

TUNING PROCEDURE

1. Required test equipment

1) Power supply

has to be variable from 5 to 10v and to 3A current.

2) Frequency counter

has to be able to measure up to 500Mhz

3) Power meter

It has 50Ω impedance and has to be able to measure up to 10 Watts

4) Modulation meter

has to be able to measure up to 50Mhz and S/N ratio must be more than 50 dB

5) Digital voltmeter

Input impedance must be more than $1M\Omega$

6) Spectrum analyzer

has to be able to measure up to 2000Mhz

7) Signal generator

has to be able to measure up to 1Ghz

8) Dummy Load

With 50Ω impedance, It has to have 20–30dB attenuation.

9) Audio Distortion meter

has to be able to measure at least less than 3%

10) Audio Generator

has to be able to measure from 10 to 100Khz

If your Radio Communication Tester includes above equipment, just prepare excluded equipment.

2. Alignment Procedure

This radio is adjusted to meet all condition in production except special case.
Readjustment is not requirement.

The preparation before adjustment.

- 1) Set the Power Supply voltage to 7.2V and then connect to the radio.
- 2) Connect the connector to Radio Antenna terminal.
- 3) Connect the radio to test equipment.

PLL Synthesizer

- 1) Measure the voltage of Control voltage with High impedance voltage meter.
- 2) Adjust TC3 to tune the set frequency.
- 3) Adjust TC4 at TX channel 16 to be 3.2V.
- 4) Confirm if it is 1.0V+/- 0.3 at RX channel 10
- 5) Confirm if it is below 4.0V at TX channel.

Adjustment of Transmitter

- 1) Adjust RV2 to tune the set power.
- 2) Set Audio Generator to be 1kHz 120mVrms and connect to Radio External Jack.
- 3) Adjust RV3 to tune desired Maximum modulation.

Adjustment of Receiver

- 1) Set SSG RF level to -47dBm @1kHz 60% Dev.
- 2) Adjust RV6 to maximize Audio at Dis. 10%
- 3) Adjust SSG RF Level and confirm if 12dB Sinad is below -119dBm.
- 4) Check the SINAD level to open Audio at SQ level 04
- 5) Repeat the above in other channels.

* Adjustment Point

