CST802VI
Frequency Range 150 - 174 MHz
FCC ID# IP9802VI
Tuning Procedure

1. Apply 4.2 volts to the unit

2. Measure the output of the voltage regulator (U4) 2.85 volts.
   Measure the voltage on the output FET (L7) 2.85 volts
   Connect a 30 dbm pad from the RF connector on the transmitter to a Spectrum Analyzer. Using a Communications Receiver verify that the output frequency is that of the desired frequency (174Mhz).
   Measure the voltage with a volt meter at the junction of R16 and C21 2.75 volts +/- .2volts.
   Change the frequency of the transmitter to 150 Mhz repeat the measurement at the junction of R52 and C11 .65 volts +/- .2 volts

3. Using a Spectrum Analyzer probe the collector of Q4, and this junction the output power is 20 mw.

4. Connect a T tap connector to the 30 Dbm attenuater into a watt meter, and the Spectrum Analyzer to the tap Connection. Adjust C39 and C40 to obtain 200mw +/- 1 dBm while monitoring the harmonics so that they are >43 Dbc. Measure the transmitters total current ~ 140ma.

5. Using a Communications Receiver adjust (R11) TXCO to the desired frequency +/- 50Hz

6. Set the frequency of the transmitter to 174Mhz. Connect a audio generator with a 100:1 resistive pad to the microphone connector on the transmitter, apply 250 mv p-p at 3000Hz monitor the deviation with a Communications Receiver adjust (R35) for 2.3 Khz of deviation. Then apply 2.5 v p-p and monitor deviation with the Communications Receiver and adjust R35 to max. deviation of 2.3 Khz.

7. Using a Spectrum Analyzer connect a test antenna to the input of the analyzer. With the transmitter in its case adjust the antenna trimmer while monitoring the radiated power on the spectrum analyzer and the total current of the transmitter, for maximum radiated power @ ~ 140ma.