

FMT15408E Tune-up Procedure

Introduction

Tuning of the FMT15408E involves setting the transmit frequency to 154.600MHz. The output power is fixed at 1 watt and it is set by hardware on the board.

Transmit Frequency Error Tune-up

The transmit frequency error is controlled by fine tuning the load capacitance of the crystal.

1. Connect the output of the FMT15408E to the spectrum analyser.
2. Set the spectrum analyser as follows:
Centre Frequency: 154.600MHz
Span : 50kHz
Reference Level : 1.5 Watts
3. Activate an input on the FMT15408E.
4. Check the frequency error on the spectrum analyser.
5. Adjust the trimmer capacitor on board to correct the frequency error.

Transmit Power Tune-up

The output power is fine tuned by adjusting the DC level on the final power amplifier.

1. Connect the output of the FMT15408E to the spectrum analyser.
2. Set the spectrum analyser as follows:
Centre Frequency: 154.600MHz
Span : 50kHz
Reference Level : 1.5 Watts
3. Activate an input on the FMT15408E.
4. Check the power level on the spectrum analyser.
5. The power level is set to 1 watt with a fixed value SMD resistor.