### .-MILITARY SPECIFICATION -

# 'CONTROL, REMOTE, M71 LAND MINE SYSTEM

This specification is approved for use within U.S. Army Armaments Munitions and Chemical Command, and is available for use by all Departments and Agencies of the Department of Defense.

- 1. SCOPE
- 1.1 <u>Scope</u>. This specification establishes the Quality Assurance provisions for the manufacture, inspection, test and packaging of the Remote Control Unit (Rcu).
  - 2. APPLICABLE DOCUMENTS
  - 2.1 <u>Government documents</u>.
- 2.1.1 <u>specifications and standards</u>. Unless otherwise specified, the following specifications and standards of issue listed in that issue of the Department of Defense Index of Specifications and Standards (DoDISS) specified in the solicitation form part of this specification to the extent 'specified herein.

#### **SPECIFICATIONS**

#### MILITARY

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MIL-C-816 - Capacitors, Variable, *ceramic, Dielo* Styles CV35 and CV36.

MIL-C-3098 Crystal Units, Quartz, General Specification for

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commander, U.S. Army Armament, Munitions and Chemical Command, Attn: AMSMC-QA, Dover, New Jersey 07801-5001 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

AMSC N/A FSC 1290 DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

'Relays, Electromagnetic, General MIL-R-5757 Specification for MIL-S-19500 -Semiconductor Device, General Specification For. MIL-S-19500/116 -Semiconductor Device, Diode, Silicon Switching Types 1N914, 1N4148, IN4531 TX1N914, TX1N4148, and TX1N4531. MIL-S-19500/255 -Semiconductor Device, Transistor NPN Silicon, Switching Types 2N2221, 2N92 221A. 2N2222, and 2N2222A, Jan, Jantx, Jantxv and Jans. Semiconductor Device, Transistor, PNP MIL-S-19500/2i3 -Silicon, Switching Types 2N69Aa and 24453, Jan, Jantx, and Jantxv, MIL-S-19500/290 -Semiconductor device, Transistor, Silicon Switching Types 2N2904, 2N2904A, 2N2905, and 2N2905A, Jan, Jantx, Jantxv, and Jans. MIL-S-19500/291 -Semiconductor Device, Transistor, Silicon Switching Types 2N2906, 2N2906A, 2N2907, and 2N2907A, Jan, Jantx, Jantxv, and Jans. --- " . . Semiconductor Device, Transistor, NPN, MIL-s-19500/317 -Silicon Switching Types 2N2369A, 2N3227, 2N4449, Jan, Jantx and Jans. MIL-S-19500/356 -Semiconductor Device, Diode, Voltage Regulator Types 1N4954 through 1N4996, 1N5968 and 1N5969 Jan, Jantx Jantxv , and Jans Semiconductor Device, Diode, Silicon, MIL-S-19500/427 -Power Rectifier, Types 1N5614, 1N5618, 1N5620, 1N5622, Jan, Jantx, Jantxv and Jans .

MIL-s-19500/437	-	semiconductor Device, Diode, silicon, Low Noise Voltage- Regulator 1N5518B thru 1N5546B and TX1N5518B thru TX1N5546B.
MIL-s-19500/441	-	Semiconductor Device, Transistor, PNP Silicon, Power Types 2N3740, 2N3741, Nontx, Tx and Txv.
MIL-s-19500/444	-	Semiconductor Device, Diode, Silicon, Switching Types 1N5711, TX1N5711.
MIL-s-19500/445	-	Semiconductor Device, Diode, silicon, Switching Types 1N5712, TX1N5712.
M1L-M-38510	_	Microcircuits, General Specification For.
MIL-M-38510/12	-	Microcircuits, Digital, TTL, Monostable, Multvibrators, Monolithic Silicon.
MIL-M-38510/173	-	Microcircuits, Digital, CMOS Decoders, Encoder, and Decoders/Demultiplexers, Monolithic Silicon, positive Logic.
MIL-M-38510/300	_	Microcircuits, Digital, Low Power Schottky TTL, Nand Gates, Monolithic Silicon.
MIL-c-39001/5	_	Capacitor, Fixed, Mica Dielectric, Established Reliability Styles CMR04 to 08.
MIL-c-39003/1	-	Capacitor, Fixed, Electrolytic (Solid Electrolyte), Tantalum, (polarized, Sintered Slug), Established Reliability, Style CSR 13.
MIL-C-39006/9	-	Capacitor, Fixed, Electrolytic (Nonsolid Electrolyte), Tantalum, (Polarized, Sintered Slug), 85 Degrees C (Voltage Derated to 125 Degrees C), Established Reliability, Style CIR65.

# Downloaded from http://www.everyspec.com

# MIL-C-64025 (AR)

MIL-R-39007/8 -	Resistor, Fixed, Wire-Wound (Power-Type)_ Established Reliability Style RwR80.
MIL-R-39008/1 -	Resistor, Fixed, Composition (Insulated), Established Reliability, Style RCR07,
MIL-R-39008/2	Resistor, Fixed, Composition (Insulated), Established Reliability, Style RCR20.
MIL-R-39008/3	Resistor, Fixed, Composition (Insulated), Established Reliability, Style RCR32.
MIL-R-39008/5	Resistor, Fixed, Composition (Insulated), Established Reliability, Style RCR42.
MIL-C-390i4/1	Capacitor, Fixed, Ceramic Dielectric, (General Purpose), Established Reliability, Style CKR05.
MIL-C-39014/2	Capacitor, Fixed, Ceramic Dielectric, (General Purpose), Established Reliability Style CKR06.
MIL-C-39014/22	Capacitor, Fixed, Ceramic Dielectric. (General Purpose), Established Reliability Style CKR22, CKR23, and CKR24.
MIL-C-39016/9	Relay, Electromagnetic, Established Reliability, DPDS; Low Level to 1.0 Ampere.
MIL-R-39017/1	Resistor, Fixed, Film (Insulated) Established Reliability, Style RLR07.
MIL-S-46844	Solder Bath Soldering of Printed Wiring Assemblies
MIL-S-45743	Soldering, Manual Type, High Reliability, Electrical and Electronic Equipment
MIL-A-48078	Ammunition, Standard Quality Assurance Provisions, General Specification for
MIL-C-48655	Core, Toroid .

MIL-P-35149	· _	Post, Bindin-giRleCtriCal (Insulated and Uninsulated), 'General Specification for		
MIL-0-55310	-	Oscillators, Crystal General Specification f o r		
MIL-C-55681	-	Capacitors, Chip, Multiple Layer, Fixed, Unencapsulated, Ceramic Dielectric, Established Reliability, General Specification for		
MIL-C-55681/5	-	Capacitor, Chip, Multiple Layer, Fixed unencapsulated, Ceramic, Dielectric, Established Reliability, Styles CDR21 to CDR25 (High Frequency).		
MIL-R-83401/2		Resistor Networks, Fixed, Film, style RZ020, 16 Pin Dip.		

### STANDARDS

### MILITARY

MIL-STD-105	-	Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-202	-	Test Methods for Electronic and Electrical Component Parts.
MIL-STD-331	-	Fuze and Fuze Components, Environmental and Performance Test For
MIL-STD-454		Standard General Requirement for Electronic Equipment
MIL-STD-750	-	Test Methods for Semiconductor Devices
MIL-sTD-883	-	Test Methods and Procedures for Micro- electronics
MIL-STD-1169	-	Packaging, Packing and Marking for Shipment of Inert Ammunition Components
DOD-STD-1686	-	Electrostatic Discharge Control Program for Protection of Electrical and Electronic Parts, Assemblies and

#### MTT. -C-64025 (AR)

### Equipment

Handbooks

DOD-HD BK-263 - EDC Handbook for Protection of Electrical and Electronics Parts!, Assemblies and Equipment.

2 .1.2 Other government documents drawings and Publications. The following government documents, drawings, and publications form a part of this specification to the extent specified herein.

#### DRAWINGS

U\*S. ARMAMENT RESEARCH, DEVELOPMENT AND ENGINEERING CENTER (ARDEC)

PRODUCT AND PACKAGING DRAWINGS

9332870 - Control, Remote, Land Mine M71

CODE OF FEDERAL REGULATION

Title 49 - Transportation, Parts 100-199

- . (Copies of specifications, standards, drawings and publications required by manufacturers in connection with specific acquisition functions should be obtained for the contracting activity or as directed by the Contracting Officer).
- 2.2 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein, the text of this specification shall take precedence.
  - 3. REQUIREMENTS
- 3.1 <u>Materials</u>. Materials shall be in accordance with the applicable drawings, specification and, standards.
- 3.2 Components and assemblies. The components and assemblies shall comply with -all requirements specified on Drawing 9332870 and associated drawings and with all requirements specified in applicable specifications and standards.
  - 3 '.3 Physical characteristics.
- 3.3.1 Envelope and dimensions. The envelope and dimensions of the Remote Control Unit shall conform to the requirements of Drawing 9332870.

#### 3.4 Environmental conditions.

- 3.4.1 Transportation vibration. The electronics assembly shall show no evidence of internal or external damage that will affect the intended functions following Transportation Vibration Test No. 119, Procedure 2 of MIL-STD-331.
- 3.4.2 Temperature range. The Remote Control Unit shall perform as required herein and in Drawing 933026 over the temperature range, after one (1) hour conditioning at temperature.
  - a. Cold -35 (+0/-5) degrees F
  - b. Hot +145 (+5) degrees F
  - c. Ambient 70 (+10/-10) degrees F
- 3.4.3 Shock. The electronic assembly shall perform as required after impact environments that provide mechanical shock of TBD G's peak wit a duration of TBD ms minimum, TBD ms maximum.
- 3.5 <u>Soldering</u>. All soldered electrical connections shall comply with MIL-S-46844, and MIL-S-45743.
- 3.5.1 <u>Solderability</u> Electronic assembly parts that are to be soldered shall comply with the solderability requirements of MIL-S-45743 or as otherwise specified.
- 3.6 Remote Control Unit Performance characteristics. This section describes the performance characteristics of the Remote Control Unit (RCU), assembly number 9332873.
- 3.6.1 RCU power off current. With the voltage at Pi-RED (+14.4 VDC) with respect to Pl-BLK (COMMON) set to 13 + 0.5 volts (Nominal Battery Voltage), the unit power Switch off, the current flowing into Pi-RED shall be 2.0 milliamperes maximum when tested per 4.5.2.1
- 3.6.2 RCU standbv current. With the voltage (Pi-RED with respect to P1-BLK) set to 13 + 0.5 volts, the unit power switch on and displays blank, the current flowing into PI-RED shall be 100 milliamperes maximum when tested per 4.5.2.2
- 3.6.3 <u>Keyboard lights</u>. All the keyboard keys shall be backlit when the unit power switch is on when tested per 4.5.2.3

- 3.6.4 -Low "battery voltage. The RCU shall flash the "BAT LOW" LED when the battery voltage is at or below the low voltage threshold. The low voltage -threshold shall be 11.0 volts max. and 10.3 volts minimum when tested per 4.5.2.24
- 3.6.5 -RGU transmitting current. With the battery voltage (Pl-RED with respect to P1-BLK) set to 13 + 0.5 volts and the RCU transmitting into a 50 +5% ohm resistive load, the current flowing into PI-RED shall be 2.6 amperes maximum when tested per 4,5.2.25
- 3.6.6 Transmitting Power. With a battery voltage of 13+0.1 its, the RF-Power -into a 50 + 5% ohm resistive load at the ANTENNA, while transmitting, shall be 10 watts minimum when tested per 4.5.2.26
- 3.6.7 <u>Tuning (load matching) capability.</u> The RCU shall produce 10 watts minimum into the 50 ohm real component of each of the complex loads listed in the table below with a battery voltage of 13 + 0.1 volts when tested per 4.5.2.27

LOAD	LOAD)_IMPllDANCE		
A	50 - j169		
В	50 + j152		
С	83 + j88		
D	316- j169		
E	79 + j183		

- 3.6.8 Transmitter cutoff voltage. The RCU shall not transmit an RF signal when the battery voltage is at or below the cutoff threshold of 10 + 0.5 volts when tested per 4.5.2.28
- 3.6.9 <u>Data retention time</u>. Data stored in the RCU memory shall be retained for at least 5 minutes with the battery disconnected from the unit when tested per 4.5.2.29
- 3.6.10 Initial Power application. When battery power is first applied or until a valid STORE code has been established, the RCU shall display INVALID with the STORE code select switch is off when tested per 4.5.2.4
- 3.6.11 STORE code entry mode. The RCU allows a five digit STORE code to be entered via the front panel keyboard where STORE code digits are chosen from the set of integers 1 thru 8 inclusive. Turn the store code select switch on, turn the power switch on and then turn the store code switch off. The RCU shall display five dashes (----) as the STORE CODE prompt. Key in the five digit STORE code. The RCU shall display the "key-in" digits when tested per 4.5.2.5, then turn the unit power switch off.

### 3.6.12 STORE mode.

- 3.6.12.1 <u>Power on prompt</u>. When a valid STORE code has been established and the store code select switch is off, the RCU shall display "ON", after the unit power switch is turned on when tested per 4.5.2.6.
- 3.6.12.2 Invalid STORE code entry. The RCU shall display "Invalid" 16 + 1.0 seconds after the unit power switch is turned on if an incorrect or incomplete STORE code or no entry is keyed in on the keyboard within the first 15 seconds after the unit power switch has been turned on when tested per 4,5.2.7
- 3 .6.12.3 No Previous SEND code selected. The RCU shall display four dashes (----) 16 + 1.0 seconds after the unit power switch is turned on if a SEND code has not been previously selected and the correct STORE code has been keyed in within the first 15 seconds after the unit power switch has been turned on when tested per 4.5.2.8
- 3.6.13 SEND code selection. The RCU permits a four digit SEND code to be selected, from pseudo-randomly generated candidate codes, via the front panel keyboard. The RCU shall display "AUTO" when the AUTO key is pressed and the RCU is in the STORE mode, then the RCU shall display a four digit SEND code when the TRANSFER key is pressed sequentially following the AUTO key when tested per 4.5.2.10. Repeating this sequence will select a different SEND code.
- 3.6 .13.1 Previous SEND code selected. The RCU shall display the previously selected SEND code 16 + 1.0 seconds after the unit power switch is turned on if a SEND code has been previously selected and the correct STORE code has been keyed in within the first 15 seconds after the unit power switch has been turned on when tested per 4.5.2.11
- 3.6.14 Transfer <u>capability</u>. The RCU shall have the capability of transferring the Remote Copy Data (RCD) code from RCU to RCU via the Magnetic Coupling Device (MCD) coil. The receiving and transferring of data is accomplished when both RCUS are in the STORE mode, and the MCD transfer coils are aligned.

### 3.6.14.1 RCD code transfer.

- 3.6.14.1.1 Transfer output prompt. The RCU shall display "COPY" when the COPY key is pressed and the RCU is in the STORE mode when tested per 4.5.2.12.
- 3.6.14.1.2 Data sending display. When the TRANSFER key is pressed sequentially following the COPY key while in the STORE mode, the RCU shall display "SENDING" when tested per 4.5.2.12

- 3.6.14.1.3 Data output sequence. When the load of Figure la is placed on the RCU MCD coil as specified, an RCD pulse sequence shall be generated at the output of the load as specified in Figure 2 in response to a COPY command when tested per 4.5.2.12
- 3.6.14.1.4 Data output completion display. When the RCU has completed transmission of the RCD pattern over the MCD coil, the RCU shall display the four digit SEND code associated with that pattern as specified by Drawing 9333026 when tested per 4.5.2.12

### 3 .6.14.2 RCD code receive.

- 3,.6.14.2.1 Receive input Prompt. When the RCU is in the STORE mode and the MCD coil is driven as specified by Figure 3a the RCU shall display ",RECEIVE" when tested per 4.5.2.13
- 3.6.14.2.2 Receive input acceptance. When the TRANSFER key is pressed while the RCU displays "RECEIVE", the RCU shall display the four digit SEND code associated with the-RCD pattern of Figure 3 as specified by Drawing 9333026 when tested per 4.5.2.13

### 3.6.15 <u>SEND mode</u>.

- 3 .6.15.1 <u>Initial group status display</u>. If a SEND code has been previously selected and correctly keyed in within the first 15 seconds after the unit power switch has been turned on, the RCU shall display "n CMD", where n is the GROUP ID (set to 1 on entering the SEND mode) and CMD is one of: NONE, TRANSFER, DEPLOY, RESET SD, or DESTRUCT when tested per 4.5.2.15
- 3.6.15.2 Invalid SEND code entry. The RCU shall display INVALID" 16 + 1.0 seconds after the unit power switch is turned on if an incorrect or incomplete SEND code or no entry is keyed in on the keyboard within the first 15 seconds after the unit power switch is turned on when tested per 4.5.2.14
- 3.6.16 <u>Display timeout</u>. The RCU shall blank the display in the SEND or STORE mode after 10 + 1.0 seconds of keyboard inactivity when tested per 4.5.2.9
- 3.6.17 Group selection. The RCU shall provide the capability to control up to 15 addressed groups. Control shall be exercised on each group individually or on all 15 groups simultaneously. Group selection is made while in the SEND mode. Pressing the GROUP ID key shall increment the current GROUP ID number of the RCU by one. GROUP ID's will be the numbers 1 thru 15 and ALL when tested per 4.5.2.17
- 3.6.18 <u>Group status display</u>. The RCU maintains in memory the current status of each group and displays that status while in the SEND mode. The status format shall be "n status", where n is the GROUP ID number 1 to 15 inclusive and status is one-of: NONE, TRANSFER, DEPLOY, RESET SD, DESTRUCT and "ALL", for the GROUP ID of ALL.

- 3.6.18.1 <u>Initial status</u>. After initial power application or reassigning of the SEND or STORE codes, all groups shall begin with the initial status of NONE when tested per 4.5.2.15 and 4.5.2.17.
- 3.6.18.2 <u>Status update sequence</u>. The group status shall be updated as specified by the state diagram of Figure 4. when tested per 4.5.2.21, 4.5.2.23, and 4.5.7.31.4

### 3.6.19. RCU to CI transfer.

- 3.6.19.1 <u>Transfer display</u>. The RCU shall momentarily display "SENDING' when the TRANSFER key has been pressed, the RCU is in the SEND mode, and the GROUP ID is not ALL when tested per 4.5.2,16.
- 3.6 .19.2 Transfer output. When the load of Figure la is placed on the RCU MCD coil as specified in that figure, an FSD pulse sequence shall be generated at the output of the load as specified in Figure 2 for the current group and RCD code in response to a TRANSFER command when tested per 4.5.2.16.
- 3.6.19.3 <u>Group status update</u>. When the waveform transmission has completed, the group status display shall be updated as specified by 3.6.18.2. and tested per 4.5.2.16.
- 3 .6.19.4 Invalid transfer <u>Group</u> The RCU shall display "ALL INVALID", when the <u>TRANSFER</u> key is pressed, the RCU is in the <u>SEND</u> mode, and the <u>GROUP</u> ID is <u>ALL</u> when tested per 4.5.2.18.

#### 3.6.20 RCU command transmission.

- 3.6.20.1 <u>Command display.</u> The RCU shall display "DEPLOY n", "DESTRUCT n", or "RESET SD n", when the DEPLOY, DESTRUCT, or RESET SD key respectively is pressed, where n is the current GROUP ID number and the RCU is in the SEND mode when tested per 4.5.2.19.
- 3.6.20.2 <u>Tuning sequence</u>. The RCU shall momentarily display "TUNING" when the XMIT switch is pressed sequentially after the DEPLOY, DESTRUCT, or RESET SD key and the RCU is in the SEND mode when tested per 4.5.2.19.1.
- 3 .6.20.3 <u>Transmit display</u>. The RCU shall display "XMIT TUNE = m" where m is an integer from O to 9 after the RCU has-completed the tuning sequence when tested per 4.5.2.19.2.
- 3.6.20.4 RF output sequence. An RF message, as specified by Drawing 9333026 for the FSD data of the current group, shall be generated after the RCU has completed the tuning sequence when tested per 4.5.2.19.3.
- 3.6.20.5 Group-status update. When the RF transmission has completed, the group status shall be updated as specified by 3.6.18.2.

- 3.7. Tuning Electronic Components Assembly Performance .

  characteristics
  This section describes t-he -performance characteristics of the Tuning electronic components assembly (Tuner), assembly number 9333578.
- 3.7.1 Reflectometer -verification. When tested per 4.5.5.1, the following .conditions apply unless otherwise noted; the auto tune select-able inductors shunted (shorted) and capacitors disabled (disconnected) , -an RF signal of -11.0 VRMS at frequency Fo (as specified in the 9333026 drawing) having a source impedance of 50 Ohms applied to RFIN (A1-E14) and the XFER RELAY input (AI-E16) connected to GROUND (A1-E18).
- 3.7.1.1 Reflectometer output 50 ohm load. With a 50 ohm resistive load between RFOUT (A2-E13) and 'GROUND, the VREFL output (A1-E17) shall be 0.15 Vdc maximum when tested per 4.5.5.1.1.
- 3.7.1.2 Reflectometer output .- 75 ohm load. With a 75 ohm resistive load between RFOUT and GROUND, the VREFL output shall be between 0.75 Vdc to 1.25 Vdc when tested per 4.5.5.1.2.
- 3.7.1.3 Reflectemeter output no load. With RFOUT unterminated the VREFL output shall be 4.5 Vdc minimum when tested per 4.5.5.1.3.
- 3.7.2 <u>Inductor elements</u>. The Tuner assembly shall have the capability of switching four inductors between RFIN and RFOUT. Each inductor shall be individually controlled by a single data bit in the TUNE DATA pattern as shown in Figure 5. The four inductance values and associated data patterns shall be as specified in Table 1 when tested per 4.5.5.2.

### TABLE 1

Pattern	Data Pattern (bits 12345678)	Inductance at 2.5Mz + 5%
А	00001000	0.75uH + 10%
В	00000100	1.5 UH+10%
С	0000010	3.0 UH + 5 %
D	0000001	<b>6.0</b> ∪ <b>H</b> + 5%

3.7.3 Capacitor elementS<sub>e</sub> The Tuner assembly shall have the capability of switching four capacitors between the RFOUT and GROUND. Each capacitor shall be individually controlled by a single data bit in the TUNE DATA pattern as shown in Figure 5. The four capacitance values and associated data patterns shall be as specified in Table 2 when tested per 4.5.5.3.

#### TABLE 2

	Data Pattern	
Pattern	(bits 12345678)	Capacitance
_		
A	1000000	91 <b>pF + 10</b> %
В	0100000	180pF + 10 %
C	00100000	360pF + 5 %
D	00010000	720pF + 5 %

3.7.4 Power handling capability. With a 50 ohm load between RFOUT and GROUND and the data pattern associated with the 50 ohm load (A) of Table 3 applied to the TUNE DATA input per Figure 5, apply an RF signal of 12 Watts at frequency Fo having a source impedance of 50 ohms to RFIN. The RF output at the 50 ohm termination shall be greater than 10 Watts (refer Table 3). The Tuner shall output an RF power level greater than the level specified in Table 3 when each of the remaining loads of Table 3 are connected between RFOUT and GROUND, the data pattern associated with each load is applied to the TUNE DATA input per Figure 5 and the above RF source is applied to RFIN. Each of the complex loads of Table 3 are comprised of a set of inductor(s) and/or capacitor(s) between the RF output and a 50 ohm resistive termination. The power output shall be measured across the 50 ohm termination when tested per 4.5.5.4.

#### TABLE 3

Load	Load Impedance	Data Pattern (bits 12345678)	Power Output(min.)
A	50	0000000	10 Watts
В	50	00001000	10 Watts
С	50 - j169	00001111	10 Watts
D	50 + j152	10011011	10 Watts
E	83 + j88	11011110	10 Watts
F	316- j169	00101101	10 Watts
G	79 + j183	00011011	10 Watts

3.8 <u>Transmitter Electronic Components Assembly Performance Characteristics</u>. This—section describes the performance Characteristics of the Transmitter Electronic Components Assembly, assembly number 9333579, consisting of assembly number 9333590(A3) and assembly number 9333595(A4).

- 3.8.1 <u>Harmonic filter characteristics</u>. The following describes the performance characteristics of the Harmonic Filter, when used at the MOPMS carrier frequency Fo as specified by drawing 9333026 and tested per 4.5.6.1.
- a.Insertion loss: The insertion loss of the filter shall be less than 1.0 db.
- b. Return loss: The return loss of the filter when loaded with a 50 ohm real load shall be less than 14db.
- c. Harmonic attenuation: The attenuation of any harmonic of the fundamental frequency (Fe) up to 40.0Mhz shall be greater than 35db relative to the fundamental. The attenuation of the second and third harmonic shall be greater than 60db relative to the fundamental.
- $3.8.2~{
  m RF}$  Power amplifier. This section describes the characteristics of the RF Power Amplifier.
- 3.8.2.1 RF power output. The power output of the RF Amplifier at A3-E4 (RF OUT) when loaded with 50 ohms shall be 12 watts minimum when tested per 4.5.6.2.
- 3.8.2.2 Current loading of amplifier. The current drain into A3-E3 (VBATT) shall be less than 2.6 amps, when tested per 4.5.6.2.
- 3.8.3 <u>Tuning attenuator</u> pad. The RF output power shall be attenuated by 12 + 2db from the level measured in 4.5.6.2 when tested per 4.5.6.3.
- 3.8.4 Transmitter cutoff voltage. The RF transmitter shall be disabled when the voltage at A3-E3 (VBATT) is at or below the cutoff voltage threshold. The cutoff voltage threshold shall be 10.0+0.5 volts when tested per 4.5.6.4.
- 3.8.5 <u>Current limiter</u>. With a short applied between the drain and source of Q5 in the RF amplifier, the current drain into A3-E3 (VBATT) shall limit to less than 3.0 amps when tested per 4.5.6.5.
- 3.8.6 Fast turn off inhibit. The RF power into 50 ohms shall go to 0.0 (+0.2/-0) watts and the DC voltage at A4-E22 (STROBE BUFF) and A4-E21 (STROBE BUFF-) shall change from 0.0+0.2 volts to 5.0+0.5 volts and from 5.0+0.5 volts to 0.0+0.2 volts respectively when tested per 4.5.6.6.
- 3.8.7 <u>Send enable/disable.</u> With 3.6+1.6 volts applied to A3-E9 (SEND),'the DC voltage at A4-E23 (A.T.+5VDC) shall be 5.0+0.4 volts. When 0.0+0.2 volts is applied to A3-E9 (SEND) the RF power output into 50 ohms shall be 0.0 (+0.2/-0) watts and the DC voltage at A4-E23 shall be 0.0+0.5 volts when tested Per 4.5.6.7.

- 3.8.8 Mark/space frequencies. With 4.8+0.2 volts applied to A4-E5 (MESSAGE DATA INPUT) the frequency of the RF output at A3-E4 (RF OUT) shall be the "mark" frequency as specified by drawing 9333026. When 0.0+0.2 volts is applied to A4-E5 the frequency of the RF output at A3-E4 shall be the "space" frequency as specified by drawing 9333026 when tested per 4.5.6.8.
- 3.9 Sender Electronic Components Performance characteristics. This section describes the performance characteristics of the Sender Electronic Components Assembly (9333599). The unit performance characteristics shall be specified for a nominal voltage of 13 + 0.5V unless otherwise stated.
- 3.9.1 Voltage regulation. With the voltage at A2-E34 (+15V) with respect to A2-E43 (GND) set to 13 + 0.5 volts, the voltage at A2-E44 (+5VDC) with respect to A2-E43 (GND) shall be 4.8 volts minimum to 5.3 volts maximum when tested per 4.5.7.27.
- 3.9.2 Low voltage detection. The battery low detection lamp shall flash when the voltage at A2-E34 (+15V) with respect to A2-E43 (GND) is at or below the low voltage threshold. The  $low\ voltage$  threshold shall be from 11.0 volts maximum to 10.3 volts minimum when tested per 4.5.7.33.
- 3.9.3 SENDER power off current. With the voltage at A2-E45 (RAMV) set to 13 + 0.5 volts and A2-E34 (+15v) open, the current into A2-E45 (RAMV) shall be 2.0 milliamperes maximum when tested per 4.5.7.6.
- **3.9.4** Standby current. With the voltage at A2-E45 (RAMV) and A2-E34 (+15V) set to 13 + 0.5 volts and the displays blank, the current into A2-E34 (+15V) shall be 50 milliamperes maximum when tested per 4.5.7.32.
- 3,9.5 pata input. Keyboard data is entered into the SENDER via a matrix of switches. When a key is pressed, a signal pair that uniquely corresponds to that key is shorted together. When tested per 4.5.7.1, keyboard signal pairs shall be defined as specified below:

Key	Signal Pair To Be S	norted
TRANSFER DESTRUCT/1 AUTO/2 DEPLOY/3 R'SET SD/4 GRP ID/5 COPY/6 7	A2-E49 (Row 1) A2-E52 A2-E51 (Row 2) A2-E55 A2-E50 (Row 3) A2-E53 A2-E50 (Row 3) A2-E54 A2-E50 (Row 3) A2-E55 A2-E48 (Row 4) A2-E52 A2-E48 (Row 4) A2-E53 A2-E48 (Row 4) A2-E54 A2-E48 (Row 4) A2-E54	(Col 4) (Col 2) (Col 3) (Col 4) (Col 1) (Col 2)
•	112 2 10 (1tow 1) M2 233	(COT 1)

- 3.9.6 Memory retention voltage. With the voltage at A2-E45 (RAMV) set to 13 + 0.5 volts and A2-E34 (+15V) open, the voltage at the cathode of CR2 of the AZ assembly shall be 4.5 volts minimum to 5.3 volts maximum when tested per 4.5.7.7.
- 3.9.7 Data retention time, -Data stored in the SENDER memory shall be retained for at least 5 minutes with the power disconnected from A2-E34 (+15V) and A2-E45 (RAMV).

# 3.9.8 Power on clear.

- 3.9.8.1 <u>Initializing pulse on Power up</u>. The SENDER shall generate an initializing pulse on powerup as specified in Figure 6 when tested per 4,5.7.8.
- 3.9.8.2 <u>Processor reset</u>. The processor shall reset when A2-E42 (CLEAR) is momentarily driven to 0.0 + 0.2 volts then open when tested per 4.5.7.13.
- 3.9.9 <u>Initial Power application</u>. When battery power is first applied to A2-E34 (+15V) or until a valid STORE code has been established, the SENDER shall display "INVALID", when power is applied and A2-E38 (S.C.S.) is open when tested per 4.5.7.9.

### 3.9.10 STORE code entry mode

- 3.9.10.1 STORE code entry Prompt . When A2-E38 (S.C.S) is at a logic zero~(0.2~+~0.2~volts) and then battery power is applied to A2-E43 (+15V), the SENDER shall display five dashes (----) as the STORE code entry prompt when tested per 4.5.7.10.
- 3.9.10.2 STORE code entry display. When the STORE code entry prompt is displayed, then as each key is entered, the SENDER shall display the new digit in the right most display position, shifting all other display digits to the left by one character position when tested per 4.5.7.11.

#### 3.9.11 STORE mode

- 3.9.11.1 Power on prompt. When a valid STORE code has been established and A2-E38 (S.C.S) is open, the SENDER shall display "ON" when power is applied to A2-E34 (+15V) when tested per 4.5.7.10.
- 3..9.11.2 No previous SEND code <u>selected</u>. The SENDER shall display four dashes (----) 16 + 1.0 seconds after power is applied to A2-E34 (+15V) if a SEND code has not been previously selected and the correct STORE code has been entered within the first 15 seconds after power application at A2-E34 (+15V) when tested per 4.5.7.15.

- 3.9.11.3 <u>Previous SENP</u>\_code selection. The SENDER shall display the previously selected SEND code 16 + 1.0 seconds after power is applied to A2-E34 (+15V) if the Correct STORE code has been entered within the first 15 seconds after power application at A2-E34 (+15V) when tested per 4.5.7.18.
- 3.9.11.4 Invalid STORE code entry. The SENDER shall display "INVALID" 16+1.0 seconds after power is applied to A2-E34 (+15V) if-an incorrect or incomplete STORE code or no entry is keyed in within the first 15 seconds when tested per 4.5.7.12 and 4.5.7.14.
  - 3.9.12 SEND code selection.
- 3.9.12.1 SEND code selection prompt. The SENDER shall display "AUTO" when the SENDER is in the STORE mode and the AUTO key has been entered when tested per 4.5.7.16 and 4.5.7.17.
- 3.9.12.2 <u>SEND code display</u>. The SENDER shall display a four digit SEND code when the SENDER is in the STORE mode and the TRANSFER key is entered sequentially following the AUTO key when tested per 4.5.7.17,

### 3.9.13 SEND mode

- 3.9.13.1 <u>Power on Prompt</u>. When a valid STORE code has been established and A2-E38 (S.C.S) is open, the SENDER shall display "ON" when power is applied to A2-E34 (+15V).
- 3.9.13.2 SEND mode entry display. If the SEND code has been correctly keyed in within the first 15 seconds after power has been applied to A2-E34 (+15V), the SENDER shall display "n cmd", where n is the GROUP ID (set to 1 on entering the SEND mode) and cmd is one of: NONE, TRANSFER, DEPLOY, RESET SD, and DESTRUCT when tested per 4.5.7.22.
- 3.9.13.3 <u>Invalid SEND code entry</u>. The SENDER shall display "INVALID" 16 + 1.0 seconds after power is applied to A2-E34 (+15V) if an incorrect or incomplete STORE Code or no key is entered within 15 seconds when tested per 4.5.7.21.
- 3.9.14 <u>Display timeout</u>. The SENDER shall blank the display in the SEND or STORE mode after 10 + 1.0 seconds of keyboard inactivity when tested per 4.5.7.16.

#### 3.9.15 Group capabilities

- 3.9.15.1 <u>Group addresses</u>. The SENDER shall provide the capability to control up to 15 addressed groups when tested per 4.5.7.25.
- 3.9.15.2 <u>Group control</u>. Control shall be exercised on each group individually or on all 15 groups simultaneously when tested per 4.5.7.24.
- 3.9.15.3 Group selection. Group selection is made while in the SEND mode. Entering the GRP ID key shall increment the current GROUP ID number of the SENDER by one. Group ID's are the integers 1 thru 15 and "ALL" when tested per 4.5.7.24 and 4.5.7.26.

# 3.9.16 Transfer capability

### 3.9.16.1 Transfer data output

- 3.9.16.1.1 <u>Transfer output Prompt</u>. The SENDER shall display "COPY" when the COPY key is entered and the SENDER is in the STORE mode when tested per 4.5.7.19.
- 3.9.16.1.2 <u>Data sending display</u>. When the TRANSFER key is entered sequentially following the COPY key while in the STORE mode, the SENDER shall display "SENDING" when tested per 4.5.7.19.
- 3.9.16.1.3 Data out<u>put sequence</u>. When the load of Figure 1b is placed across A2-E35 (MCD1) and A2-E36 (MCD2), an RCD pulse sequence shall be generated at the output of the load as specified in Figure 2 in response to aCOPY command when tested per 4.5.7.19.
- 3.9.16.1.4 Data output completion display. When the SENDER has completed transmission of the RCD pattern, the SENDER shall display the four digit SEND code associated with that pattern as specified in Drawing 9333026 when tested per 4.5.7.19.

#### 3.9.16.2 Transfer data input

- 3.9,16.2.1 Receive input prompt. When the load of Figure 3b is placed across A2-E35 (MCD1) and A2-E36 (MCD2) and the SENDER is in the STORE mode, the SENDER shall display "RECEIVE" when the load is driven as specified in Figure 3c when tested-per 4.5.7.20.
- 3.9.16.2.2 Receive input acceptance. When the TRANSFER key is entered while the SENDER displays "RECEIVE", the SENDER shall display the four digit SEND code associated with the RCD transfer pattern as specified by Drawing 9333026 when tested per 4.5.7.20.

### 3.9.17 Group status display

- 3.9.17.1 <u>Status format</u>. The status format shall be 'n stat", where n is the GROUP ID number 1 to 15 inclusive and stat is one of: NONE, TRANSFER, DEPLOY, RESET SD, and DESTRUCT when tested per 4.5.7.24 and 4.5.7.28.4.
- 3.9.17.2 <u>Group "ALL". status format</u>. The status format shall be. "ALL" for the GROUP ID of ALL when tested per 4.5.7.26.
- 3.9.17.3 <u>Initial status</u>. After initial power application or reassigning of the SEND or STORE codes, all groups shall begin with initial status of NONE when tested per 4.5.7.22 and 4.5.7.24.
- 3.9.17.4 <u>Status update sequence</u>. The group status shall be updated as specified by the state diagram of Figure 4 when **tested 4.5.7.31.**

### 3.9.18 RCU to CI transfer

- 3.9.18.1 Transfer display. The SENDER shall momentarily display "SENDING" when the TRANSFER key is entered, the SENDER is in the SEND mode, and the GROUP ID is not "ALL" when tested per 4.5.7.23.
- 3.9.18.2 <u>Transfer output</u>. When the load of Figure 1b is placed across A2-E35 (MCD1) and A2-E36 (MCD2), an FSD pulse sequence shall be generated at the output of the load as specified in Figure 2 for the current group and RCD code *in* response to a TRANSFER command when tested per 4.5.7.23.
- 3.9.18.3 <u>Group status update</u>. When the FSD pulse sequence has completed, the group status display shall be updated as specified by 3.9.17.1 and 3.9.17.4 when tested per 4.5.7.23.
- 3.9.18.4 Invalid transfer group. The SENDER shall display "ALL INVALID" when the TRANSFER key is entered, the SENDER is in the SEND mode, and the current GROUP ID is "ALL" when tested per 4.5.7.26.

### 3.9.19 Command transmission

- 3.9.19.1 <u>Command display</u>. The SENDER shall display "DEPLOY n"., "DESTRUCT n", or "RESET SD n" (n is the current GROUP ID), when the DEPLOY, DESTRUCT; or R'SET SD key respectively is entered, and the SENDER is in the SEND mode when tested per 4.5.7.28.
- 3.9.19.2 <u>Tuning sequence</u> display. The SENDER shall display "TUNING" when A2-E39 (XMIT) is momentarily driven to a logic zero (0.2 + 0.2 volts) sequentially after the DEPLOY, DESTRUCT, or R'SET SD key is entered and the SENDER is in the SEND mode when tested per 4.5.7.28.1.

Tune Number

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- 3.9.1-9.3 <u>Tuning sequence control</u>. The SENDER shall generate tuning cent-rol signals during the tuning sequence as specified by Figure 7 when tested per 4.5.7.28.1.
- 3.9.19.4 Transmit display. After the tuning sequence has completed, the SENDER shall display "XMIT TUNE = m" where m is an integer from 0 to 9 as specified below when tested per 4.5.7.28.2.

Lowest Voltage At A2-E58 (VREFL) m As a Percentage of A2-E44 (+5VDC) During Tune Sequence 1.3 + 1.34.9 + 1.78 9.4 + 2.37 13.9 + 1.7 19.0 + 2.9 23.5 + 1.126.8 + 1.73 34.5 + 5.452.5 + 12.11 82.5 + 17.4

- 3.9.19.5 Command output sequence. A biphase message, as specified by Drawing 9333026 for the field set data of the current group, shall be generated at A2-E46 (SEROUT) after the SENDER has completed the tuning sequence when tested per 4.5.7.28.3, 4.5.7.29, and 4.5.7.30.
- 3.9.19.6 Group status update. When the biphase transmission has completed, the group status shall be updated as specified by 3.9.17.1 and 3.9.17.4 when tested per 4.5.7.28.4, 4.5.7.29 and 4.5.7.30.
- 3.9.20 Passive internal terminations. The following signals shall have passive internal terminations when tested per 4.5.7.2

SIGNAL	VALUE	CONNECTED TO
A2-E25 (senD)	47K + 5%	GND
A2-E28 (S.C.S.)	47K + 5%	+5VDC
A2-E32 (XMIT)	47K + 5%	+5VDC
A2-E52 (Col 1)	47K + 5%	GND
A2-E53 (Col 2)	47K + 5%	GND
A2-E54 (Col 3)	47K + 5%	GND
A2-E55 (Col 4)	47K + 5%	GND

3.10 Low temperature operation. The Remote Control Unit shall meet the performance characteristics specified in 3.6 at minus 35 (+0/-5) degrees F when tested as specified in 4.5.3.

- 3.11 High temperature operation. The Remote Control Unit shall meet the performance characteristics specified in 3.6 at plus 145 (+5/-0) degrees F when tested as specified in 4.5.4.
- 3.12 Stress screening. Before potting, all circuit card assemblies shall have temperature stress screening performed prior to testing. Card assemblies are to be temperature cycled without power applied. The temperature range is -50+10 degrees F to 150+10 degrees F with a dwell time at temperature extremes of 15 +5 minutes. The rate of temperature change is 18 degrees F/minute minimum with 10 cycles minimum. Circuit card assemblies which have component failures at test representing more than 25% of the total board components shall have the stress screening operation repeated following replacement of defective components.
- 3.13 Process control. The contractor shall submit to the government with the first article sample, process control documents for the processes listed in the following subparagraphs. These processes shall be those used in the fabrication of the first article sample and shall not be changed after approval of the first article sample. At unscheduled intervals during the operation of the approved processes, the government inspector shall observe the processes to ascertain that production to the approved process control documents is being maintained. No deviation without approval from the procuring activity shall be allowed. XII the event that the contractor desires a change in an approved process control document, a new first article sample may, at the discretion of the government be required.
- 3.13.1 Process control of molded Plastic parts. A process control document shall be prepared for each of the molded plastic parts. These documents shall briefly describe the entire process and shall fully document the controls to be utilized for maintaining the process. They shall specify the time, temperature, pressure ranges and cure process which shall be maintained during production of the molded parts.
- 3.13.2 <u>Process control of potting</u>. A process control document shall be prepared for potting the electronic assembly. It shall fully describe the entire process and the controls for maintaining the process. It shall specify the preparation of all materials, pot life, and curing temperature and time.
- 3.14 <u>Material control</u>. The contractor shall prepare and submit to the government a material control document. This document shall detail the procedures used to identify and control the components/subassemblies to assure that only qualified components/subassemblies from qualified suppliers are used in the manufacture or assembly of the Remote Control Unit.

- 3.15 <u>Qualified suppliers</u>. A qualified component supplier shall be one who has successfully met the requirements of this specification and **First Article inspection specified herein**.
- 3.16 <u>Inspection data</u>. Data shall be recorded and retained for all first article and Quality Conformance tests required by 4.4.2.TBD.
- 3.16.1 <u>Variable data</u>. Transmitting power output, transmitting current, standby current, power off current, "mark", frequency, "space", frequency, transmitter cutoff voltage and low-battery voltage shall be measured and recorded as variable data for the first article samples and surveillance units.
- 3.17 Surveillance units. The contractor shall provide for surveillance quantities of electronic assemblies from production. Units shall be evenly proportioned from production. Inspection data shall be recorded and retained for all surveillance units. Requirements, sample frequency and quantities for submission shall be as specified in the contract.
- 3.18 First article inspection. This specification contains provisions for first article inspection. Requirements for the submission of first article samples by the contractor shall be as specified in the contract:
- 3.19 Electrostatic discharge control. All areas where electronic components, assemblies or equipment are present shall comply with the requirements of the following control elements of DOD-STD-1686: protected areas, handling procedures, protective covering, installation site, training, quality assurance provisions and packaging for delivery.

#### 3.20 Workmanship.

- 3.20.1 Mechanical workmanship. All parts and assemblies shall be fabricated and assembled in a thorough, workmanlike manner. They shall be free of burrs, sharp edges, cracks, dirt, grease, rust and other foreign matter. The cleaning method used shall not be injurious to any parts, nor shall the parts be contaminated by the cleaning agents. Exterior surface coatings shall be continuous; however, light scratches not exposing base material may be permitted. All required marking and stamping shall be neat and sharply defined.
- 3.20.2 <u>Electrical workmanship</u>. Unless otherwise specified, all soldering connections shall meet the requirements of MIL-S-45743, MIL-S-46844 and the aplicable drawing. All other electrical workmanship criteria shall meet MIL-STD-454, Req. 9 and the applicable drawing.

- 4. QUALITY ASSURANCE PROVISIONS
- 4.1 Responsibilities for inspection and standard quality assurance Provisions. Unless otherwise specified herein or in the contract, the provisions of MIL-S-48078 shall apply and are herein made apart of this detail specification.
- 4.2 C<u>lassification of inspection</u>. The following types of inspection shall be conducted on this item.
  - a. First article inspection
  - b. Quality conformance inspection

### 4.3 First article inspection.

- 4.301 <u>Submission</u>. The contractor shall submit a first article sample, as designated by the contracting officers for evaluation in accordance with the provisions of 4.3.2 and 4.3.3. The first article sample shall consist of the items and sample quantities listed in Table I.
  - 4.3.2 <u>Inspections to be Performed.</u>
- 4.3.2.1 <u>Components and subassemblies</u>. See MIL-A-48078 and Table I specified herein.
- 4.3.2.2 <u>Remote Control Unit</u>. (Drawing 9332873) The control assemblies listed in Table I shall be serialized for identification and subjected to the following tests.
- 4.3 .2.2.1 <u>Temperature cycle</u>. Subject the control assembly to temperature cycle per MIL-STD-202, method 107D, condition Al, except that the temperature range shall be minus 65 degrees F to plus 160 degrees F (Non-Destructive Test).
- 4.3 .2.2.2 <u>Mechanical shock</u>. Following temperature cycle, subject the control assemblies to mechanical shock per MIL-STD-202, method 213B, condition E with a TBD peak and a TBD ms min/TBD max duration (Non-Destructive Test).
- 4.3 .2.2.3 Performance test. Following mechanical shock, the Remote Control Unit performance characteristics shall be verified by testing as specified in Table I.
- 4.3.3 Rejection. See MIL-A-48078. The first article sample shall be rejected if any part, sub-assembly or assembly fails to comply with any of the examinations or tests specified in this specification or any of the requirements of the applicable drawings.



# TABLE 1. First article inspection

# **CLASSIFICATION OF DEFECTS & TESTS**

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■ MAGRAPH

TITLE

Remote Control Unit

CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REOUIREMENT PARAGRAPH	PARAC
	Cover, Battery Enclosure (Dwg 9332877) Examination for defects	6			
	Cover, Transmitter Enclosure (Dwg 9332882) Examination for defects	6			
	Keyboard. (Dwg 9332883) Examination for defects	6			
	Chassis, Electrical Equipment Antenna (Dwg 9332884) Examination for defects	6			
	Base, Antenna Support (Dwg 9332885) Examination for defects	6			
	Value, Pressure Relief (Dwg 9332904) Examination for defects	6			
	Coil, Magnetic Coupling (Dwg 9332919-2) Examination for defects	6			
	Switch, Rotary (Dwg 9332924) Examination for defects	6			
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Replaces DRSMC-QA (D) Form 160, 1 Aug 83, wh.



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# TABLE 1. First article inspection

# **CLASSIFICATION OF DEFECTS & TESTS**

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	Remote Control Unit		OHDDD	2 2 of	See
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CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRA
	Electronic, components Assembly, Tuning (Dwg 9333578)				
	Examination for defects	6			
	Electrical performance characteristics	6			
	Electronic, Components Assembly,				
	Transmitter (Dwg 9333579)				
	Examination for defects	6			
	Electrical performance characteristics	6			
	Electronic, Components Assembly,				
	Sender (Dwg 9333599)				
	Examination for defects	6 6			
	Electrical performance characteristics	6			
	Remote Control Unit (Dwg 9332873)				
	Mechanical	6			
	Performance characteristics				
	a. Ambient	6			
	b. Cold (-35 F)	6			
	c. Hot (+145 F)	6			
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MOTES:					

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- 4.3.4 <u>Requalification</u>. The contractor shall be-subjected to another first article for the component or assembly affected as stipulated in the contract," if any of the following occur:
- a. Manufacturing techniques or process controls which affect the form, fit, or function of the assembly are revised by either the contractor or one of his subcontractors supplying parts or assemblies or materials.
- b. The contractor relocates his production facilities or portions thereof.

The contractor desires to use a new subcontractor (unqualified) for materials, parts or assemblies.

- d. A change occurs in the design, material, performance or assembly of the Remote Control Unit.
- e. A lapse in production for a period of 90 days or as stipulated in the contract.

#### 4.4 Quality conformance inspection.

- 4.4.1 Inspection lot formation. Inspection lots shall comply with the lot formation provisions of MIL-A-48078. In addition, inspection lots of electronic assemblies and sub-assemblies shall contain:
- a. Crystals, quartz bearing the same lot interfix number from one manufacturer.
- b. Oscillators, crystal bearing the same lot interfix number from one manufacturer.
- c. Microcircuits, digital, 4096 bit (512x8) UV erasable PROM bearing the same lot interfix number from one manufacturer.
- d. Microcircuits, digital, CMOS, 8 bit microprocessor bearing the same lot interfix number from one manufacturer.
- e. Microcircuits, digital, CMOS, decoder logic array bearing the same lot interfix number from one manufacturer.

f. Circuit card assemblies bearing the same lot number from one manufacturer
Microprocessor, Remote Control Unit
Inductor Tuning
Capacitor Tuning
Amplifier, Power, Transmitter
Transmitter, Logic
Display, Remote Control Unit

# 4.4.2 Examination. See MIL-A-48078.

a. <u>Sampling Plans</u>, Unless otherwise specified in the Classification of Defects and Test Tables, sampling plans and procedures for major and minor defects shall be in accordance with MIL-STD-105, Normal Inspection Level II. (See Classification of Defects).

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-

			SHEET	OF	NEXT 933
CATEGORY	RUMINATION OR TEST	NO. OF SAMPLE UNITS	<b>AQL</b> 100%	REOUIREMENT ● ARAGRAPH	PARA
<u>(Critical</u>	None defined				
<u>Major</u>					
101	Screening not performed		100%		TAE Tes
102	Conformance inspection				Cer TAE and
103	Solderability				MII 208
Minor					200
201 202	Marking incorrect Poor workmanship		0. 65% 0.65%		Vis Vis

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

Crystal Oscillator (TTL)			1 1 OF	ORAWING NUMBER 9332968  NEXT HIGHER ASSEMBLY
EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL <i>OR</i> 100%-	REOUIRMENT PARAGRAPH	9333595  PARAGRAPH REFERENCE INSPECTION METHOD
None defined				
Screening incorrect		100%		TABLE I: Screening Tests (9332968)/
Conformance inspection				Certification TABLE II (9332968) and MIL-O-55310, paragraph 4.7
Solderability				MIL-STD-202, Method 208
Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
	EXAMINATION OR TEST  None defined  Screening incorrect  Conformance inspection  Solderability  Marking incorrect	Crystal Oscillator (TTL)  EXAMINATION OR TEST  NO. OF SAMPLE UNITS  None defined  Screening incorrect  Conformance inspection  Solderability  Marking incorrect	Crystal Oscillator (TTL)  EXAMINATION OR TEST  NO. OF SAMPLE OR 100%-  None defined  Screening incorrect  Conformance inspection  Solderability  Marking incorrect  0.65%	Crystal Oscillator (TTL)  EXAMINATION OR TEST  NO. OF SAMPLE OR 100%- PARAGRAPH  None defined  Screening incorrect  Conformance inspection  Solderability  Marking incorrect  0.65%

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.3	Microcircuit, CMOS Monlithic	•	SHEET	1 1 OF	DRAWING NUMBER See Below NEXT HIGHER ASSEMBLY 9333595
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	P t N b 9333701 933702				
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class
102	Conformance testing		1		B/Certification MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

NOTES Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.







# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.4	Microcircuit, Linear, Driver, Dual, CMOS		SHEET	1 1 OF	DRAWING NUMBER 9333704 NEXT HIGHER ASSEMBLY 9333595 9333585
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/ Certification
102	Conformance testing		1		MIL-STD-883, Method 5005 Class B/ Certification
Minor					
201 202	Marking incorrect poor workmanship		0.65% 0.65%		Visual Visual

NOTES Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.5	TITLE Printed Wiring Board - Logic Transmitter		SHEET	1 1 OF	DRAWING NUMBER 9333596 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333595 PARAGRAPH REFERENCE /INSPECTION METHOD
Major  101 102 103 104 Minor	None defined  Circuits, discontinuous Conductor, width, minimum Conductor spacing, minimum Solderability		100% 0.40% 0.40% 10-0-1		Tester Gage Gage MIL-S-46844
201 202 203	Diameter of component holes incorrect Location of component holes incorrect Poor workmanship		0.65% 0.65% 0.65%		Gage, Pin Gage Visual
NOTES:					

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.





# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.6	Transmitter, Logic - Circuit Card Assembly		SHEET	1 1 OF	DRAWING NUMBER 9333595 NEXT HIGHER ASSEMBLY
CATEGORY	RUMINATION on TEST	NO. OF SAMPLE UNITS	AQI. OR 100%	REQUIREMENT PARAGRAPH	9333579  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Circuits, damaged, missing or		0 400		
102	improperly assembled Poor soldering workmanship		0.40% 0.40%		Visual Visual/MIL-S-45743
Minor					
201 202	Height, Component, over max. Conformal coat, not smooth and		0.65%		Gage
202	continuous Poor workmanship		0.65% 0.65%		Visual Visual
203	POOL WOLKMANSHIP		0.05%		Visuai
norm:					
MUTER:					

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

					MIL-C-04025(AR)
PARAGRAPH 4.4. 2.7	Core, Torroid SHEET		1 1	DRAWING NUMBER 9333672 /MIL-C-48655 NEXT HIGHER ASSEMBLY	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333671  PARAGRAPH REFERENCE /INSPECTION METHO
Critical	None defined				
<u>Major</u>					
101 102	Inductance incorrect Operating frequency incorrect		100% 100%		Certification Certification
Minor					
201 202 203 204	Diameter, outside incorrect Diameter, inside incorrect Height incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Visual
MOTER:		<b></b>		<b></b>	







# **CLASSIFICATION OF DEFECTS & TESTS**

### MIL-C-64025(AR)

PARAGRAPH 4.4.2.8	MMLE Microcircuit, Digital, Dual, J-K Positive Edge-Triggered Flip Flop With Preset and Clear		SHEET	1 1 OF	DRAWING NUMBER 9332964 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	ACM. OR 100%	REQUIREMENT PARAGRAPH	9333590 PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B Certification
102	Conformance testing		1		MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect poor workmanship		0.65% 0.65%		Visual Visual

NOTES Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

					()
PARAGRAPH 4.4.2.9	Microcircuit, Digital, 5MHZ Two Phase, MOS Clock Driver		SHEET	1 <sub>OF</sub> 1	PRAWING NUMBER 9332978 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQl. 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE / INSPECTION METHOD
Critical Major	None defined				
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B Certification
102	Conformance testing		1/		MIL-STD-883, Method 5005, Class B/ Certification
Minor 201 202	Marking incorrect Poor workmanship		0. 65% 0.65%		Visual Visual

NOTES  $\underline{1/}$  Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.







## **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH	TITLE				Drawing Number
4.4.2.10	Diode, Voltage Reference (1.22V), Silicon		SHEET	1 <sub>OF</sub> 1	9332979 NEXT HIGHER ASSEMBLY
-		NO			9333590
CATEGORY	EXAMINATION OR TEST	NO. OF Sample Units	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B
102	Conformance testing		1_/		Certification MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

NOTES 1/ Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

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# **CLASSIFICATION OF DEFECTS & TESTS**

•MAGRAPN 4.4.2.11			1 1. SHEET OF		DRAWING NUMBER 9332980  NEXT HIGHER ASSEMBLY
CAGEORY	EXAMINATION OR TEST	HO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B
102	Conformance testing		1/		Certification MIL-STD-883, Method 5005, Class B/ Certification
<u>Minor</u>					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual



# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAP 4.4.2.12	MILE Microcircuit, Linear, BIMOS Operational Amplifier		1 1 SHEET OF		DRAWING NUMBER 9332981  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B
102	Conformance testing		1/		Certification MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

HOTES

1/ Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

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# QUALITY CONFORMANCE INSPECTION

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

-			WIL-C-64025(AR)		
PARAGRAPH 404.2.13	Coil, R . F			1 1	DRAWING NUMBER 9332983 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333590  ● ARAGRA?N REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101 102 103 Minor	Inductance incorrect Self resonant frequency incorrect DC resistance incorrect		100% 100% 100%		Tester Tester Tester
201 202 203 204	Lead length incorrect Component length incorrect Coil diameter incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Visual
notes:					

Replaces

DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.

# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.14	Transistor, Field Effect, MOS N-Channel Enhancement, Power		SHEET	1 1	DRAWING NUMBER 9332984 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major	None defined				
101 102 103 104 105 106 Minor	Reverse gate current incorrect  Drain current, zero gate voltage incorrect  Dran current, on-state incorrect  Gate to source threshold voltage, incorrect  On-state drain to source voltage, incorrect  Solderability				MIL-STD-750, Method 3411 MIL-STD-750, Method 3413 MIL-STD-750, Method 3413  MIL-STD-750, Method 3403  MIL-STD-750, Method 3405  MIL-STD-202, Method 208 except aging
201	Poor workmanship		0.65%		Visual

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.15  CATEGORY	Printed Wiring Board - Transmitter/PA  EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	OF 1 REQUIREMENT PARAGRAPH	DRAWING NUMBER 9333591  NEXT HIGHER ASSEMBLY 9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
101 102 103 104 Minor 201 202 203	circuits, discontinuous Conductor width, minimum Conductor spacing, minimum Solderability  Diameter of component holes incorrect Location of component holes incorrect Poor workmanship		100% 0.40% 0.40% 10-0-1 0.65% 0.65% 0.65%		Tester Gage Gage MIL-S-46844  Gage, Pin Gage Visual

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which May not be used







# **CLASSIFICATION OF DEFECTS & TESTS**

		SHEET	1 1 OF	DRAWING NUMBER 9333671  NEXT HIGHER ASSEMBLY 9333590
CATEGORY EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT  • ARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical None defined				
<u>Major</u>				
101 Inductance incorrect		0.65%		Visual
Minor				
Number of turns incorrect Lead length, minimum Conformal coat, not uniform, voids Poor workmanship		0.65% 0.65% 0.65% 0.65%		Visual Gage Visual Visual

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## QUALITY CONFORMANCE INSPECTION

# **CLASSIFICATION OF DEFECTS & TESTS**

#### MTT.-C-64025(AR)

PARAGRAPH	IIILE				
4 . 4 . 2 . 1 7	Coil, Radio Frequency		SHEET OF	1 1	DRAWING NUMBER  9333709  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METH
Critical	None defined				
<u>Major</u>					
101	Inductance incorrect		100%		Tester
<u>Minor</u>					
201 202 203 204	Number of turns incorrect Lead length incorrect Conformal coat, not uniform, voids Poor workmanship		0.65% 0.65% 0.65%		Visual Gage Visual Visual

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Replaces

DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used





# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.2.18	Capacitor, Fixed Cermaic		SHEET OF	I 1	9333715
			DIEDET VI	,	NEXT HIGHER ASSEMBLY
		NO OF	401		9333590
CATEGORY	examination or test	NO. OF SAMPLE UNITS	AQL <i>OR</i> 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major					
<b>101</b> 102	Capacitance incorrect Solderability		<b>100%</b> S-4		<b>Tester</b> MIL-C-55681, para 4.7.9
Minor					
201	Poor workmanship		0.65%		Visual
notes:		<u> </u>	L	<u> </u>	

# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.19	Amplifier, Power, Transmitter - Circuit Card Assembly		SHEET	<b>1</b> OF <b>1</b>	DRAWING NUMBER 9333590 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL IO0%	REQUIREMENT PARAGRAPH	9333579  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101 102	Standoff, loose or bent Components, damaged, missing, or		0.40%		Visual
103	improperly assembled Poor soldering workmanship		0.40% 0.40%		Visual Visual/MIL-S-45743
Minor					
201 202	Height, component, over max. Conformal coat, not smooth and		0.65%		Gage
203	continuous Poor workmanship		0.65% 0.65%		Visual Visual
nores:		<u> </u>	<u> </u>	L	





# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-c-64025(AR)

● PARAGRAPH 4.4.2.20	Transmitter, Electrical Component Assy		SHEET	1 1 OF .	DRAWING NUMBER 9333579 NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Maj or	None defined				
101 102 103 104 105 106 107 108 109 Minor	Harmonic filter requirements RF power output Current loading Tuning attenuator pad Transmitter cutoff voltage Current limiter Fast turn off inhibit Sender enable/disable Mark/space frequencies  None defined		100% 100% 100% 100% 100% 100% 100%	3.8.1 3.8.2. 3.8.3 3.8.4 3.8.5 3.8.6 3.8.7 3.8.8	4.5.6.1 4.5.6.2 4.5.6.3 4.5.6.4 4.5.6.5 4.5.6.6 4.5.6.7 4.5.6.8

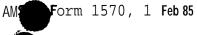
# **CLASSIFICATION OF DEFECTS & TESTS**

## MIL-C-64025(AR)

PARAGRAPH 4.4.2.21	Microcircuit, Linear, 3-Terminal Positive 5 Volt Voltage Regulator		SHEET	1 1 OF	DRAWING NUMBER 9333613 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION on TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/ Certification
102	Conformance testing		1/		MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

HOTES:

Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.







## **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 1.4.2.22	Microcircuit, Hybrid		SHEET	1 2 OF	DRAWING NUMBER 9333708 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHO
Critical	None defined				
Major					
101	High temperature storage		100%		MIL-STD-883, Method 1008, Test Condition
102	Temperature cycling		100%		C/Certification MIL-STD-883, Method 1010,Test Conditions C/Certification
103	Constant acceleration		100%		MIL-STD-883, Method 2001, Test condition E, Y1 Orientation
104	Burn-in test		100%		Only/Certification MIL-STD-883, Method 1015, 160 Hrs. @ 129
105	Seal: <b>fine and</b> gross <b>leak</b>		100%		C Min/Certification MIL-STD-883, Method 1014, Test condition A or B followed by

**CLASSIFICATION OF DEFECTS & TESTS** 

PARAGRAPH 4.4.2.22	Microcircuit, Hybrid		SHEET	2 2 OF	DRAWING NUMBER 9333708 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Major</u> 106	Final electrical test, static		100%		Test per 9355160 Table II ambient and temperature extremes\
107 "108 Minor	Final electrical, test, switching Solderability		100%		certification Test per 9355160 Table II at 125 C only/certification
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
notes:					







# **CLASSIFICATION OF DEFECTS & TESTS**

MI L-C-64025 (AR)

• PARAGRAPH 4 . 4 . 2 . 2 3	TITLE Microcircuit, CMOS Monolithic		SHEET	1 1 OF	See Below  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
	Part Number 9333000 9333003 9333021				
Critical	None defined				
Major					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/
102	Conformance testing		1_/		Certification MIL-STD-883, Method 5005, Class B\ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
norma:		<b></b>			

1/ Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

## **CLASSIFICATION OF DEFECTS & TESTS**

Major       101       High temperature storage       100%       MIL-STD-883, Method 1008, Test Condition C/Certification MIL-STD-883, Method 1010, Test Condition C/Certification         102       Temperature cycling       100%       MIL-STD-883, Method 1010, Test Condition C/Certification MIL-STD-883, Method 2001, Test Condition E,YI Orientation Only/Certification MIL-STD-883, Method 1015, 160 Hrs. @ 125 C Min./Certification MIL-STD-883, Method 1015, 160 Hrs. @ 125 C Min./Certification MIL-STD-883, Method 1014, Test Condition A or B followed by c/Certification	PARAGRAPH 4.4.2.24  CATEGORY	m u Microcircuit, Digitial  EXAMINATIN OR TEST	NO. of SAMPLE UNITS	SHEET  AOL  100%	1 2 OF REQUIREMENTS PARAGRAPH	DRAWING NUMBER 9333001  NUMBER HIGHER ASSEMBLY 9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
High temperature storage  100%  MIL-STD-883, Method 1008, Test Condition C/Certification MIL-STD-883, Method 1010, Test Condition C/Certification MIL-STD-883, Method 1010, Test Condition C/Certification MIL-STD-883, Method 2001, Test Condition E,Y1 Orientation Only/Certification Only/Certification MIL-STD-883, Method 1015, 160 Hrs. @ 125 C Min./Certification MIL-STD-883, Method 1014, Test Condition MIL-STD-883, Method 1014, Test Condition A or B followed by c/	Critical	None defined				
Constant acceleration  103 Constant acceleration  100%  Constant acceleration  MIL-STD-883, Method 2001, Test Condition E,Y1 Orientation Only/Certification MIL-STD-883, Method 1015, 160 Hrs. @ 125 C Min./Certification A or B followed by c/	101					1008, Test Condition C/Certification MIL-STD-883, Method
1015, 160 Hrs. @ 125 C Min./Certification 105 Seal: Fine and Gross Leak 100% MIL-STD-883, Method 1014, Test Condition A or B followed by c/	103	Constant acceleration		100%		C/Certification MIL-STD-883, Method 2001, Test Condition E,Y1 Orientation
						MIL-STD-883, Method 1015, 160 Hrs. @ 125 C Min./Certification MIL-STD-883, Method 1014, Test Condition A or B followed by c/







# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.24	TITLE Microcircuit, Digitial		SHEET	2 <sub>OF</sub> 2	DRAWING NUMBER 9333001 NEXT HIGHER NUMBER
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REOUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Major</u>					
106	Final electrical test, static		100%		Test per 9355159 Table II ambient and temperature
107	Final electrical test, switching		100%		extremes/certification Test per 9355160 Table 111 at +25 C only/certification
108	Solderability		10-0-1		MIL-STD-202, Method 208
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
notes:		<u> </u>	<u> </u>	<u> </u>	

## **CLASSIFICATION OF DEFECTS & TESTS**

MJL - C - 6 4 0 2 5 (AR)

					MIL - C - 6 4 0 2 5 (AR)
PARAGRAPH 4.4.2.25	Diode, Light emitting, hybrid, flashing, Red		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9333008 NEXT HIGHER ASSEMBLY 9333746
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	1 PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
101 102 103 Minor	Luminous intensity incorrect Peak forward current incorrect Pulse repetition rate @ +25 C, incorrect		100% 100% 100%		Tester Tester Tester
201 202	Lead spacing incorrect Poor workmanship		0.65% 0.65%		Gage Visual
HOTES:					

Replaces







# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.26	Display, Led, Alphanumerical Array with Logic		SHEET	1 1 OF .	DRAWING NUMBER 9333011 NEXT- HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL. OR 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Loading data		100%		Table I (9333011)/ tester
102	Continuous intensity		100%		Table V (9333011)/ tester
103	Current consumption		100%		Table VI (9333011)/
<u>Minor</u>					
201	Poor workmanship		0.65%		Visual
nores:					
- MILE					

# CLASSIFICATION OF DEFECTS & TESTS

MIL-C-64025(AR)

PARAGRAPH 4 . 4 . 2 . 2 7	Transistor Array, Field Effect		SHEET OF	1 1	DRAWING NUMBER 9333022 NEXT HIGHER ASSEMBLY 9333746
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Gate threshold voltage incorrect				MIL-STD-750,
102	Drain-source on voltage incorrect				Method 3403 MIL-STD-750 ,
103	Drain-source breakdown incorrect				Method 3405 MIL-STD-750,
104	On-state drain current incorrect				Method 3407 MIL-STD-750,
105	Solderability				Method 3413 MIL-STD-202,
					Method 208 Except aging
Minor					1 3 3
201	Poor workmanship		0.65%		Visual
					V15441
HOTES:		L		L	

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not bused.









**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-64025(AR)

PARAGRAPH 1 4 . 4 . 2 . 28	Printed Wiring Board		SHEET	1 OF 1	DRAWING NUMBER  9333747 NEXT HIGHER ASSEMBLY
CATEGORY	Examinaton or test	NO. OF Sample Units	AQL 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE //INSPECTION METH
Major 101 102 103 104 Minor 2 0 1 202 203	Circuits, discontinuous Conductor, width, minimum Conductor, spacinq, minimum Solderability  Diameter of component holes Location of component holes Poor workmanship		100% 0.40% 0.40% 10-0-1 0.65% 0.65% 0.65%		Tester Gage Gage MIL-S-46844  Gage, Pin Gage Visual

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-DA (D) Form 160 1 Aug 92 which -

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.29	Microcircuit, Linear, Bipolar Monolithic Micropower Voltage Detector	I	SHEET	1 1 OF	DRAWING NUMBER 9333615  NEXT HIGHER ASSEMBLY 9333746
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u> 101 102	Screening not performed Conformance testing		100% <u>1/</u>		MIL-STD-883, Method 5004, Class B MIL-STD-883, Method 5005, Class B
Minor 201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

1/ Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.







# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.30	Display, Remote Control Unit - Circuit Card Assembly		SHEET	<b>1 1</b> OF .	DRAWING NUMBER 9333746  NEXT HIGHER ASSEMBLY 9333599
CATEGORY	EXAMINATION OR TEST	MO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u> 101 102	Components, damaged, missing or improperly assembled Poor soldering workmanship		0.40% 0.40%		Visual Visual/MIL-S-45743
Minor 201 202 203	Height, component, over max. Conformal coat, not smooth and continuous Poor workmanship		0.65% 0.65% 0.65%		Gage Visual Visual
нотия:					

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4 . 4 . 2 . 3 1	printed Wiring Board		SHEET	1 OF 1	PRAWING NUMBER 9332961 NEXT HIGHER ASSMEBLY 9332962
CATEGORY	EXAMINATION OR TEST	NO. OF Sample Units	AQL 100%	REQUIREMENT PARAGRAPH	Paragraph reference /Inspection method
Critical	None defined				
Major 101 102 103 104 Minor	Circuits, discontinuous Conductor width, minimum Conductor spacing, minimum Solderability		100% 0.40% 0.40% 10-0-1		Tester Gage Gage MIL-S-46844
201 202 203	Diameter of component holes incorrect Location of component holes incorrect Poor workmanship		0.65% 0.65% 0.65%		Gage,pin Gage Visual
nores:					

Replaces





## **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4 . 4 . 2 . 3 2	Microcircuit, CMOS Monolithic Amplifier		SHEET	1 1 OF	DRAWING NUMBER See Below I NEXT HIGHER ASSEMBLY 9332962
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REOUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	Part Number 9332988 9332989 9332990 9332991 9333682 9333683 9333684 9333685				
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B
102	Conformance testing		1/		Certification MIL-STD-883, Method. 5005, Class B\ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
NOTED 1/			-£ M1T N		

NOTES  $\frac{1}{I}$  Sampling plan shall be per applicable paragraphs of M1L-M-38510, Appendix B.

## **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.33	Microcircuit, CMOS Monolithic		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER See Below NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF	AQL-	REQUIREMENT	9332962/9333746  PARAGRAPH REFERENCE
CAIEGORY	EXAMINATION ON 1231	UNITS	100%	PARAGRAPH	/INSPECTION METHOD
	Part <b>Number</b> 9332996 9333002				
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/
102	Conformance testing		1/		Certification MIL-STD-883, Method 5005, Class B/ Certification
Minor					
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual
NOTES: 1/	Sampling plan shall be per applicable para	agraphs	of MIL-	M-38510,	Appendix B.

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.







# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

4.4.2.34	Microcircuit, Digital Amplifier		SHEET	1 OF 2	9332994 NEXT HIGHER ASSEMBLY 9332962
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHO
Critical	None defined				
<u>Major</u>					
101	High temperature storage		100%		MIL-STD-883, Method 1008, Test Condition C/Certification
102	Temperature cycling		100%		MIL-STD-883, Method 1010, Test condition C/Certification
103	Constant acceleration		100%		MIL-STD-883, Method 2001, Test Conditio E,Y1 Orientation Only/Certification
104	Burn-in Test		100%		MIL-STD-883, Method 1015, 160 hrs. @ 1.2 C Min./Certificatio
105	Seal- Fine and Gross Leak		100%		MIL-STD-883, Method 1014, Test Conditio A or B followed by Certification

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Penlaces DDSMC\_OA (D) Form 160 1 Aug 02 -----

CLASSIFICATION OF DEFECTS & TESTS

MIL-C-64025(AR)

PARAGRAPH 4.4.2.34	MICTOCITCUIT, Digital Amplifier		SHEET	2 2 OF	DRAWING NUMBER 9332994  NEXT HIGHER ASSEMBLY 9332962
CATEGORY	EXAMIMATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major  106	None defined  Final electrical test, static  Final electrical test, switching		100% 100% 10-0-1		Test per 9355158 Table II Ambient and Temperature extremes\ Certification Test per 9335158 Table III at +25 C only/Certification MIL-STD-202, Method
108  Minor  201 202	Marking incorrect poor workmanship		0. 65% 0.65%		208  Visual Visual
NOTES:		<b>.</b>	<b>.</b>		

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.









# **CLASSIFICATION OF DEFECTS & TESTS**

MJL = C - 64025 (AR)

					WILL-C 040 % O (AR)
PARAGRAPH 4 . 4 . 2 . 3 5	Crystal, Quartz		SHEET	1 OF 1	DRAWING NUMBER 9332997 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL. OR 1 <b>00</b> %	REQUIREMENT PARAGRAPH	9332962  PARAGRAPH REFERENCE /inspection method
Critical	None defined				
<u>Major</u>					
101	Fine and gross leak		100%		MIL-STD-883, Method 1014, Test Condition A and C
102	Frequency and equivalent resistance incorrect		100%		MIL-C-3098
103 104	Capacitance, shunt (Group B) incorrect				MIL-C-3098
104	Solderability		100%		MIL-STD-202, Method 208
Minor					
201	Poor workmanship		0.65%		Visual
HOTEL		<b>.</b>		<u> </u>	<u> </u>

# CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH 4.4.2.36	Microprocessor, Remote Control Unit- Circuit card Assembly		SHEET	1 1 OF	DRAWING NUMBER 9332962 NEXT HIGHER ASSEMBLY
CATEGORY	RUMINATION OR TEST	HO. OF SAMPLE UNITS	AQL. 100%	REQUIREMENT PARAGRAPH	9333599  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101 102	Spacer, loose or bent Components, damaged, missing or		0.40%		Visual
102	improperly Solderability		0.40% 0.40%		Visual Visual/MIL-S-45743
Minor	•				
201 202 203	Height, component, over max. Conformal coat, smooth, continuous Poor workmanship		0.65% 0.65% 0.65%		Gage Visual Visual
mores:					







# **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.37  CATEGORY	Sender Electrical Component Assembly  EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET  AQL. OR 100%	1 2 OF  REQUIREMENT PARAGRAPH	DRAWING NUMBER 9333599  NEXT HIGHER ASSEMBLY 9332873  PARAGRAPH REFERENCE //INSPECTION METHOD
Critical  1  Major  101 102 103 104 105 106 107 108  109 110 111 112  113 114 115	Data input test Internal termination test Power off current test Memory retention voltage Power on clear test Store code entry prompt Store code select test Keyboard timeout test  Processor reset test Invalid store code entry test Initial store mode entry test Display timeout test  Send code selection Store mode entry test RCD code transfer		100% 100% 100% 100% 100% 100% 100% 100%	3.9.18.  3.9.5 3.9.20 3.9.3 3.9.6 3.9.8.1 3.9.10 3.9.11 3.9.8.2 3.9.11 3.9.12 3.9.14 3.9.12 3.9.11	4.5.7.1 4.5.7.2 4.5.7.6 4.5.7.7 4.5.7.8 1 4.5.7.10 2 4.5.7.11 4.5.7.12 4.5.7.12 4.5.7.13 4 4.5.7.14 2 4.5.7.15 1 4.5.7.16 2 4.5.7.17 3 4.5.7.18 1 4.5.7.17

# **CLASSIFICATION OF DEFECTS & TESTS**

4.4.2.37	Sender Electrical Component Assembly		SHEET	2 3 0F	DRAWING NUMBER 9333599 T NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENTS PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
<u>Major</u>					
116	RCD code receive test		100%	3.9.16.2. 3.9.16.2.	
118	Send mode entry test		100%	3.9.13. 3.9.17.	
119	Group selection test		100% 100% 100% 100%	3.9.15. 3.9.15. 3.9.17. 3.9.17.	3 1
120	Group addressing test		100%		1 4.5.7.25
121	Invalid fSD transfer test		100%	3.9.15. 3.9.17. 3.9.18.	2
122	Voltage regulation		100%	3.9.1	4.5.7.27
123 124	Command transmission Tune sequence		100% 100%	3.9.19. 3.9.19. 3.9.12.	
125	Transmit display		100%	3.9.14.	4 4.5.7.28.2
126	Command output sequence		100%	3.9.19.	
127	Group status update		100%	3.9.17. 3.9.19.6	1 4.5.7.28.4
128	Reset SD test		100%		5 4.5.7.29
129	Destruct test		100%	3.9.19. 3.9.19.	5 <b>4.5.7.3</b> 0 6
NOTES:				<u> </u>	









# **CLASSIFICATION OF DEFECTS & TESTS**

PARAPRAPH 4.4.2.37	TITLE Sender Electrical Component Assembly		SHEET	3 3 OF .	DRAWING NUMBER 9333599  NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE //INSPECTION METHOD
Major 130 131 132 133 Minor 201	Status state update test Status setup Reset SD state test Deploy state test Transfer state test Standby current Low battery voltage test Data retention test  Initial power application test		100% 100% 100% 100% 100% 100% 100%	3.9.17 3.9.4 3.9.2 3.9.7	4 4.5.7.31 4.5.7.31.1 4.5.7.31.2 4.5.7.31.5 4.5.7.31.4 4.5.7.32 4.5.2.33 4.5.7.34 4*5.7.9
nores:		<u> </u>	<u> </u>	<u> </u>	

## **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

●AMGRA?H 4.4.2.38	Pin, Keying		SHEET	I OF 1	DRAWING NUMBER 9332916 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9332915 PARAGRAPH REFERENCE /INSPECTION METHO
Critical	None defined				
<u>Major</u>					
101 102 103	Location, flat incorrect Dia., keying incorrect Dia., (-B-) incorrect		0.40% 0.40% 00 40%		Gage Gage Gage
Minor					
201 202 203 204	Length, (-B-) incorrect Overall length incorrect Flange thickness incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Visual
NOTES:					

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.









# **CLASSIFICATION OF DEFECTS & TESTS**

		SHEET	1 <sub>OF</sub> 1	9332917 NEXT HIGHER ASSEMBLY 9332915
CATEGORY EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical None defined				
Major None defined				
Minor				
Contact dia, incorrect Dia., major outside incorrect Material improper Poor workmanship		0.65% 0.65% 100% 0.65%		Gage Gage Certification Visual

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

	OLAGOII IDATION OF B				
PARAGRAPH 4.4.2.40	Plate, Electrical	SHEET OF		et <sup>1</sup> of <sup>1</sup>	DRAWING NUMBER 9332915 NEXT HIGHER ASSEMBLY 9332914-2
CATEGORY	EXAMINATION OR TEST	NO. OF Sample Units	AQL <b>100%</b>	REQUIREMENT PARAGRAPH	PARAGAPH REFERENCE /INSPECTION METH
Critical	None defined				
Major 101 102 103 104 Minor 201	Dia., contact pin holes (2) (-1), incorrect Dia., keying pin hole (-1), incorrect Location, contact pin holes (-1), incorrect Location of battery pins, incorrect Poor workmanship		0.40% o. 40% o. 40% 0.40%		Gage Gage Gage Gage Visual
notes:					

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### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.41	Cable Assembly, Power Electrical		SHEET	1 1 OF	DRAWING NUMBER 9332914 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT • ARAGRAPH	9332873  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101 102	Solder workmanship poor Overall length incorrect		0.40% 0.40%		Visual Gage
Minor					
201	Poor workmanship		0.65%		Visual
nores:					

### CLASSIFICATION OF DEFECTS & TESTS

					<u> </u>
PARAGRAPH 4.4.2.42	TITLE Relay, Magnetic Reed (Latching)		SHEET	1 1 OF	DRAWING NUMBER 9333010 NEXT HIGHER ASSEMBLY 9333580/9333585
CATEGORY	EXAMINATION OR TEST	NO. OF Sample Units	AQL. OR 1 <b>00</b> %	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE //NSPECTION METHOD
Critical	None defined				
101 102 103 104 105 106	Operational test incorrect Coil resistance incorrect Insulation resistance incorrect RF Contact resistance incorrect Contact standoff voltage incorrect Solderability		100% 100% 1.0 1.0 100%		Tester MIL-STD-202, Method 303 MIL-R-5757,Para 4.8.6 Tester Tester MIL-STD-202, Method 208
201 202	Pin location incorrect Poor workmanship		0.65% 0.65%		Gage Visual
HOTES:			· · · · · · · · · · · · · · · · · · ·		



### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4 . 4 . 2 . 4 3	Microcircuit, Linear, Driver, Dual CMOS		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9333705 NEXT HIGHER ASSEMBLY 9333580/9333585
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 1 <b>00</b> %	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major	None defined				
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/ Certification
102 Minor	Conformance testing		1/		MIL-STD-883, Method 5005, Class B/ Certification
201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

 $<sup>\</sup>underline{1/}$  Sampling plan shall be per applicable paragraphs of MIL-M-38510, Appendix B.

**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-64025(AR)

PARAGRAPH 4.4.2.44	printed Wiring Board		SHEET	1 OF 1	DRAWING NUMBER 9333581 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL. 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECITON METHOD
Critical	None defined				
Major 101 102 103 104 Minor	Circuits, discontinuous Conductor width, minimum Conductor spacing, minimum Solderability		100% 0.40% 0.40% 10-0-1		Tester Gage Gage MIL-S-46844
201 202 203	Diameter of component holes incorrect Location of component holes incorrect Poor workmanship		0.65% 0.65%		Gage,pin Gage Visual
norm:					

DRSMC-QA (D) Form 160, 1 Aug 83, which May not bused.





### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

•AaAGMPN 4.4.2.45	Microcircuit, Digital		SHEET	1 1 OF	DRAWING NUMBER 9333700  NEXT HIGHER ASSEMBLY 9333580
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REOUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Screening not performed		100%		MIL-STD-883, Method 5004, Class B/ Certification
102	Conformance testing		1_/		MIL-STD-883, Method 5005, Class B/ Certification
Minor 201 202	Marking incorrect Poor workmanship		0.65% 0.65%		Visual Visual

NOTES: 1/ Sampling plan shall be per applicable paragraphs of M1L-M-38510, Appendix B.

**CLASSIFICATION OF DEFECTS & TESTS** 

PARAGRAPH 4.4.2.46	TITLE Coil, Radio Frequency		SHEET	1 1 OF	DRAWING NUMBER 9333717  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 1 <b>00</b> %	REQUIREMENT PARAGRAPH	9333580  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Inductance incorrect		0.40%		Tester
Minor					
201 202 203 204	Number of turns incorrect Lead length incorrect Conformal coat, not uniform, voids Poor workmanship		0.65% 0.65% 0.65% 0.65%		Visual Gage Visual Visual

# CLASSIFICATION OF DEFECTS & TESTS

MIL-C-64025(AR)

ocircuit, Linear		2	1 1	DRAWING NUMBER 9333718
			3	NEXT HIGHER ASSEMBLY
TATA GO MOITENINEM	NO. OF	YOU		9333580
ical no nollowing	SAMPLE	0 0 € 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
defined				
ening not performed		100%		MIL-STD-883, Method
ormance testing		1/		Cicatio TD-883, Class
ing incorrect workmanship		0.65% 0.65%		Visual
-				
g plan shall be per applicable paragraphs	1	of MIL-M-	MIL-M-38510, A	Appendix B.

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used. Aug 83, which may not be Replaces DRSMC-QA (D) Form 160, 1

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

•AMmA?tI 4 . 4 . 2 . 4 8	Inductor Tuning - Circuit Assembly		SHEET	1 1 of	PRAWING NUMBER 9333580  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333578 PARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101 102	Terminals, loose or bent Components, damaged, missing or		0.40%		Visual
103	<pre>improperly assembled Poor soldering workmanship</pre>		0.40% 0.40%		Visual Visual/MIL-S-45743
<u>Minor</u>					
201 202	Conformal coat, not smooth continuous Poor workmanship		0.65% 0.65%		Visual Visual

HOTES:





### CLASSIFICATION OF DEFECTS & TESTS MIL-C-64025 (AR)

• ARAGRA?H 4.4.2.49	Printed Wiring Board, Capacitance Board		SHEET	1 1 of	DRAWING NUMBER 9333586  NEXT HIGHER ASSEMBLY 9333585
CATEGORY	EXAMINATION on TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major	None defined		1000		
101 102 103 104	Circuits, discontinuous Conductor width, minimum Conductor spacing, minimum Solderability		100% 0.40% 0.40% 10-0-1		Tester Gage Gage MIL-S-46844
Minor 201	Diameter of component holes incorrect		0.65%		Gage,pin
202 203	Location of component holes incorrect Poor workmanship		0.65% 0.65%		Gage Visual
nores:		<b></b>			

### **CLASSIFICATION OF DEFEECTS &TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.50	Capacitor timing - Circuit Card Assembly		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9333585 NEXT HIGHER ASSEMBLY 9333578
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHO
Critical	None defined				
<u>Major</u>					
101	Components, damaged, missing or		0 400		77-
102	improperly assembled Poor soldering workmanship		0.40% 0.40%		Visual Visual/MIL-S-45743
Minor					
201 202	Height, component, over max.		0.65%		Gage
	Conformal coat, not smooth and continuous		0. 65%		Visual
203	Poor workmanship		0.65%		Visual

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.







### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.51	Tuning, Electronic Component		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9333578  NEXT HIGHER ASSEMBLY 9332884
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	<b>AQL</b> 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /1NSPECTION METHOD
Critical  Major	None defined				
101 102	Reflectometer verification test Reflectometer ouput 50 OHM load 75 OHM load No load		100%	3.7.1 3.7.1.1 3.7.1.2 3.7.1.:	4.5.5.1.2
103 104 105	Inductor element test Capacitor element Power handling capability None defined		100% 100% 100%	3.7.2 3.7.3 3.7.4	4.5.5.2 4.5.5.3 4.5.5.4
Minor	Notic defined				
nores:		<u> </u>			

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

<b>PARAGRAPH</b> 4.4.2.52	Base, Antenna Support		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9332885 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	1 9 3 3 2 8 8 4  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major 101 102 Minor	Location, mounting holes incorrect Flatness, mounting-surface		0. 40% 0.40%		Gage Gage
201 202 203	Width, o-ring groove incorrect Depth, o-ring groove incorrect Poor workmanship		0.65% 0.65% 0.65%		Gage Gage Visual
HOTES:		<u></u>			

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.











### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.53	Support, Antenna-Upper		1 1 SHEET OF .		DRAWING NUMBER 9332891  NEXT HIGHER ASSEMBLY 9332884	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 1 <b>00</b> %	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD	
Critical	None defined					
<u>Major</u>						
101 102 103 104 105 106 107 108 109	.375-24 UNF-2B thread (-2) , incorrect .250-28 UNF-2A thread (-2) , incorrect. Knurl dia., over max. (-2) Length, knurl dia. (-2) , incorrect Counterbore depth (-1) , incorrect Dia., chassis mounting (-1) (Ref. 584) incorrect Depth, o-ring groove incorrect Location, flat surface incorrect .250-28 UNF-2A thread (-1), incorrect		0.40% 0.40% 0.40% 0.40% 0.40% 0.40% 0.40% 0.40%		Thread Gage Thread Ring Gage Gage Gage Gage Gage Gage Gage Gage	
Minor			0.65%		Cara	
201 202 203	Width, o-ring groove, incorrect Diameter, o-ring groove, incorrect Location, antenna lock groove (typ)		0.65%		Gage Gage Gage	
204	incorrect Width, antenna lock groove (typ) incorrect		0.65%		Gage	
<b>205</b> <b>206</b> 207	Dia., antenna lock grooves , incorrect Diameter, flange outside, incorrect Poor workmanship		<b>0.65%</b> 0.65% 0.65%		<b>Gage</b> Gage Visual	
norte:	<u> </u>	L	L	L		

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.54	Support, Antenna-Lower		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9332892 NEXT HIGHER ASSEMBLY 9332884
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	Location, flat surface		o. 40%		Gage
Minor					
201 202 203 204	Diameter, inside incorrect Diameter, outside incorrect Length, incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Visual

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Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.









### **CLASSIFICATION OF DEFECTS & TESTS**

	CLASSIFICATION OF DE		a iloio		MIL 6 01025 (Int)
PARAGRAPH 4.4.2.55	TITLE Terminal, Pin		SHEET	1 1 O F	DRAWING NUMBER 9355155  NEXT HIGHER ASSEMBLY 9332936
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	ARAGRAPM REFERENCE //INSPECTION METHO
Critical	None defined				
<u>Major</u>					
101 <b>102</b> <b>103</b>	.042 dia. incorrect .041 dia. incorrect Length, contact incorrect		0.40% 0.40% 0.40%		Gage Gage Gage
Minor					
201 202	Diameter , flange incorrect Poor workmanship		0.65% 0.65%		Gage Visual
HOTER:					

### **CLASSIFICATION OF DEFECTS &TESTS**

PARAGRAPH 4.4.2.56  CATEGORY	Pin Plate Assembly Coil  EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL	1 1 T OF REQUIREMENT	DRAWING NUMBER 9332936 NEXT HIGHER ASSEMBLY 9332919 PARAGRAPH REFERENCE
<u></u>		UNITS	100%	PARAGRAPH	/INSPECTION METHOD
Major 101 102 103 Minor	None defined  Material improper Swage pins location incorrect Components, damaged or bent		0.40% 0.40% 0.40%	3.2 3.2 3.2	Certification Gage Visual
201	Poor workmanship		0.65%	3.2	Visual.
notes:					

### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4 . 4 . 2 . 5 7	Core, Ferrite		SHEET	1 1 OF	DRAWING NUMBER 9332920	
CATEGORY	EXAMINATION OR TEST	Ho. OF	<b>AQL</b> OR	REQUIREMENT	NEXT HIGHER ASSEMBLY 9332919-2 PARAGRAPH REFERENCE	
Critical	None defined	UNITS	100%	PARAGRAPH	/INSPECTION METHOD	
101 102 103 Minor	Magnetic properties, incorrect Terminal stud hole dia., incorrect Cavity depth, incorrect.		100% 0.40% 0.40%	B/PNote	1 Certification Gage Gage	
201 202 203 204 205 206	Cavity dia., incorrect Cavity center dia., incorrect Width, clearance slots, over min. Height, overall incorrect Outside dia., incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Gage Visual	
nefras:						

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.58	TITLE Pin Plate Assembly, Coil - MCD		1 1 SHEET OF		DRAWING NUMBER  9332936 T  NEXT HIGHER ASSEMBLY	
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9332919-2  PARAGRAPH REFERENCE /INSPECTION METHOD	
Critical	None defined					
<u>Major</u> 101 102 .103	Pin hole location incorrect Thru hole dia. incorrect Perpendicularity of pins incorrect		0.40% 0.40% 0.40%		Gage Gage Gage	
Minor						
201 202 203 204	Pin hole dia. (before pin installation) incorrect Outside dia. incorrect Material thickness incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Visual	

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### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.59	Coil, Magnetic Coupling		SHEET OF		DRAWING NUMBER 9332919-2 NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	MO. OF SAMPLE UNITS	AOL. OR 100%	REQUIREMENT  • ARAGRAPH	PARAGRAPH REFERENCE /INPECTION METHOD
Critical	None defined				
Major					
101 102 103 104 105	Inductance between terminals, incorrect Polarity, incorrect Solder workmanship, poor Outside dia. incorrect Potting material on core, over max.		100% 100% 0.40% 0.40% 0.40%		Test Test Visual\MIL-STD-454 Gage Visual
Minor					
201 202 203 204 205	Location, polarity dot, incorrect .925 Dia., incorrect Width of pin potting compound incorrect Exposed wires, none permitted Poor workmanship		0.65% 0.65% 0.65% 0.65%		Visual Gage Gage Visual Visual
notes:					

### **CLASSIFICATION OF DEFECTS &TESTS**

### MIL-C-64025(AR)

<b>PARAGRAPH</b> 4.4.2.60	Cover, Battery Enclosure		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER 9332877 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL <b>100%</b>	REQUIREMENT PARAGRAPH	9332873  PARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
Major 101	Loc of captive screw holes, incorrect		0.40%		Gage
102	Flatness of back face, incorrect		0.40%		Gage
103	Complete assembly and installations, incorrect		0.40%		Visual
<u>Minor</u>					
201 <b>202</b> <b>203</b>	O-ring cavity width, incorrect O-ring cavity depth, incorrect Location, enclosure pad incorrect		0.65% 0.65% 0.65%		Gage Gage Gage
204	Poor workmanship		0.65%		Visual
HOTES:					

92







### CLASSIFICATION OF DEFECTS & TESTS MIL-C-64025 (AR)

			MIL C 04025(AR)		
PARAGRAPH 4.4.2.61	Cover, Transmitter Enclosure		SHEET	1 OF 1	DRAWING NUMBER 9332882 NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL OR <b>100%</b>	REOUIREMENTS <b>ARAGRAPH</b>	PARAGRAPH REFERENCE / INSPECTION METHOD
critical	None defined				
Major 101 102 Minor 201 202 203 204	Location, mounting holes, incorrect Flatness, mounting surface  P.D138-32 UNC -2B Width, o-ring groove Depth, o-ring groove, incorrect Poor workmanship		0.40% 0.40% 0.65% 0.65% 0.65%		Gage Gage Thd, Gage Gage Gage Visual
HOTES:			*************		

### **CLASSIFICATION OF DEFECTS & TESTS**

### MIL-C-64025(AR)

PARAGRAPH 4.4.2.62	TITLE Keyboard		SHEET	1 1 OF	DRAWING NUMBER 9332883
				<del></del>	NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AOL OR 100%	REQUIREMENTS  • ARAGRAPH	ARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
Major 101 102 103 104 105 106	Momentary action, switch Location, mounting holes .138-32 thread Width, gasket groove Depth, gasket groove Flatness, mounting surface		100% 0.40% 0.40% 0.40% 0.40% 0.40%		Tester Gage Thd Gage Gage Gage Gage
Minor 2 0 1 202 203 204 205 206 207	Key lighting (LED) Length, cable, minimum Panel identification correct Switch actuation force, incorrect Material, improper, len, display display window Protective finish uniform incomplete Poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65% 0.65%		Visual Gage Visual Gage Certification Visual Visual
NOTES:			<u> </u>		

Replaces DRSMC-QA (D)) Form 160, 1 Aug 83, Which may not bE used.





### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

Critical None defined Major None defined Minor  201 Missing or loose hardware/parts Marking, incorrect, illegible or missing Poor workmanship  203 Poor workmanship    AQL OR PROQUERMENT   PARAGRAPH   PARAGRAPH   PARAGRAPH REFERENCE / INSPECTION METHOD    O.65%   Visual Visual Visual Visual   Visual	PARAGRAPH <b>4.4.2.63</b>	TITLE Chassis, Electrical Equipment Antenna		SHEE	r <sup>1</sup> or <sup>1</sup>	DRAWING NUMBER  9332884  NEXT HIGHER ASSEMBLY
Major None defined  Minor  201 Missing or loose hardware/parts Marking, incorrect, illegible or missing Poor workmanship  203 Poor workmanship  None defined  0.65%  Visual  Visual  Visual  Visual  Visual	CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL OR 100%		PARAGRAPH REFERENCE
	Major Minor 201 202	None defined  Missing or loose hardware/parts Marking, incorrect, illegible or missing		0.65%		Visual

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### **CLASSIFICATION OF DEFECTS & TESTS**

MTL.-C-64025(AR)

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.2.64	Enclosure, Component Mounting		SHEET	1 1 OF	9332899 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9332873  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u>					
101	In work		100%	B/Note	1 Certification
Minor					
201 202	In work Poor workmanship		0.65% 0.65%		Gage Visual
notes:				·	

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.









**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-64025(AR)

Critical Major  101 Cracking pressure, incorrect Thread, major diameter incorrect  201 Absence of o-ring and washer Poor workmanship  None defined  100% Certification Gage  0.40%  Visual  Visual  Visual	PARAGRAPH 4.4.2.65  CATEGORY	Valve, Pressure Relief  EXAMINATION OR TEST	NO. OF SAMPLE UNITS	SHEET  AQL 100%	I OF 1 REQUIREMENT PARAGRAPH	DRAWING NUMBER  9332904  NEXT HIGHER ASSEMBLY  9332873  • ARAGRAPH REFERENCE //INSPECTION METHOD
	Major 101 102 Minor 201	Cracking pressure, incorrect Thread, major diameter incorrect  Absence of o-ring and washer		0.40%		Gage Visual

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### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

					MIL-C-64025 (AR)
PARAGRAPH 4.4.2.66	Switch, Rotary		SHEET	1 1	DRAWING NUMBER 9332924 NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST	MO. OF SAMPLE UNITS	AQL OR 100%	REOUIREMEMT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Crit <u>ical</u>	None defined				
Major					
101 102	Contact rating, incorrect Number Of positions, incorrect		100% 100%		Certification Certification
Minor	1				
201 202 203 204 205 206	Shaft diameter, incorrect Thickness, flat incorrect 1/4-28 UNF-2B, incorrect Length, shaft and threads, incorrect Missing hardware Poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65%		Gage Gage Thread gage Gage Visual Visual
MOTES:		<u> </u>	L	L	L

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### **CLASSIFICATION OF DEFECTS & TESTS**

					M I L - C - 6 4 0 2 5 ( A R )
PARAGRAP 4.4.2.67	Cover, Electrical Switch			1 OF 1	DRAWING NUMBER 9332926
4.4.2.6/	cover, Electrical Switch		SHEET	1 04 1	NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	<b>AQL</b> <b>OR</b> 100%-	REQUIREMENT PARAGRAPH	9332873  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major	None defined				
Minor					
201 202 203 204 205 206 207 208 209	Width, stop surface incorrect Location, stop surface incorrect Diameter mounting hole incorrect Diameter spring hole, incorrect Length to bend, incorrect 4-40 UNC-2B thread, incorrect Location thread hole, incorrect Height, bend incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Gage Gage Gage Visual
HOTES:		•	•	<del></del>	

**CLASSIFICATION OF DEFECTS &TESTS** 

4.4.2.68	Support, Switch Cover	SHEET OF		1 1	NEXT HIGHER ASSEMBLY 9332873
CATEGORY	EXAMINATION OR TEST  No. OF AQL SAMPLE UNITS 100%	REQUIREMENT PARAGRA	ARAGRAPH REFERENCE		
Critical	None defined				
Major  Vinor  201 202 203 204 205 206 207 208 209 210	Width, spring slot, incorrect Diameter, spring slot, incorrect Diameter, thru hole, incorrect Threads, MS20209F4-15L insert, incorrect Height, cover diameter, incorrect Diameter, body incorrect Length, overall, incorrect Thickness, flange, incorrect Location, spring slot, incorrect Poor workmanship		0.65% 0.65% 0.65% 0.65% 0.65% 0.65% 0.65%		Gage Gage Gage Gage Gage Gage Gage Visual
of tea:					







### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAF 4.4.2.69	Post, Binding, Electrical	SHEET		1 1 OF	DRAWING NUMBER 9332930  NEXT HIGHER ASSEMBLY 9332873	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOL	
Critical	None defined					
<u>Major</u>						
101	Conductor retention		100%		MIL-P-55149, Para. 4.6.7	
102	Contact resistance		100%		MIL-P-55149, Para. 4.6.5	
103	Solderability		100%		MIL-STD-202, Method 208	
Minor						
201	Poor workmanship		0.65%		Visual	
NOTES:			<u> </u>	<u> </u>	<u>In</u>	

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

used.

PARAGRAPH 4.4.2.70	Electronic Assembly (Performance Characteristics) (Ambient)		SHEET	I OF 2	PRAWING NUMBER  9332873  NEXT HIGHER ASSEMBLY  9332870
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	ARAGRAPH REFERENCE /INSPECTION METHOD
Critical					
1 <u>Major</u>	FSD) transfer test		100%	3.6.19	4.5.2.1.16
101 102 .103 104 105 106 107 108 109 110 111 112 113 114 115 116	Power off current Store code entry mode Power on prompt Keyboard timeout test Invalid store code test Store mode entry test Display timeout Send code selection Store mode entry RCD code transfer test RCD code receive Invalid send code test Send mode entry test Group selection test Invalid FSD transfer test RF command transmission Tune display Xmit display RF output sequence Group status Command group test		100% 100% 100% 100% 100% 100% 100% 100%	3.6.12. 3.6.13. 3.6.13. 3.6.13. 6.1.14. 3.6.1.14. 3.6.15. 3.6.17. 3.6.19. 3.6.20. 3.6.20.	1 4.5.2.6 2 4.5.2.6 2 4.5.2.7 3 4.5.2.0 4.5.2.9 4.5.2.10 1 4.5.2.11 1 4.5.2.12 2 4.5.2.13 2 4.5.2.14 1 4.5.2.15 4.5.2.17 4 4.5.2.17 4 4.5.2.18 1 4.5.2.19 2 4.5.2.19.1 3 4.5.2.19.2 4 4.5.2.19.3 4.5.2.19.4

NOTES:

### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.2.70	Electronic Assembly (Performance		SHEET	2 OF 2	9332873
	Characteristics) (Ambient)		Siidei	•	NEXT HIGHER ASSEMBLY
<b>↓</b>		l		<del></del>	9332870
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Major					
1 1 8	Reset SD test		100%	3.6.20	4.5.2.21
119	Destruct test		100%	3.6.20	
120	Status state update test		100%	3.6.18.	
	Status setup		100%	3.6.18.	
	Reset SD state test		100%	3.6.18.	2 4.5.2.23.2
	Deploy state test		100%	3.6.18.	
	Destruct state test		100%	3.6.18.	
	Transfer state test		100%	3.6.18.	2 4.5.2.23.5
121	Standby current		100%	3.6.2	4.5.2.2
122	Low battery voltage test		100%	3.6.8	4.5.2.28
123	Transmitting current		100%	3.6.5	4.5.2.25
124	Transmitting power		100%	3.6.6	4.5.2.26
125	Tuning capability		100%	3.6.7	4.5.2.27
126	Transmitter cutoff		100%	3.6.8	4.5.2.28
127	Data retention test		100%	3.6.9	4.5.2.29
Minor					
201	Initial power application test		0.65%	3.6.10	4.5.2.4
202	Keyboard lights		0.65%	3.6.3	4.5.2.3
203	Poor workmanship		0.65%		Visual
norte:			<u> </u>		

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAF	ATTLE				DRAWING NUMBER
4.4.2.71	Transistor, PNP (JAN2N869A)		SHEET	1 OF 1	MIL-S-19500/283
			SHEET		NEXT HIGHER ASSEMBLY
		Ī	<del></del>		9333746
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
<u>Major</u> 101 102 103 104	Wire material incorrect Wire bond MIL-S-19500/283 compliance Solderability (3" leads)	32 32	Note 1 Note 1	3.2 3.2 3.2 3.5.1	Visual Pull Tester (Note 2) Certification MIL-STD-202, Method 208
105 106	Leakage current ice Internal visual	Note 3	0.40% LTPD 10%	3.2 3.2	MIL-STD-750, Method 3041, Cond. B MIL-STD-750,
Minor					Method 2072, Para 3.2 only
2 0 1	Poor workmanship		0. 65%	3.20	Visual
NOTES:	(1) Reject for three (3) or more defect	cs. (2	2) Pull a	all wire.	(3) Sampling per

MIL-M-38510, Appendix B.







**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-64025(AR)

PARAGRAPH	TITLE				DRAWING NUMBER
4.4.2.72	Transistor, NPN (JAN2N222A)		SHEET	I OF 1	MIL-S-19500/255
			SUFFI	•	NEXT HIGHER ASSEMBLY
_				1	9333595/9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE	<b>AQL.</b> OR	REQUIREMENT	PARAGRAPH REFERENCE
O/(1200)(1		UNITS	100%	● ARAGRAPH	/INSPECTION METHOD
Critical	None defined				
Major					
101	Wire material incorrect	32	Note 1	3.2	Visual
102	Wire bond	32	Note 1	3.2	Pull Tester (Note 2)
103	MIL-S-19500/255 compliance			3.2	Certification
104	Solderability (3 leads)		0.40%	3.5.1	MIL-STD-202, Method 208
105	Leakage current ice		0.40%	3.2	MIL-STD-750,
106	Internal visual	Note 3	LTPD 10%	3.2	Method 3041, Cond. B MIL-STD-750,
-00	Internal Vibaci	Note 5	HIPD 10%	3.2	Mil-SiD-750, Method 2072, Para 3.2 only
Minor					
2 0 1	Poor workmanship		0.65%	3.20	Visual
			0.05%	3.20	Visual
HOTES:	(1) Reject for three (3) or more defects	(2	) P1111 =	all wire.	(3) Sampling per
MIL-M-3851	O, Appendix B.	. (-	,		(1, 2000-100

Replaces DRSMC-OA (D) Form 160, 1 Aug 83. which may not be used.

### **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

● MAGRA?H	TITLE				DRAWING NUMBER
4.4.2.73	Transistor, PNP (JAN2N2905A)		SHEET	1 OF 1	MIL-S-19500/905
			J.1221		NEXT HIGHER ASSEMBLY
		NO. OF	AOL		9333590
CATEGORY	EXAMINATION OR TEST	SAMPLE UNITS	100%	REQUIREMENT PARAGRAPH	● Aragraph reference /Inspection method
Critical	None defined				
Major 101 102 103 104	Wire material incorrect Wire bond MIL-S-19500\290 compliance Solderability (3 leads)	32 32	Note 1 Note 1 0.40%	3.2 3.2 3.2 3.5.1	Visual Pull Tester (Note 2) Certification MIL-STD-202, Method 208
105	Leakage current ice		0.40%	3.2	MIL-STD-750,
106	Internal visual	Tote 3	LTPD 10%	3.2	Method 3041, Cond. B MIL-STD-750, Method 2072, Para 3. only
Minor 2 0 1	Poor workmanship		0.65%	3.20	Visual
NOTES:	(1) Reject for three (3) ok more defects 10, Appendix B.	i. (2	L 2) Pull a	ll wire.	(3) Sampling per

DRSMC-QA (D) Form 160, 1 Aug 83, which may no

used.

### **CLASSIFICATION OF DEFECTS & TESTS**

MIT -C-61026(17P)

PARAGRAPH 4.4.2.74	Transistor, PNP (JAN2N2907A)		SHEET	1 OF	DRAWING NUMBER MIL-S-19500/291 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOE
Critical	None defined				
Major 101 102 103 104	Wire material incorrect Wire bond MIL-S-19500/291 compliance Solderability (3 leads)	32 32	Note 1 Note 1	3.2 3.2 3.2 3.5.1	Visual Pull Tester (Note 2) Certification MIL-STD-202, Method 208
105	Leakage current ice		0.40%	3.2	MIL-STD-750,
106	Internal visual	Note	LTPD 10	% 3.2	Method 3041, Cond. I MIL-STD-750, Method 2072, Para 3, only
Minor 2 0 1	Poor workmanship		0.65%	3.20	Visual
NOTES: MIL-M-385	Reject for three (3) or more defect	s. (	2) Pull a	all wire.	· (3) Sampling per

### **CLASSIFICATION OF DEFECTS & TESTS**

PARAGRAPH 4.4.2.75	Transistor, NPN (JAN2N2369A)		SHEE	1 1 T OF	MIL-S-19500/317  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333746  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major 101 102	None defined  Wire material incorrect Wire bond	32 32	Note 1	3.2 3.2	Visual Pull Tester (Note 2)
103 104 105	MIL-S-19500/317 compliance Solderability (3 leads) Leakage current ice		<b>0.40</b> %	3.2 3.5.1 3.2	Certification MIL-STD-202, Method 208 MIL-STD-750, Method 3041, Cond. B
106	Internal visual	Note 3	LTPD 10	3.2	MIL-STD-750, Method 2072, Para 3.
2 0 1	Poor workmanship		0. 65%	3.20	Visual
MOTER MIL-M-385	(1) Reject or three (3) or more defect	zs. (2	2) Pull a	all wire.	(3) Sampling per



# CLASSIFICATION OF DEFECTS & TESTS

MIL-C-64025(AR)

PARAGRAPH 4.4.2.76	Transistor, PNP (JAN2N3740), Silicon, Power Type		1 1 SHEET	OF	DRAWING NUMBER MIL-S-19500/441 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major 101 102 103 104 105	Wire material incorrect Wire bond MIL-S-19500/441 compliance Solderability (3 leads) Leakage current ice Internal visual	32 32 Note 3	Note 1 Note 1 0.40% 0.40% LTPD 10	3.2 3.2 3.2 3.5.1 3.2	Visual Pull Tester (Note 2) Certification MIL-STD-202, Method 208 MIL-STD-750, Method 3041, Cond. B MIL-STD-750, Method 2072, Para 3.2 only
Minor 201	Poor workmanship		0.65%	3.20	Visual
MIL-M-385	(1) Reject for three (3) or more defect 10, Appendix B.	s. (2	) Pull	all wire.	(3) Sampling per

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, Which may not be used.

**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-64025(AR)

CATEGORY   EXMINATION OR TEST   MOL OF SAMPLE UNITS   MOL OF SAM	PARAGRAPH 4.4.2.77	TITLE Diode, Silicon, Switching Type (JAN1N4148	3)	SHEET	1 OF 1	MIL-S19500/116  NEXT HIGHER ASSEMBLY
Major 101         Forward voltage drop         0.40%         3.2         MIL-STD-750, Method 4011           102         Reverse leakage current         0.40%         3.2         MIL-STD-750, Method 4016           103         MIL-S-19500\l16 compliance Solderability (all leads)         3.2         Certification MIL-STD-202, Method 208           105         JAN marking missing         3.2         Wisual			SAMPLE	~		PARAGRAPH REFERENCE
	Major 101 102 103 104 105 Minor	Forward voltage drop  Reverse leakage current  MIL-S-19500\116 compliance Solderability (all leads)  JAN marking missing		0.40% o. 40%	3.2 3.2 3.5.1 3.2	Method 4011 MIL-STD-750, Method 4016 Certification MIL-STD-202, Method 208 Visual



CLASSIFICATION OF DEFECTS & TESTS

PARAGRAPH	TITLE				MIL-C-64025 (AR) DRAWING NUMBER
4.4.2.78	Diode, Silicon, Switching Type (JAN1N5712	)	SHEET OF		MIL-S19500/445
		<del>,</del>		1	NEXT HIGHER ASSEMBLY 9333746/9333560
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	ARAGRAPH REFERENCE     //INSPECTION METHOD
Critical	None defined				
<u>Major</u> 101	Forward voltage drop		0.40%	3.2	MIL-STD-750,
102	Reverse leakage current		0.40%	3.2	Method 4011 MIL-STD-750 , Method 4016
103 104	MIL-S-19500/445 compliance Solderability (all leads)		0.40%	3.2 3.5.1	Certification MIL-STD-202 ,
105	JAN marking <b>missing</b>			3.2	Method 208 Visual
Minor 2 0 1	Poor workmanship		0.65%	3.20	Visual
			<u> </u>		
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**CLASSIFICATION OF DEFECTS & TESTS** 

MIT CO CANOE (ND)

					MIL-C-64025(AR)
PARAGRAPH 4.4.2.79	Diode, Silicon, Switching Type (JAN1N5712	2)	SHEET	1 1 OF	DRAWING NUMBER MIL-S-19500/445 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	ARAGRAPH REFERENCE //INSPECTION METHOD
Critical	None defined				
Major 101 102 103 104 105 Minor 201	Forward voltage drop  Reverse leakage current  MIL-S-19500/356 compliance Solderability (all leads)  JAN marking missing  Poor workmanship		0.40% W 0.40% 0.40% 0.65%	3.2 3.2 3.5.1 3.2 3.20	MIL-STD-750, Method 4011 MIL-STD-750, Method 4016 Certification MIL-STD-202, Method 208 Visual  Visual
nores:		<u></u>	<u> </u>		

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.80			SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER MIL-S-19500/427 NEXT HIGHER ASSEMBLY 9332962	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD	
Critical	None defined					
Major 101 102 103 104 105 Minor 201	Forward voltage drop  Reverse leakage current  MIL-S-19500/427 compliance Solderability (all leads)  JAN marking missing  Poor workmanship		0.40% 0.40% 0.40%	3.2 3.2 3.5.1 3.2 3.20	MIL-STD-750 , Method 4011 MIL-STD-750 , Method 4016 Certification MIL-STD-202, Method 208 Visual  Visual	

# CLASSIFICATION OF DEFECTS & TESTS

MIL-C-64025(AR)

PARAGRAPH	TITLE.				DRAWING NUMBER
4.4.2.81	Diode, Silicon, Low Voltage Regulator (JAN1N5523B)		SHEET	I OF 1	MIL-S-19500/437
		NO. OF SAMPLE	AQL OR		9332962
CATEGORY	EXAMINATION OR TEST	SAMPLE UNITS	<b>OR</b> 100%	REQUIREMENT PARAGRAPH	ARAGRAPH REFERENCE /INSPECTION METHOD
Critical	None defined				
Major 101	Forward voltage drop		0.40%	3.2	MIL-STD-750, Method 4011
102	Reverse leakage current		0.40%	3.2	MIL-STD-750 , Method 4016
103 "104	MIL-S-19500/437 compliance Solderability (all leads)		o. 40%	<b>3.2</b> 3.5.1	Certification MIL-STD-202, Method 208
105	JAN marking missing			3.2	Visual
Minor 2 0 1	Poor workmanship		0.65%	3.20	Visual
norea:		<u> </u>		<u> </u>	

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1  $\operatorname{Aug}$  83, which may not be  $\operatorname{USed}$ .





**CLASSIFICATION OF DEFECTS & TESTS** 

MTT.-C-64025/AR)

PARAGRAPH 4.4.2.82	m u Semiconductor Device, Diode (JAN1N5711)		SHEET	I OF 1	MIL-S-19500/444 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333580  PARAGRAPH REFERENCE //INSPECTION METHO
Critical	None defined				
Major 101 102 103 104 105 Minor 201	Forward voltage drop  Reverse leakage current  MIL-S-19500/444 compliance Solderability (all leads)  JAN marking missing  Poor workmanship		0.40% 0.40% 0.65%	3.2 3.2 3.5.1 3.2 3.20	MIL-STD-750 , Method 4011 MIL-STD-750 , Method 4016 Certification MIL-STD-202, Method 208 Visual  Visual

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4 . 4 . 2 . 8 3	Capacitor, Fixed, Ceramic, Style CKR06		SHEET	I OF 1	MIL-C-39014/2 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	Ace; 100%	REQUIREMENTS PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	Part Number Part Value (UF) M39014-02-1407 M39014-02-1218 None defined				
Major 101	Capacitance incorrect Leakage current		0.40%	3.2	MIL-STD-202, Method 305
103 104	MIL-C-39014\2 compliance Solderability (all leads)		0.40%	3.2 3.2 3.5.1	MIL-STD-202, Method 302 Certification MIL-STD-202, Method 208
105 Minor 2 0 1	Dissipation factor  Identification and marking incorrect		O. 65%	3.2	MIL-STD-202 , Method 306 Visual
202	Poor workmanship		0.65%	3.20	Visual

HOTES:

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.





# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.84	TITLE Capacitor, Fixed, Ceramic, Style CKR06		SHEET	I OF 1	MIL-C-39014/22  NEXT HIGHER ASSEMBLY 9333560/9333746	
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE //INSPECTION METHOD	
Quibi1	Part Number       Part Value (UF)         M39014-22-111       .001 + 10%, 100V         M39014-22-177       .1         Name defined       .01, 100V					
Critical	None defined					
<u>Major</u> 101	Capacitance incorrect		0.40%	3.2	MIL-STD-202, <b>Method 305</b>	
102	Leakage current		0.40%	3.2	MIL-STD-202 , Method 302	
103 104	MIL-C-39014/22 compliance Solderability (all leads)		0.40%	3.2 3.5.1	Certification MIL-STD-202, Method 208	
105	Dissipation factor			3.2	MIL-STD-202, Method 306	
Mines 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual	
NOTES:		<u> </u>	<u> </u>	<u> </u>		

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# QUALITY CONFORMANCE INSPECTION

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.85	Capacitor, Fixed, Ceramic, Style CKRO5	SHEET OF 1		T of 1	DRAWING NUMBER  MIL-C-39014/1  NEXT HIGHER ASSEMBLY  9333590/9333585
CATEGORY	EXAMINATION OR TEST	NO. OF Sample Units	<b>AQL</b> <b>OR</b> 100%	REQUIREMENT PARAGRAPH	9333580/9333595 PARAGRAPH REFERENCE /INSPECTION METHOD
	Part Number     Part Value (UF)       M39014-01-1228     330 PF, 200V       M39014-01-1473     .1 + 10%, 50V       M39014-01-1219     100 PF       M39014-01-1222     150 PF       M39014-01-1237     .001				
Critical	None defined				
Major 101	Capacitance incorrect		0.40%	3.2	MIL-STD-202, Method 305
102 103 104	Leakage current MIL-C-39014/l compliance Solderability (all leads)		0.40%	3.2 3.2 3.5.1	MIL-STD-202, Method 302 Certification MIL-STD-202,
105	Dissipation factor			3.2	Method 208 MIL-STD-202, Method 306
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual
HOTES:					

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (d) Form 160, 1 Aug 83, which may not be used.







# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

4.4.2.86	Capacitor, Chip		SHEET	1 OF 1	MIL-C-55681/5 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION on TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHO
Critical  Major 101 102 103 104 105 Minor 2 0 1 202	Part Number 3600 PF CDR21BP362AJTM 5100 PF CDR21BBP512AJTM 5100 PF CDR21BG121DJTM 120 PF CDR21BG361CJTM 360 PF, 200 V CDR21BG681AJTM 680 PF CDR21BP152AJTM 1500 PF CDR21BP511BJTM 510 PF, 100V None defined  Capacitance incorrect Leakage current MIL-C-55681/5 compliance Solderability (all leads)  Dissipation factor  Identification and marking incorrect Poor workmanship		0.40% 0.40% 0.40% 0.65%	3.2 3.2 3.5.1 3.2	MIL-STD-202, Method 305 MIL-STD-202, Method 302 Certification MIL-STD-202, Method 208 MIL-STD-202, Method 306  Visual Visual

**CLASSIFICATION OF DEFECTS & TESTS** 

MIL-C-6402~ (AR)

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4 . 4 . 2 . 8 7	Capacitor, Fixed, MICA, Dielectric  EXAMINATION OR TEST	HO. OF	SHEET AQL OR	1 OF 1	MIL-C-39001/5 NEXT HIGHER ASSEMBLY 9333585 PARAGRAPH REFERENCE
0/11 <b>20</b> 0111		UNITS	100%	PARAGRAPH	/INSPECTION METHOD
	Part Number         Part Value (UF)           CMR05F361JODM         360 PF           CMR05F181JODM         180 PF           CMR05F91OJODM         91 PF           CMR05E820FPDM         82 PF + 1%, 500V				
Critical	None defined				
Major 101	Capacitance incorrect		0.40%	3.2	MIL-STD-202, Method 305
102	Leakage current		0:40%	3.2	MIL-STD-202,
103 104	MIL-C-39001\5 compliance Solderability (all leads)		0.40%	3.2 3.5.1	Method 302 Certification MIL-STD-202, Method 208
105	Dissipation factor			3.2	MIL-STD-202, Method 306
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual





# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.88	Capacitor, Fixed, Electrolytic		SHEET 1 OF 1		MIL-C-39003/1  NEXT HIGHER ASSEMBLY 9333560/9333040	
CATEGORY	EXAMINATION OR TEST	No. OF SAMPLE LIMITS	AQL OR 100%	REQUIREMENT PARAGRAPH	9333746/9333590 PARAGRAPH REFERENCE /INSPECTION METHOD	
	Part Number         Part Value (UF)           M39003-01-2257         33 + 10%, 10V           M39003-01-2274         4.7 + 10%, 10V           M39003-01-2261         100 + 10%, 10V           M39003-01-2356         1.0 + 10%					
Critical	None defined					
<u>Major</u>	Capacitance incorrect		0.40%	3.2	MIL-STD-202, Method 305	
102	Leakage current		0.40%	3.2	MIL-STD-202 ,	
<b>103</b> 104 105	MIL-C-39003/I compliance Solderability (all leads) Dissipation factor	1	0.40%	3.2 3.5.1 3.2	Method 302 Certification MIL-STD-202, Method 208 MIL-STD-202, Method 306	
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2	Visual Visual	

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025-(AR)

					MID-C-QIGEOTAK)
PARAGRAPH 4.4.2.89			SHEET	1 OF 1	DRAWING NUMBER MIL-C-39006/9 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO, OF SAMPLE UNITS	<b>AQL</b> OR 100%	REQUIREMENT PARAGRAPH	9333590  PARAGRAPH REFERENCE /INSPECTION METHOD
	P t N b Part Value (UF) M39006-09-8481 270 UF, 15V				
Critical	None defined				
Major 101	Capacitance incorrect		0.40%	3.2	MIL-STD-202, Method 305
102	Leakage current		0.40%	3.2	MIL-STD-202 , Method 302
103 104	MIL-C-39006/9 compliance Solderability (all leads)		0.40%	3.2 3.5.1	Certification MIL-STD-202,
105	Dissipation factor			3.2	Method 208 MIL-STD-202, Method 306
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual
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used.







## **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

	CV35, CV36		SHEET	1 1 OF .	MIL-c-81/6 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	9333595  PARAGRAPH REFERENCE /INSPECTION METHOD
Ī	Part Number CV35G400  Part Value 7 - 40 PF  None defined				
	Capacitance range incorrect  Height of thread stud and body incorrect  MIL-C-81\6 compliance Solderability (all leads)  Identification and marking incorrect Poor workmanship		0.40%  0.40%  0.40%  0.65%	3.2 3.2 3.5.1 3.2 3.20	MIL-STD-202, Method 302  Gage Certification MIL-STD-202, Method 208  Visual Visual

CLASSIFICATION OF DEFECTS & TESTS.

MIL-C-64025(AR)

PARAGRAPH 4.4.2.91	Resistor, Fixed, Composition, Styles RCR20		SHEET $^1$ OF $1$ .		MIL-R-39008/2 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMEMT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	Part Number  RCR20G2R7JS  RCR20G121JS  121, 2W				
Critical	None defined				
Major 101 102	Resistance incorrect Solderability (all leads)		0.40% 0.40%	3.2 3.5.1	MIL-R-39008\l MIL-STD-202, Method 208
103 Minor	Conformance to MIL-R-39008/2			3.2	Certification
2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2	Visual Visual
MOTER:					

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# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.92	Resistor, Fixed, Composition, Styles RCR4	12	SHEET	1 OF <b>1</b>	DRAWING NUMBER  MIL-R-39008/5  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 1 <b>00</b> %	RREQUIREMENT PARAGRAPH	9333590 PARAGRAPH REFERENCE /INSPECTION METHOD
	Part Number RCR42G820JS RCR42G820JS RCR42G820JS RCR42G820JS	_			
Critical	None defined				
Major 101 102	Resistance incorrect Solderability (all leads) Conformance to MIL-R-39008\5		0.40% 0.40%	3.2 3.5.1 3.2	MIL-R-39008/l MIL-STD-202, Method 208 Certification
Minor vmI- 202	Identification and marking incorrect Poor workmanship		0. 65% 0.65%	3.2 3.20	Visual Visual
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AMSMC Form 1570 1 Feb 85

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# **CLASSIFICATION OF DEFECTS & TESTS**

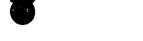
MIL-C-64025(AR)

PARAGRAPH 4.4.2.93	m u Resistor, Fixed, Composition, Styles RCR3	32	SHEET	1 <sub>OF</sub> 1	ORAWING NUMBER MIL-R-39008/3 NEXT HIGHER ASSEMBLY 9333590
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
	Part NumberPart ValueRCR32G151JS150, 1WRCR32G91OJS91, IW				
Critical	None defined				
* 101 102 103 Minor 201 202	Resistance incorrect Solderability (all leads)  Conformance to MIL-R-39008/5  Identification and marking incorrect Poor workmanship		o. 40% 0.40% 0.65% 0.65%	3.2 3.5.1 3.2 3.2 3.20	MIL-R-39008/1 MIL-STD-202, Method 208 Certification  Visual Visual
nores:					

AMSMC Form 1570, 1 Feb 85

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which MAY not be used.







# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

CATEGORY  EXAMINATION OR TEST  NO. OF SAMPLE UNITS  PART Number RWR80SR249FM  Critical  None defined  Major 101 102 103 Conformance to MIL-R-39007/8  Minor 2 0 1 202  Identification and marking incorrect Poor workmanship  No. of SAMPLE UNITS  PARAGRAPH PAR	PARAGRAPH 4.4.2.94	Resistor, Fixed, Wire Wound		SHEET	1 OF 1	DRAWING MUMBER MIL-R-39007\8 NEXT HIGHER ASSEMBLY
RWR80SR249FM   .249 + 1%, 2W	CATEGORY	EXAMINATION OR TEST	SAMPLE	OR		
adite.	Major 101 102 103 Minor 2 0 1 202	RWR80SR249FM .249 + 1%, 2W  None defined  Resistance incorrect Solderability( all leads)  Conformance to MIL-R-39007/8  Identification and marking incorrect		0.40% 0.65%	3.5.1 3.2 3.2	MIL-STD-202, Method 208 Certification Visual

Replaces DRSMC-QA (D) Form 160, 1 Aug 83, which may not be used.

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## QUALITY CONFORMANCE INSPECTION

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

●MAGRA?U 4.4.2.95	Resistor, Fixed, Film (Insulated)		SHEET	1 1 OF	DRAWING NUMBER MIL-R-39017/1 NEXT HIGHER ASSEMBLY 9333746/9333560
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major 101 102 103 Minor 201 202	Part Number RLR07C1003FM RLR07C51ROGM RLR07C51ROGM S1 + 2% RLR07C1152FM RLR07C1303FM RLR07C1802GM RLR07C1802GM RLR07C2612FM RLR07C6191FM None defined  Resistance incorrect Solderability (all leads)  Conformance to MIL-R-39017/1  Identification and marking incorrect Poor workmanship		0.40% 0.40% 0.65% 0.65%	3.2 3.5.1 3.2 3.2 3.20	MIL-R-39008/1 MIL-STD-202, Method 208 Certification  Visual Visual
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# **CLASSIFICATION OF DEFECTS ESTS**

MIL - C - 64025 (AR)

PARAGRAPH	m u				DRAWING NUMBER
4.4.2.96	Resistor, Fixed, Film (Insulated)		SHEET	1 2 OF .	MIL-R-39017/1
			SHEET	OF .	NEXT HIGHER ASSEMBLY
		1		<del></del>	9333590/9333580
CATEGORY	EXAMINATION OR TEST	<i>NO. OF</i> Sample	AQL OR	REQUIREMENT	3 746/9333560 PARAGRAPH REFERENCE
GATEGORT		UNITS	100%	PARAGRAPH	/INSPECTION METHOD
	Part Number Part Value				
	RCR07G472JS 4.7K				
	RCR07G473JS 47K				
	RCR07G331JS 330				
	RCRO7G1O3JS 10K				
	RCR07G513JS 51K				
	RCR07G272JS 2.7K				
	RCRO7G102JS 1K				
	RCR07G300JS 30				
	RCR07G202JS 2K				
	RCRO7G101JS 100				
	RCR07G163JS 16K				
	RCR07G820JS 82				
	RCRO7G104JS 100K				
	RCR07G334JS 330K				
	RCR07G226JS 22M				
	RCR07G223JS 22K RCR07G106JS 10M				
	RCRO7G106JS 10M RCRO7G10OJS 100				
	RCRO/G1000S 100				
Critics 1	None defined				
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HOTES:					

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-c-64025(AR)

PARAGRAPH 4 . 4 . 2 . 9 6  CATEGORY	Resistor, Fixed, Film (Insulated)  EXAMINATION OR TEST	NO. OF Sample Units	SHEET  AQL 100%	2 2 OF REQUIREMEMT PARAGRAPH	DRAWING NUMBER  MIL-R-39017/1  NEXT HIGHER ASSEMBLY  9333590/9333580  0333746/9333560  • ARAGRAPH REFERENCE /INSPECTION METHOD
Major 102 103 Minor 2 0 1 202	Resistance incorrect Solderability (all leads)  Conformance to MIL-R-39017/1  Identification and marking incorrect Poor workmanship		0.40% 0.40%	3.2 3.5.1 3.2 3.2 3.20	MIL-R-39008/1 MIL-STD-202, Method 208 Certification  Visual Visual









# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-c-64025(AR)

PARAGRAPH 4.4.2.97	Resistor, Fixed, Film		SHEET	lof 1	MIL-R-83401\2 NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	<b>AQL</b> <b>OR</b> 100%	REQUIREMENT PARAGRAPH	9332962  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical	Part Number Part Value M83401-02-M4702JB 470K .1W  None defined				
<u>Major</u> 101 102 103 104	Resistance incorrect Solderability. (all leads) Conformance to MIL-R-83401/2 Resistance-temperature characteristics		0.40% 0.40% 32-0-1	3.2 3.5.1 3.2 3.2	MIL-R-39008\1 MIL-STD-202, Method 208 Certification MIL-STD-202, Method 304
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual
north.					

Replaces DRSMC-QA (D) Form 160, 1 Aug 83. which may not be used.

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025 (AR)

<u> </u>					
PARAGRAPH 4.4.2.98	Microcircuit, Digital, CMOS		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER  MIL-R-38510/173  NEXT HIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	No. oF s a m units	A Q L P L E 100%	REQUIREMENT PARAGRAPH	9332962  PARAGRAPH REFERENCE //INSPECTION METHO
Critical  Major 101  102  Minor	Part Number M38510-17305BEB  None defined  Screening not performed  Conformance to MIL-R-38510/173		00 40%	3.2	MIL-STD-883, Method 5004, Class B Certification Certification
2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual
norte:	<u> </u>				







# **CLASSIFICATION OF, DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGARAPH	m u				DRAWING NUMBER
4.4.2.99	Microcircuit, Digital, CMOS		SHEET	<sup>1</sup> oF 1	MIL-R-38510/12
			SUPET	OF I	NEXT HIGHER ASSEMBLY
-					9333595
CATEGORY	EXAMINATION OR TEST	HO. OF SAMPLE UNITS	AQL 100%	REQUIREMENT PARAGRAPH	• ARAGRAPH REFERENCE //INSPECTION METHOD
	Part Number Part Value M38510-01203BEB				
Critical	None <b>defined</b>				
<u>Major</u> 101	Screening not performed		0.40%	3.2	MIL-STD-883, Method 5004, Class B
102	Conformance to MIL-R-38510/12			3.2	Certification Certification
Minor 2 0 1 202	Identification and marking incorrect Poor workmanship		0.65% 0.65%	3.2 3.20	Visual Visual
HOTES:			L	L	

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# QUALITY CONFORMANCE INSPECTION

# **CLASSIFICATION OF DEFECTS & TESTS**

MIL-C-64025(AR)

PARAGRAPH 4.4.2.100	Microcircuit, Digital, CMOS		SHEET	1 <sub>OF</sub> 1	DRAWING NUMBER MIL-R-38510/300 MEXT HIGHER ASSEMBLY 9333595	
CATEGORY	LAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMENT PARAGRAPH	PARAGRAPH REFERENCE /INSPECTION METHOD	
Major 101  102  Minor 2 0 1 202	M38510-30001BCB  None defined  Screening not performed  Conformance to MIL-R-38510\300  Identification and marking incorrect Poor workmanship		0. 40% 0. 65% 0. 65%	3.2 3.2 3.2 3.20	MIL-STD-883, Method 5004, Class B Certification Certification  Visual Visual	
NOTES:						

AMSMC









**CLASSIFICATION OF DEFECTS & TESTS** 

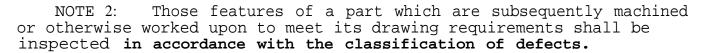
MIL-G-64025 (AR)

PARAGRAPH 4.4.2.10:	TITLE Relay, Electromagnetic		SHEET	10F 1	DRAWING NUMBER  MIL-R-39016/9  NEXT MIGHER ASSEMBLY
CATEGORY	EXAMINATION OR TEST	NO. OF SAMPLE UNITS	AQL OR 100%	REQUIREMEMT PARAGRAPH	9333590/9333580  PARAGRAPH REFERENCE /INSPECTION METHOD
Critical  Major 101  102  Minor 2 0 1 202	M39016-9-022L  None defined  Screening not performed  Conformance to MIL-R-39016\9  Identification and marking incorrect Poor workmanship		o. 40%  0.65%  0.65%	3.2 3.2 3.2 3.20	MIL-STD-883, Method 5004, Class B Certification Certification  Visual Visual Visual
ndrtak					

- 4.4.3 Testing. Testing is described in the first article and quality conformation inspection "Classification of Defects and Tests" form.
- 4.4.4 Inspection equipment. The inspection equipment required to perform the examination and tests prescribed herein is. described in the "paragraph/inspection method" column in the Classification of Defects and Tests forms. The contractor shall submit for approval inspection equipment designs in accordance with the terms of the contract.
- 4.5 Test methods and Procedures. Test methods used for performance testing parameters described in 4.5.2 shall be approved prior to use for product acceptance.
- 4.5.1 Dimensional control of molded or Plastic Parts. In place of the normal sampling and inspections associated with the Classification of 'Defects, and after a curing time for the parts has been approved (See Note 1), a sample of three (3) parts (as molded) from each cavity shall be fully inspected dimensionally (all dimensions on drawing) to qualify a new or reworked cavity for use in production. The molded parts shall carry the individual cavity identification. As a control of each cavity during production, the above quantity of parts from each cavity shall be inspected for at least the defects listed in [TBD (4.4.2.1 through 4.4.2.66)] after continuous production of each 5,000 parts or at the end of each week, whichever occurs first. If any defective parts are found during qualification of the cavity, the cavity producing the defective part(s) will not be used in production. If any defective parts are found when inspection is performed for the control of the cavity, the cavity producing the defective part(s) shall be removed from production. Further, that portion of production since the last control check shall be inspected for each separate type of defect according to MIL-STD-105, using an AQL of 0.40 percent for each major defect and an AQL of 0.65 percent for each minor defect. All cavities removed from production because of some fault, may, after reworking, be returned to production providing they pass the qualification test above. The contractor may request a change of inspection frequency providing he presents objective evidence to the Contracting Officer to substantiate the request. Contractor designs of gages and test equipment required to perform the inspections listed herein shall be submitted in accordance with 4.4.4 and 6.2 herein for approval prior to manufacture of equipment. The noted sub-paragraphs identify those items and minimum inspection subject to the requirements of this paragraph.

NOTE 1: In establishing a curing time, dimensionally check ten (10) parts from each cavity at periodic intervals (e.g. every 30, 60, etc. minutes) until dimensional stability is attained. The curing time will be from the time the part comes out of the mold until dimensional stability is attained. The inspection data used in determining the curing time shall be submitted in accordance with 6.3. If there is a change in material, or in the cycle time, or if a cavity is reworked, or a new cavity is used, a new curing time shall be established and approved.

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4.5.2 Remote Control Unit Performance tests. The following section describes the performance tests for the Remote Control Unit (RCU), assembly number 9332873. Unless otherwise specified, all testing shall be performed at room ambient conditions. All tests in this section should be executed in the order listed. Other orders are possible with approval from ARDEC,

Power source setup: Set the output of a DC power supply to 0+0.1V. Turn the unit power switch off, then connect the negative terminal to P1-BLK and the positive terminal to P1-RED. Set the output voltage to  $13+0.5\,\mathrm{V}$ 

- 4.5.2.1 <u>Power off current test</u>. Measure the current into PI-RED and verify compliance with the requirements specified in 3.6.1.
- 4.5.2.2 <u>Standby current test</u>. Measure the current into PI-RED and verify compliance with the requirements specified in 3.6.2.
- 4.5.2.3 Keyboard lights. Turn the unit power switch on. Verify that all the keyboard keys are backlit in compliance with the requirements specified in 3.6.3.
- 4.5.2.4 Initial power application test. Turn the unit power switch on. Verify that the RCU displays "INVALID" in compliance with the requirements specified in 3.6.10. If the RCU isplays "ON", iteratively disconnect it from the power supply, starting with a minimum of 4 hours and increasing the time for each iteration, until the unit passes or the minimum time exceeds 72 hours. Restart testing at this point.
- 4.5.2.5 STORE code select prompt. Turn the unit power switch off. Execute the following sequence: Turn the STORE code select switch on; turn the unit per switch on; then, turn the STORE code select switch off. Verify that the RCU displays five dashes (----), Press keys 1 thru 8 sequentially. Verify the display response as each key is pressed with the requirements of 3.6.11. Press keys 1 thru 5 sequentially and verify that the RCU displays "12345". Turn the unit power switch off.
- 4.5.2.6 Power on prompt test. Turn the unit power switch on. Verify that the RCU displays. "ON" in compliance with the requirements specified in 3.6.12.1.
- 4.5.2.7 <u>Invalid store code entry test</u>. Turn the unit power switch on. Key in "12344" (an incorrect STORE code) within the next 15 seconds. Verify that the RCU displays "INVALID" in compliance with the requirements of 3.6.12.2. Turn the unit power switch Off Turn the unit power on, measure the time-lapse from the moment the unit is turned on until the RCU displays "INVALID" and verify compliance with the requirements specified in 3.6.12.2.

- 4.5.2.8 STORE mode entry test no Previous SEND code. Turn the unit power switch on Key in the correct STORE code ("12345") within the next 15 seconds. Verify that the RCU displays four dashes (----) in compliance with requirements of 3-6.12.3.
- 4.5.2..9 Display timeout test. Press the AUTO key. Verify that the RCU displays "AUTO" in Compliance with the requirements of 3.6.13. Measure the time-lapse-from the moment the AUTO key is pressed until the RCU display blanks and verify compliance with the requirements of 3.6.16. -Note: this requirement need not be tested further; however, this effect may be observed while executing other tests in the STORE or SEND modes and does not invalidate those tests.
- 4.5.2.10 SEND code selection test. Press the AUTO key. Verify that the RCU displays "AUTO"'. Press the TRANSFER key. Verify the display response with the requirements of 3.6.13. Note the four digit SEND code. Turn the unit power switch off.
- 4.5.2.11 STORE mode entry test-previous send code. Turn the unit power switch on. Key in "12345" within the next 15 seconds. Verify that the RCU displays the SEND code from 4.5.2.10 in compliance with the requirements of 3.6.13.1
- 4.5.2.12 RCD <u>code transfer test</u>. Apply Transfer Load I to the RCU as specified in Figure 1a. Press the COPY key. Verify that the RCU displays "CQPY" in compliance with the requirements of 3.6.14.1.1. Press the-TRANSFER key and verify that the RCU displays "SENDING" in compliance with the requirements of 3.6.14.1.2. Verify the waveform response at the load with the requirements of 3.6.14.1.3. When the waveform transmission has completed, verify that the RCU displays the four digit SEND code of 4.5.2.10 in compliance with the requirements of 3.6.14.1.4, Note the RCD code.
- 4.5.2.13 RCD <u>code receive test</u>. Remove Transfer Load I. Drive the RCU MCD coil as specified in Figure 3a with a known RcD code different than that of 4.5.2.12. Verify that the RCD displays "RECEIVE'" in compliance with the requirements of 3.6.14.2.1. Press the TRANSFER.key and verify that the RCU displays a four digit SEND code in compliance with the requirements of 3.6.14.2.2. Note the four digit SEND code. Turn the unit power switch off.
- 4.5.2.14 <u>Invalid SEND code entry test</u>. Turn the unit power switch on. Key in an incorrect SEND code within the next 15 seconds. Verify that the RCU displays "INVALID" in compliance with the requirements of 3.6.15.2. Turn the unit power switch off.
- 4.5.2.15 SEND mode entry test. Turn the unit power switch on and key in the SEND code from 4.5.2.13 within the next 15 seconds. Verify that the RCU displays "1 NONE"' in compliance with the requirements of 3.6.15.1 and 3.6.18.1.
- 4.5.2.16 FSD transfer test. Apply Transfer Load I to the RCU as specified in Figure la. Press the TRANSFER key and verify the waveform response at the load with the requirements of 3.6.19.2 and that the RCU displays "SENDING" in compliance with the requirements of 3.6.19.1. Verify that the FSD data conforms to the RCD

- code of 4.5.2.13 as specified by Drawing 9333026 for the current group. After the FSD pulse sequence has been sent, verify that the RCU displays "1 TRANSFER" in compliance with the requirements of 3.6.18 and 3,6.19.3.
- 4.5.2.17 Group selection test. For each group thru group 15, perform the following: Press the GROUP ID key and verify that the RCU displays "n NONE" in compliance with the requirements of 3,6.17, 3.6.18, and 3.6.18.1, where n is the current GROUP ID number; redo 4.5.2.16 substituting the current GROUP ID number for group 1 in that test.
- 4.5.2.18 Invalid FSD transfer test. Press the GROUP-ID key and verify the display response of "ALL" as per requirement 3.6.17. Press the TRANSFER key and verify that the RCU displays "ALL INVALID'" in compliance with the requirements of 3.6.19.4.
- 4.5.2.19 <u>RF command transmission</u>. Connect a 50+5% ohm resistive load from the ANTENNA to the RCU case. Press the GROUP ID key and verify that the status of group 1 is displayed. Press the DEPLOY key and verify that the RCU displays "DEPLOY 1" in compliance with the requirements of 3.6.20.1. Press the XMIT switch and verify the following.
- 4.5,2.19.1 <u>Tune display</u>. Verify that the RCU displays "TUNING" in compliance with the requirements of 3.6.20.2.
- 4.5.2.19.2 <u>Transmit display</u>. After the tuning sequence has completed, verify that the RCU displays "XMIT TUNE = m" in compliance with the requirements of 3.6.20,3 and that the tune number m is an integer from  $\bf 5$  to  $\bf 9$ .
- 4.5.2.19.3 RF output sequence. Verify the RF waveform data with the requirements of 3.6.20.4.
- 4.5.2.19.4 <u>Group status update</u>. When transmission has completed, verify that the RCU displays "1 DEPLOY" in compliance with the requirements of 3.6.18 and 3.6.20.5. "
- 4.5.2.20 Command group test. Repeat 4.5.2.19 for groups 2 thru 15.
- 4.5.2.21 Reset SD test. Repeat 4.5.2.19 for group "ALL" using the RESET SD command key. Verify that all 15 group status displays conform to the requirements of 3.6.18 and 3.6.18.2.
- 4.5.2.22 <u>Destruct test</u>. Repeat 4.5.2.19 for group 1 using the DESTRUCT command key.
- 4.5.2.23 Sta<u>tus</u> state update test. Turn the unit power switch off. Enter the STORE mode as per 4.5.2.11. Select a new SEND code as per 4.5.2.10. Turn the unit power switch on and key in the correct SEND code within the next 15 seconds. Verify the following tests in accordance with 3.6.18.2

- 4.5.2.23.1 Status setuP. Press the TRANSFER key. Wait for the TRANSFER command to complete (a command has completed when the group status is displayed - the RCU is then ready to receive and execute a new command). The display should read "1 TRANSFER". Press the GROUP ID key followed by the TRANSFER key and wait for the TRANSFER command to The display should read "2 TRANSFER". Press the GROUP ID key followed by the TRANSFER key again and wait for the TRANSFER command to complete. The display should read "3 TRANSFER". Press the GROUP ID key 14 times. Press the DEPLOY key and then the XMIT switch. Wait for the DEPLOY command to complete. The display should read "1 DEPLOY". Press the GROUP ID key followed by the DEPLOY key and then the XMIT switch again. Wait for the DEPLOY command to complete. The display should read "2 DEPLOY". Press the GROUP ID key 15 times. Press the DESTRUCT key and then the .XMIT switch. Wait for the DESTRUCT command to complete. The display should read "1 DESTRUCT".
- 4.5.2.23.2 RESET SD state test. Press the GROUP ID key 15 times. Press the RESET SD key and then the XMIT switch. Wait for the RESET SD command to complete. Press the GROUP ID key. For groups 1 thru 15, note the group status and then press the GROUP ID key. Verify that group 2's status now reads "2 RESET SD" and all other groups' statuses have not changed from prior to the RESET SD command execution.
- 4.5.2.23.3 DEPLOY state test. Press the DEPLOY key and then the XMIT switch. Wait for the DEPLOY command to complete. Press the GROUP ID key. For groups 1 thru 15, note the group status and then press the GROUP ID key. Verify that group 3's status now reads "3 DEPLOY" and all other groups' statuses have not changed from prior to the . DEPLOY command execution. Press the GROUP ID key 4 times.. Press the TRANSFER key. The display should read "4 TRANSFER".
- 4.5.2.23.4 TRANSFER status test. Press the GROUP ID key and then the TRANSFER key. Verify that the group 1's status still reads "1 DESTRUCT". Press the GROUP ID key and then the TRANSFER key. Verify that the-group 2's status still reads "2 RESET SD". Press the GROUP ID key and then the TRANSFER key. Verify that the group 3's status still reads "3 DEPLOY".
- 4.5.2.23.5 DESTRUCT state test. Press the GROUP ID key 13 times. Press the DESTRUCT key and then the XMIT switch. Wait for the DESTRUCT command to complete. Press the GROUP ID key. For groups 1 thru 15, note the group status and then press the GROUP ID key. Verify that group 2's status now reads "2 DESTRUCT", group 3's status reads "3 DESTRUCT" and all other groups statuses-have not changed from prior to the DESTRUCT command execution.
- 4.5.2-.24 Low batterv voltage test. Set the supply voltage at Pi-RED to 11.05 + 0.05 volts and verify that the battery low indicator is "off". Lower the supply voltage to 10.25 + 0.05 volts and verify that the battery low indicator flashes as specified in 3.6.4. Set the supply voltage to 13 + 0.5 volts.

- 4,5.2.25 Transmitting current test. Connect a 50 + 5% ohm resistive load from the ANTENNA to the RCU case. press the DESTRUCT key, then press the XMIT switch.' Measure the current into Pi-RED and verify compliance with the requirements of 3.6.5.
- 4.5.2.26 <u>Transmitting Power test</u>. With the supply set to 13 + 0.1 volts, press the DESTRUCT key then press the XMIT key. Measure the power into the resistive load and verify compliance with the requirements of 3.6.6.
- 4.5.2.27 <u>Tuning (load matching) capability test</u>. With each of the complex loads of 3.6.7, perform the following: connect the load from the ANTENNA to the RCU case; press the DESTRUCT key, then press the XMIT switch; measure the power into the SO ohm real component of the load and verify compliance with the requirements of 3.6.7.
- 4.5.2.28 Transmitter cutoff test. Reduce the supply voltage at Pi-RED to 10.55 + 0.05 volts. Press the DESTRUCT key and then press the XMIT key. Verify transmission responses with the requirements of 3.6.8. Reduce the supply voltage to 9.45 + 0.05 volts. Press the DESTRUCT key and then press the XMIT key. Verify transmission response with the requirements of 3.6.8. Set the supply voltatge to 13 + 0.5 volts.
- 4.5.2.29 <u>Data retention test</u>. "Turn the unit power switch off. Turn the unit power switch on and key in "12345" in the next 15 seconds. Press the COPY key then press the TRANSFER key. Note the RCD code, Turn the unit power switch off. Disconnect the positive SUpPly terminal from Pi-RED. Wait 315 + 15 seconds. Reconnect the positive supply terminal to Pi-RED. Turn the unit power switch on and key in the correct STORE code in the next 15 seconds. Repeat the RCD transfer test of 4.5.2.12. Verify that the RCD code is the same as noted just before disconnecting the batteries. Turn the unit power switch off then on. Key in the correct SEND code in the next 15 seconds. Step thru each group using the GROUP ID key. Verify that each group status has retained the status just before disconnecting the battery in compliance with the requirement of 3.6.9.
- 4.5.3 High temperature test. Conduct the RCU performance tests described in the paragraphs 4.5.2 4.5.2.29 with the unit under test temperature stabilized at 145 (+5/-0) degrees F in compliance with requirement 3.10.
- 4.5.4 Low temperature test. Conduct the tests listed in 4.5.3 with the unit under test temperature stabilized at -35 (+0/-5) degrees F in compliance with requirement 3.11.
- 4.5.5 Tuning Electronic Components Assembly Performance test.
  This section describes the performance tests for the Tuning Electronic Equipment Components Assembly (Tuner), assembly number 9333578.
  Unless otherwise specified, all testing shall be sequentially performed in the order listed at room ambient conditions. Unless otherwise specified, all test setup shall be retained throughout subsequent tests.

Power source. Set the output of a DC power supply to 5.0 + 0.1 volts. With the power supply off connect the positive terminal to +5V INPUT (A1-E23) and connect the negative terminal to GROUND (A1-E18). Set the output of another DC power supply to 13.5+0.1 volts. With the power supply off, connect the positive terminal to VBATT (A1-E15) and connect the negative terminal to GROUND (A1-E18).

- 4.5.5.1 Reflectometer verification tests. Test setup per 3.7.1 and then turn both power supplies on. Apply an all zeros data pattern (00000000) to the TUNE DATA (A1-E22), CLK (A1-E19), STROBE BUFF (A1-E21) and STROBE BUFF- (A1-E20) inputs per Figure 5. Adjust the output of a 50 ohm RF 'signalsource to a frequency Fo (as specified in. the 9333026 drawing) and an amplitude of 5.5 + 0.2 VRMS when measured into a SO ohm load. Note: For the subparagraphs that follow, the RF source shall be turned off while changing load resistors.
- 4.5.5.1.1 Reflectometer output test (50 ohms). Connect a 50 + 5% ohm 1 watt load resistor between RFOUT (A2-13) and GROUND (A1-E18), connect the XFER RELAY input (A1-E16) to GROUND (A1-E18) and apply the "RF signal of paragraph 4.5.5.1 to RFIN (between A1-14 and A1-E13). Verify the VREFL output (A1-E17) is in compliance with the requirements of 3.7.1.1.

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- **4.5.5.1.2** Reflectometer output test (75 ohms). Remove the 50 ohm load resistor between RFOUT and GROUND and replace with a 75 + 2% ohm 1 watt resistor. Verify the VREFL output is in compliance with the requirements of 3.7.1.2.
- 4.5.5.1.3 Reflectometer output, test (no load), Remove the 75 ohm load resistor between RFOUT and GROUND. Verify the VREFL output is in compliance with the requirements of 3.7.1.3.
- 4.5.5.2 Inductor element test. Apply data pattern A of Table 1 (para. 3.7.2.) to the TUNE DATA, CLOCK, STROBE BUFF and STROBE BUFF-inputs per Figure 5. Verify the inductance between RFIN (A1-E14) and RFOUT is in compliance with the requirements of paragraph 3.7.2, Table 1, Pattern A. Apply each of the remaining data patterns of Table 1 and verify the inductance between RFIN and RFOUT is *in* compliance with Table 1.
- 4.5.5.3 Capacitor elements test. Apply data pattern A of Table 2 (para. 3.7.3) to the TUNE DATA, CLOCK, STROBE BUFF and STROBE BUFF-inputs per Figure 5. Verify the capacitance between RFOUT and Ground (A1 E13) is in compliance with paragraph 3.7.3, Table 2, Pattern A. Apply each of the remaining patterns of Table 2 and verify the capacitance between RFOUT and Ground is in compliance with Table 2.
- 4.5.5.4 Power handling capability. Adjust the output of a 50 ohm RF signal source to a frequency Fo and an amplitude of 24.5 + 0.5 VRMS into a 50 ohm load. Connect a 50 + 5% ohm 20 watt load (Table 3, Load A) between RFOUT and GROUND. Apply data pattern A of Table 3 (para. 3.7.4) to the TUNE DATA, CLOCK, STROBE BUFF and STROBE BUFF-inputs per Figure 5. Apply the previously adjusted RF source to RFIN and verify that the power output is in compliance with paragraph 3.7.4, Table 3, Load A. Connect each of the remaining loads of Table 3

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between RFOUT and GROUND and apply the appropriate data pattern for each load, then apply the RF source to RFIN. Verify the power output measured across the 50 ohm resistive part of the load is in compliance with paragraph 3.7.4, Table 3.

- 4.5.6 <u>Transmitter Electronic Components Assembly Performance test</u>. The following section describes the performance test of the Transmitter Electronic Components Assembly, assembly number 9333579. Unless otherwise specified, all testing shall be performed at room ambient conditions and with a 50 + 5% ohm 20 watt load resistor connected between A3-E4 (RF OUT) and A3-E1 (RTN).
- 4.5.6.1 Harmonic filter. The harmonic filter must be tested with C7 and C9 removed from the 9333590 assembly. Apply a 50 ohm generator sweeping between Fo and 40.0 MHz to A3-E16. Measure the harmonics of frequency Fo at the 50 ohm termination between A3-E4 and A3-E1. Verify that the amplitude of the second, third and other harmonics of frequency Fo are attenuated as specified in 3.8.1.c, The insertion loss of the filter at Fo shall be measured by subtracting the power (in dB) into the 50 ohm termination at A3-E4 (RFOUT) from the power applied to the input of the filter. The insertion loss shall be as specified in 3,8.1.a. The return loss of the filter is measured by terminating the output of the filter with the 50 ohm resistive load and using an RF bridge at the input of the filter to measure the unbalance of the input impedance from a 50 ohm resistive input. The return loss shall be as specified in 3.8.1.b.
- 4.5.6.2 RF Power amplifie test. Apply +13.5 + 0.1VDC to A3-E3 (VBATT), 3.6+1.6 vOlts tO A3-E9 (SEND), and 0.0+0,2 vOlts tO A4-E16 (TUNE) and A4-E20 (sTROBE IN). Verify that the RF power into the 50 ohm load resistor is in compliance with the requirements of 3.8.2.1. While the RF amplifier is enabled, verify that the current drain into A3-E3 (VBATT) is in compliance with the requirements of 3.8.2.2.
- 4.5.6.3 Tuning attenuator Pad test. APPly +13.5 + 0.1VDC to A3-E3 (VBATT), 4.8+0.2 volts to A4-E16 (TUNE), 3.6+1.6 volts to A3-E9 (SEND), and 0.0+0.2 volts to A4-E20 (STROBE IN). Verify that the RF power into the 50 ohm load resistor is in compliance with the requirements of 3.8.3.
- 4.5.6.4 Transmitter cutoff voltage test. Apply 10.55+0.05 xDC to A3-E3 (vBATT), 3.6+1.6 volts to A3-E9 (SEND), and 0.0+0.2 volts to A4-E16 (TUNE) and A4-E20 (STROBE IN). Verify that the voltage at A4-E22 (A.7.+5vDC) is 5.0+0.4 VOlts Reduce the voltage at A3-E3 to 9.45+0.05 VDC and verify the voltage at A4-E22 is 0.0+0.5 volts is in compliance with the requirements of 3.8.4.
- 4.5.6.5 Current limiter test. Short the drain to the source of Q5 on the 9333590 assembly, apply +13.5+0.1 VDC to A3-E3 (VBATT), 3.6+1.6 Volts to A3-E9 (SEND), and 0.0+0.2 volts to A4-E16 (TUNE) and A4-E20 (STROBE IN). Verify that the current drain into A3-E3 (VBATT) is in compliance with the requirements of 3.8.5. Note, the short applied shall be limited to 30 seconds in any two minute period when the transmitter is enabled.

- 4.5.6.6 Fast turn off inhibit test. Apply +13.5 + 0.1VDC to A3-E3 (vBATT), 3.6+1.6 volts to A3-E9 (SEND), and 0.0+0.1 volts to A4-E16 (TUNE) and A4-E20 (STROBE IN). Change the voltage at A4-E20 (STROBE IN) from 0.0+0.2 to 4.8+0.2 volts and verify that the power into the 50 ohm load, A4-E22 (STROBE Buff) and A4-E21 (STROBE BUFF-) Outputs are in compliance with the requirements of 3.8.60
- 4.5.6.7 <u>Send enable/disable test</u>. Apply +13.5 + 0.1VDC to A3-E3 (VBATT), 3.6+1.6 volts to A3-E9 (SEND) and 0.0+0.2 volts to A4-E16 (TUNE) and A4-E20 (STROBE IN). Verify that the voltage at A4-E23 (A.T.+5VDC) is in compliance with the requirements of 3.8.7. Change the voltage at A3-E9 (SEND) to 0.0+0.2 volts and verify that the power into the 50 ohm load and voltage at A4-E23 (A.T. +5VDC) are in compliance with the requirements of 3.8.7.
- 4.5.6.8 Mark/space frequencies test. Apply +13.5 + 0.1VDC to A3-E3 (VBATT), 3.6+1.6 volts to A3-E9 (SEND), and 0.0+0.2 volts to A4-E16 (TUNE) and A4-E20 (STROBE IN). Apply 4.8+0.2 vOlts to A4-E5 (MESSAGE DATA INPUT), and verify that the RF output at A3-E4 is in compliance with the requirements of 3.8.8. Apply 0.0+0.2 vOlts to A4-E5 (MESSAGE DATA INPUT) and verify that the RF output at A3-E4 is in compliance with the requirements of 3.8.8.
- 4..5.7 <u>Sender Electronic Component Assembly performance tests</u>. The following section describes the performance tests for the Sender Electronic Components Assembly (9333599), otherwise specified, all testing shall be performed at room ambient conditions and in the order listed. Other orders are possible with approval from ARDEC.
- 4.5.7.1 <u>Data input test</u>. For this section, key entry referred to in tests shall be defined as specified in section 3.9.5.
- 4.5.7.2 Internal termination test. Measure the DC resistance from A2-E52 (Col 1), A2-E53 (Col 2), A2-E54 (Col 3), A2-E55 (Col 4), and A2-E40 (SEND) to A2-E44 (+5VDC) and then measure the DC resistance from A2-E38 (S.C.S.) and A2-E39 (XMIT) to A2-E43 (GND) and verify compliance with the requirements of 3.9.20.
- 4.5.7.3 Power source. Set the output of a DC power supply to 0 + 0.1 volts. Connect the negative terminal to A2-E43 (GND) and the positive terminal to A2-E45 (RAMV). Set the output voltage to 13 + 0.5 volts.
- 4.5.7.4 <u>Loads</u>. Connect Transfer Load II of Figure 1b across .A2-E35 (MCD1 and A2-E36 (MCD2).
- 4.5.7.5 Initial input conditions. The initial input conditions shall be as listed below.

INPUT TERMINAL	SIGNAL NAME	CONNECT TO
A2-E49	Row 1	Open
A2-E51	Row 2	Open
A2-E50	Row 3	Open
A2-E48	Row 4	Open
A2-E52	Col 1	Open

A2-E53	Col 2	Open	
A2-E54	Col 3	Open	
A2-E55	Col 4	Open	
A2-E38	S.c.s.	Open	
A2-E39	XMIT	Open	
A2-E42	CLEAR	0+0.2V	
A2-E58	VREFL	0+0.2V	

- 4.5.7.6 <u>Power off current test</u>. **Measure the current into A2-E45** (RAMV) and verify Compliance with the requirements of 3.9.3.
- 4.5.7.7 <u>Memory retention voltages</u> Measure the voltage at the cathode of CR2 of the AZ assembly and verify compliance with the requirements of 3.9.6.
- 4.5.7.8 <u>Power on clear</u>. Open A2-E42 (CLEAR) then apply 13+0.5 volts to A2-E34 (+15V). Verify that **the** waveform response at A2-E29 (CLR) is in compliance with the requirements of 3.9.8.1.
- 4.5.7.9 Initial power application test. Verify that the SENDER displays "INVALID" in compliance with the requirements of 3.9.9. If the RCU displays '-'ON", short the cathode of CR2 of the A2 assembly to A2-E43 (GND) and restart testing at this point.
- 4.5.7.10 STORE code entry Prompt. Open the supply connection to A2-E34 (+15V). APPly 0+0.2 volts to A2-E42- (CLEAR). Execute the following sequence: Apply 0+0.2 volts to A2-E38 (S.C.S.), Open A2-E42 (CLEAR), apply 13 + 0.5 volts to A2-E34 (+15v), wait at least 1 second, open A2-E38 (S.C.S.). Verify that the SENDER displays five dashes (--- ) in compliance with 3.9.10.1.
- 4.5.7.11 STORE code select test. Enter keys 1 thru 8 sequentially. Verify the display response with the requirements of 3.9.10.2. Enter keys 1 thru 5 sequentially. Verify that the SENDER displays "12345".
- 4.5.7.12 <u>Keyboard timeout test</u>. Open A2-E34 (+15V). Apply 0+0.2 Volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Verify that the SENDER displays "ON" in compliance with the requirements of 3.9.8.1. Measure the time-lapse from the moment power is applied to A2-E34 (+15V) until the SENDER displays "INVALID" and verify compliance with the requirements of 3.9.11.4."
- 4.5.7.13 <u>Processor reset test</u>. Apply 0.0+\_0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond, then open. Verify that the display reads "ON" in compliance with the requirements. of 3.9.8.2. OPen the supply-connection to A2-E34 (+15v).
- 4.5.7.14 Invalid STORE code entry test. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Enter "12344" (an incorrect STORE code) within the next 15 seconds after application of power to A2-E34 (+15V). Verify that the SENDER displays "INVALID" in compliance with the requirements of 3.9.11.4. Open the supply connection to A2-E34 (+15V).

- 4.5.7.15 Initial STORE modeentry test. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Enter "12345" within the next 15 seconds. Verify-that the SENDER displays four dashes (----) in compliance with the requirements of 3.9.11.2.
- 4.5.7.16 <u>Display timeout</u>. Enter-the AUTO key. Verify that the SENDER displays "AUTO". in compliance with the requirements of 3.9.12.1. Measure the time-lapse from the moment the AUTO key is entered until the SENDER displays blanks and verify compliance with the requirements of 3.9.14.
- 4.5.7.17 SEND code selection. Enter the AUTO key. Verify that the SENDER displays "AUTO" in compliance with the requirements of 3.9.12.1. Enter the "TRANSFER key. Verify the display response with the requirements of 3.9.12.2. Note the four digit SEND code. Open the supply connection to A2-E34 (+15V).
- 4.5.7.18 STORE mode entry test. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Enter "12345" within the next 15 seconds. Verify that the SENDER displays the SEND code noted in 4.5.7.17 is in compliance with the requirements of 3.9.11.3.
- 4.5.7.19 RCD code transfer test. Enter the COPY key. Verify that the SENDER displays "COPY"' in compliance with 3.9.16.1.1. Enter the TRANSFER key and verify that the SENDER displays "SENDING" in compliance with the requirements of 3.9.16.1.2. Verify the RCD pulse sequence response at the output of Transfer Load 11 with the requirements of 3.9.16.1.3. When the RCD pulse sequence has completed, verify that the SENDER displays the four digit SEND code noted in 4.5.7.17 in compliance with the requirements of 3.9.16.1.4. Note the RCD code.
- 4.5.7.20 RCD code receive test. Remove Transfer Load II from the SENDER. Drive the SENDER as specified in Figure 3b with a known RCD code different than that of 4.5.7.19. Verify that the SENDER displays "RECEIVE" in compliance with the requirements of 3.9.16.2.1. Enter the TRANSFER key and verify that the SENDER displays a four digit SEND code in compliance with the requirements of 3.9.16.2.2. Note the four digit SEND code. Open the supply connection to A2-E34 (+15V).
- 4.5.7.21 Invalid\_SEND code entry test. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Enter an incorrect SEND code (i.e., different than the SEND code noted in 4.5.7.20) within the next 15 seconds. Verify that the SENDER displays "INVALID" in compliance with the requirements of 3.9.13.3. Open the supply connection to A2-E34 (+15V).
- 4.5.7.22 SEND mode entry test. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then *open*. Apply 13+0,5 volts to A2-E34 (+15V). Enter the SEND code noted in 4.5.7.14 within the next 15 seconds. Verify that the SENDER displays "1 NONE" in compliance with the requirements of 3.9.13.2 and 3.9.17.3.

- 4.5.7.23 FSD transfer test. Apply Transfer Load II to the SENDER as specified in Figure 1b. Enter the TRANSFER key and verify the FSD pulse sequence with the requirements of 3.9.18.2 and that the SENDER displays "SENDING" in compliance with the requirements of 3.9.18.1. Verify-that the FSD data conforms to the RCD code of 4.5.7.20 as specified by Drawing 9333026 for the Current group. After the FSD pulse sequence has been sent, verify that the SENDER displays "n TRANSFER", where n is the current GROUP ID, in compliance with the requirements of 3.9.18.3.
- 4.5.7.24 <u>Group select-ion test</u>. Enter the GRP ID key anti verify that the SENDER displays "n NONE", where n is the next GROUP ID number , in compliance with the requirements of  $3.9.15.2_{\rm s}$  3.9.15.3, 3.9.17.1, and 3.9.17.3.
- 4.5.7.25 <u>Group addressing test</u>. Repeat 4.5.7.23 and 4.5.7.24 for each of the remaining groups thru group 15. Verify compliance with the requirements of 3.9.15.1.
- 4.5.7.26 <u>Invalid FSD transfer test</u>. Enter the GRP ID key and verify the display response of "ALL" as per requirements 3.9.15-3 and 3.9.17.2. Enter the TRANSFER key and verify that the SENDER displays "ALL INVALID" in compliance with the requirements of 3.9.18.4.
- 4.5.7.27 <u>Voltage regulation</u>. Measure the voltage at A2-E44 (+5VDC) and verify compliance with the requirements of 3.9.1.
- 4.5.7.28 <u>Command transmission</u>. For each entry in the following table,

## Command Test Table

g	n 2		m			
2	_ 20	4.9%	9,	8,	or	7
3	38	9.4%	7			
4	56	13.9%	7,	6,	or	5
5	75	19.0%	5			
6	93	23 .5%	5,	4,	or	3
7	111	26.8%	4,	3,	or	2
8	129	34.5%	2			
9	147	52.5%	1			
10	165	100.0%	0			
11	183	100.0%	0			
12	202	100.0%	0			
13	220	100.0%	0			
14	239	100.0%	0			
15	256	100.0%	0			

Note: v is a percentage +\_ 100 millivolts of the regulation voltage measured in 4.5.7.27.

do the following sequence: Enter the GRD ID key; verify that the display reads "g TRANSFER" where g is the current GROUP ID; enter the DEPLOY key and verify that the display reads "DEPLOY q" in compliance

- with 3.9.19.1; apply  $0.0+_0.2$  volts momentarily to A2-E39 (XMIT) then open; apply a pulse on A2-E58 (VREFL) from  $5+_0.2$  volts to v volts for  $4+_1.0$  microseconds beginning on the nth falling edge of A2-E62 (STROBE) during the tune sequence (see the table above for v and n). Verify the following.
- 4.5.7.28.1 <u>Tune sequence</u>. Verify that the SENDER displays "TUNING" in compliance with the requirements of 3.9.19.2. Verify that control-signals at A2-E61 (TUNE), A2-E62 (STROBE), A2-E40 (SEND), A2-E59 (TUNE DATA), and A2-E60 (CLOCK) are in compliance with the requirements of 3.9.19.3.
- 4.5.7.28.2 Transmit <u>display</u>. After the tuning sequence observed in 4.5.7.28.1 has completed, verify that the SENDER displays "XMIT TUNE = m" where m is the value shown in the table above, as specified by the requirements of 3.9.19.4.
- 4.5.7.28.3 Command output sequence. Verify the biphase data at "A2-E46 (SEROUT) for the current group with the requirements of 3.9.19.5.
  - 4.5.7,28.4 <u>Group status update.</u> When transmission has completed, verify that the SENDER displays "g DEPLOY" in compliance with the requirements of 3.9.17.1 and 3.9.19.6.
- 4.5.7.29 RESET SD test. Enter the GRP ID key. The display should read "ALL". Enter the R SET SD key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Verify the biphase data at A2-E46 (SEROUT) for the current group "ALL" with the requirements of .3.9.19.5. Enter the GRP ID key. For each group 1 thru 15: confirm that the group status now reads "n RESET SD" in compliance with the requirements of 3.9.19.6, where n is the current GROUP ID; then, enter the GRP ID key.
- 4.5.7.30 <u>DESTRUCT test</u>. Enter the GRP ID key, The display should read "1 RESET SD". Enter the DESTRUCT key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Verify the biphase data at A2-E46 (SEROUT) for group 1 with the requirements of 3.9.19.5. Wait for the DESTRUCT command to complete. Verify that the display reads "1 DESTRUCT" in compliance with the requirements Of 3.9.19.6.
- 4.5.7.31 <u>status</u> <u>state</u> <u>up-date</u> <u>test.</u> Open the supplyconnection to A2-E34 (+15V). Enter the STORE mode as per 4.5.7.18. Select a new SEND code as per 4.5.7.17. Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond then open. Apply 13+0.5 volts to A2-E34 (+15V). Enter the newly selected SEND code from above within the next 15 seconds. Verify the following tests in accordance with 3.9.17.4
- 4.5.7.31.1 Status setup. Enter the TRANSFER key. Wait for the TRANSFER command to complete (a command has completed when the group status is displayed the RCU is then ready to receive and execute a new command). The display should read "1 TRANSFER". Enter the GRP ID key followed by the TRANSFER key and wait for the TRANSFER command to complete. The display should read "2 TRANSFER". Enter the GRP ID key

followed by the TRANSFER key again and wait for the TRANSFER command to complete. The display should read ".3 TRANSFER". Enter the GRP ID key 14 times. Enter the DEPLOY key and then momentarily apply .0.+\_0.2 volts to A2-E39 (XMIT) then open. Wait for the DEPLOY command to complete. The display should read "1 DEPLOY". Enter the GROUP ID key followed by the DEPLOY key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Wait for the DEPLOY command to complete. The display should read "2 DEPLOY". Enter the GRP ID key 15 times. Press the DESTRUCT key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Wait for the DESTRUCT command to complete. The display should read "1 DESTRUCT".

- 4.5.7.31.2 RESET SD state test. Enter the GRP ID key 15 times. Enter the R'SET SD key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Wait for the RESET SD Command to complete. Enter the GRP ID key. For each group 1 thru 15: note the group status and then enter the GRP ID key. Verify that group 2's status now reads "2 RESET SD" and all other group statuses have not changed from prior to the RESET SD command execution.
- 4.5.7 .31.3 <u>DEPLOY state test</u>. Enter the DEPLOY key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open\* Wait for the DEPLOY command to complete. Enter the GRP ID key. For each group 1 thru 15: note the group status and then enter the GROUP ID key. Verify that group 3's status now reads "3 DEPLOY" and all other group statuses have not changed from prior to the DEPLOY command executions Enter the GRP ID key 4 times. Enter the TRANSFER key. The display should read "4 TRANSFER".
- 4.5.7.31.4 TRANSFER status test. Enter the GRP ID key and then the TRANSFER key. Wait for the TRANSFER command to complete. Verify that group 1's status still reads "1 DESTRUCT" as per 3.6.18.2. Enter the GRP ID key and then the TRANSFER key. Wait for the TRANSFER command to complete. Verify that group 2's status still reads "2 RESET SD". Enter the GRP ID key and then the TRANSFER key. Wait" for the TRANSFER command to complete. Verify that group 3's status still reads "3 DEPLOY".
- 4.5.7.31.5 <u>DESTRUCT</u> state test. Enter the GRP ID key 13 times. Enter the DESTRUCT key and then momentarily apply 0.0+\_0.2 volts to A2-E39 (XMIT) then open. Wait for the DESTRUCT command to complete. Enter the GRP ID key. For each group 1 thru 15: note the group status and then enter the GRP ID key. Verify that group 2's status now reads "2 DESTRUCT", group 3's status reads "3 DESTRUCT", and all other group statuses have not changed from prior to the DESTRUCT command execution.
- 4.5.7.32 <u>Standby current test</u>. Wait until the display is blank after keyboard timeout. Measure the current into A2-E34 (+15V) and verify compliance with the requirements of 3.9.4.
- 4.5.7.33 Low battery voltage test. Set the supply voltage at A2-E34 (+15V) to 11.05+0.05 volts and verify that the battery low indicator is "off". Lower the supply voltage to 10.25+0.05 volts and

**verify** that the battery low indicator flashes as specified in 3.9.2. Set the supply voltage to 13+0.5 volts.

4.5.7.34 Data retention test. Open the supply connection to A2-E34 (+15V). Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond, then open. Apply 13+0.5 volts to A2-E34 (+15V) and enter "12345" in the next 15 seconds. Enter the COPY key followed by the TRANSFER key. Note the RCD code. Open the supply connection to A2-E34 (+15V) and A2-E45 (RAMV). Wait 315+15 seconds. Apply 13+0.5 volts to A2-E45 (RAMV). Apply 1+0.2 Volts to A2-E42 (CLEAR) for at least 1 millisecond, then open, Apply 13+0.5 volts to A2-E34 (+15V) then enter "12345" in the next 15 seconds. Enter the COPY key followed by the TRANSFER key. Verify that the RCD) code is the same as noted prior to disconnecting the supply. Open A2-E34 (+15V). Apply 0+0.2 volts to A2-E42 (CLEAR) for at least 1 millisecond, then open. Apply 13+0.5 volts to A2-E34 (+15V) then enter the SEND code from 4.5.7.31 within the next 15 seconds. Step thru each group status and verify that each group has retained the status prior to disconnecting the supply.

### 5. PACKAGING

- 5.1 Preservation and packaging
- 5.1.1 Level A. Preservation and packaging shall be in accordance with drawing 9362585.
  - 5.2 Packing
- 5.2.1 <u>Level A.</u> Packing shall be in accordance with drawing 9362584.
  - 5.3 Marking
- 5.3.1 <u>Level</u> <u>A.</u> Marking shall be in accordance with drawing 9362584 and 9362585.
  - 5.4 Consolidation
- 5.4.1 <u>Level A</u>. Consolidation shall be in accordance with drawing 8808362.
  - 5.5 Unitization
  - 5.5.1. Level A. Unitization shall be in accordance with MIL-sTD-1169.
    - 6. NOTES
    - 6.1 Ordering data. See MIL-A-48078.
- 6.2 <u>Submission of inspection equipment designs for approval</u>. (See MIL-A-48078) Submit equipment designs as required to: Commander, U.S. Army Armament Research, Development and Engineering Center (ARDEC), Attn: AMSMC-QAT-I(D), Dover, N.J. 07801-5001.



- 6.3 <u>Distribution of ammunition data cards, inspection and test results</u>. Distribution of ammunition data cards, inspection and test results shall include Commander: ARDEC, Dover, N.J. 07801-5001, Attn: AMSMC-QAT-M(D).
- 6.4 <u>Drawings</u>. Drawings listed in Section 2 of this specification under the heading U.S. Army Armament Research, Development and Engineering Center (ARDEC) may also include drawings prepared by and identified as, U.S. Army Armament research and Development Command (ARRADCOM), Edgewood Arsonal, Frankford Arsenal, Rock Island Arsonal, Picatinny Arsenal or Army Armament Research and Development Center drawings. Technical data originally prepared by these activities is now under the cognizance of ARDEC.
  - 6.8 Subject term (key word) listing.

Attenuator Control, Remote Data Transfer Radio Frequency Reflectometer Stress Screening Transmitter Tuner

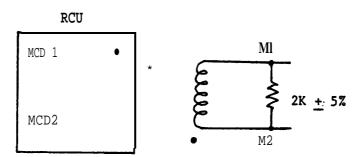
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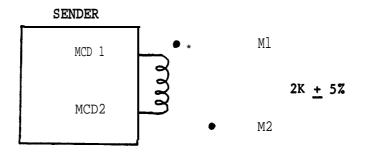
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MIL-C-64625 (AR)

Figure 1
RCU Transfer Loads



Transfer Load I



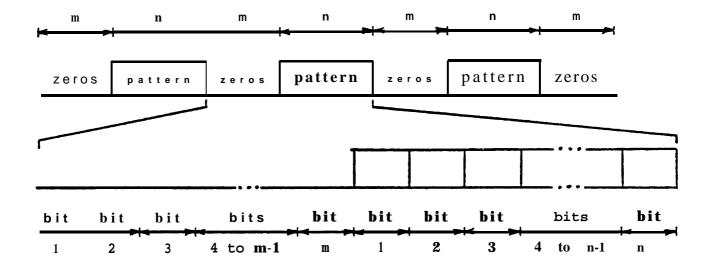
Transfer Load II
(b)

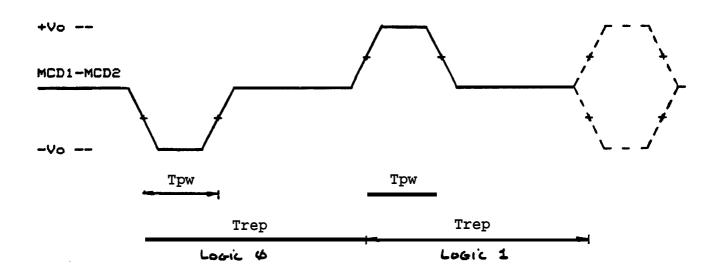
<sup>\*</sup> Notes: All coils 9332919-2 Spaced by 0.05  $\pm$  0.01 inch gap.

## MIL-G64025(AR)

Figure 2

RCU to RCU and RCU to MCU data transfer timing and yoltages





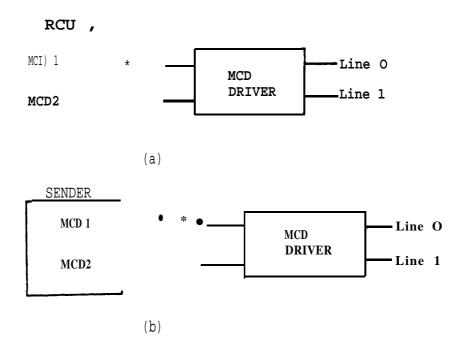
#### Notes:

- 1. Transfer coils eoerated by 0.05±0.01 inch gap
- 2. Tpw =  $4\pm0.1$  micro seconds Trep =  $1\pm0.1$  mini seconds Vo - 5.0 to 10.0 volts
- 3. A detailed description of RCD and FSD patterns including the value of m and n is given in Drawing 9333026.

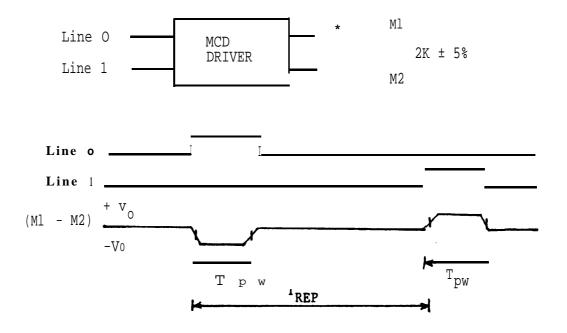
## MIL-c-64025 (AR)

Figure 3

Transfer Drivers



## Transfer Driver Performance Characteristic



MIL-C-64025 (AR)

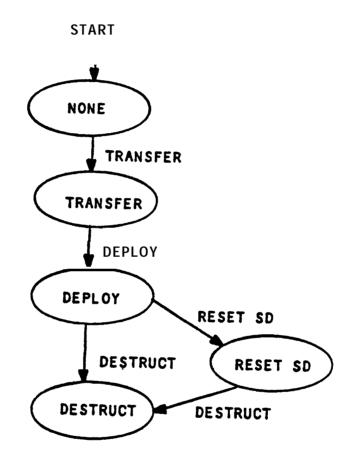
Figure 3 (Continue)

Transfer Drivers

Notes: \* All coils 9332919-2 spaced by 0.05  $\pm$  0.01 inch gap. See Figure 2 for data 12 voltage and pattern definition

FIGURE 4

GROUP STATUS UPDATE STATE DIARAM

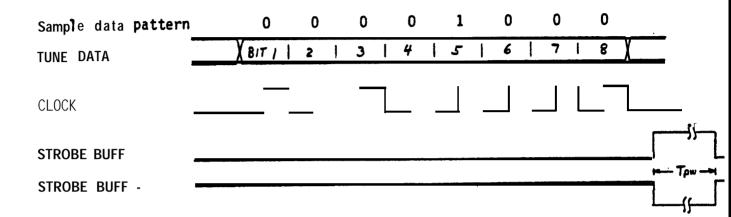


## NOTES:

- 1. Completed commands are represented by arcs between bubbles.
- 2. Status states are represented by bubbles.
- 3. State changes (from bubble to bubble) occur only across the arcs shown. No state change occurs for commands whose arcs are not shown as leaving a state bubble.

MIL-C-64025(AR)

## Figure 5

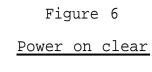


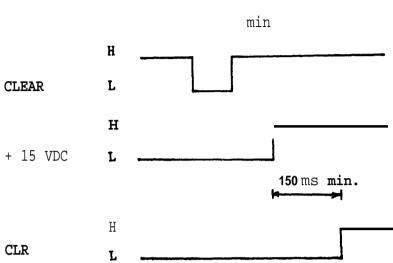
Note: 1. Si gnal level; High =  $4.5 \pm 0.5V$ , Low =  $0.5 \pm 0.5V$ 

**2.** Clock period,  $T_{Per} = 8 \pm 2 \text{ mi croseconds}$ 

**3.** Strobe pulsewidth, **Tpw = 1.0 milliseconds** 

## MIL-C-64025 (AR)







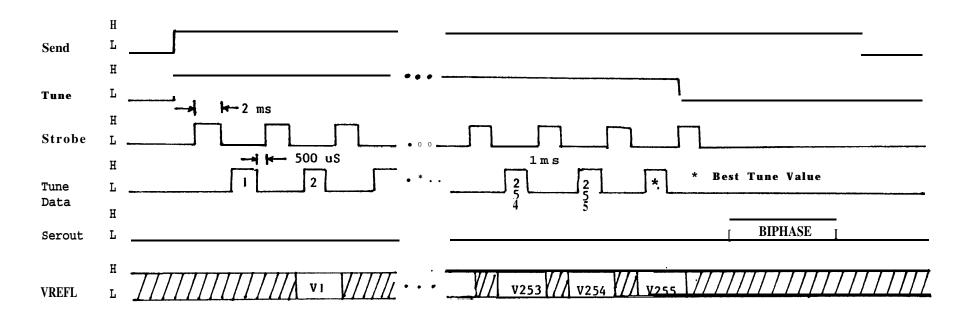
159



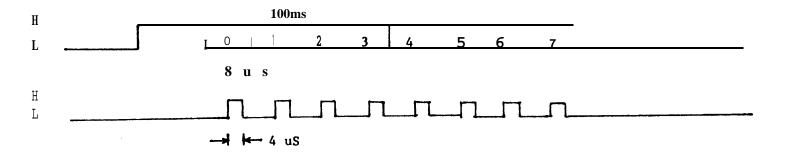
• •



MIL-C-64025 (AR)
Tune Sequence Timing



Tune Timing Detail



**Notes:**  $L = 0.0 \pm 0.2 \text{ volts H} = 4.8 \text{ to } 5.3 \text{ volts}$ 

Figure 7



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