

Subsection

2.983(d)(9): Factory Tune-up Procedure

### **Test Equipment**

1. BNC-P to MM121454 Coaxial RF cable	Audio Technica custom RF cable
2. DC Power Supply	Leader LPS-160-2
3. Audio Signal Generator	Leader LAG-126S
4. Modulation Meter (FM liner detector)	Anritsu MS61A
5. Spectrum Analyzer	Advantest R3361D
6. RF Power Meter	Anritsu MS 4803A
7. RF Power Sensor	Anritsu MA4701A
8. Oscilloscope	Tektronix 475A
9. DC Volt Meter	Fluke 79
10. AC milli Volt Meter	Leader LMV-1817

### **Adjustment of T310 Main circuit board**

RF Oscillation frequency adjustment

1-1, Measurement equipments and the T310 set up

a Spectrum analyzer setup

Center frequency 554.000MHz

SPAN 200kHz

Frequency counter ON

b T310 LCD Setup

Frequency 554.000MHz

RF-POWER HI

GAIN -6dB

1-2, TT310 adjustment

Turn the VC300 on the T310 circuit board and set the oscillation frequency to 554.000MHz

RF output peak adjustment

2-1, Measurement equipments and the T310 setup

- a Spectrum analyzer setup
  - Center frequency 554.000MHz
  - SPAN 200kHz

- b T310 setup
  - Same as 1-1-b

#### 2-2, T310 adjustment

- a. Connect CNP100 output to the Spectrum Analyzer input
- b. Adjust the VC100 and set RF output power to maximum

#### RF Power adjustment

#### 3-1, Measurement equipments and the T310 setup

- a RF Power meter setup
  - Measurement range: Auto
- b T310 setup
  - Same as 1-1-b

#### 3-2, T310 adjustment

- a Connect CNP100 output to the RF Power meter input
- b Set the LCD power indicator to Low
- c Adjust the VR100 and set RF output power to 10mW

#### Tone signal modulation level adjustment

#### 4-1, Measurement equipments and the T310 setup

- a Spectrum analyzer setup
  - Center frequency 554.000MHz
  - SPAN 200kHz
  - Marker: On

- b T310 setup
  - Same as 1-1-b

#### 4-2 , T310 adjustment

Adjust VR200 and set level difference between Main carrier and tone carrier to 30dBc

## Audio modulation level adjustment

### 5-1, Measurement equipments and the T310 setup

#### a Deviation Meter setup

Sensitivity P-P/2

Range 100kHz

HPF 50Hz

LPF 20kHz

Frequency 554.000MHz

#### b Audio signal applied to CN2

Frequency 1kHz

Level +4dBV (at CN2 terminal)

#### c T310 setup

Same as 1-1-b

### 5-2 T310 adjustment

Adjust VR201 and set deviation to +/- 30KHz