

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.

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FCC ID: JFZT214

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