

# ALIGNMENT PROCEDURE AND SPECIFICATION

## A. STANDARD TEST CONDITION

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1. RF IN/OUT IMPEDANCE      | ----- 50 OHM                     |
| 2. RF SIGNAL GENERATOR      |                                  |
| RF OUTPUT                   | ----- -47dBm                     |
| MODULATION                  | ----- 1 KHz, 0.5 KHz DEVIATION   |
| 3. SPEAKER OUTPUT IMPEDANCE | ----- 16 OHM                     |
| 4. SPEAKER VOLUME           | ----- MAXIMUM                    |
| 5. MIC INPUT SIGNAL         | ----- 1 KHz 10 mVrms             |
| 6. POWER SUPPLY             | ----- DC4.5V +/- 15 %            |
| 7. POWER SUPPLY RF AMP      | ----- VOLTAGE:4.5V/CURRENT:350mA |

## B. ELECTRICAL TEST ITEMS

### 1. VCO VOLTAGE ADJUSTMENT

- 1) PRESS AND HOLD DOWN THE POWER BUTTON TO POWER ON
- 2) PRESS THE PTT BUTTON INTO THE TX MODE
- 3) CONNECT THE DC VOLT METER TO TP1
- 4) ADJUST L18 AND OBSERVE DC VOLTAGE

**LIMIT : 0.8 +/- 0.3 Vdc**

### 2. FREQUENCY ADJUSTMENT

- 1) CONNECT THE FREQUENCY COUNTER TO ANT POINT
- 2) PRESS THE PTT BUTTON
- 3) ADJUST THE FREQUENCY BY CV1

**LIMIT : +/- 100 Hz**

### 3. TX POWER CHECK

- 1) CONNECT THE RF POWER METER TO ANT POINT
- 2) PRESS THE PTT BUTTON
- 3) MEASURE THE TX POWER

**LIMIT : 26 dBm +/- 1 dB**

**4. MIC MODULATION SENSITIVITY CHECK**

- 1) CONNECT THE MODULATION METER TO ANT.
- 2) THE AUDIO SIGNAL INPUT TO MIC.
- 3) PRESS THE PTT BUTTON
- 4) MEASURE THE MODULATE DEV.

**LIMIT : 0.9 +/- 0.3 Khz DEV.**

**5. MAXIMUM DEVIATION CHECK**

- 1) CONNECT THE MODULATION METER TO ANT.
- 2) THE AUDIO SIGNAL INPUT TO MIC.
- 3) INCREASE THE AUDIO LEVEL BY 20DB
- 4) PRESS THE PTT BUTTON
- 5) MEASURE THE MODULATE DEV.

**LIMIT : 1.9 +/- 0.4 Khz DEV.**

**6. CALL SIGNAL MODULATION DEV. CHECK**

- 1) CONNECT THE MODULATION METER TO ANT.
- 2) PRESS THE CALL BUTTON
- 3) MEASURE MODULATE DEV.

**LIMIT : 1.2 +/- 0.3 Khz DEV.**

**7. LOW BATTERY DETECT CHECK**

- 1) VARY THE DC POWER
- 2) OBSERVE THE BATTERY ICON INSIDE BARS DISAPPEARED
- 3) MEASURE THE DC POWER VOLTAGE

**LIMIT : 3.5 +/- 0.1 Vdc**

**8. ESCRIMINATOR ADJUST**

- 1) CONNECT THE SSG TO ANT.
- 2) CONNECT THE DC VOLT METER TO TP10
- 3) ADJUST IFT1 AND MEASURE TP10 VOLTAGE

**LIMIT : 1.3 +/- 0.2 Vdc**

**9. SPEAKER OUTPUT LEVEL CHECK**

- 1) CONNECT THE SSG TO ANT.
- 2) CONNECT THE AUDIO VOLT METER TO SPK.
- 3) MEASURE THE SPEAKER OUTPUT LEVEL

**LIMIT : -1 +/- 4 dBm**

**10. RECEIVING SENSITIVITY CHECK**

- 1) CONNECT THE SSG TO ANT.
- 2) CONNECT THE SINAD METER TO SPK.
- 3) REDUCE THE SSG RF OUTPUT LEVEL UP TO SINAD 12dB
- 4) MEASURE THE SSG RF OUTPUT LEVEL

**LIMIT : < -116 dBm**

**11. SQ CHECK**

- 1) CONNECT THE SSG TO ANT.
- 2) CONNECT THE SINAD METER TO SPK.
- 3) CONNECT THE DC VOLT METER TO TP12
- 4) REDUCE THE SSG RF OUTPUT UP TO TP12 IS CHATTERING
- 5) MEASURE THE SINAD METER

**LIMIT : 6 +/- 2 dB**