

## APPENDIX 3

### **CIRCUIT TO SUPPRESS SPURIOUS RADIATION AND CONTROL MODULATION**

#### **AUDIO CIRCUIT**

The audio signal is injected via the microphone element into the audio circuit composed of the op amp IC1, UPC4572 & compandor IC3, SA575. The signal is compressed via the compandor circuit at a 2:1 ratio and is pre-emphasized. The level of the output signal is controlled by the pot VR1 which is injected into the VCO, VCO1.

#### **MODULATOR CIRCUIT**

The modulator circuit is a direct FM type built around the VCO, VCO1. The modulated output from the VCO is sent to the RF pre-amp and RF final amplifier which boosts the output to a nominal level of 10mW.

#### **RF PRE-AMPLIFIER & FINAL AMPLIFIER**

The 2 transistor amplifier stages, using 2SC4226 type transistors, culminating with a normal transmitter output of 10mW. The output filter comprised of L6, L7, TC1, C80, & C82 suppresses the output harmonics and matches the output to the antenna.

CIRCUIT TO SUPPRESS SPURIOUS  
RADIATION & CONTROL MODULATION  
FCC ID: JFZT214

APPENDIX 3