

DATE 18 January 1964

SHEET 1 OF 5

TMC SPECIFICATION NO. S-778

B

EDV
COMPILED

N.P.
CHECKED

TITLE:

APPROVED

RAL

AX-432 TEST PROCEDURE
(RF MODULE VLR-1)

DATE 15 January 1964

SHEET 2 OF 5

TMC SPECIFICATION NO. S -778

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TITLE: AX-432 TEST PROCEDURE

(RF MODULE VLR-1)

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I. TEST EQUIPMENT

1. Signal Generator - TF 114 H - MARCONI INSTRUMENTS, LTD., or equivalent.
2. TEKTRONIX SCOPE - Type 545 A, Type "L" plug-in unit or equivalent.
3. A-C BALLANTINE Voltmeter- 314 or equivalent.
4. HP VTVM Model 410B or equivalent.
5. RF Attenuation Box - TELONIC Model TG 950(50 ohm to 50'ohm) or equivalent.
6. Two Power Supplies (12V) - HARRISON LABS #855B or equivalent.
7. Test Jig (see illustration on Page 4).
8. HP Counter Model 524C or equivalent.

II. PRELIMINARY

1. Inspect the unit for mechanical imperfections such as loose screws, printed circuit board, cold solder joints etc.
2. Connect the Test Jig to the RF Module

III. LOCAL CRYSTAL OSCILLATOR

1. Connect the A-C meter to pin 2 of connector and GND.
2. Turn the test jig on and read approx. 600 MV on the A-C meter.
3. Select a 1/2 watt resistor between the values of 1.2K to 8.2K which, when inserted into the R219 position, will result in a reading of 150 MV \pm 10.MV
4. Solder R219 to the printed circuit board.

IV. 1st, 2nd, and 3rd RF AMPLIFIERS

1. Remove the crystal temporarily.
2. Connect the counter to the signal generator.
3. Inject 1.uv at the operating frequency \pm 2 cps of the RF Module into the test jig RF in jack.
4. Tune T201, T203, and T204 for a peak reading on the A-C meter.
5. The tuning of each successive stage in Step #4 will have an effect on the preceding stage. Because of this, repeat Step #4 until the maximum peak reading on the A-C meter is obtained. This reading should be a minimum of 40MV.

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SHEET 3 OF 5

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(RF MODULE VLR-1)

V. BANDWIDTH

1. Increase the input signal to 10 uv.
2. Vary the frequency of the Signal Generator above and below the center frequency until the A-C meter reads -3db below the center frequency reading.
3. The difference between the higher and the lower frequency in Step #2 is the bandwidth of the RF amplifier and should be $140 \text{ cps} \pm 60 \text{ cps}$.

VI. TRF OUTPUT

1. Inject 10 uv, at the operating frequency $\pm 2 \text{ cps}$ of the RF module into the test jig RF **IN** jack.
2. Connect the A-C voltmeter to pin 2 of connector and GND and read a minimum of 3MV.

VII. NOISE SILENCER

1. Connect the A-C voltmeter to PIN #10 on the connector, and GND.
2. With the same input as in Step #1 of Paragraph VI, read $50 \text{ MV} \pm 30 \text{ MV}$.
3. Reinsert the crystal into the crystal holder.

This concludes the production testing of the RF Module.

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SHEET 4 OF 5

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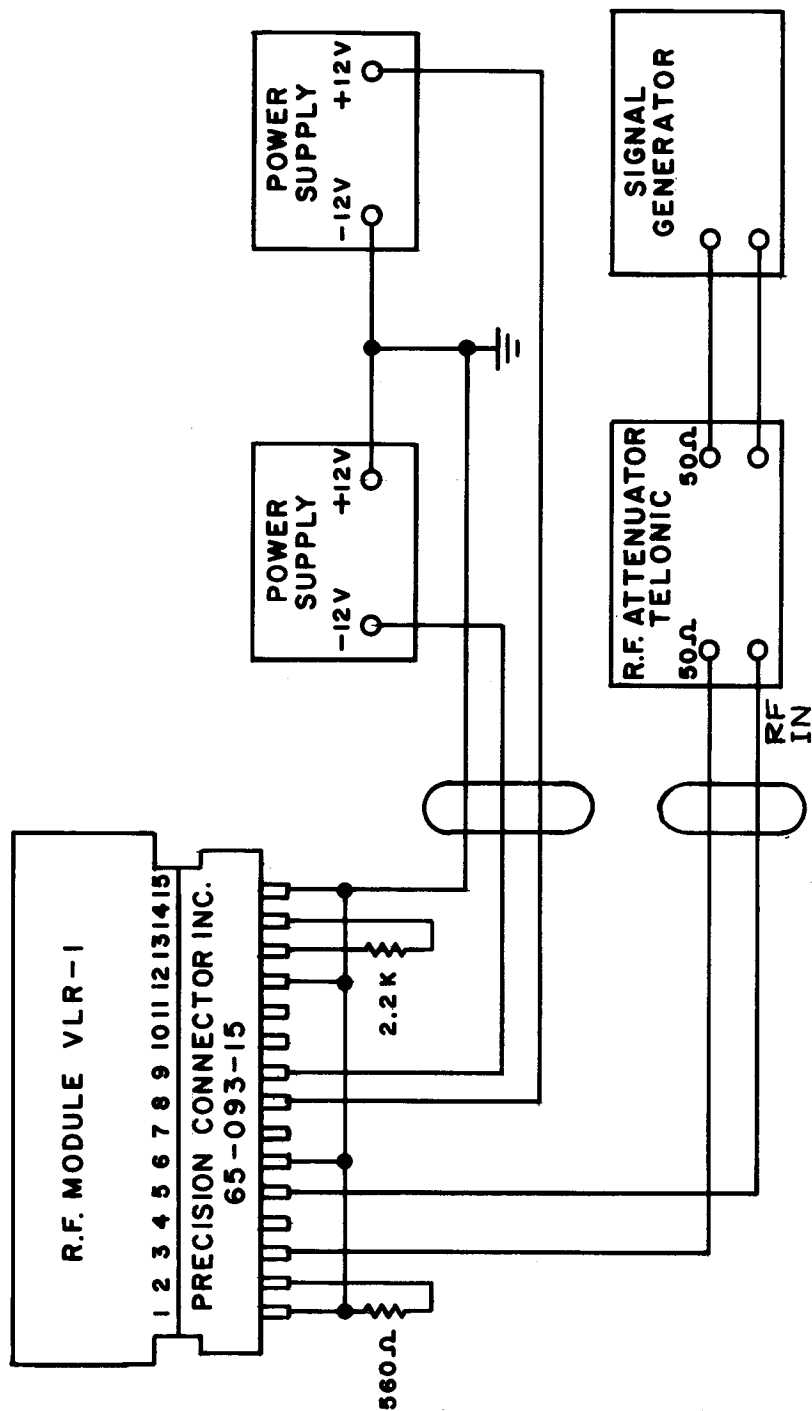
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TITLE: AX-432 TEST PROCEDURE

(RF MODULE VLR-1)

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TEST JIG



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SHEET 5 OF 5

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TITLE: AX-432 TEST PROCEDURE

(RF MODULE VLR-1)

APPROVED

THE TECHNICAL MATERIEL CORPORATION
MAMARONECK, N.Y.

AX-432 TEST DATA SHEET (VLR-1 RF MODULE)

MFG. NO. _____

II. 1. Mechanical check _____ OK
Wiring check _____ OK

III. 2. Local crystal oscillator output
(150 MV \pm 10 MV) _____ MV.

IV. 4. RF OUTPUT for 1. uv. input
(Minimum 40MV) _____ MV.

V. 3. Bandwidth at 3db should
be(140 cps \pm 60 cps) _____ CPS.

VI. ~~RF~~ output for 10 uv. input
(Minimum 3MV. _____ MV.

VII. Noise silencer output for 10 uv.
input(50 MV \pm 30 MV) _____ MV.

DATE _____

TESTER _____

