ANALYZER SPECTRUM                   | 68                          | 67                        |      |      |      | 061            | C   | 1649        |
|                 | 71             | 14140     | GENERATOR SQUARE WAVE               | 2                           |                           |      |      |      | 054            | A   | 1881        |
|                 | 7100A          | 13989     | VOLTMETER                           | 39                          | 29                        |      |      |      | 078            | 8   | 1422        |
|                 | 7127           | 06811     | GENERATOR SIGNAL TWO-TONE AUDIO     |                             | 1                         |      |      |      | 048            | A   | 1683        |
|                 | 716C           | 24655     | BRIDGE CAPACITANCE                  | 25                          |                           |      |      |      | 011            | 8   | 1367        |
|                 | 72-439         | 07239     | KELVIN BRIDGE                       |                             | 30                        | 31   |      |      | 035            | 8   | 1320        |
|                 | 727            | 01113     | SIGNAL LEVEL METER                  | 37                          |                           |      |      |      | 076            | 8   | 1964        |
|                 | 7300A631       | 98438     | MULTIMETER DIGITAL                  | 39                          | 29                        |      |      |      | 032            | 8   | 2048        |
|                 | 7350A          | 80053     | FREQ METER                          |                             | 48                        |      |      |      | 020            | C   | 3549        |
|                 | 739AR          | 28480     | T S FREQ RESPONSE                   |                             | 1                         | 3    |      |      | 051            | A   | 1871        |
|                 | 740            | 23338     | METER PHASE ANGLE                   | 60                          |                           |      |      |      | 038            | C   | 1514        |
|                 | 740B           | 28480     | OC STANDARD DIFFERENTIAL VOLTMETER  | 38                          |                           |      |      |      | 121            | 8   | 1955        |
|                 | 7418           | 28480     | VOLTMETER DIFFERENTIAL AC DC        | 38                          |                           |      |      |      | 121            | 8   | 1966        |
|                 | 750            | 04901     | BRIDGE CAPACITANCE                  | 25                          |                           |      |      |      | 011            | 8   | 1369        |
|                 | 750            | 49673     | GAUSSMETER                          | 89                          |                           |      |      |      | 021            | E   | 1702        |
|                 | 750-S13B       | 33013     | GENERATOR SIGNAL                    | 18                          | 17                        |      |      |      | 106            | A   | 1872        |
|                 | 7560085        | 19200     | TESTER VIBRATION UNIVERSAL          | 97                          |                           |      |      |      | 111            | E   | 2271        |
|                 | 7620           | 52860     | T S SEMICONDUCTOR DEVICE            |                             | 94                        |      |      |      | 045            | E   | 2696        |
|                 | 7630           | 98438     | MULTIMETER DIGITAL                  | 39                          | 29                        |      |      |      | 032            | 8   | 1423        |
|                 | 7661921        | 19200     | TESTER VIBRATION                    | 97                          |                           |      |      |      | 111            | E   | 2283        |
|                 | 7676-1         | 07239     | MEGOhmmeter                         | 27                          |                           |      |      |      | 025            | 8   | 1424        |
|                 | 7679           | 07239     | Ohmmeter                            | 39                          |                           |      |      |      | 035            | 8   | 3560        |
|                 | 779            | 65092     | MULTIMETER                          | 28                          | 29                        | 39   |      |      | 032            | 8   | 1370        |
|                 | 780B           | 77327     | GENERATOR SIGNAL AM/FM              |                             | 3                         |      |      |      | 052            | A   | 1684        |
|                 | 784            | 03626     | Ohmmeter DIGITAL                    | 39                          |                           |      |      |      | 035            | B   | 1371        |
|                 | 785            | 65092     | MULTIMETER PORTABLE                 | 28                          | 29                        | 39   |      |      | 032            | 8   | 1372        |
|                 | 79X931         | 24446     | T S INSULATION BREAKDOWN            | 26                          |                           |      |      |      | 025            | 8   | 1321        |
|                 | 8CF1VBK        | 29834     | VOLTMETER RECOPIING                 | 98                          |                           |      |      |      | 084            | E   | 1587        |
|                 | 8VP4           | 28569     | T S CATHODE RAY TUBE                | 36                          |                           |      |      |      | 072            | 8   | 2460        |
|                 | 8000A-01       | 89536     | MULTIMETER DIGITAL                  | 29                          | 39                        |      |      |      | 032            | 8   | 1426        |
|                 | 80058          | 28480     | GENERATOR PULSE                     |                             | 4                         |      |      |      | 050            | A   | 1849        |
|                 | 801            | 60741     | MULTIMETER                          | 28                          | 29                        | 39   |      |      | 032            | 8   | 1373        |
|                 | 803            | 89536     | VOLTMETER ELEC PRECISION DIFFERENTI | 38                          |                           |      |      |      | 121            | 8   | 2559        |
|                 | 803BR          | 89536     | VOLTMETER DIFFERENTIAL              | 38                          |                           |      |      |      | 121            | 8   | 1967        |
|                 | 803D           | 89536     | VOLTMETER ELEC                      | 39                          |                           |      |      |      | 076            | 8   | 1968        |
|                 | 803DAG         | 89536     | VOLTMETER ELEC                      | 38                          |                           |      |      |      | 121            | 8   | 1969        |
|                 | 8100A          | 89536     | MULTIMETER DIGITAL                  | 39                          |                           |      |      |      | 032            | 8   | 1427        |
|                 | 8100A-W        | 12578     | T S SOUND RECORDING                 | 71                          |                           |      |      |      | 112            | O   | 2325        |
|                 | 8100A-01       | 89536     | MULTIMETER DIGITAL                  | 39                          | 29                        |      |      |      | 032            | 8   | 1428        |
|                 | 8100B          | 89536     | MULTIMETER DIGITAL                  | 39                          | 29                        |      |      |      | 032            | 8   | 1429        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO DTS ETE SPECIFICATION

| TYRE DESIGNATOR | MFR. MODEL NO.  | MFR. CODE | NOMENCLATURE                     | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY CODE | GR LTR | TMOE IO NO. |
|-----------------|-----------------|-----------|----------------------------------|-----------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                 |                 |           |                                  | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
|                 | 8120A           | 89536     | MULTIMETER DIGITAL               | 39                          | 29                        |      |      |      | 032         | 8      | 1430        |
|                 | 8125A           | 89536     | MULTIMETER                       | 39                          | 29                        |      |      |      | 032         | 8      | 1431        |
|                 | 8151832         | 18876     | GENERATOR RULSE                  | 4                           |                           |      |      |      | 050         | A      | 2093        |
|                 | 8174880         | 24617     | MEGOhmmETER TESTER INSULATION    | 26                          |                           |      |      |      | 025         | 8      | 1443        |
|                 | 8200A           | 89536     | VOLTMETER DIGITAL                | 29                          | 39                        |      |      |      | 078         | 8      | 1432        |
|                 | 8200A           | 89536     | VOLTMETER DIGITAL                | 29                          | 39                        |      |      |      | 032         | 8      | 1425        |
|                 | 827X51          | 24446     | MULTIMETER                       | 28                          |                           |      |      |      | 032         | 8      | 1374        |
|                 | 8300A           | 89536     | MULTIMETER DIGITAL               | 39                          | 29                        |      |      |      | 032         | 8      | 1433        |
|                 | 8350A           | 89536     | MULTIMETER DIGITAL               | 39                          | 29                        |      |      |      | 032         | 8      | 1434        |
|                 | 836820          | 65054     | MILLIAMMETER                     |                             | 24                        |      |      |      | 003         | B      | 2053        |
|                 | 8400A           | 89536     | VOLTMETER DIGITAL                | 39                          | 29                        |      |      |      | 078         | B      | 1435        |
|                 | 8405A           | 28480     | VOLTMETER VECTOR                 | 85                          |                           |      |      |      | 074         | D      | 1436        |
|                 | 8407A           | 28480     | ANALYZER NETWORK MAINFRAME       |                             | 67                        |      |      |      | 061         | C      | 1685        |
|                 | 8410S OPT 210   | 28480     | ANALYZER MICROWAVE NETWORK       | 68                          |                           |      |      |      | 062         | C      | 1686        |
|                 | 8410S OPT 310   | 28480     | ANALYZER MICROWAVE NETWORK       | 68                          |                           |      |      |      | 062         | C      | 1687        |
|                 | 8412A           | 28480     | DISPLAY PHASE-MAGNITUDE          |                             | 67                        |      |      |      | 061         | C      | 1688        |
|                 | 8414A           | 28480     | ROLAR DISPLAY                    |                             | 67                        |      |      |      | 062         | C      | 1689        |
|                 | 8445A           | 28480     | RRESECTOR AUTOMATIC              |                             | 68                        |      |      |      | 062         | C      | 1691        |
|                 | 850             | 60741     | MULTIMETER                       | 28                          |                           |      |      |      | 032         | 8      | 1375        |
|                 | 851A/852A       | 28480     | ANALYZER SPECTRUM                | 68                          |                           |      |      |      | 061         | C      | 1650        |
|                 | 851A/8551A      | 28480     | ANALYZER SPECTRUM                | 68                          |                           |      |      |      | 062         | C      | 3750        |
|                 | 853A-03         | 89536     | MULTIMETER DIFFERENTIAL          |                             | 38                        | 39   |      |      | 032         | 8      | 1376        |
|                 | 8552A           | 28480     | ANALYZER SPECTRUM IF SECTION RI  | 67                          |                           |      |      |      | 061         | C      | 1693        |
|                 | 8552B/017       | 28480     | ANALYZER SPECTRUM                | 68                          |                           |      |      |      | 062         | C      | 3761        |
|                 | 8553A           | 28480     | ANALYZER SPECTRUM                | 67                          | 66                        |      |      |      | 061         | C      | 1695        |
|                 | 8554B           | 28480     | SPECTRUM ANALYZER RF SECTION     | 67                          |                           |      |      |      | 061         | C      | 1697        |
|                 | 8554L           | 28480     | ANALYZER SPECTRUM TUNING SECTION | 67                          |                           |      |      |      | 061         | C      | 1698        |
|                 | 8554L-H06 8522A | 28480     | ANALYZER SPECTRUM PLUG-IN        | 67                          |                           |      |      |      | 061         | C      | 1690        |
|                 | 8566309         | 19200     | TESTER TUBE                      | 36                          |                           |      |      |      | 072         | B      | 2717        |
|                 | 8601A           | 28480     | GENERATOR SWEEP                  | 20                          |                           |      |      |      | 052         | A      | 2069        |
|                 | 8620A           | 28480     | SWEER OSCILLATOR                 | 21                          |                           |      |      |      | 049         | A      | 2070        |
|                 | 86220A          | 28480     | SINGLE BAND R I                  | 22                          |                           |      |      |      | 109         | A      | 2083        |
|                 | 86230B OPT H80  | 28480     | SINGLE BAND P I                  | 21                          |                           |      |      |      | 049         | A      | 2084        |
|                 | 86241A OPT H80  | 28480     | SINGLE BAND R I                  | 21                          |                           |      |      |      | 049         | A      | 2085        |
|                 | 86242A OPT H80  | 28480     | SINGLE BAND P I                  | 21                          |                           |      |      |      | 049         | A      | 2086        |
|                 | 86250B OPT H80  | 28480     | SINGLE BAND P I                  | 21                          |                           |      |      |      | 049         | A      | 2087        |
|                 | 86260A OPT H80  | 28480     | SINGLE BAND R I                  | 21                          |                           |      |      |      | 049         | A      | 2088        |
|                 | 8640A           | 28480     | GENERATOR SIGNAL                 | 18                          | 17                        |      |      |      | 106         | A      | 1591        |
|                 | 8640B           | 28480     | GENERATOR SIGNAL AM-FM           | 18                          | 17                        |      |      |      | 106         | A      | 2071        |
|                 | 8640B-001       | 28480     | GENERATOR SIGNAL                 | 18                          | 17                        |      |      |      | 106         | A      | 1593        |
|                 | 8654A           | 28480     | GENERATOR SIGNAL VHF             | 18                          |                           |      |      |      | 106         | A      | 1594        |
|                 | 8660B-001       | 28480     | SYNTHESIZED SIGNAL GENERATOR     |                             | 1                         | 3    | 17   | 15   | 107         | A      | 2073        |
|                 | 86601A          | 28480     | RF SECTION                       |                             | 1                         | 3    | 17   |      | 051         | A      | 2089        |
|                 | 86602A          | 28480     | RF SECTION                       |                             | 15                        | 16   |      |      | 107         | A      | 2090        |
|                 | 86602B          | 28480     | P I UNIT RF SECTION              |                             | 3                         | 18   | 15   |      | 051         | A      | 3587        |
|                 | 86631B          | 28480     | AUXILIARY SECTION                |                             | 18                        | 15   | 22   |      | 107         | A      | 2091        |
|                 | 86632A          | 28480     | MODULATION SECTION               |                             | 18                        | 15   | 22   |      | 107         | A      | 2092        |

## PART II TMDE CRDSS-REFERENCE LIST

05/22/78

US ARMY GENERAL PURPOSE TMDE TO DTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                         | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP CODE | LTR | TMDE ID NO. |
|-----------------|----------------|-----------|--------------------------------------|-----------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                                      | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
|                 | 8690A          | 28480     | OSCILLATOR SWEEP                     |                             | 20                        | 21   | 22   |      | 052            | A   | 2074        |
|                 | 8693A          | 28480     | RF UNIT                              |                             | 21                        |      |      |      | 049            | A   | 2075        |
|                 | 8695A          | 28480     | GENERATOR RF SWEEP P I               |                             | 21                        |      |      |      | 049            | A   | 2077        |
|                 | 8696A          | 28480     | GENERATOR SWEEP RF P I               |                             | 21                        |      |      |      | 049            | A   | 2079        |
|                 | 8697A          | 28480     | GENERATOR SWEEP PF P I               |                             | 21                        |      |      |      | 049            | A   | 3589        |
|                 | 8699B          | 28480     | OSCILLATOR SWEEP P I                 |                             | 22                        |      |      |      | 109            | A   | 2030        |
|                 | 870            | 28569     | TESTER TRANSISTOR AND DIODE          | 94                          |                           |      |      |      | 045            | E   | 2518        |
|                 | 8708A          | 28480     | GENERATOR SIGNAL P I SYNCHRONIZER    |                             | 17                        | 18   | 1    | 3    | 106            | A   | 2081        |
|                 | 880            | 28009     | VOLTMETER D C DIGITAL                | 39                          |                           |      |      |      | 077            | B   | 3703        |
|                 | 885A           | 89536     | VOLTMETER DC                         |                             | 38                        |      |      |      | 077            | B   | 1970        |
|                 | 887-ABAN       | 89536     | VOLTMETER DIFFERENTIAL               | 38                          |                           |      |      |      | 121            | B   | 2560        |
|                 | 887A           | 89536     | VOLTMETER DIFFERENTIAL               | 38                          |                           |      |      |      | 121            | B   | 1971        |
|                 | 890A           | 28569     | TESTER TRANSISTOR                    | 94                          |                           |      |      |      | 045            | E   | 2519        |
|                 | 8900B          | 28480     | CALIBRATOR PEAK POWER                |                             | 61                        | 63   |      |      | 040            | C   | 2579        |
|                 | 8903B-H12      | 28480     | OSCILLATOR SWEEP                     | 21                          |                           |      |      |      | 049            | A   | 1906        |
|                 | 891A           | 89536     | VOLTMETER DIFFERENTIAL DC            | 38                          |                           |      |      |      | 121            | B   | 1972        |
|                 | 893A           | 89536     | VOLTMETER DIFFERENTIAL               | 38                          |                           |      |      |      | 121            | B   | 1973        |
|                 | 901            | 51277     | TESTER BIT ERROR RATE                | 72                          |                           |      |      |      | 013            | D   | 2387        |
|                 | 901            | 50423     | VOLTMETER DC                         | 29                          | 28                        |      |      |      | 077            | B   | 3701        |
|                 | 904A           | 77327     | GENERATOR NOISE                      | 13                          |                           |      |      |      | 055            | A   | 1873        |
|                 | 9041           | 20944     | TRANSM LEVEL & RETURN LOSS MEAS SET  |                             | 81                        | 82   |      |      | 071            | D   | 2391        |
|                 | 906            | 28009     | VISICORDER OSCILLOGRAPH RECORDER     |                             | 91                        | 92   |      |      | 036            | E   | 3648        |
|                 | 906A           | 72264     | OSCILLOGRAPH PECCORDER               |                             | 91                        | 92   |      |      | 036            | E   | 1550        |
|                 | 90662          | 76487     | METER GRID DIP                       | 47                          |                           |      |      |      | 020            | C   | 2448        |
|                 | 91HR57         | 04901     | VOLTMETER RADIO FREQ SENSITIVE METER | 40                          |                           |      |      |      | 079            | B   | 2038        |
|                 | 910AR/AV       | 89536     | METER V ELECTRIC                     | 41                          |                           |      |      |      | 080            | B   | 2561        |
|                 | 9142834        | 88600     | GENERATOR PULSE                      | 4                           |                           |      |      |      | 050            | A   | 2094        |
|                 | 9180B          | 16655     | POTENTIOMETER                        |                             | 38                        |      |      |      | 077            | B   | 2049        |
|                 | 93AD           | 04901     | VOLTMETER TRUE RMS                   | 41                          |                           |      |      |      | 080            | B   | 2039        |
|                 | 931            | 65092     | AMMETER DC                           |                             | 24                        |      |      |      | 003            | B   | 1925        |
|                 | 934            | 09553     | METER FM DEVIATION                   | 57                          |                           |      |      |      | 031            | C   | 1651        |
|                 | 970A           | 28480     | MULTIMETER DIGITAL                   | 29                          | 39                        |      |      |      | 032            | B   | 1377        |
|                 | 990            | 60741     | T S INDUSTRIAL ANALYZER              | 28                          | 29                        | 39   |      |      | 032            | B   | 2520        |
|                 | 9900           | 01113     | SWEEP SYSTEM TEST SET                | 22                          |                           |      |      |      | 108            | A   | 1596        |
| AM-6681(V)1/U   | 8808A          | 28480     | P I RECORDER                         | 91                          | 92                        |      |      |      | 036            | E   | 1461        |
| AN/AAM-15       | 388-SL         | 55026     | THERMOCOUPLE TEMPERATURE INDICATOR   |                             | 96                        |      |      |      | 070            | E   | 3594        |
| AN/ARM-26C      | 100190         | 87793     | GENERATOR SIGNAL                     | 18                          | 17                        |      |      |      | 106            | A   | 0109        |
| AN/GCM-4        | J79901B2       | 64959     | T S TELEPHONE                        | 72                          |                           |      |      |      | 013            | D   | 3542        |
| AN/GGM-1        | DAC-5          | 96238     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0145        |
| AN/GGM-1A       | DAC-V          | 96238     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0141        |
| AN/GGM-11(V)    | 90067003-002   | 96238     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0147        |
| AN/GGM-15(V)    | 9600           | 14031     | T S TELEGRAPH                        | 35                          | 34                        | 33   |      |      | 066            | B   | 0148        |
| AN/GGM-15(V)1   | 9600           | 14031     | T S TELEGRAPH                        | 35                          | 34                        | 33   |      |      | 066            | B   | 0149        |
| AN/GGM-15(V)2   | 9600PM         | 14031     | T S TELEGRAPH                        | 35                          | 34                        | 33   |      |      | 066            | B   | 0150        |
| AN/GGM-2        | DAC-5          | 96238     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0142        |
| AN/GGM-20       | DTS-531A       | 31935     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0151        |
| AN/GGM-43       | DAC-5          | 96238     | T S TELETYPEWRITER                   | 35                          | 34                        | 33   |      |      | 066            | B   | 0144        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFP.<br>CODE | NOMENCLATURE              | SPECIFICATION NUMBER(S)           |                                 |                                 |                                 |                                 | FAMILY GP<br>CODE | LTR | TMDE<br>ID NO. |
|-----------------|----------------|--------------|---------------------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|-------------------|-----|----------------|
|                 |                |              |                           | FUNCTIONALLY<br>COMPATIBLE<br>NO. | PARTIALLY<br>COMPATIBLE<br>NO.1 | PARTIALLY<br>COMPATIBLE<br>NO.2 | PARTIALLY<br>COMPATIBLE<br>NO.3 | PARTIALLY<br>COMPATIBLE<br>NO.4 |                   |     |                |
| AN/GGM-4        | DAC-5          | 96238        | T S TELETYPEWRITER        | 35                                | 34                              | 33                              |                                 |                                 | 066               | B   | 0140           |
| AN/GGM-5        | DAC-5-E        | 96238        | T S TYPEWRITER            | 35                                | 34                              | 33                              |                                 |                                 | 066               | B   | 0146           |
| AN/GPM-15       |                | 82076        | GENERATOR SIGNAL          | 4                                 | 3                               | 18                              |                                 |                                 | 050               | A   | 0159           |
| AN/GPM-15A      | CA-748         | 82076        | GENERATOR SIGNAL          | 4                                 | 3                               | 18                              |                                 |                                 | 050               | A   | 0150           |
| AN/GRM-50       | 606A           | 28480        | GENERATOR SIGNAL          |                                   | 3                               | 1                               | 18                              | 17                              | 051               | A   | 0174           |
| AN/GRM-50A      | 11507A         | 28480        | GENERATOR SIGNAL          |                                   | 3                               | 1                               | 18                              | 17                              | 051               | A   | 0175           |
| AN/GRM-50B      | 606A-C15       | 28480        | GENERATOR SIGNAL          |                                   | 3                               | 1                               | 18                              | 17                              | 051               | A   | 0176           |
| AN/GPM-50C      | 921A           | 33013        | GENERATOR SIGNAL          |                                   | 3                               | 1                               | 18                              | 17                              | 051               | A   | 0177           |
| AN/GSH-13       |                |              | SPECTRUM ANALYZER         | 65                                |                                 |                                 |                                 |                                 | 059               | C   | 3650           |
| AN/GSH-15       |                |              | SPECTRUM ANALYZER         | 65                                |                                 |                                 |                                 |                                 | 059               | C   | 3651           |
| AN/GSM-13A      | 7659240        | 19200        | ELECTRICAL CABLE TEST SET |                                   | 39                              | 28                              | 26                              | 27                              | 077               | B   | 0193           |
| AN/GSM-161      | 0A2090         | C9553        | T S NOISE LOADING         | 58                                |                                 |                                 |                                 |                                 | 034               | C   | 0208           |
| AN/GSM-161A     | 0A2090A        | C9553        | T S NOISE LOADING         | 58                                |                                 |                                 |                                 |                                 | 034               | C   | 0209           |
| AN/GSM-45       | 8213077        | 19200        | T S ELECTRICAL CABLE      |                                   | 39                              | 28                              | 26                              | 27                              | 077               | B   | 0196           |
| AN/GSM-64       | U35A           | 03626        | VOLTMETER DIGITAL         | 39                                |                                 |                                 |                                 |                                 | 078               | B   | 0199           |
| AN/GSM-64A      | 34-2           | 03626        | VOLTMETER DIGITAL         | 39                                |                                 |                                 |                                 |                                 | 078               | B   | 0200           |
| AN/GSM-64B      | 8400-AEM       | 89536        | VOLTMETER DIGITAL         | 39                                |                                 |                                 |                                 |                                 | 078               | B   | 0201           |
| AN/PGM-1        | EMTS-200       | C2036        | T S TELEGRAPH             | 35                                |                                 |                                 |                                 |                                 | 067               | B   | 0236           |
| AN/PGM-1A       | 249            | 06053        | T S TELEGRAPH             | 35                                |                                 |                                 |                                 |                                 | 067               | B   | 0237           |
| AN/PGM-1B       | KEC-775-D      | D9043        | T S TELEGRAPH             | 35                                |                                 |                                 |                                 |                                 | 067               | B   | 0238           |
| AN/PPM-1        | 212A           | 28480        | GENERATOR PULSE           | 4                                 |                                 |                                 |                                 |                                 | 050               | A   | 0239           |
| AN/PPM-1A       | 212A           | 28480        | GENERATOR PULSE           | 4                                 |                                 |                                 |                                 |                                 | 050               | A   | 3596           |
| AN/PRM-1        | 90300-1        | 88869        | RADIO T S                 | 43                                |                                 |                                 |                                 |                                 | 043               | C   | 3597           |
| AN/PRM-10       |                | 13094        | TEST OSCILLATOR           | 18                                |                                 |                                 |                                 |                                 | 106               | A   | 0240           |
| AN/PRM-15       | 282-76         | 82680        | MULTIMETER                |                                   | 28                              | 27                              |                                 |                                 | 032               | B   | 0241           |
| AN/PSM-1        |                |              | INSULATION T S            | 27                                |                                 |                                 |                                 |                                 | 025               | B   | 3554           |
| AN/PSM-4        | 979            | 65092        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0247           |
| AN/PSM-4A       |                | 55026        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0248           |
| AN/PSM-4B       | D-2667         |              | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0249           |
| AN/PSM-4C       |                | 51820        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0250           |
| AN/PSM-4D       | 127160         | 19913        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0251           |
| AN/PSM-4E       | PSM-4          | 12510        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0252           |
| AN/PSM-4F       |                | 12510        | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0253           |
| AN/PSM-4G       | 11000-2        |              | MULTIMETER                |                                   | 28                              |                                 |                                 |                                 | 032               | B   | 0258           |
| AN/PSM-6        |                | 95325        | MULTIMETER                | 28                                |                                 |                                 |                                 |                                 | 032               | B   | 0254           |
| AN/PSM-6A       |                | 95325        | MULTIMETER                | 28                                |                                 |                                 |                                 |                                 | 032               | B   | 0255           |
| AN/PSM-6B       | 199-5002       | 95325        | MULTIMETER                | 28                                |                                 |                                 |                                 |                                 | 032               | B   | 0246           |
| AN/TSM-16       |                | 99395        | METER FREQ                |                                   | 48                              | 47                              |                                 |                                 | 020               | C   | 0277           |
| AN/TSM-86       | 900-26600-01   | 83744        | TELEPHONE T S             | 73                                |                                 |                                 |                                 |                                 | 122               | D   | 0287           |
| AN/TSM-86A      | 900-26600-00   | 83744        | SIGNALING TEST SET        | 73                                |                                 |                                 |                                 |                                 | 122               | D   | 2386           |
| AN/UGM-1        |                | 96238        | T S TELETYPEWRITER        | 33                                | 35                              |                                 |                                 |                                 | 066               | B   | 0307           |
| AN/UGM-5        |                | 06763        | T S TELETYPEWRITER        | 34                                | 35                              |                                 |                                 |                                 | 067               | B   | 0308           |
| AN/UPM-100      | 365-1          | 66150        | T S ELECTRICAL POWER      | 37                                |                                 |                                 |                                 |                                 | 076               | B   | 0336           |
| AN/UPM-108      | 4153           | 28480        | METER STANDING WAVE RATIO | 69                                |                                 |                                 |                                 |                                 | 063               | C   | 1348           |
| AN/UPM-110      | LA18M          | 35225        | ANALYZER SPECTRUM         | 68                                |                                 |                                 |                                 |                                 | 061               | C   | 0820           |
| AN/UPM-15       |                | 58179        | GENERATOR PULSE           | 4                                 |                                 |                                 |                                 |                                 | 050               | A   | 0316           |
| AN/UPM-15A      | 1-1997         | 15196        | GENERATOR PULSE           | 4                                 |                                 |                                 |                                 |                                 | 050               | A   | 0317           |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO.  | MFR. CODE | NOMENCLATURE                     | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY GP CODE | LTR | TMDE IO NO. |
|-----------------|-----------------|-----------|----------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|-----|-------------|
|                 |                 |           |                                  | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |                |     |             |
| AN/UPM-58       | SC-DL-169906    | 80063     | ANALYZER SPECTRUM                | 68                          |                           |                           |                           |                           | 061            | C   | 0324        |
| AN/JPM-84       | 8554L-H06 8552A | 28480     | ANALYZER SPECTRUM                | 68                          |                           |                           |                           |                           | 061            | C   | 0328        |
| AN/UPM-84A      | A152161         | 25778     | ANALYZER SPECTRUM                |                             | 68                        |                           |                           |                           | 061            | C   | 0329        |
| AN/UPM-93       |                 |           | T S ELECTRICAL POWER             | 37                          |                           |                           |                           |                           | 076            | B   | 0330        |
| AN/UPM-93A/U    |                 |           | T S ELECTRICAL POWER             | 37                          |                           |                           |                           |                           | 076            | B   | 0331        |
| AN/UPM-93C      | 15-001          | 24635     | T S ELECTRICAL POWER             | 37                          |                           |                           |                           |                           | 076            | B   | 0332        |
| AN/URM-103      | SM-0-630500     | 82199     | GENERATOR SIGNAL                 | 3                           |                           |                           |                           |                           | 051            | A   | 0384        |
| AN/URM-105      |                 |           | MULTIMETER                       | 28                          |                           |                           |                           |                           | 032            | B   | 0385        |
| AN/URM-105A     |                 | 06833     | MULTIMETER                       | 28                          |                           |                           |                           |                           | 032            | B   | 0386        |
| AN/URM-105C     | B105            | 12510     | MULTIMETER                       | 28                          |                           |                           |                           |                           | 032            | B   | 0387        |
| AN/URM-109      | 31-7-141        | 79300     | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0388        |
| AN/URM-110A     |                 |           | RADIO INTERFERENCE MEASURING SET |                             | 45                        |                           |                           |                           | 043            | C   | 0381        |
| AN/URM-120      | SK13009-4       | 54778     | WATTMETER                        | 62                          |                           |                           |                           |                           | 082            | C   | 0391        |
| AN/URM-127      |                 | 51865     | GENERATOR SIGNAL                 | 1                           |                           |                           |                           |                           | 006            | A   | 0392        |
| AN/URM-145      | 91CA            | 04901     | VOLTMETER ELEC                   | 40                          |                           |                           |                           |                           | 079            | B   | 0393        |
| AN/URM-145A     | 991000          | 24635     | VOLTMETER ELEC                   | 40                          |                           |                           |                           |                           | 079            | B   | 0394        |
| AN/URM-145B     | MV828A          | 85711     | VOLTMETER ELEC                   | 40                          |                           |                           |                           |                           | 079            | B   | 0395        |
| AN/URM-149      | SM-0-630000     | 82199     | GENERATOR SIGNAL                 |                             | 15                        | 16                        |                           |                           | 107            | A   | 0396        |
| AN/URM-155      | 411A-11025A     | 28480     | VOLTMETER ELECTRONIC             | 37                          |                           |                           |                           |                           | 076            | B   | 0371        |
| AN/URM-167      | 6151A           | 70998     | T S RF POWER                     |                             | 62                        | 63                        |                           |                           | 040            | C   | 0399        |
| AN/URM-170      | 618C            | 28480     | GENERATOR SIGNAL                 | 6                           |                           |                           |                           |                           | 053            | A   | 0400        |
| AN/URM-178      | EMC-25P         | 18581     | RADIO INTERFERENCE MEASURING SET |                             | 43                        | 44                        |                           |                           | 043            | C   | 0402        |
| AN/URM-180      | 333A            | 28480     | INDICATOR DISTORTION             | 74                          |                           |                           |                           |                           | 014            | O   | 0403        |
| AN/URM-181      | 202H            | 28480     | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0404        |
| AN/URM-182      | 4110-102        | 70998     | T S RADIO FREQ POWER             | 61                          |                           |                           |                           |                           | 040            | C   | 0405        |
| AN/URM-184      | 334A-C10-001    | 28480     | DISTORTION ANALYZER              | 74                          |                           |                           |                           |                           | 014            | O   | 0406        |
| AN/URM-184A     | 334-A01-C10     | 28480     | ANALYZER DISTORTION              | 74                          |                           |                           |                           |                           | 014            | O   | 0407        |
| AN/URM-258D     | 315             | 21900     | GENERATOR SIGNAL                 |                             | 1                         | 3                         |                           |                           | 051            | A   | 0341        |
| AN/URM-25F      | 162-0-003       | 92428     | GENERATOR SIGNAL                 |                             | 1                         | 3                         |                           |                           | 051            | A   | 0342        |
| AN/URM-25H      | 152-2-6-1       | 66150     | GENERATOR SIGNAL                 |                             | 1                         | 3                         |                           |                           | 051            | A   | 0343        |
| AN/JRM-25J      |                 | 26648     | GENERATOR SIGNAL                 |                             | 1                         | 3                         |                           |                           | 051            | A   | 0344        |
| AN/URM-26       | 294             | 21900     | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0345        |
| AN/URM-26A      | 136015          |           | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0346        |
| AN/URM-26B      | 136015          |           | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0347        |
| AN/URM-32       | SCL-1341        | 49673     | METER FREQ                       |                             | 48                        | 49                        |                           |                           | 020            | C   | 0348        |
| AN/URM-32A      |                 | 49673     | METER FREQ                       |                             | 48                        | 49                        |                           |                           | 020            | C   | 0349        |
| AN/URM-43       | 61              | 70998     | RF WATTMETER                     | 61                          |                           |                           |                           |                           | 040            | C   | 0307        |
| AN/URM-43A      |                 | 51161     | PF WATTMETER                     | 61                          |                           |                           |                           |                           | 040            | C   | 0308        |
| AN/URM-47A      |                 | 88869     | RADIO INTERFERENCE MEASURING SET |                             | 44                        | 43                        |                           |                           | 043            | C   | 0352        |
| AN/URM-47B      | NM-30A          | 88869     | RADIO INTERFERENCE MEASURING SET |                             | 44                        | 43                        |                           |                           | 043            | C   | 0353        |
| AN/URM-47C      | 218             | 06053     | RADIO INTERFERENCE MEASURING SET |                             | 44                        | 43                        |                           |                           | 043            | C   | 0354        |
| AN/URM-48       |                 | 15196     | GENERATOR SIGNAL                 | 18                          |                           |                           |                           |                           | 106            | A   | 0355        |
| AN/URM-49       |                 | 35225     | GENERATOR SIGNAL                 |                             | 15                        | 17                        |                           |                           | 107            | A   | 0356        |
| AN/URM-49A      | K0000Q149       | 35225     | GENERATOR SIGNAL                 |                             | 15                        | 17                        |                           |                           | 107            | A   | 0357        |
| AN/JRM-501      | NF-105          | 16665     | MEASURING SET RADIO INTERFERENCE |                             | 43                        | 44                        |                           |                           | 043            | C   | 0374        |
| AN/URM-52       | 6188E106        | 28480     | GENERATOR SIGNAL                 | 6                           | 12                        |                           |                           |                           | 053            | A   | 0358        |
| AN/URM-52A      | 6188-E-118      | 28480     | GENERATOR SIGNAL                 | 6                           | 12                        |                           |                           |                           | 053            | A   | 0359        |

J-75



## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYRE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY CODE | GR LTR | TMDE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |             |        |             |
| AN/URM-528      | C-674-100      | 02572     | GENERATOR SIGNAL                    | 6                           | 12                        |                           |                           |                           | 053         | A      | 0360        |
| AN/URM-56       | 9008           | 01113     | GENERATOR SIGNAL                    |                             | 15                        | 16                        | 17                        |                           | 107         | A      | 0361        |
| AN/URM-61A      | C-0-153-03007  | 59180     | GENERATOR SIGNAL                    | 5                           | 12                        | 16                        |                           |                           | 053         | A      | 0362        |
| AN/URM-64-1     |                | 76809     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0363        |
| AN/URM-64-2     |                | 76809     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0364        |
| AN/URM-64A-1    | C-016-04001    | 03877     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0365        |
| AN/URM-64A-2    | C-0161-04001   | 03877     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0366        |
| AN/URM-70       |                | 07450     | GENERATOR SIGNAL                    | 18                          |                           |                           |                           |                           | 106         | A      | 0367        |
| AN/URM-79       |                | 56118     | METER FREQ                          | 48                          |                           |                           |                           |                           | 020         | C      | 0368        |
| AN/URM-80       |                | 35225     | METER FREQ                          |                             | 49                        | 48                        |                           |                           | 020         | C      | 0369        |
| AN/URM-81       |                | 35225     | METER FREQ                          | 49                          |                           |                           |                           |                           | 020         | C      | 0370        |
| AN/URM-85       |                | 16665     | RADIO INTERFERENCE MEASURING SET    |                             | 43                        | 44                        |                           |                           | 043         | C      | 0371        |
| AN/URM-R5A      |                | 16665     | RADIO INTERFERENCE MEASURING SET    |                             | 43                        | 44                        |                           |                           | 043         | C      | 0372        |
| AN/JRM-86       | 67C            | 70998     | WATTMETER                           | 62                          | 61                        |                           |                           |                           | 040         | C      | 0373        |
| AN/JRM-86A      | 6733-00        | 70998     | WATTMETER                           | 62                          | 61                        |                           |                           |                           | 040         | C      | 0374        |
| AN/JRM-90       | 402-0-7046     | 83777     | T S CAPACITANCE INDUCTANCE RESISTAN | 25                          |                           |                           |                           |                           | 024         | B      | 0375        |
| AN/JRM-91       | TM-275         | 30040     | METER FIELD STRENGTH                |                             | 43                        | 44                        |                           |                           | 043         | C      | 0376        |
| AN/URM-93       | 245-A          | 04901     | VOLTAGE STANDARD RADIO FREQ         |                             | 3                         | 18                        | 17                        | 1                         | 051         | A      | 0377        |
| AN/JRM-93A      | 245-0          | 04901     | VOLTAGE STANDARD RADIO FREQ         |                             | 3                         | 18                        | 17                        | 1                         | 051         | A      | 0378        |
| AN/JRM-988      | 430CW/477      | 28480     | WATTMETER                           | 63                          |                           |                           |                           |                           | 040         | C      | 0380        |
| AN/USH-10       | 651A           | 80138     | ANALYZER SET VIBRATION              |                             | 87                        |                           |                           |                           | 004         | E      | 0410        |
| AN/USM-108      | 180A           | 28569     | GENERATOR TIME MARK                 |                             | 2                         |                           |                           |                           | 047         | A      | 0440        |
| AN/USM-108B     |                | 28569     | GENERATOR TIME MARK                 |                             | 2                         |                           |                           |                           | 047         | A      | 0441        |
| AN/USM-123      | 269            | 55026     | VOLT-OHM-AMMETER                    |                             | 28                        |                           |                           |                           | 032         | B      | 0451        |
| AN/USM-159      | K50110500      | 35225     | METER FREQ                          |                             | 48                        | 49                        | 50                        | 51                        | 020         | C      | 0450        |
| AN/USM-159A     | K50110200      | 35225     | METER FREQ                          |                             | 48                        | 49                        | 50                        | 51                        | 020         | C      | 0451        |
| AN/USM-161      | 457            | 11332     | T S RADIO FREQ POWER                |                             | 61                        | 63                        |                           |                           | 040         | C      | 0452        |
| AN/USM-171      |                | 53346     | IN CIRCUIT SEMICONDUCTOR TESTER     | 94                          |                           |                           |                           |                           | 045         | E      | 0455        |
| AN/USM-181      | 3550A          | 28480     | T S TELEPHONE                       | 81                          | 82                        |                           |                           |                           | 071         | O      | 0456        |
| AN/USM-181B     | 3550B-C15      | 28480     | T S TELEPHONE                       | 81                          | 82                        |                           |                           |                           | 071         | O      | 0456        |
| AN/USM-183      | 412A           | 28480     | MULTIMETER                          | 28                          |                           |                           |                           |                           | 032         | B      | 0464        |
| AN/USM-189      | 630A           | 60741     | MULTIMETER                          |                             | 28                        |                           |                           |                           | 032         | B      | 0464        |
| AN/USM-190      | 620AR-H01      | 28480     | GENERATOR SIGNAL                    | 7                           | 12                        |                           |                           |                           | 053         | A      | 0455        |
| AN/USM-193      | 431B           | 28480     | RADIO FREQUENCY POWER T S           | 63                          |                           |                           |                           |                           | 041         | C      | 0467        |
| AN/USM-203      | 912-423        | 01113     | GENERATOR SWEEP SIGNAL              | 22                          | 20                        |                           |                           |                           | 109         | A      | 0467        |
| AN/USM-203A     | 200-441        | 23042     | GENERATOR SWEEP SIGNAL              | 22                          | 20                        |                           |                           |                           | 109         | A      | 0458        |
| AN/USM-205      | 650A           | 28480     | GENERATOR SIGNAL                    |                             | 1                         | 3                         |                           |                           | 006         | A      | 0459        |
| AN/USM-205A     | 6205-1         | 25778     | GENERATOR SIGNAL                    |                             | 1                         | 3                         |                           |                           | 006         | A      | 0470        |
| AN/USM-206      | 2454A          | 93346     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |                           |                           |                           | 045         | E      | 0472        |
| AN/USM-206A     | 902-470        | 28569     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |                           |                           |                           | 045         | E      | 0473        |
| AN/USM-210      | 260            | 55026     | MULTIMETER                          |                             | 28                        |                           |                           |                           | 032         | B      | 1335        |
| AN/USM-212      | 758-0047-001   | 13499     | GENERATOR SIGNAL                    |                             | 1                         | 3                         |                           |                           | 051         | A      | 0476        |
| AN/USM-213      | 8614A          | 28480     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0477        |
| AN/USM-213A     | 8614B          | 28480     | GENERATOR SIGNAL                    | 16                          | 15                        |                           |                           |                           | 107         | A      | 0478        |
| AN/USM-220      | SM2000         | 04423     | GENERATOR SIGNAL                    | 22                          |                           |                           |                           |                           | 109         | A      | 0479        |
| AN/USM-221      | SM2000         | 04423     | GENERATOR SIGNAL                    | 79                          | 22                        |                           |                           |                           | 109         | A      | 0480        |
| AN/USM-222      | SM2000         | 04423     | GENERATOR SIGNAL                    | 22                          | 79                        | 21                        |                           |                           | 109         | A      | 0481        |



## PART II TMOE CROSS-REFERENCE LIST

06/22/73

US ARMY GENERAL PURPOSE TMOE TO DTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | SPECIFICATION NUMBER(S)       |                             |      |      |      | FAMILY CODE | GP LTP | TMOE ID NO. |
|-----------------|----------------|-----------|-----------------------------------|-------------------------------|-----------------------------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                   | FUNCTIONALLY COMPARATIBLE NO. | PARTIALLY COMPARATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
| AN/USM-223      |                | 28569     | MULTIMETER                        |                               | 28                          |      |      |      | 032         | B      | 0482        |
| AN/USM-224      | 3407A          | 28480     | RMS VOLTMETER                     | 41                            |                             |      |      |      | 080         | B      | 0483        |
| AN/USM-227      | N-F-157        | 03782     | MEASURING SET POWER DENSITY       | 45                            | 46                          |      |      |      | 043         | C      | 0484        |
| AN/USM-251      | 1209C          | 24655     | GENERATOR SIGNAL                  |                               | 15                          | 16   | 17   | 18   | 107         | A      | 0758        |
| AN/USM-252      | 1215C          | 24655     | GENERATOR SIGNAL                  | 18                            |                             |      |      |      | 106         | A      | 0487        |
| AN/USM-253      | 12188          | 24655     | GENERATOR SIGNAL                  | 1                             |                             |      |      |      | 006         | A      | 0488        |
| AN/USM-255      | 792A           | 72314     | GENERATOR SIGNAL                  | 4                             |                             |      |      |      | 050         | A      | 0490        |
| AN/USM-256      | 791A           | 72314     | GENERATOR SIGNAL                  | 2                             |                             |      |      |      | 054         | A      | 0491        |
| AN/USM-259      | 331A           | 28480     | ANALYZER DISTORTION               | 74                            |                             |      |      |      | 014         | D      | 0492        |
| AN/USM-260      | 431C           | 28480     | T S RADIO FREQ ROWER              | 63                            | 61                          |      |      |      | 041         | C      | 0493        |
| AN/USM-261      | 415E-E07       | 28480     | INDICATOR STANDING WAVE RATIO     | 69                            |                             |      |      |      | 063         | C      | 0494        |
| AN/USM-262      | 560T010-12     | 33441     | AMMETER                           |                               | 23                          | 24   | 28   |      | 001         | B      | 0495        |
| AN/USM-263      | 300            | 11837     | BRIDGE VOLTAGE RESISTANCE         | 25                            |                             |      |      |      | 008         | B      | 0496        |
| AN/USM-265      | 400EL02        | 28480     | VOLTMETER ELEC                    | 37                            | 41                          |      |      |      | 076         | B      | 0497        |
| AN/USM-269      | 1310-A         | 24655     | GENERATOR SIGNAL                  | 1                             | 3                           | 2    |      |      | 006         | A      | 0498        |
| AN/USM-271      | 184            | 80009     | GENERATOR ELEC MARKER             | 2                             | 4                           |      |      |      | 050         | A      | 0500        |
| AN/USM-272      | 191            | 80009     | GENERATOR SIGNAL                  |                               | 1                           | 3    | 17   | 18   | 051         | A      | 0501        |
| AN/USM-274      | 220            | 18786     | GENERATOR SWEEP                   | 21                            |                             |      |      |      | 049         | A      | 0503        |
| AN/USM-275      | 90651          | 76487     | METER GRID DIR                    |                               | 48                          | 49   |      |      | 020         | C      | 0504        |
| AN/USM-298      | 43             | 70998     | T S RADIO FREQ ROWER              |                               | 62                          |      |      |      | 082         | C      | 0512        |
| AN/USM-303      | 300A           | 13913     | MULTIMETER                        | 29                            |                             |      |      |      | 032         | B      | 0513        |
| AN/USM-303A     | 3004A          | 13913     | MULTIMETER                        | 29                            |                             |      |      |      | 032         | B      | 0514        |
| AN/USM-307(V)   |                | 28480     | ANALYZER NETWORK                  | 68                            |                             |      |      |      | 062         | C      | 0517        |
| AN/USM-307(V)1  | 8417A-E14      | 28480     | ANALYZER NETWORK                  | 68                            |                             |      |      |      | 062         | C      | 0518        |
| AN/USM-308(V)1  | 86908-E75      | 28480     | GENERATOR SWEEP                   | 21                            |                             |      |      |      | 049         | A      | 0519        |
| AN/USM-312      | 1362           | 24655     | GENERATOR SIGNAL                  |                               | 15                          | 17   | 18   |      | 107         | A      | 0522        |
| AN/USM-313      | 1211C          | 24655     | GENERATOR SIGNAL                  | 18                            | 17                          | 3    |      |      | 106         | A      | 0523        |
| AN/USM-315      | 8616A          | 28480     | SIGNAL GENERATOR                  | 12                            | 5                           | 6    |      |      | 053         | A      | 0527        |
| AN/USM-319A     | 269-2          | 55026     | MULTIMETER DIGITAL                |                               | 29                          |      |      |      | 032         | B      | 3718        |
| AN/USM-322(V)1  | 219L           | 77327     | DETECTOR STANDING WAVE            | 69                            |                             |      |      |      | 063         | C      | 0530        |
| AN/USM-322(V)2  | 219            | 77327     | DETECTOR STANDING WAVE            | 69                            |                             |      |      |      | 063         | C      | 0531        |
| AN/USM-322(V)3  | 219-HH         | 77327     | DETECTOR STANDING WAVE            | 69                            |                             |      |      |      | 063         | C      | 0532        |
| AN/USM-33       |                | 65092     | MULTITESTER                       |                               | 23                          |      |      |      | 002         | B      | 0414        |
| AN/USM-343      | 3550A-C24      | 28480     | T S TELEPHONE                     | 81                            | 82                          |      |      |      | 071         | D      | 0534        |
| AN/USM-357      | 130            | 80009     | METER INDUCTANCE AND CAPACITANCE  | 25                            |                             |      |      |      | 011         | B      | 0536        |
| AN/USM-358      | 106            | 80009     | GENERATOR SIGNAL                  | 2                             |                             |      |      |      | 054         | A      | 0537        |
| AN/USM-359      | 115            | 80009     | PULSE GENERATOR                   | 4                             |                             |      |      |      | 050         | A      | 3617        |
| AN/USM-365(V)1  | 77068/ORT14    | 28480     | RECORDER THERMAL OSCILLOGRAPH     | 92                            | 91                          |      |      |      | 036         | E      | 0539        |
| AN/USM-366      | 491            | 80009     | ANALYZER SPECTRUM                 | 68                            | 67                          |      |      |      | 061         | C      | 0540        |
| AN/USM-37       | 415A           | 28480     | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0415        |
| AN/USM-37A      | 415E           | 28480     | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0416        |
| AN/USM-37B      | 809B           | 28480     | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0417        |
| AN/USM-37C      |                |           | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0418        |
| AN/USM-37D      | 415E-001       | 28480     | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0419        |
| AN/USM-37E      | 236            | 77327     | MEASURING SET STANDING WAVE RATIO | 69                            |                             |      |      |      | 063         | C      | 0420        |
| AN/USM-374      | 111            | 80009     | GENERATOR PULSE                   | 4                             |                             |      |      |      | 050         | A      | 0541        |
| AN/USM-423      | 35508-H03      | 28480     | TELEPHONE TEST SET                | 81                            | 82                          |      |      |      | 071         | D      | 1787        |

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                      | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY GP CODE | LTR | TMOE IO NO. |
|-----------------|----------------|-----------|-----------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|----------------|-----|-------------|
|                 |                |           |                                   | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |                |     |             |
| AN/USM-424      | 3040A          | 28480     | ANALYZER                          |                             | 65                        | 66                        | 67                        |                           | 059            | C   | 1668        |
| AN/USM-44       |                | 28480     | GENERATOR SIGNAL                  | 18                          |                           |                           |                           |                           | 106            | A   | 0421        |
| AN/USM-44A      | 6080-E02       | 28480     | GENERATOR SIGNAL                  | 18                          |                           |                           |                           |                           | 106            | A   | 0422        |
| AN/USM-44B      | 6080-E02       | 28480     | GENERATOR SIGNAL                  | 17                          |                           |                           |                           |                           | 106            | A   | 0423        |
| AN/USM-46       | BL-202-931     | 96795     | OSCILLOGRAPH SET MAGNETIC         | 91                          |                           |                           |                           |                           | 036            | E   | 0425        |
| AN/USM-47       | 6264           | 28480     | GENERATOR SWEEP                   | 21                          |                           |                           |                           |                           | 049            | A   | 1855        |
| AN/USM-48       | 628A           | 28480     | GENERATOR SIGNAL                  | 9                           | 12                        |                           |                           |                           | 053            | E   | 0426        |
| AN/USM-83       |                | 94987     | WATTMETER CALORIMETRIC            | 42                          |                           |                           |                           |                           | 010            | C   | 0433        |
| AN/USM-9R       | 801            | 89536     | VOLTMETER ELEC                    | 39                          | 28                        | 29                        |                           |                           | 077            | B   | 0437        |
| BC-376          |                | 80063     | GENERATOR SIGNAL                  | 18                          |                           | 3                         |                           |                           | 106            | A   | 0546        |
| CP-1100/U       | 5100B/51108    | 28480     | COUNTER ELEC DIGITAL              |                             | 1                         | 3                         | 17                        | 18                        | 051            | A   | 0550        |
| CP-1101/U       | TTS58A         | 06819     | COUNTER ELEC DIGITAL              | 76                          | 82                        |                           |                           |                           | 023            | O   | 0551        |
| CV-3427(V)11/U  | 3730A-004      | 28480     | DOWN CONVERTER RF TC IF           | 56                          |                           |                           |                           |                           | 030            | C   | 1676        |
| DT-542/U        | 3703A          | 28480     | DETECTOR SIGNAL DELAY             | 56                          |                           |                           |                           |                           | 030            | C   | 0561        |
| DT-550/U        | 3703B          | 28480     | DETECTOR SIGNAL DELAY             | 56                          |                           |                           |                           |                           | 030            | C   | 0562        |
| F-1414/J        | 84458          | 28480     | PRESELECTOR AUTOMATIC TRACKING    | 68                          | 67                        |                           |                           |                           | 062            | C   | 1692        |
| FR-126/J        | X5328          | 28480     | WAVEMETER                         | 53                          |                           |                           |                           |                           | 020            | C   | 0570        |
| FR-146/J        | N410A          | C0929     | WAVEMETER                         | 52                          |                           |                           |                           |                           | 020            | C   | 0571        |
| FR-194/J        | H532A          | 28480     | METER FREQ                        | 53                          |                           |                           |                           |                           | 020            | C   | 0574        |
| FR-205/J        | 128A           | 94668     | METER FREQ                        |                             | 70                        |                           |                           |                           | 110            | C   | 0575        |
| FR-38A/J        | 5248           | 28480     | FREQ METER                        | 48                          |                           |                           |                           |                           | 020            | C   | 0564        |
| FR-38D/J        | 109000         | 94033     | METER FREQ                        | 48                          |                           |                           |                           |                           | 020            | C   | 0565        |
| FR-38E/J        |                | 00346     | METER FREQ                        | 48                          |                           |                           |                           |                           | 020            | C   | 0566        |
| FR-4/U          |                | 56118     | METER FREQ                        | 48                          |                           |                           |                           |                           | 020            | C   | 0563        |
| FR-91/U         | FS-C-1733      | 16786     | WAVEMETER                         | 52                          |                           |                           |                           |                           | 020            | C   | 0569        |
| I-129           | 71-1388        | 80063     | WAVEMETER                         |                             | 48                        | 49                        |                           |                           | 020            | C   | 0577        |
| IO-2101/U       | 34750A         | 28480     | R I MULTI METER DISPLAY           | 29                          |                           |                           |                           |                           | 032            | B   | 1439        |
| IM-156-100BN-2  |                | 15859     | OSCILLOGRAPH                      |                             | 91                        | 92                        |                           |                           | 036            | E   | 1549        |
| IM-157/U        | 415B           | 28480     | STANDING WAVE RATIO INDICATOR     | 69                          |                           |                           |                           |                           | 063            | C   | 0591        |
| IM-157B/U       | 415D           | 28480     | INDICATOR STANDING WAVE RATIO     | 69                          |                           |                           |                           |                           | 063            | C   | 0593        |
| IM-157C/U       | H813A          |           | STANDING WAVE RATIO INDICATOR     | 69                          |                           |                           |                           |                           | 063            | C   | 0594        |
| IM-157E/U       | 227-0-S37      | 77327     | STANDING WAVE RATIO INDICATOR     | 69                          |                           |                           |                           |                           | 063            | C   | 0595        |
| IM-175/U        | 351            | 11332     | STANDING WAVE RATIO INDICATOR     | 69                          |                           |                           |                           |                           | 063            | C   | 0596        |
| IM-175B/U       | 351            | 11332     | STANDING WAVE RATIO INDICATOR     |                             | 69                        |                           |                           |                           | 063            | C   | 0597        |
| IP-1216(R)/GP   | 141T           | 28480     | ANALYZER SPECTRUM DISPLAY SECTION | 68                          | 67                        |                           |                           |                           | 061            | C   | 1699        |
| IP-173/U        | S8-B           | 03782     | INDICATOR PANORAMIC               | 67                          | 68                        |                           |                           |                           | 061            | C   | 0598        |
| IP-173A/U       | S8-BA          | 03782     | INDICATOR PANORAMIC               | 67                          | 68                        |                           |                           |                           | 061            | C   | 0599        |
| IP-173B/J       | S8-BA          | 03782     | INDICATOR PANORAMIC               | 67                          | 68                        |                           |                           |                           | 061            | C   | 0600        |
| IP-173C/U       |                | 03782     | INDICATOR PANORAMIC               | 67                          | 68                        |                           |                           |                           | 061            | C   | 0582        |
| IS-185          | 433            | 65092     | VOLTMETER                         | 37                          | 28                        | 29                        |                           |                           | 076            | B   | 0602        |
| MD-913(R)/U     | 3702A          | 28480     | ANALYZER MICROWAVE LINK           | 56                          |                           |                           |                           |                           | 030            | C   | 0646        |
| ME-11/U         | 750-3          | 70998     | WATTMETER RF                      | 61                          |                           |                           |                           |                           | 040            | C   | 0648        |
| ME-11A/U        |                | 91161     | WATTMETER RF                      | 61                          |                           |                           |                           |                           | 040            | C   | 0649        |
| ME-118/J        |                | 02230     | WATTMETER RF                      | 61                          |                           |                           |                           |                           | 040            | C   | 0650        |
| ME-11C/J        |                | 91161     | WATTMETER RF                      | 61                          |                           |                           |                           |                           | 040            | C   | 0651        |
| ME-147/J        | ESH            | 54085     | VOLTMETER                         | 37                          | 28                        | 29                        |                           |                           | 076            | B   | 0677        |
| ME-153/U        | 1932-A         | 24655     | INDICATOR DISTORTION              | 74                          |                           |                           |                           |                           | 014            | O   | 0678        |

## PART II TMOE CROSS-REFERENCE LIST

05/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETC SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                    | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY CODE | GR LTR | TMOE ID NO. |
|-----------------|----------------|-----------|---------------------------------|-----------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                 | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
| ME-156/U        | 904            | 65092     | AMMETER                         | 23                          |                           |      |      |      | 001         | 8      | 1974        |
| ME-161/U        | 801            | 89536     | VOLTMETER DIFFERENTIAL          |                             | 38                        |      |      |      | 077         | 8      | 0679        |
| ME-162/U        | 432            | 65092     | WATTMETER                       | 61                          |                           |      |      |      | 039         | C      | 0680        |
| ME-165/G        | 52-500         | 12991     | STANDING WAVE RATIO POWER METER | 62                          | 69                        |      |      |      | 063         | C      | 0681        |
| ME-202/U        | 803            | 89536     | VOLTMETER ELEC                  | 38                          | 29                        | 37   |      |      | 121         | 8      | 0682        |
| ME-2028/U       | 8033           | 89536     | VOLTMETER ELEC                  | 38                          | 29                        | 37   |      |      | 121         | 8      | 0683        |
| ME-22/PCM       | 5491           | 92161     | METER DECIBEL                   | 81                          | 82                        |      |      |      | 071         | D      | 0653        |
| ME-22A/PCM      |                | 92161     | METER DECIBEL                   | 81                          | 82                        |      |      |      | 071         | D      | 0654        |
| ME-221/J        | 622            | 65092     | AMMETER                         |                             | 23                        |      |      |      | 001         | 8      | 0684        |
| ME-223/ARN-129  | 2023R          | 07342     | VOLTMETER PHASE ANGLE           | 85                          |                           |      |      |      | 074         | D      | 0685        |
| ME-227/U        | MV-17C         | 85711     | VOLTMETER ELEC                  | 39                          | 28                        | 29   |      |      | 077         | 8      | 0686        |
| ME-227A/U       | 353            | 33430     | VOLTMETER ELEC                  | 39                          | 28                        | 29   |      |      | 077         | 8      | 0687        |
| ME-254/J        | 590-41         | 73446     | METER FLUTTER AND WOW           | 71                          |                           |      |      |      | 112         | 0      | 0689        |
| ME-254A/U       | FL-3D-1        | 83003     | METER FLUTTER AND WOW           | 71                          |                           |      |      |      | 112         | 0      | 0690        |
| ME-26/U         | 410A           | 28480     | MULTIMETER                      | 28                          | 29                        | 40   |      |      | 032         | 8      | 0655        |
| ME-26A/J        | 410B           | 28480     | MULTIMETER                      | 28                          | 29                        | 40   |      |      | 032         | 8      | 0656        |
| ME-268/U        |                | 51820     | MULTIMETER                      | 28                          | 29                        | 40   |      |      | 032         | 8      | 0657        |
| ME-26C/J        | 260000         | 59395     | MULTIMETER                      | 28                          | 29                        | 40   |      |      | 032         | 8      | 0658        |
| ME-260/J        |                |           | MULTIMETER                      | 28                          | 29                        | 40   |      |      | 032         | 8      | 0659        |
| ME-263/J        | 4038           | 28480     | VOLTMETER ELEC                  | 37                          | 81                        | 82   | 28   | 29   | 076         | 8      | 0691        |
| ME-262/J        | 305A           | 50423     | VOLTMETER                       | 28                          | 37                        | 29   |      |      | 076         | 8      | 0692        |
| ME-264/U        | 300M           | 50423     | VOLTMETER ELECTRONIC            | 28                          | 29                        | 37   |      |      | 076         | 8      | 3628        |
| ME-295/U        | 1253           | 94668     | VOLTMETER FREQ SELECTIVE        | 70                          | 86                        |      |      |      | 110         | C      | 0693        |
| ME-30/U         | 400C           | 28480     | VOLTMETER ELEC                  | 37                          | 81                        | 82   | 28   | 29   | 076         | 8      | 0650        |
| ME-30A/U        | 400D           | 28480     | VOLTMETER ELEC                  | 37                          | 81                        | 82   | 28   | 29   | 076         | 8      | 0651        |
| ME-308/J        | 513A           | 26687     | VOLTMETER ELEC                  | 37                          | 81                        | 82   | 28   | 29   | 076         | 8      | 0662        |
| ME-30C          | 513A           | 26687     | VOLTMETER                       | 37                          | 81                        | 82   | 41   |      | 076         | 8      | 3622        |
| ME-300/U        | 111A           | 35124     | VOLTMETER ELEC                  | 37                          | 81                        | 82   | 41   |      | 076         | 8      | 0653        |
| ME-30E          | 998-101        | 12365     | ELECTRONIC VOLTMETER            | 37                          | 81                        | 82   | 41   |      | 076         | 8      | 3623        |
| ME-303A/U       | 410C           | 28480     | VOLTMETER ELEC                  |                             | 40                        | 28   | 29   |      | 032         | 8      | 0694        |
| ME-318/J        | 3400A          | 28480     | VOLTMETER ELEC                  | 41                          | 37                        |      |      |      | 080         | 8      | 0695        |
| ME-333/J        | 217A           | 16335     | MULTIMETER                      |                             | 29                        | 38   | 39   |      | 032         | 8      | 0696        |
| ME-334/U        | 309-1          | 00638     | VOLTMETER ELEC                  | 37                          | 29                        |      |      |      | 076         | 8      | 0697        |
| ME-336/J        | 332A           | 28480     | INDICATOR DISTORTION            | 74                          |                           |      |      |      | 014         | 0      | 0698        |
| ME-338/J        | 345            | 50423     | MULTIMETER                      | 29                          | 28                        | 39   |      |      | 032         | 8      | 0699        |
| ME-339/J        | 415E           | 28480     | INDICATOR STANDING WAVE RATIO   | 69                          |                           |      |      |      | 063         | C      | 0700        |
| ME-340/U        | 400EL/C02      | 28480     | VOLTMETER ELEC                  | 37                          | 41                        |      |      |      | 076         | 8      | 0701        |
| ME-356/U        | DR-1828        | 14140     | METER AUDIO LEVEL               |                             | 71                        | 81   | 82   |      | 005         | 0      | 0702        |
| ME-368/U        | 610            | 96332     | CHMMETER                        |                             | 27                        | 30   | 28   | 29   | 035         | 8      | 0703        |
| ME-370/U        | 427A W/11075A  | 28480     | MULTIMETER                      | 29                          | 28                        | 39   |      |      | 032         | 8      | 0704        |
| ME-419/U        | 270            | 55026     | MULTIMETER ELEC                 |                             | 28                        | 29   | 39   |      | 032         | 8      | 0705        |
| ME-426/U        | 3406A          | 28480     | T S BROAD BAND                  | 40                          |                           |      |      |      | 079         | 8      | 2791        |
| ME-441/U        | 432A           | 28480     | METER POWER                     | 63                          | 62                        |      |      |      | 041         | C      | 0707        |
| ME-444/J        | 320A           | 50423     | VOLTMETER ELEC                  | 37                          | 29                        | 41   |      |      | 076         | 8      | 0708        |
| ME-448/U        | 428B           | 28480     | AMMETER                         |                             | 28                        | 29   |      |      | 002         | 8      | 3728        |
| ME-450/U        | 260-6          | 16902     | MULTIMETER                      | 28                          | 29                        | 39   |      |      | 032         | 8      | 0709        |
| ME-451/U        | 303A           | 94668     | VOLTMETER ELEC                  | 37                          | 41                        |      |      |      | 076         | 8      | 0710        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY CODE | GP LTR | TMDE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |             |        |             |
| ME-452/U        | 12792 MOD 9    | 55026     | AMMETER PORTABLE OC                 |                             | 29                        | 28                        | 24                        |                           | 003         | B      | 0711        |
| ME-459/U        | 400EL          | 28480     | VOLTMETER ELEC                      | 37                          | 41                        |                           |                           |                           | 076         | B      | 0712        |
| ME-488/U        | 4283           | 28480     | AMMETER OC CLIP-ON                  | 23                          |                           |                           |                           |                           | 002         | B      | 2019        |
| ME-489/U        | 749            | 65092     | MULTIMETER                          | 28                          | 29                        | 39                        |                           |                           | 032         | B      | 1368        |
| ME-490/J        | 48(A3)         | 50319     | METER PHASE JITTER                  | 78                          | 82                        |                           |                           |                           | 037         | O      | 1629        |
| ME-495/U        | 537A           | 28480     | METER FREQ                          | 53                          |                           |                           |                           |                           | 020         | C      | 1741        |
| ME-498/U        | 34702A         | 28480     | MULTIMETER                          | 29                          | 39                        |                           |                           |                           | 032         | B      | 3565        |
| ME-51/J         | GS-15094       | 65092     | T S FREQ COUNTER                    | 63                          |                           |                           |                           |                           | 041         | C      | 0652        |
| ME-56/TSM       | 337            | 96762     | VOLTMETER ELEC                      | 40                          |                           |                           |                           |                           | 079         | B      | 0665        |
| ME-57/U         |                | 81865     | METER MODULATION                    | 57                          |                           |                           |                           |                           | 031         | C      | 0666        |
| ME-57A/U        |                | 81865     | METER MODULATION                    | 57                          |                           |                           |                           |                           | 031         | C      | 0667        |
| ME-57B/J        |                |           | MODULATION METER                    | 57                          |                           |                           |                           |                           | 031         | C      | 3624        |
| ME-6/U          | 300A           | 50423     | VOLTMETER ELEC                      | 40                          | 61                        |                           |                           |                           | 076         | B      | 0647        |
| ME-61/GRC       |                | 80063     | METER FIELD STRENGTH                | 43                          |                           |                           |                           |                           | 043         | C      | 0658        |
| ME-65/J         | 131-173        | 28569     | AMMETER                             | 23                          |                           |                           |                           |                           | 001         | B      | 3729        |
| ME-65A/J        | 196645         | 65092     | AMMETER                             | 23                          |                           |                           |                           |                           | 001         | B      | 0669        |
| ME-69/U         | 6151-000       | 70998     | WATTMETER                           | 61                          |                           |                           |                           |                           | 040         | C      | 3625        |
| ME-71A/FCC      | 108A           | 94668     | METER AUDIO LEVEL                   | 81                          | 82                        | 37                        |                           |                           | 005         | O      | 0671        |
| ME-71B/FCC      | 108A           | 94668     | METER AUDIO LEVEL                   | 81                          | 82                        | 37                        |                           |                           | 005         | O      | 0672        |
| ME-71C/FCC      | 520J74         | 07450     | METER AUDIO LEVEL                   | 81                          | 82                        | 37                        |                           |                           | 005         | O      | 0673        |
| ME-77           |                |           | MULTITESTER                         | 28                          | 29                        | 39                        |                           |                           | 032         | B      | 3626        |
| ME-82/U         | MM-265         | 65092     | WATTMETER                           | 61                          |                           |                           |                           |                           | 040         | C      | 0674        |
| ME-87/U         | 280            | 65092     | MULTIMETER                          | 28                          | 29                        | 39                        |                           |                           | 032         | B      | 0676        |
| ME-88/U         | 411A           | 28480     | RF MILLIVOLTMETER                   | 40                          |                           |                           |                           |                           | 079         | B      | 3682        |
| MX-8364A/USM308 | 86908          | 28480     | OSCILLATOR SWEEP                    | 21                          |                           |                           |                           |                           | 049         | A      | 0756        |
| O-1321/GSM      | TM7794/4       | 09553     | OSCILLATOR RF                       | 58                          |                           |                           |                           |                           | 034         | C      | 1921        |
| O-1637/U        | E2M            | 04423     | P I HEAD SWEEP GENERATOR            |                             | 22                        | 21                        |                           |                           | 109         | A      | 1901        |
| O-1736/U        | 3736A          | 28480     | PLUG IN DOWN CONVERTER OSCILLATOR   | 56                          |                           |                           |                           |                           | 030         | C      | 1677        |
| O-450/U         | 200A8R         | 28480     | OSCILLATOR AUDIO                    | 1                           |                           |                           |                           |                           | 006         | A      | 3720        |
| O-850/U         | 1302A          | 24655     | OSCILLATOR                          | 1                           |                           |                           |                           |                           | 006         | A      | 1831        |
| PL-1178/U       | 3304A          | 28480     | SWEEP/OFFSET PLUG-IN                |                             | 2                         |                           |                           |                           | 047         | A      | 0791        |
| PL-1240A/USM308 | 8693B-H01      | 28480     | GENERATOR RE PLUG-IN                | 21                          |                           |                           |                           |                           | 049         | A      | 1904        |
| PL-1241A/USM308 | 8693B          | 28480     | P I UNIT ELEC TEST EQUIP            | 20                          |                           |                           |                           |                           | 052         | A      | 0794        |
| PL-1241B/USM308 | 8693B-001      | 28480     | RF P I SWEEP GENERATOR              | 20                          |                           |                           |                           |                           | 052         | A      | 3590        |
| PL-1242/USM-308 | 8699P          | 28480     | OSCILLATOR SWEEP P I                |                             | 21                        | 22                        |                           |                           | 049         | A      | 0795        |
| PL-1243/USM-308 | 8706A          | 28480     | ELEC TEST EQUIP P I UNIT            | 21                          |                           |                           |                           |                           | 049         | A      | 0796        |
| PL-1244/U       | 1402           | 27591     | GENERATOR SIGNAL                    |                             | 58                        |                           |                           |                           | 055         | A      | 1835        |
| PL-1285/U       | 3305A          | 28480     | SWEEP P I                           | 19                          |                           |                           |                           |                           | 081         | A      | 0797        |
| PL-1304/USM-308 | 8694B          | 28480     | P I UNIT ELEC TEST EQUIP            | 21                          |                           |                           |                           |                           | 049         | A      | 0801        |
| PL-1306A/U      | 8803A          | 28480     | P I PREAMPLIFIER                    |                             | 91                        | 92                        |                           |                           | 036         | E      | 3732        |
| PL-1343/U       | L6M            | 04423     | P I HEAD SWEEP GENERATOR            |                             | 22                        |                           |                           |                           | 108         | A      | 0808        |
| PL-1344/U       | 5265A          | 28480     | VOLTMETER DIGITAL P I               | 29                          | 39                        |                           |                           |                           | 078         | B      | 0809        |
| PL-1387/U       | 8556A          | 28480     | ANALYZER SPECTRUM LF TUNING SECTION |                             | 19                        | 65                        | 66                        |                           | 081         | A      | 2692        |
| PL-1388/U       | 8552B/017      | 28480     | ANALYZER SPECTRUM IF SECTION PI     |                             | 67                        |                           |                           |                           | 061         | C      | 1694        |
| PL-1390/U       | 8801A          | 28480     | P I PREAMPLIFIER LOW GAIN OC        |                             | 91                        | 92                        |                           |                           | 036         | E      | 1459        |
| PL-1391/U       | 7L5            | 80009     | SPECTRUM ANALYZER                   | 68                          |                           |                           |                           |                           | 059         | C      | 1625        |
| PL-1392/U       | 7L12           | 80009     | SPECTRUM ANALYZER PLUG IN           | 68                          |                           |                           |                           |                           | 061         | C      | 1626        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYRE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GR | LTR | TMDE ID NO. |
|-----------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|-----------|-----|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |           |     |             |
| PL-1394/U       | 3705A          | 28480     | DETECTOR DIFFERENTIAL PHASE PLUG IN |                             | 56                        |      |      |      | 061       | C   | 1673        |
| PL-1399/U       | 85538          | 28480     | ANALYZER SPECTRUM RF SECTION        | 67                          |                           |      |      |      | 061       | C   | 1696        |
| RL-1400/U       | 8555A          | 28480     | SPECTRUM ANALYZER                   | 68                          |                           |      |      |      | 062       | C   | 3586        |
| RL-1401/U       | 3738A          | 28480     | PLUG IN DOWN CONVERTER OSCILLATOR   |                             | 56                        |      |      |      | 030       | C   | 1678        |
| PL-1405(V)11/U  | 3716A-004      | 28480     | RASERAND TRANSMITTER                |                             | 56                        |      |      |      | 030       | C   | 1675        |
| R-2049(V)11/U   | 37028          | 28480     | RECEIVER 1F/88                      |                             | 56                        |      |      |      | 061       | C   | 1672        |
| RO-426/U        | 7418A          | 28480     | OSCILLOGRAPHIC RECORDER             | 92                          | 91                        |      |      |      | 036       | E   | 1547        |
| RO-49/U         | AW             | 72264     | RECORDER MILLIAMMETER               |                             | 91                        | 92   |      |      | 064       | E   | 0812        |
| RO-189/G        | RD2642-00      | 56795     | OSCILLOGRAPH                        | 92                          | 91                        |      |      |      | 036       | E   | 0813        |
| RO-425/J        | 322            | 28480     | RECORDER DUAL CHANNEL               | 91                          | 92                        |      |      |      | 064       | E   | 0815        |
| RO-458V(11)U    | 70358          | 28480     | RECORDER                            | 98                          |                           |      |      |      | 084       | E   | 3557        |
| RO-460(V)11/U   | 77028          | 28480     | RECORDER DUAL CHANNEL               | 91                          | 92                        |      |      |      | 036       | E   | 0816        |
| SG-1018/U       | J347A          | 28480     | NOISE SOURCE                        | 13                          |                           |      |      |      | 055       | C   | 0892        |
| SG-1023/U       | 209A           | 28480     | OSCILLATOR                          | 1                           |                           |      |      |      | 006       | A   | 0893        |
| SG-1038/U       | 3701A          | 28480     | GENERATOR SIGNAL                    | 18                          |                           | 3    |      |      | 106       | A   | 0894        |
| SG-1054/G       | PG-303A        | 96238     | GENERATOR PATTERN                   | 34                          | 35                        |      |      |      | 067       | B   | 0895        |
| SG-106/J        | 105            | 80009     | GENERATOR SQUARE WAVE               | 2                           |                           |      |      |      | 054       | A   | 0838        |
| SG-107/MSA-6    | 206A           | 28480     | GENERATOR SIGNAL AUDIO              | 1                           |                           |      |      |      | 006       | A   | 3659        |
| SG-1105/U       | 80138          | 28480     | GENERATOR PULSE                     |                             | 4                         |      |      |      | 050       | A   | 2067        |
| SG-1114/U       | TM-7816        | 09553     | GENERATOR INTERFERENCE              | 59                          |                           |      |      |      | 034       | C   | 1923        |
| SG-1114/J       | TM-7816A       | 09553     | TWELVE CHANNEL NOISE GENERATOR      | 59                          |                           |      |      |      | 034       | C   | 1922        |
| SG-1121(V)11/U  | 8620C          | 28480     | SWEEP OSCILLATOR                    | 21                          |                           |      |      |      | 049       | A   | 3714        |
| SG-1122/U       | 8443A          | 28480     | TRACKING GENERATOR/COUNTER          | 64                          |                           |      |      |      | 056       | C   | 3585        |
| SG-1125/U       | 8444A          | 28480     | GENERATOR TRACKING                  | 64                          |                           |      |      |      | 056       | C   | 1690        |
| SG-1128/U       | 654A           | 28480     | TEST OSCILLATOR                     | 1                           |                           |      |      |      | 006       | A   | 1858        |
| SG-12/J         |                | 15196     | GENERATOR SIGNAL                    | 18                          | 3                         |      |      |      | 106       | A   | 0822        |
| SG-13/ARN       |                | 16636     | GENERATOR SIGNAL                    | 18                          |                           |      |      |      | 106       | A   | 0823        |
| SG-15/PCM       | 5490           |           | GENERATOR SIGNAL                    | 1                           |                           |      |      |      | 006       | A   | 0824        |
| SG-20/U         | 658            | 14140     | SIGNAL GENERATOR                    |                             | 3                         | 1    |      |      | 051       | A   | 0825        |
| SG-298/U        | W-1            | 08775     | GENERATOR SIGNAL                    | 2                           |                           |      |      |      | 047       | A   | 0839        |
| SG-298A/U       | 180            | 21764     | GENERATOR SIGNAL                    | 2                           | 1                         |      |      |      | 047       | A   | 0840        |
| SG-299/J        | 802-296        | 28569     | GENERATOR SIGNAL                    | 2                           |                           |      |      |      | 054       | A   | 0841        |
| SG-2998/U       | 902-333        | 28569     | GENERATOR SIGNAL                    | 2                           |                           |      |      |      | 054       | A   | 0842        |
| SG-309/GRC-47   | 608C           | 28480     | GENERATOR SIGNAL                    | 18                          |                           |      |      |      | 106       | A   | 0843        |
| SG-321/U        | 5533           | 83563     | GENERATOR SIGNAL                    | 2                           | 1                         |      |      |      | 047       | A   | 0844        |
| SG-321A/U       |                | 80063     | GENERATOR SIGNAL                    | 2                           | 1                         |      |      |      | 047       | A   | 0845        |
| SG-3218/U       |                | 24635     | GENERATOR SIGNAL                    | 2                           | 1                         |      |      |      | 047       | A   | 0846        |
| SG-336/U        | 380-A          | 80138     | GENERATOR SWEEP                     | 22                          |                           |      |      |      | 108       | A   | 0847        |
| SG-337/J        | 51U-ARGON      | 80138     | GENERATOR THERMAL NOISE             |                             | 13                        |      |      |      | 055       | A   | 0848        |
| SG-340A/U       | 612A           | 28480     | GENERATOR SIGNAL                    |                             | 15                        | 17   | 18   |      | 107       | A   | 0849        |
| SG-343/JPM-15A  |                | 15196     | GENERATOR PULSE                     | 4                           |                           |      |      |      | 050       | A   | 0850        |
| SG-366/U        | 5701           | 80138     | GENERATOR PULSE                     |                             | 4                         | 18   |      |      | 050       | A   | 0851        |
| SG-366A/U       | 50708          | 80138     | GENERATOR PULSE                     |                             | 4                         | 18   |      |      | 050       | A   | 0852        |
| SG-407/U        | 1000           | 80138     | GENERATOR SWEEP                     |                             | 22                        | 20   | 21   |      | 109       | A   | 0853        |
| SG-419/J        | 503            | 11332     | GENERATOR THERMAL NOISE             | 13                          |                           |      |      |      | 055       | A   | 0854        |
| SG-42/JRM-18    | 1107A          | 24655     | GENERATOR SIGNAL                    | 1                           |                           |      |      |      | 006       | A   | 0826        |
| SG-4538/U       | 1390A          | 24655     | GENERATOR THERMAL NOISE             | 14                          |                           |      |      |      | 055       | A   | 1833        |



## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE           | SPECIFICATION NUMBER(S)     |                           |                           |                           |                           | FAMILY CODE | GP LTR | TMOE ID NO. |
|-----------------|----------------|-----------|------------------------|-----------------------------|---------------------------|---------------------------|---------------------------|---------------------------|-------------|--------|-------------|
|                 |                |           |                        | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | PARTIALLY COMPATIBLE NO.2 | PARTIALLY COMPATIBLE NO.3 | PARTIALLY COMPATIBLE NO.4 |             |        |             |
| SG-475/APS-94   | 100720         | 06344     | OSCILLATOR PULSE DELAY | 4                           |                           |                           |                           |                           | 050         | A      | 0855        |
| SG-479/GRM-50   | 606A           | 28480     | GENERATOR SIGNAL       |                             | 3                         | 1                         |                           |                           | 051         | A      | 0856        |
| SG-510/U        | 201C           | 28480     | OSCILLATOR AF          | 1                           |                           |                           |                           |                           | 006         | A      | 0857        |
| SG-511/U        | 606A           | 28480     | GENERATOR SIGNAL HF    |                             | 3                         | 1                         |                           |                           | 051         | A      | 0858        |
| SG-5434/U       | 2048-H07       | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0859        |
| SG-575/U        | IF866A         | 80138     | GENERATOR SWEEP        |                             | 20                        | 22                        |                           |                           | 108         | A      | 0861        |
| SG-578/U        | 650A           | 28480     | TEST OSCILLATOR        | 1                           |                           |                           |                           |                           | 006         | A      | 0862        |
| SG-593/J        | 9003           | 01113     | GENERATOR SWEEP        |                             | 20                        | 22                        |                           |                           | 052         | A      | 0863        |
| SG-621/J        | 202C           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0864        |
| SG-638/UPM-10   | 15802          | 36004     | GENERATOR PULSE        | 4                           |                           |                           |                           |                           | 050         | A      | 0827        |
| SG-632/J        | 204801         | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0865        |
| SG-632A/U       | 2048           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0866        |
| SG-632B/U       | 204302         | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0867        |
| SG-676/G        | 1220-A5        | 24655     | GENERATOR SIGNAL       | 6                           |                           |                           |                           |                           | 053         | A      | 0868        |
| SG-677/U        | BS-800H        | 23042     | SWEEP GENERATOR        |                             | 22                        |                           |                           |                           | 109         | A      | 0869        |
| SG-678/G        | G347A          | 28480     | NOISE SOURCE           | 13                          |                           |                           |                           |                           | 055         | A      | 3541        |
| SG-681/U        | 866A           | 80138     | GENERATOR SWEEP        |                             | 20                        |                           |                           |                           | 052         | A      | 0870        |
| SG-688P/USM-219 | SM-2000        | 04423     | GENERATOR SIGNAL       |                             | 22                        | 21                        |                           |                           | 052         | A      | 0871        |
| SG-69/PPM       | 212A           | 28480     | GENERATOR PULSE        | 4                           |                           |                           |                           |                           | 050         | A      | 0818        |
| SG-69A/PPM-1    | 212A           | 28480     | GENERATOR PULSE        | 4                           |                           |                           |                           |                           | 050         | A      | 0830        |
| SG-69B/PPM-1    | 212A           | 28480     | GENERATOR PULSE        | 4                           |                           |                           |                           |                           | 050         | A      | 0831        |
| SG-71/FCC       | 233A           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0832        |
| SG-71A/FCC      | 233A           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0833        |
| SG-71B/FCC      | 233A           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0834        |
| SG-71C/FCC      | 190            | 67116     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0835        |
| SG-735/URM      | 8616A          | 28480     | GENERATOR SIGNAL       | 21                          |                           |                           |                           |                           | 049         | A      | 3733        |
| SG-747          | 3300A          | 28480     | GENERATOR SIGNAL       | 2                           |                           |                           |                           |                           | 047         | A      | 0872        |
| SG-763/J        | 652A           | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0873        |
| SG-763A/U       | 652A-H02       | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0874        |
| SG-769/U        | 111            | 23338     | GENERATOR SIGNAL       | 2                           |                           |                           |                           |                           | 047         | A      | 0875        |
| SG-770/U        | 241A           | 28480     | OSCILLATOR PUSHBUTTON  | 1                           |                           |                           |                           |                           | 006         | A      | 0876        |
| SG-772/G        | 105 MOD1498    | 80009     | GENERATOR SIGNAL       | 2                           |                           |                           |                           |                           | 054         | A      | 0877        |
| SG-827/U        | 13908          | 24655     | GENERATOR RANDOM NOISE | 14                          |                           |                           |                           |                           | 055         | A      | 1834        |
| SG-837/U        | 1210C          | 24655     | OSCILLATOR             | 1                           |                           |                           |                           |                           | 006         | A      | 1655        |
| SG-867/U        | 470A-500       | 98329     | GENERATOR SIGNAL       | 18                          |                           |                           |                           |                           | 106         | A      | 0880        |
| SG-888/U        | 200-315        | 23042     | GENERATOR SWEEP        |                             | 22                        | 20                        |                           |                           | 109         | A      | 0881        |
| SG-92/U         | 110-A          | 80138     | GENERATOR SWEEP        |                             | 19                        | 20                        | 22                        |                           | 052         | A      | 0836        |
| SG-944/U        | 6208           | 28480     | GENERATOR SIGNAL       | 7                           |                           |                           |                           |                           | 053         | A      | 0882        |
| SG-969/U        | 608F           | 28480     | VHF SIGNAL GENERATOR   | 18                          |                           |                           |                           |                           | 106         | A      | 0883        |
| SG-97/FRC       | 614A           | 28480     | GENERATOR SIGNAL       | 16                          | 15                        |                           |                           |                           | 107         | A      | 0837        |
| SG-972/U        | 601            | 01113     | GENERATOR SWEEP        | 22                          |                           |                           |                           |                           | 108         | A      | 0884        |
| SG-975/U        | 32038          | 28480     | GENERATOR SIGNAL       | 18                          |                           |                           |                           |                           | 106         | A      | 0885        |
| SG-978/U        | 343A           | 28480     | GENERATOR SOURCE       | 13                          |                           |                           |                           |                           | 055         | A      | 0886        |
| SG-979/U        | 349A           | 28480     | NOISE SOURCE           | 13                          |                           |                           |                           |                           | 055         | A      | 0887        |
| SG-981/U        | TTS39A-4       | 06819     | GENERATOR TONE         | 1                           |                           |                           |                           |                           | 006         | A      | 0888        |
| SG-984/J        | 6518002        | 28480     | GENERATOR SIGNAL       | 1                           |                           |                           |                           |                           | 006         | A      | 0889        |
| SG-987/U        | 6310RS1        | 03782     | GENERATOR SWEEP        | 21                          |                           |                           |                           |                           | 109         | A      | 0890        |

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR   | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY CODE | GP LTR | TMOE ID NO. |
|-------------------|----------------|-----------|-------------------------------------|-----------------------------|---------------------------|------|------|------|-------------|--------|-------------|
|                   |                |           |                                     | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
| SG-990/U          | 6940-H01       | 28480     | GENERATOR SWEEP                     | 21                          |                           |      |      |      | 049         | A      | 0891        |
| SG-996/J          | 3453           | 28480     | NOISE SOUPSE                        | 13                          |                           |      |      |      | 055         | A      | 0471        |
| T-1353(V)11/U     | 3710A-004      | 28480     | IF 88 TPANSMITTEP                   |                             | 56                        |      |      |      | 030         | C      | 1674        |
| TA-885/U          | 35558          | 28480     | T S TELEPHONE                       | 81                          | 82                        |      |      |      | 071         | D      | 2357        |
| TD-5033/USM       | 74-13A         | 30669     | GENERATOR SWEEP                     | 19                          |                           |      |      |      | 081         | A      | 0948        |
| TS-1060/GG        | TDA-2N8        | 96238     | T S TELETYPEWRITER                  | 33                          | 35                        |      |      |      | 066         | B      | 1127        |
| TS-1060A/GG       | TDA-2N8        | 96238     | T S TELETYPEWRITER                  | 33                          | 35                        |      |      |      | 066         | B      | 1128        |
| TS-1060B/GG       | ASD-1COA       | 05729     | T S TELETYPEWRITER                  | 33                          | 35                        |      |      |      | 066         | B      | 1129        |
| TS-1100/U         |                | 94668     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 1131        |
| TS-1100A/U        |                | 93346     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 1132        |
| TS-118/AP         |                | 70998     | T S WATTMETER                       | 61                          |                           |      |      |      | 040         | C      | 0960        |
| TS-118A/AP        | 693011         | 70998     | RADIO FREQ WATTMETER                | 61                          |                           |      |      |      | 040         | C      | 0961        |
| TS-125/AP         |                | 82057     | T S RADIO FREQ POWER                |                             | 63                        |      |      |      | 040         | C      | 0952        |
| TS-1285/UPM-120   | 164FMN         | 94668     | WATTMETER                           | 62                          |                           |      |      |      | 082         | C      | 1138        |
| TS-140/PCM        | 5489           | 11975     | T S TELEPHONE                       | 81                          | 82                        |      |      |      | 071         | D      | 0953        |
| TS-15C/AP         | S-01           |           | FLUXMETER                           | 89                          |                           |      |      |      | 021         | E      | 0952        |
| TS-1512, A, 8/GGM | DD-5/DAC-V     | 96238     | T S TELETYPEWRITER                  | 34                          | 35                        |      |      |      | 067         | B      | 1141        |
| TS-1830A/U        | 3024           | 28480     | ANALYZER SPECTRUM                   |                             | 65                        | 66   |      |      | 059         | C      | 1156        |
| TS-1830D/U        | 3024R          | 28480     | ANALYZER SPECTRUM                   |                             | 65                        | 66   |      |      | 059         | C      | 1157        |
| TS-1836/U         | 2193           | 94668     | T S TRANSISTOR                      | 94                          |                           |      |      |      | 045         | E      | 1168        |
| TS-1836A/U        | 219C           | 24624     | T S TRANSISTOR                      | 94                          |                           |      |      |      | 045         | E      | 1169        |
| TS-1836B/U        | 245MF          | 24624     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 1170        |
| TS-1836C/U        |                | 34639     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 1171        |
| TS-1836D/U        |                | 80058     | T S SEMICONDUCTOR DEVICE            | 94                          |                           |      |      |      | 045         | E      | 3716        |
| TS-1860/UP        |                | 21900     | METER FREQ                          |                             | 48                        | 49   | 52   | 53   | 020         | C      | 0982        |
| TS-186F/UP        | 317-0          | 37093     | METER FREQ                          |                             | 48                        | 49   | 52   | 53   | 020         | C      | 0983        |
| TS-186F/UP        | T-737-317-D    | 51865     | METER FREQ                          |                             | 48                        | 49   | 52   | 53   | 020         | C      | 0984        |
| TS-1871/FPN       | LCA-1          | 06181     | ANALYZER SPECTRUM                   | 66                          |                           |      |      |      | 060         | C      | 3737        |
| TS-28/TG          |                |           | T S TELETYPEWRITER                  | 34                          |                           |      |      |      | 067         | B      | 0950        |
| TS-2086/U         | TT-22          | 14558     | T S TRANSISTOR                      | 94                          |                           |      |      |      | 045         | E      | 1183        |
| TS-2255/G         | 7412           | 80257     | T S TELETYPEWRITER                  | 34                          | 35                        |      |      |      | 067         | B      | 1187        |
| TS-2256/G         | DT-603         | 14031     | T S TELETYPEWRITER                  | 33                          | 35                        |      |      |      | 066         | B      | 1188        |
| TS-2333/USM       | 310A           | 28480     | ANALYZER SPECTRUM                   | 66                          |                           |      |      |      | 060         | C      | 1192        |
| TS-2393/G         | RAC-7          | 96238     | ANALYZER TELEDATA                   | 33                          | 35                        |      |      |      | 066         | B      | 1193        |
| TS-2394/G         | 331AP          | 28480     | ANALYZER DISTORTION                 | 74                          |                           |      |      |      | 014         | D      | 1194        |
| TS-2395/G         | 3408           | 94668     | ENVELOPE DELAY T S                  | 75                          | 82                        |      |      |      | 016         | D      | 1195        |
| TS-2395A/G        | 340A           | 94668     | ENVELOPE DELAY T S                  | 75                          | 82                        |      |      |      | 016         | D      | 1196        |
| TS-2436/G         | 342A           | 28480     | T S AMP                             | 13                          |                           |      |      |      | 033         | C      | 1197        |
| TS-26/TSM         |                |           | T S TELEPHONE                       | 28                          | 29                        | 39   |      |      | 032         | B      | 0953        |
| TS-26A/TSM        | 121956         | 82066     | T S TELEPHONE                       | 28                          | 29                        | 39   |      |      | 032         | B      | 0954        |
| TS-26B/TSM        |                | 88562     | T S TELEPHONE                       | 28                          | 29                        | 39   |      |      | 032         | B      | 0955        |
| TS-2609/U         | 4110-000       | 70998     | T S RADIO FREQ POWER                | 61                          |                           |      |      |      | 040         | C      | 1199        |
| TS-2609A/U        | 4110-000       | 70998     | T S RADIO FREQ POWER                | 61                          |                           |      |      |      | 040         | C      | 1200        |
| TS-2669/GCM       | 490A           | C3860     | MEASURING SET ENVELOPE DELAY DISTOR | 75                          | 82                        |      |      |      | 016         | D      | 1206        |
| TS-2669A/GCM      | 490B           | C3860     | MEASURING SET ENVELOPE DELAY DISTOR | 75                          | 82                        |      |      |      | 016         | D      | 1207        |
| TS-2677/FRM       | 22821          | 50040     | SOUND MEASURING SET                 | 87                          |                           |      |      |      | 004         | E      | 1208        |
| TS-268/U          | TMN-10PL       | 80077     | T S CRYSTAL RECTIFIER               | 94                          |                           |      |      |      | 045         | E      | 0988        |



## PART II TMDE CROSS-REFERENCE LIST

06/22/78

JS ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                       | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP CODE | LTR | TMOF ID NO. |
|-----------------|----------------|-----------|------------------------------------|-----------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                                    | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
| TS-268A/U       | C11603A        | 80077     | T S CRYSTAL RECTIFIER              | 94                          |                           |      |      |      | 045            | E   | 0989        |
| TS-268B/U       | C11603A        | 80077     | T S CRYSTAL RECTIFIER              | 94                          |                           |      |      |      | 045            | E   | 0990        |
| TS-268C/U       |                | 74096     | T S CRYSTAL RECTIFIER              | 94                          |                           |      |      |      | 045            | E   | 0991        |
| TS-268D/U       | J-105          | 92854     | T S CRYSTAL RECTIFIER              | 94                          |                           |      |      |      | 045            | E   | 0992        |
| TS-268E/U       | TS-268         | 94518     | T S CRYSTAL RECTIFIER              | 94                          |                           |      |      |      | 045            | E   | 0993        |
| TS-27/TSM       | C166237        | 64959     | T S TELEPHONE                      |                             | 73                        | 28   | 81   |      | 032            | B   | 0956        |
| TS-27A/TSM      | 71-3002        |           | T S TELEPHONE                      |                             | 73                        | 28   | 81   |      | 032            | B   | 0957        |
| TS-27B/TSM      | ETS-27B        | 00798     | T S TELEPHONE                      |                             | 73                        | 28   | 81   |      | 032            | B   | 0958        |
| TS-2843/U       | 8834B          | 89536     | VOLTMETER                          | 38                          | 37                        | 39   | 29   |      | 121            | B   | 1210        |
| TS-297/U        |                | 71440     | MULTIMETER                         | 28                          | 29                        | 39   |      |      | 032            | B   | 0994        |
| TS-3012/U       | 135            | 28480     | RECORDER COORDINATE DATA           |                             | 98                        |      |      |      | 084            | E   | 1518        |
| TS-3066(V)12/U  | 312A           | 28480     | SPECTRUM ANALYZER                  |                             | 70                        |      |      |      | 110            | C   | 1220        |
| TS-3066(V)13/U  | 312B           | 28480     | ANALYZER WAVE                      |                             | 70                        |      |      |      | 110            | C   | 3553        |
| TS-312/FSM-1    | 200CR          | 28480     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 0997        |
| TS-312A/FSM-1   | 200CDR         | 28480     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 0995        |
| TS-312B/FSM-1   | 20-200         | 01486     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 0996        |
| TS-3150/U       | RTAG/UR3R3     | 03782     | ANALYZER SPECTRUM                  | 66                          |                           |      |      |      | 060            | C   | 1222        |
| TS-3170A/U      | 360B           | 94668     | ANALYZER SPECTRUM                  | 66                          |                           |      |      |      | 060            | C   | 3352        |
| TS-3171/U       | TTS-37B        | 06819     | T S AUDIO                          | 81                          | 82                        |      |      |      | 071            | D   | 1225        |
| TS-3176/USM-37B | TTS-26B        | 06819     | T S PULSE SIGNALING                | 73                          |                           |      |      |      | 122            | D   | 1226        |
| TS-3178/U       | J94002D(2D)    | 64959     | T S TELEPHONE                      |                             | 73                        |      |      |      | 122            | B   | 1227        |
| TS-3187/U       | 4917A          | 28480     | LOCATOR CABLE FAULT                |                             | 88                        |      |      |      | 009            | E   | 1228        |
| TS-3221/U       | 63220          | 07239     | T S NULL BALANCE EARTH TESTER      | 31                          |                           |      |      |      | 035            | B   | 1237        |
| TS-3237/U       | 725            | 06811     | ANALYZER SPECTRUM                  | 67                          | 68                        |      |      |      | 061            | C   | 1238        |
| TS-3329/U       | 236A           | 28480     | T S TELEPHONE                      | 1                           |                           |      |      |      | 006            | A   | 1241        |
| TS-3378/G       | DMS303A        | 96238     | ANALYZER DATA TELEGRAPH            | 33                          | 35                        |      |      |      | 066            | B   | 2361        |
| TS-340/U        | 182092         | 65092     | VOLTMETER                          | 39                          | 29                        |      |      |      | 076            | B   | 0998        |
| TS-3401/TSC-38B | 577087-1       | 49556     | T S VOICE FREQUENCY TONE GENERATOR | 1                           |                           |      |      |      | 006            | A   | 1242        |
| TS-3478/U       | 1200           | 50572     | T S MODEM                          | 72                          |                           |      |      |      | 013            | D   | 2390        |
| TS-3483/U       | TTS-4CR        | 06819     | TRANSMISSION T S                   | 81                          | 82                        |      |      |      | 071            | D   | 1615        |
| TS-352/U        | 972            | 65092     | MULTIMETER                         | 28                          | 29                        | 39   |      |      | 032            | B   | 0999        |
| TS-352B/U       |                | 77221     | MULTIMETER                         | 28                          | 29                        | 39   |      |      | 032            | B   | 1000        |
| TS-3606(V)11/U  | 4917F          | 28480     | OPEN FAULT LOCATOR                 |                             | 88                        |      |      |      | 009            | E   | 1412        |
| TS-3628(V)11/U  | 3580A          | 28480     | SPECTRUM ANALYZER                  | 65                          |                           |      |      |      | 059            | C   | 1670        |
| TS-3629/U       | 707B           | 27364     | QUICK CHECK TEST SET               | 73                          |                           |      |      |      | 122            | D   | 2385        |
| TS-382/U        | 200C           | 28480     | AUDIO OSCILLATOR                   | 1                           |                           |      |      |      | 006            | A   | 1001        |
| TS-382A/U       | 200C           | 99872     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 1002        |
| TS-382B/U       |                |           | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 1003        |
| TS-382C/U       |                | 99872     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 1004        |
| TS-382D/U       |                | 78796     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 1005        |
| TS-382E/U       |                | 82076     | GENERATOR SIGNAL                   | 1                           |                           |      |      |      | 006            | A   | 1006        |
| TS-383/GG       | DX04           | 59433     | T S TELETYPEWRITER                 | 33                          | 35                        |      |      |      | 066            | B   | 1007        |
| TS-383A/GG      | DXD4-DTS       | 59433     | T S TELETYPEWRITER                 | 33                          | 35                        |      |      |      | 066            | B   | 1008        |
| TS-383B/GG      | BYD4/MU26      | 59433     | T S TELETYPEWRITER                 | 33                          | 35                        |      |      |      | 066            | B   | 1009        |
| TS-4038/U       | D-0153-03006   | 11242     | GENERATOR SIGNAL                   | 5                           | 12                        |      |      |      | 107            | A   | 1011        |
| TS-4038/U       | D-0153-03006   | 11242     | GENERATOR SIGNAL                   | 5                           | 12                        |      |      |      | 053            | A   | 1010        |
| TS-419/J        | H-12           |           | GENERATOR SIGNAL                   | 16                          | 15                        | 5    |      |      | 107            | A   | 1012        |

J-84

## PART II TMOE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMOE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE               | SPECIFICATION NUMBER(S)     |                           |      |      |      | FAMILY GP CODE | LTR | TMOE IO NO. |
|-----------------|----------------|-----------|----------------------------|-----------------------------|---------------------------|------|------|------|----------------|-----|-------------|
|                 |                |           |                            | FUNCTIONALLY COMPATIBLE NO. | PARTIALLY COMPATIBLE NO.1 | NO.2 | NO.3 | NO.4 |                |     |             |
| TS-420/U        | 76A            | 64959     | T S TELEPHONE              |                             | 1                         |      |      |      | 006            | A   | 1013        |
| TS-420A/U       | 76A            | 64959     | T S TELEPHONE              |                             | 1                         |      |      |      | 006            | A   | 1014        |
| TS-420B/U       | 76C            | 64959     | T S TELEPHONE              |                             | 1                         |      |      |      | 006            | A   | 1015        |
| TS-421/U        | 205AG          | 28480     | GENERATOR SIGNAL           | 1                           |                           |      |      |      | 006            | A   | 1016        |
| TS-421A/U       | 205AG-H02      | 28480     | GENERATOR SIGNAL           | 1                           |                           |      |      |      | 006            | A   | 1017        |
| TS-421B/U       | 2975M          | 28569     | GENERATOR SIGNAL           | 1                           |                           |      |      |      | 006            | A   | 1018        |
| TS-421C/U       | F370A          | 29805     | GENERATOR SIGNAL           | 1                           |                           |      |      |      | 006            | A   | 1019        |
| TS-443/U        | 1              | 65092     | VOLTMETER                  | 39                          | 29                        |      |      |      | 077            | 8   | 1021        |
| TS-452/U        |                | 50304     | GENERATOR SIGNAL           | 20                          |                           |      |      |      | 052            | A   | 1023        |
| TS-452A/U       |                | 34184     | GENERATOR SIGNAL           | 20                          |                           |      |      |      | 052            | A   | 1024        |
| TS-452B/U       |                | 36004     | GENERATOR SIGNAL           | 20                          |                           |      |      |      | 052            | A   | 1025        |
| TS-452C/U       |                | 36004     | GENERATOR SIGNAL           | 20                          |                           |      |      |      | 052            | A   | 1026        |
| TS-452D/U       |                | 36004     | GENERATOR SIGNAL           |                             | 17                        | 18   | 20   |      | 052            | A   | 1027        |
| TS-452E/U       |                |           | GENERATOR SIGNAL           | 20                          |                           |      |      |      | 052            | A   | 1028        |
| TS-497/URR      |                |           | GENERATOR SIGNAL           | 18                          | 17                        |      |      |      | 106            | A   | 1031        |
| TS-497A/URR     |                |           | GENERATOR SIGNAL           | 18                          | 17                        |      |      |      | 106            | A   | 1032        |
| TS-497B/URR     |                |           | GENERATOR SIGNAL           | 18                          | 17                        |      |      |      | 106            | A   | 1033        |
| TS-497B/URR     | SM-3-334504    | 04423     | GENERATOR SIGNAL           | 18                          | 17                        |      |      |      | 106            | A   | 1034        |
| TS-505/U        | 123            |           | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1035        |
| TS-505A/U       | PL 3000        | 77221     | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1036        |
| TS-505B/U       | D11700         | 94066     | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1037        |
| TS-505C/U       |                |           | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1038        |
| TS-505D/U       |                |           | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1039        |
| TS-505E/U       | E40-197/129    | 02581     | MULTIMETER                 |                             | 29                        | 28   | 40   |      | 032            | 8   | 1040        |
| TS-559/FT       | 28             | 64959     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 1044        |
| TS-559A         | 2807           | 14140     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 1045        |
| TS-559B         | 34B            | 14140     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 1046        |
| TS-559C         | 34C            | 14140     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 1047        |
| TS-559D         | T335-TS-559    | 51865     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 0734        |
| TS-559E         | 2020-3A        | 13175     | TRANSMISSION MEASURING SET | 81                          | 82                        |      |      |      | 071            | O   | 1049        |
| TS-563A/FT      | A1AW           | 64959     | T S WIRING                 | 24                          |                           |      |      |      | 003            | 8   | 1050        |
| TS-569/FT       | 30A            | 64959     | T S TELEPHONE              | 81                          | 82                        |      |      |      | 071            | O   | 1051        |
| TS-583/U        | 210A           | 28480     | GENERATOR SIGNAL           | 2                           |                           |      |      |      | 054            | A   | 3636        |
| TS-583A/U       | E-136204       | 35225     | GENERATOR SIGNAL           | 2                           |                           |      |      |      | 054            | A   | 3637        |
| TS-584B/U       | AW SERIES 400  | 72264     | MILLIAMMETER RECORDER      | 91                          | 92                        |      |      |      | 064            | E   | 1052        |
| TS-592/UPM-15   | 382663F        |           | GENERATOR PULSE            | 4                           |                           |      |      |      | 050            | A   | 1058        |
| TS-592A/UPM-15  | AS1018         | 88585     | GENERATOR PULSE            | 4                           |                           |      |      |      | 050            | A   | 1059        |
| TS-611C/FG      | GA-11672       | 64959     | TELETYPEWRITER T S         | 33                          |                           |      |      |      | 066            | 8   | 3558        |
| TS-611C/U       | GA-11672       | 64959     | T S TELETYPEWRITER         | 33                          |                           |      |      |      | 066            | 8   | 3653        |
| TS-615/J        | 736A           | 24655     | ANALYZER SOUND             | 65                          |                           |      |      |      | 059            | C   | 1060        |
| TS-615A/U       | 300A           | 28480     | ANALYZER SPECTRUM          | 65                          |                           |      |      |      | 059            | C   | 1061        |
| TS-615B/J       | 300A           | 28480     | ANALYZER SPECTRUM          | 65                          |                           |      |      |      | 059            | C   | 1062        |
| TS-617/U        | 160A           | 04901     | METER Q                    | 93                          |                           |      |      |      | 042            | E   | 1063        |
| TS-617B/J       | TS617          | 51865     | METER Q                    | 93                          |                           |      |      |      | 042            | E   | 1064        |
| TS-617C/U       |                | 51865     | Q METER                    | 93                          |                           |      |      |      | 042            | E   | 1065        |
| TS-622/U        | P-12651        | 94486     | GENERATOR SIGNAL           | 68                          |                           |      |      |      | 062            | C   | 1066        |
| TS-622A/U       | 135-0-0500     | 77327     | GENERATOR SIGNAL           | 68                          |                           |      |      |      | 062            | C   | 1073        |

RAPT II TMOE CROSS-REFERENCE LIST

06/22/78

JS ARMY GENERAL PURRJOSE T4DE TD DTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR. CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S) |      |      |      |      | FAMILY CODE | GP LTR | TMOE IO NO. |
|-----------------|----------------|-----------|-------------------------------------|-------------------------|------|------|------|------|-------------|--------|-------------|
|                 |                |           |                                     | FUNCTIONALLY COMPATIBLE |      |      |      |      |             |        |             |
|                 |                |           |                                     | NO.                     | NO.1 | NO.2 | NO.3 | NO.4 |             |        |             |
| TS-629/U        | 920            | 14140     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | O      | 1058        |
| TS-629A/U       |                | 50304     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | D      | 1059        |
| TS-629B/U       |                | 14140     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | D      | 3736        |
| TS-629C/U       |                | 53527     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | D      | 1070        |
| TS-629D/U       | TP-924         | 14140     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | D      | 1071        |
| TS-629E/U       | 0211A03        | 25572     | AUDIO LEVEL TEST PANEL              | B1                      |      |      |      |      | 005         | D      | 1072        |
| TS-657/FG       | 119A           | 64959     | T S TELETYPEWRITER                  | 35                      | 33   | 34   |      |      | 067         | B      | 3654        |
| TS-658(U)/UG    | ED-51-DT       | 59433     | T S TELETYPEWRITER                  | 34                      | 35   |      |      |      | 067         | B      | 3638        |
| TS-659(U)/UG    | ED-5B-ME       | 59433     | T S TELETYPEWRITER                  | 35                      | 33   | 34   |      |      | 067         | B      | 3639        |
| TS-660/UG       | 161A1          | 64959     | T S TELETYPEWRITER                  | 33                      | 35   |      |      |      | 067         | B      | 3655        |
| TS-716/U        | 224            | 02230     | T S TELEPHONE                       | B1                      | 82   |      |      |      | 071         | D      | 1091        |
| TS-723/J        | 330A           | 28480     | ANALYZER SPECTRUM                   | 74                      |      |      |      |      | 014         | D      | 1092        |
| TS-723A/U       | 330B           | 28480     | ANALYZER SPECTRUM                   | 74                      |      |      |      |      | 014         | O      | 1093        |
| TS-723B/U       | 36A            | 14140     | ANALYZER SPECTRUM                   | 74                      |      |      |      |      | 014         | D      | 1094        |
| TS-723C/U       | 10000          | 99395     | ANALYZER SPECTRUM                   | 74                      |      |      |      |      | 014         | D      | 1095        |
| TS-723D/U       | 10000          | 99395     | ANALYZER SPECTRUM                   | 74                      |      |      |      |      | 014         | O      | 1096        |
| TS-730/URM      | 57-560-1       | 01723     | BRIDGE SUMMATION                    | 61                      |      |      |      |      | 040         | C      | 1097        |
| TS-762/TC       | NUS-2120       | 14140     | T S AUDIO                           | B1                      | 82   |      |      |      | 071         | O      | 1100        |
| TS-785/GG       | X75041A        | 64959     | T S TELETYPEWRITER                  | 33                      | 35   |      |      |      | 066         | B      | 1104        |
| TS-785A/GG      | GA-10767       | 64959     | T S TELETYPEWRITER                  | 33                      | 35   |      |      |      | 066         | B      | 1105        |
| TS-799/UGM-1    |                | 96238     | T S TELETYPEWRITER                  | 34                      |      |      |      |      | 067         | B      | 1106        |
| TS-800/UGM-1    |                | 96238     | T S TELETYPEWRITER                  | 33                      |      |      |      |      | 066         | B      | 1107        |
| TS-805/U        | 631-A          | 24655     | STROBOSCOPE                         |                         | 95   |      |      |      | 065         | E      | 1108        |
| TS-805A/U       | 631-BL         | 24655     | STROBOSCOPE                         |                         | 95   |      |      |      | 065         | E      | 1109        |
| TS-805B/U       | 510AL          | 83490     | STROBOSCOPE                         |                         | 95   |      |      |      | 065         | E      | 1110        |
| TS-805C/U       | 451-AL         | 00708     | STROBOSCOPE                         |                         | 95   |      |      |      | 065         | E      | 1111        |
| TS-805D/U       | 510-B          | 83490     | STROBOSCOPE                         |                         | 95   |      |      |      | 065         | E      | 1112        |
| TS-806/U        | 441            | 80740     | TACHOMETER ELEC                     | 32                      |      |      |      |      | 117         | B      | 1113        |
| TS-816/U        | KS-14103       | 64959     | T S TELEPHONE                       | 28                      | 29   |      |      |      | 118         | B      | 1115        |
| TS-903/G        | I-142          | 90649     | T S TELEPHONE                       | B1                      |      |      |      |      | 122         | O      | 1117        |
| TS-917/GG       | TTA-2          | 96238     | T S TELETYPEWRITER                  | 33                      | 35   |      |      |      | 066         | B      | 1119        |
| TS-917A/GG      |                | 96238     | T S TELETYPEWRITER                  | 33                      | 35   |      |      |      | 066         | B      | 1120        |
| TTU-27/E        | F5000          | 84997     | T S TACHOMETER                      |                         | 32   |      |      |      | 117         | B      | 1257        |
| TV-13/U         | K-100          | 82199     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1255        |
| TV-13A/I        | K-200          | 82199     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1256        |
| TV-2/U          |                | 60741     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1258        |
| TV-2A/J         |                |           | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1259        |
| TV-2B/U         |                |           | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1260        |
| TV-2C/U         |                |           | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1261        |
| TV-6/U          | 602            | 86270     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1262        |
| TV-7/U          |                | 28569     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1263        |
| TV-70/U         |                | 00641     | T S ELECTRON TUBE                   | 36                      |      |      |      |      | 072         | B      | 1264        |
| ZM-11/U         | 712            | 13259     | BRIDGE CAPACITANCE INDUCTANCE RESIS | 25                      |      |      |      |      | 011         | B      | 1276        |
| ZM-11A/J        |                |           | BRIDGE CAPACITANCE INDUCTANCE RESIS | 25                      |      |      |      |      | 011         | B      | 1277        |
| ZM-11B/J        |                | 12019     | BRIDGE CAPACITANCE INDUCTANCE RESIS | 25                      |      |      |      |      | 011         | B      | 1278        |
| ZM-21A/J        | 5G1000         | 66150     | OHMMETER                            | 26                      |      |      |      |      | 025         | B      | 1280        |
| ZM-21B/U        | A9B400C20      | 66150     | OHMMETER                            | 26                      |      |      |      |      | 025         | B      | 1281        |

## PART II TMDE CROSS-REFERENCE LIST

06/22/78

US ARMY GENERAL PURPOSE TMDE TO OTS ETE SPECIFICATION

| TYPE DESIGNATOR | MFR. MODEL NO. | MFR.<br>CODE | NOMENCLATURE                        | SPECIFICATION NUMBER(S)           |                              |      |      | FAMILY GP<br>CODE LTR | TMDE<br>ID NO. |
|-----------------|----------------|--------------|-------------------------------------|-----------------------------------|------------------------------|------|------|-----------------------|----------------|
|                 |                |              |                                     | FUNCTIONALLY<br>COMPATIBLE<br>NO. | PARTIALLY COMPATIBLE<br>NO.1 | NO.2 | NO.3 | NO.4                  |                |
| ZM-3/U          |                | 54294        | T S CAPACITOR                       | 25                                |                              |      |      |                       | 011 B 1271     |
| ZM-3A/U         |                | 77569        | ANALYZER CAPACITOR                  | 25                                |                              |      |      |                       | 011 B 1272     |
| ZM-4/U          | 5300           | 31922        | BRIDGE RESISTANCE                   | 25                                |                              |      |      |                       | 008 B 1273     |
| ZM-4A/U         | 301SL          | 66150        | BRIDGE RESISTANCE                   | 25                                |                              |      |      |                       | 008 B 1274     |
| ZM-4B/U         |                | 66150        | BRIDGE RESISTANCE                   | 25                                |                              |      |      |                       | 008 B 1275     |
| ZM-54/U         | LRQ-1          | 05721        | DHMMETER                            |                                   | 28                           | 30   | 27   |                       | 035 B 1282     |
| ZM-61/U         | 250B           | 28480        | BRIDGE CAPACITANCE INDUCTANCE RESIS | 25                                |                              |      |      |                       | 008 B 1284     |
| ZM-6B/U         | DSB-5C-4R      | 88869        | BRIDGE IMPEDANCE                    | 25                                |                              |      |      |                       | 008 B 1285     |
| ZM-69           | 1650-9701      | 24655        | BRIDGE IMPEDANCE                    | 25                                |                              |      |      |                       | 008 B 3630     |
| ZM-69A          | 1650-9702      | 24655        | BRIDGE IMPEDANCE                    | 25                                |                              |      |      |                       | 008 B 3631     |
| ZM-70/U         | 2507E          | 11837        | BRIDGE CAPACITANCE INDUCTANCE RESIS | 25                                |                              |      |      |                       | 008 B 1286     |
| ZM-71/U         | 4260A          | 28480        | BRIDGE IMPEDANCE                    | 25                                |                              |      |      |                       | 008 B 1287     |
| ZM-74/U         | 4800A          | 28480        | METER VECTOR IMPEDANCE              | 83                                |                              |      |      |                       | 073 D 1489     |





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