

Wireless microphone circuit description of EU-4700

AUDIO CIRCUIT

The audio signal is injected via the microphone sensor into the audio circuit composed of the op amp IC U2 4558, & compandor IC U1 NE571. The signal is compressed via the compandor circuit at a 2:1 ratio and is pre-emphasized by U2. The level of the output signal is controlled by the resistor R59,R70.

MODULATOR CIRCUIT

The modulator circuit is a direct FM type built around the local oscillator controlled by Crystal X1, variable capacitance diode D1, Q1, Q10, IFT T5~8 and C82~86. The modulated output from the oscillator is sent to the RF pre-amp and RF final amplifier which boosts the output to a nominal level (<1mW).

RF PRE-AMPLIFIER & FINAL AMPLIFIER

The 2-stage amplifier, using two transistors Q11, Q12, culminating with a normal transmitter output of <1mW. The output filter F1 and VC123, L4~7, C67, C68, C73, C74, C90 suppress the output harmonics and matches the output to the integrate antenna.

POWER STEADY CIRCUIT

2 IC U3 & U4 provide voltage to modulation and amplifier respectively.