

- | | |
|-------------|---------|
| 1. Res. BW | 100 Hz* |
| 2. Video BW | 1 Hz* |
| 3. Span | 2 kHz* |
| 4. DB/DIV | 5 dB* |

* = Recommended setting

- b. Move the loop probe over the surfaces of the instrument with the two-turn loop at a one inch distance. The signal plus noise should be less than .03 μ V or (-137 dBm). Record the maximum reading on the PTR.
- c. Repeat steps a & b at 952.35 MHz. Record the maximum reading on the PTR.

^ This reading taken in a screen room which provides shielding from stray frequencies. The noise floor reading will vary if not taken in a protected environment.

H. Spectral Purity (Non-Harmonic)

1. EQUIPMENT: Spectrum Analyzer, wide-band amplifier (Stepd only)

- a. Connect spectrum analyzer and unit as shown in Diagram 4. Set 3000B for +3 dBm output at 52.35 MHz and set the spectrum analyzer:

- | | |
|-------------|----------|
| 1. Res. BW | 3 kHz* |
| 2. Video BW | 100 Hz* |
| 3. Span | 600 kHz* |
| 4. DB/DIV | 10 dB* |

*Recommended Settings

- b. Check for non-harmonic signals < -40 dBc within \pm 300 kHz of the selected carrier frequency. Check on PTR.
- c. Repeat step a & b for the following frequencies. Check on PTR.
 1. 152.35 MHz
 2. 252.35 MHz
 3. 352.35 MHz
 4. 452.35 MHz
 5. 552.35 MHz
 6. 652.35 MHz
 7. 752.35 MHz
 8. 852.35 MHz
 9. 952.35 MHz
 10. 999.35 MHz
- d. Repeat step a through c with wide-band amplifier installed and 3000B set to -57 dBm. Check on PTR.

VII. RECEIVER (MONITOR MODE)

A. Sensitivity

1. EQUIPMENT: Sinadder test fixture; standard generator. UNIT: RCV mode, FM, BW NAR, SQUELCH open, RANGE 6 and MOD in meter/vert section, MOD in frequency section.

- a. With unit and standard generator at 152.35 MHz, cable standard generator to unit RF IN/OUT jack. Set standard generator to 2 μ V output level and 3 kHz deviation using 3010's internal 1 kHz source. Cable sinadder to speaker terminals of unit. Turn volume control to at least 3/4 volume level.

*Lower or raise generator output to achieve 10 dB on sinnader meter. Read 10 dB SINAD sensitivity on standard generator's dial and meter. Record on PTR. Repeat process following * for 452.35 MHz and 852.35 MHz. Record on PTR.

B. Receiver Bandwidth

1. EQUIPMENT: Standard generator, oscilloscope. UNIT: BW NAR, FM, RANGE 18.

- a. Set standard generator, to 3 kHz deviation of the internal 1 kHz source. Connect standard generator output to unit input with 152.35 MHz frequency on both. Connect oscilloscope to DEMOD OUT on unit. Standard generator output level to -30 dB. Increase the 1 kHz deviation to a point where the sinewave starts to distort on the oscilloscope. Note deviation level on the standard generator. < 15 kHz, record on PTR.

- b. Repeat step a, except with unit in WIDE. < 100 kHz, record on PTR.

C. Offset

1. Remove Input from unit. Change to RANGE 18. Set SQUELCH to threshold.

- a. Press DISC/REST and zero scope trace, then press GEN. Offset should be \pm 1 DIV of zero. Repeat for all 3 ranges (18, 6, 1.8). Check on PTR.

D. FM. Markers

1. UNIT: Set to RCV, FM, BW NAR, RANGE 6 and MOD; SQUELCH, tight.