

NEW 10BT MANUAL

- 1) VCO adjustment
 - (1) Set the channel at 20 by frequency setting switches.
 - (2) Connect the DC volt meter to TP1.
 - (3) Adjust VC101 until DC volt meter shows 1.0V.
 - (4) Make sure that the Volt meter shows approx. 2.0V at channel 08.
- 2) Output power adjustment (at $9.0V \pm 0.1V$)
 - (1) Set the channel at 55
 - (2) Connect the spectrum analyzer to JK2 (remove the short-pin CN5)
 - (3) Adjust VC2 to minimize the spurious ($1/2F$, $3/2F$)
 - (4) Connect the power meter to JK2 and adjust VR3 to generate 15mW.
- 3) Adjustment of transmitter frequency
 - (1) Set the channel at 55 by the frequency setting switches.
 - (2) Connect the frequency counter to JK2.
 - (3) Adjust VC1 to set this channel at $8000.000MHz \pm 1.5kHz$.
- 4) AF modulation adjustment
 - (1) Connect the liner detector to JK2
 - (2) Set the channel at 55
 - (3) Connect the audio oscillator output to CN1 (Mic terminal)
 - (4) Generate the audio oscillator output at -60dBm (at 1kHz)
 - (5) Connect the AC volt meter to TP4 and adjust VR1 so that the output at TP 4 will be -33dBm.
 - (6) Adjust VR 2 so that the deviation will be $5.0kHz \pm 0.5kHz$

10BT

1) The voltage and current drain in the RF section.

2) Description of the main circuit

1) Frequency stabilization

This oscillation is the synthesized system and its frequency stabilization will depend on the crystal vibrator characteristic. The frequency allowance will be $\pm 10\text{ppm}$ between -10°C and $+60^\circ\text{C}$.

2) Spurious suppression

In order to suppress the spurious, the filter composed by L and C has been applied in this unit after the power amplification circuit. The circuit is posed below and it is the pi type double low pass filter.

3) Limiter circuit

The limiter circuit is applied at the output of low pass AF filter. This will control the modulation.