

# TMC SPECIFICATION

N . S 1224

REV:

X X 0

COMPILED: F. PACK

CHECKED:



APPD:



SHEET

OF

TITLE:

TEST PROCEDURE FOR RTO-21( ) & 22( )

TEST PROCEDURE FOR RTO 21( ) & 22( )

# TMC SPECIFICATION

NO. S 1224

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XI

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SHEET 1

OF 4

TITLE: TEST PROCEDURE FOR RTO 21( ) &amp; RTO 22( )

## a. EQUIPMENT REQUIRED

1. Two (2) 12 volts DC power supplies (batteries may be used as a substitute).
2. Simpson 260 VOM.
3. Tektronix type 541A scope with a type L plug-in head.
4. Hewlett-Packard 5244L frequency counter.
5. Boonton 91D or equivalent.
6. SB12A Panalyzer.

## b. PROCEDURE

1. Connect the volt-ohmmeter, set to read 12 volts, between Pin 1 and ground of the oscillator board nearest K101, (negative lead to Pin 1).
2. Connect 12V supply between terminal 3 of TB101 and ground, (negative to Pin 3).
3. When the right hand push-to-test button is pushed, K101 should energize and the VOM should read -12 VDC.
4. Connect 12 volt supply between terminal 4 of TB101 and ground, (negative to pin #4).
  - a. You should hear K101 energize, and the meter should again read -12 VDC.
5. Connect scope to TP1 on the oscillator board.
  - a. Adjust R205 for 0.4vpp.
  - b. Connect the counter to the vertical output on the scope.
  - c. Adjust C202 for the frequency marked on the crystal.
  - d. Repeat a and c for desired conditions.
6. Connect the VTVM to terminal 3 of oscillator board.
  - a. Peak C215 for maximum on the meter (1 mv minimum).
7. Connect the scope to terminal 3 of oscillator board.
  - a. Connect the SB-12A analyzer to the vertical output of scope.
  - b. With the push-to-test button depressed, obtain on the analyzer a single tone representing the carrier frequency of the oscillator.
  - c. Adjust R215 for tones on either side of the carrier, approx. 10 to 11 db below the carrier (this represents approximately 30% modulation).
8. Move the negative lead of the volt-ohmmeter over to Pin 1 of the oscillator board nearest K102, (positive lead to ground).

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SHEET

2

OF 4

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TEST PROCEDURE FOR RTO 21 ( ) &amp; 22 ( )

9. When the left hand push-to-test button is pushed, K102 should energize and the meter should read -12 VDC.
10. Move the negative lead of the 12V supply from Pin 4 to Pin 5 on TB101.
  - a. You should hear K102 energize and the meter should again read -12 VDC.
11. Repeat steps 5 to 7 for this oscillator board.
12. Connect 12 volt supply between terminal 3 of TB101 and ground. (Negative to Pin #3).
  - a. Connect Simpson VOM (set for ohms) to J101 and J103. Should read 0 ohms.
  - b. Depress S101. Meter should read infinite.
  - c. Repeat for J102 and J104 using S102.

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SHEET 3 OF 4

TITLE: TEST PROCEDURE FOR RTO 21( ) &amp; 22( )

THE TECHNICAL MATERIAL CORP.

MAMARONECK, N.Y.

TEST DATA SHEET

for

RTO. 21( ) &amp; 22( )

MFG. NO. \_\_\_\_\_

SERIAL NO. \_\_\_\_\_

	<u>OSCILLATOR #1</u>	<u>OSCILLATOR #2</u>
1. Voltage check at Pin 1 by pressing push-to-test button.	_____ DC	_____ DC
2. Voltage check at Pin 1 by energizing relay.	_____ DC	_____ DC
3. Frequency.	_____ MHz	_____ MHz
4. Voltage measured at junction of C214 and T201.	_____	_____
5. 30% Modulation.	_____ OK	_____ OK

DATE: \_\_\_\_\_

TESTER: \_\_\_\_\_

