Equipment required: Modulation analyser, Frequency counter, Power Meter, AF frequency generator. Or Marconi 2948 Test Box.

Please note all AF levels are referenced to 0dB(u) = 0.775mV
all RF levels are referenced to 0dBm = 1mW 50 ohm

Initial Configuration.

Connect Power supply 9V to RF PCB. JP7,JP6.
Connect RF feeder to JP1, JP2.
User gain control minimum.
User channel select no 1.
Mic/Guitar switch set to Mic.

(1) Frequency adjustment
Set test box to measure RF frequency and RF power. Select channel 1
= 616.775 MHz
Turn on 9V supply and adjust trimmer C48 so as the frequency measures output frequency.
Tolerance +/- 1.5KHz.

(2) RF Power Adjustment.
With Test box set to measure RF power (dBm) adjust preset pot R42 so as the output at the device antenna terminals is 9.0dBm.
Tolerance +/- 1dB

(3) AF Deviation.
Connect AF signal to CONN1. Set level to -6dBu(m) at 1KHz.
Adjust Dev preset to read 22KHz peak deviation on Testbox.
Tolerance +/- 1KHz

(4) Max Deviation
Set User gain adj to maximum and check peak deviation does not exceed 46KHz.

(5) Reset gain to Half-way.

(6) Reduce power supply voltage down to 6.9V . Check LED is Off
Reduce power supply voltage to 6.0V Check RF is disabled.
Increase power supply voltage to 7.1V Check LED is on

(7) Reset power supply to 9.0v Check current is less than 48mA (typ 44mA)

(8) End of PCB test and alignment.