

## Wireless microphone circuit description of VHF-4808

### **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 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 resistor R39,R42. Q1, Q2 and Y1 for stereo audio.

### **MODULATOR CIRCUIT**

The modulator circuit is a direct FM type built around the local oscillator controlled by Crystal Y2, Q7 (Type 9018), variable capacitance diode VD1, L5~7, and C33, C28, C29, VC1. The modulated output from the oscillator is sent to the RF pre-amp consist of Q8, 9 (Type 9018 x 2).

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

One transistor amplifier stages, using Q10 (Type 9018) transistors, culminating with a normal transmitter output of <1mW. The output filter comprised of C41~43, VC2, VC3, L10~13 suppresses the output harmonics and matches the output to the integrate antenna.

### **POWER SUPPLY.**

Up the input voltage by Q3-6, and steadied by U3 78L05.