PR900DX

TUNE-UP PROCEDURE

Data : 20011029

Pages : 4

Prepared by : _____

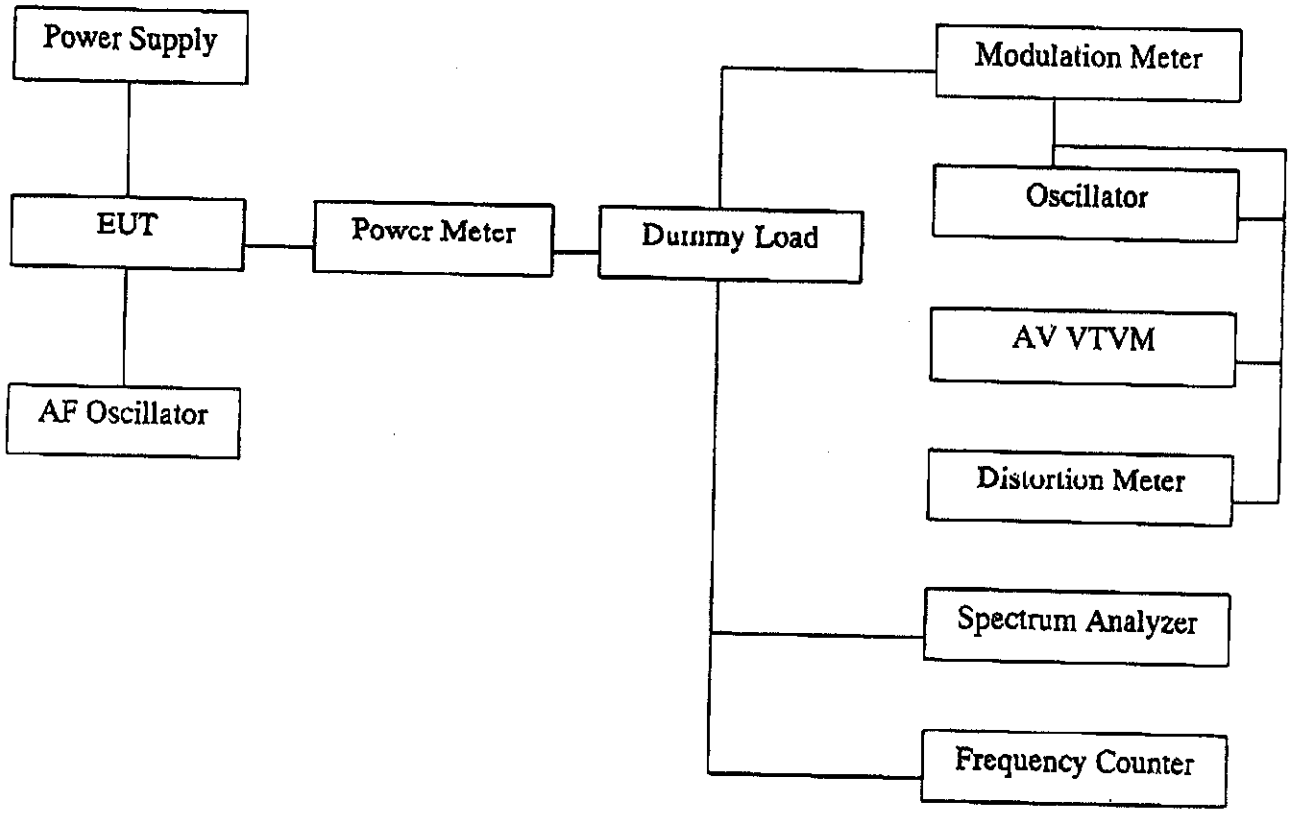
Approved by : _____

1 **Frequency synthesizer**

a) After connecting the power meter and dummy load (50 ohm), join the antenna connector of PR-900DX with above equipment.
b) Check the voltage between TP & GND in digital voltmeter.
c) Then set the low channel of PR-900 the lowest frequency.
d) After pressed PTT key of PR-900, check if the lowest frequency of Tx channel to DC 1.5V in the voltage of test point (VT).
e) After releasing the PTT key of PR-900, check if the highest frequency of Rx channel is within DC 1.0V in the voltage of test point (VT).

2 **Transmitter**

a) Connect EUT & measure equipment according to block diagram below.



b) Connect DC 6.0V voltage preset to EUT.
a) Connect 'Power Meter' and 'Dummy Load' (50Ω)
b) Adjust Tx frequency according to trimming trimmer VC1.
c) Connect AF Oscillator to mic terminal for conform modulation degree.
d) Adjust the frequency of AF Oscillator to 1kHz and adjust AF level should be 6mV.
e) Checking Oscilloscope and Modulation Meter. Max. deviation should be in ±5 kHz.

3 Transmitter Test

a) Output Power Test
Power (DC 6.0V) should be Max. 2W (ERP) and in –50% range.

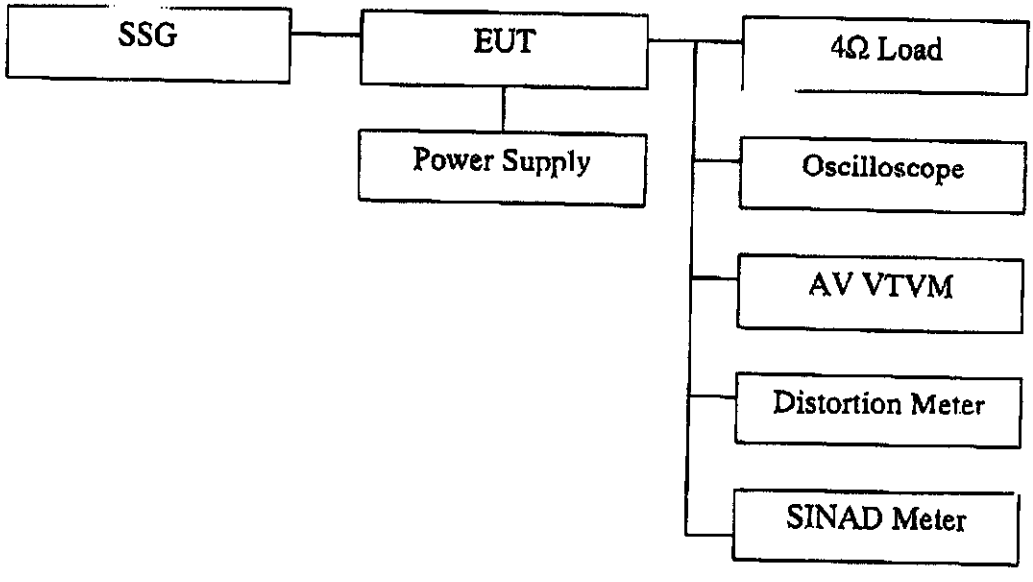
b) Audio Response
Connect AF oscillator to Mic terminal and then firm the audio level that doesn't distortion the wave of Oscilloscope in the frequency range, 300Hz~3kHz. Check the audio level for 300Hz~3kHz based on frequency standard, 1kHz.

c) Modulation Degree Test
1) Connect AF oscilloscope to the MIC terminal and then adjust the level to 6mV.
2) Measure the Oscilloscope wave and the point needle of Modulation Meter after pressing PTT key.
3) Sweep gradually the frequency of AF Oscilloscope from 300Hz to 3kHz.
4) At this time, the point needle of Modulation Meter should be in ±5kHz.

4 Receiver

a) Preparation
1) Adjust the power supply to DC 6.0V
2) Adjust Voltage level to 0.7Vrms (8Ω load) after power on.

b) Connection method



c) The Conform of Rx sensitivity
   1) Adjust SSG to channel frequency.
   2) Adjust modulation frequency, 1kHz to modulation degree, 2.5kHz.
   3) After adjusting frequency of SSG to channel frequency, RF level sets to –47dBm.

d) The Conform of Squelch sensitivity
   1) Set the standard channel.
   2) In squelch mode, SQ volume VR2 must be turned counterclockwise.
   3) After adjusting SSG to channel frequency, the RF level of SSG is set on SINAD 6~12dB.

4.5 Receiver Test

a) Rx sensitivity test
   SSG should be adjusted to 12dB of SINAD point needle seeing wave of Oscilloscope as SSG sets in 1kHz frequency deviation.

b) Audio Distortion Test
   1) SSG should be adjusted like way of point "a)" and RF level sets to –47dBm.
   2) Adjust to 0.7Vrms (8Ω Load) seeing Audio wave.
   3) Read the needle of Distortion Meter (Normal condition would be less then 5% distortion).

c) Squelch Test
   After RF level of SSG should be set to the least level, RF level should be gradually increased until speaker makes audio sound. At this point, check RF level (Check if the SINAD is 6~12dB).