

Wireless microphone circuit description

AUDIO CIRCUIT

The audio signal is injected via the microphone sensor into the audio circuit composed of the op amp IC U1 4558, & compandor IC U2 571N,. The signal is compressed via the compandor circuit at a 2:1 ratio and is pre-emphasized by U1. The level of the output signal is controlled by the resistor R11,R12.

MODULATOR CIRCUIT

The modulator circuit is a direct FM type built around the local oscillator controlled by X1, L1~6 and CA1~6. 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 3 transistor amplifier stages, using two 9018 type and KSP10 transistors, culminating with a normal transmitter output of <1mW. The output filter comprised of CA7~9, C32, C34, VC1, L7, L8 suppresses the output harmonics and matches the output to the integrate antenna.