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MANUFACTURING METHODS AND TECHNOLOGY (MM&T)
SPECIFICATIONS FOR MINIATURE CATHODE RAY TUBE(U) THOMAS
ELECTRONICS INC WAYNE NJ F M BRUNO 31 JUL 82

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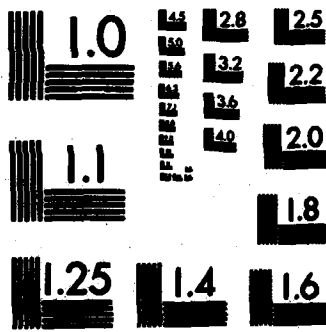
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31 July 1982

Thomas Electronics, Inc.
100 Riverview Drive
Wayne, NJ 07470

SEVENTH QUARTERLY REPORT

for period

1 April 1982 - 30 June 1982

Approved for public release; distribution unlimited

Manufacturing Methods and Technology (MM&T) Specifications for Miniature Cathode Ray Tube

prepared by

F.M. Bruno

Thomas Electronics, Inc.
100 Riverview Drive
Wayne, NJ 07470

prepared for

Procurement and Production Directorate
USA MERADCOM
Fort Belvoir, VA 22060

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THOMAS ELECTRONICS, INC.

100 Riverview Drive, Wayne, New Jersey 07470 / 201-696-5200 / TWX: 710-988-5836 / Cable: TOMTRONICS

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ACKNOWLEDGEMENT

This project has been accomplished as part of the US Army Manufacturing Methods and Technology (MM&T) Program which has as its objective the timely establishment of manufacturing processes, techniques, or equipment to insure the efficient production of current or future defense programs.

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) Earlier problems with deflection coil design concerning barreling, sensitivity and horizontal linearity were resolved. Life-testing of the P-43 phosphor screen continued. In house test fixtures were designed and fabricated, and are now under Engineering review. TEI's procedures were refined for manufacturing tests and for environmental and reliability testing. CRT assemblies for the 3rd Submission of Phase I - (Over)		

20. ABSTRACT (contd.)

Engineering Samples were completed and ready for source testing. TEI began to manufacture and test CRT assemblies for Phase II - Confirmatory Samples.

Manufacturing Methods and Technology (MM&T) Specifications for
Miniature Cathode Ray Tube

SEVENTH QUARTERLY REPORT


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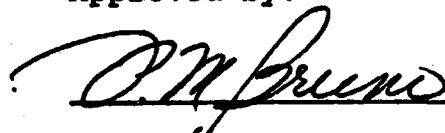
The object of this study is to develop design, performance, and test specifications for the Miniature Cathode Ray Tube (CRT) assembly suitable for use in the Integrated Helmet and Display Sight System (IHADSS) of the Army Advanced Attack Helicopter (AAH).

Contract Number: DAAK70-80-C-0168

Approved by:


M. L. Beasty
Vice President - Engineering

Approved by:


F. M. Bruno
Program Manager

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ABSTRACT/SUMMARY

Earlier problems with deflection coil design concerning barreling, sensitivity and horizontal linearity were resolved. Life-testing of the P-43 phosphor screen continued. In house test fixtures were designed and fabricated, and are now under Engineering review. TEI's procedures were refined for manufacturing tests and for environmental and reliability testing. CRT assemblies for the 3rd Submission of Phase I - Engineering Samples were completed and ready for source testing. TEI began to manufacture and test CRT assemblies for Phase II - Confirmatory Samples.

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1.0 PURPOSE

The purpose of this Manufacturing Methods and Technology (MM&T) contract is to establish production methods and facilities required to produce the Miniature Cathode Ray Tube Assembly required for the Integrated Helmet and Display Sight System (IHADSS) of the Army Advanced Attack Helicopter (AAH).

The primary objectives are to develop vendor sources for the required individual components and establish viable production techniques to meet the necessary monthly production rate.

The product produced will be required to meet the mechanical, electrical, performance, and environmental parameters of MM&T H799838.

2.0 GLOSSARY

AAH.....	Advanced Attack Helicopter
ATP.....	Acceptance Test Procedure
CDRL.....	Contract Data Requirements List
COR.....	Contracting Officer's Representative
CRT.....	Cathode Ray Tube
EM.....	Equipment Manufacturer
IHADSS.....	Integrated Helmet and Display Sight System
MERADCOM.....	Mobility Equipment Research and Development Command
MM&T.....	Manufacturing Methods and Technology
NV&EOL.....	Night Vision & Electro- Optics Laboratory
PERT.....	Program Evaluation and Review Techniques
TEI.....	Thomas Electronics, Inc.
TIR.....	Total Indicated Range

Contracting Officer's Representative. Acceptance of these samples would signify the completion of Phase I of this MM&T project.

TEI commenced fabrication and test of the ten CRT assemblies required for Phase II - Confirmatory Samples.

3.2 Testing Requirements.

Two CRT shield assembly fixtures that TEI designed to optimize CRT shield and bulb concentricity were received from the vendor and were being checked out by Engineering. The assembly vibration fixture was in the final design phase.

TEI continued to refine in-house Acceptance Test Procedures (ATP) for the manufacturing stage in Phase I - Engineering Samples and Phase II - Confirmatory Samples. These ATPs will be incorporated in A012 and A013 (test plans for both phases). Similarly, TEI was preparing Environmental and Reliability Test Procedures for Phase II - Confirmatory Samples. The Environmental and Reliability Test Procedures, in addition to the manufacturing ATP, would become part of A013, Confirmatory Sample Test Plan.

4.0 CONCLUSIONS

In spite of material, vendor and engineering problems, TEI satisfactorily completed the manufacture and test of two CRT assemblies for the third and final submission of Phase I - Engineering Samples.

TEI started to manufacture and test CRT assemblies for Phase II - Confirmatory Samples.

5.0 PROGRAM FOR NEXT INTERVAL

For the next quarter, TEI's plans are as follows:

1. Fabricate and test CRT assemblies for Phase II - Confirmatory Samples.
2. Maintain detailed test records for compiling into technical data items required by the contract.
3. Prepare and submit monthly status reports and also the draft and final quarterly reports.

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Air Force Avionics Laboratory
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Wright-Patterson AFB, OH 45433

Electronic Technology & Devices Laboratory 1
ATTN: DELET-BD (Dr. Elliott Schlam)
Fort Monmouth, NJ 07703

Rockwell International Corporation 1
Defense Electronics Operations
3370 Miraloma Avenue
ATTN: Mr. Chuck McConkle
Anaheim, CA 92803

Hughes Aircraft Company 1
Aerospace Groups
Electro-Optical & Data Systems Group
Centinela & Teale Streets
ATTN: Mr. Michael Ernstoff
Culver City, CA 90230

