

Wireless microphone circuit description of WR-V18

AUDIO CIRCUIT

The audio signal is injected via the microphone sensor into the audio circuit composed of the op amp IC1 4558, & compandor IC2 UTC571N. 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 variable 10k resistor.

MODULATOR CIRCUIT

The modulator circuit is a direct FM type built around the local oscillator controlled by Crystal Y1, Q1 (Type T33), variable capacitance diode VD1, IFT 1~3, and Cap. The modulated output from the oscillator is sent to the RF pre-amp.

RF PRE-AMPLIFIER & FINAL AMPLIFIER

3 transistor amplifier stages, using Q2~4 (T33x2, 9018) transistors, culminating with a normal transmitter output of <1mW. The output filter comprised of 4 Caps (1p, 22p x 2, 1000p), VC1 (0-20p), 2 L (3T, 4T) suppresses the output harmonics and matches the output to the integrate antenna.

POWER SUPPLY.

Up the input voltage by Q7-8(4091, 2198), and steadied by U1 78L05. with a voltage detector consist by Q5-6 and LED.