

## Wireless microphone circuit description of GM-633

### **AUDIO CIRCUIT**

The audio signal is injected via the microphone sensor into the audio circuit composed of the op amp IC 4558, & compandor IC SP571. The signal is compressed via the compandor circuit at a 2:1 ratio and decompressed by SP571. The level of the output signal is controlled by the pin 9 of SP571.

### **MODULATOR CIRCUIT**

The modulator circuit is a direct FM type built around the local oscillator controlled by Crystal TXT, Q1 (Type 9018), variable capacitance diode VD1 (2638), IFT (T64) 1~3, and Cap. The modulated output from the oscillator is sent to the RF pre-amp.

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

2 transistor amplifier stages, using Q2 (9018) transistors, culminating with a normal transmitter output Q3(3EM\_KSP10) of <1mW. The output filter comprised of 4 Caps (3p, 5p, 6p, 10p), 2 L (4.5T, 0.68 $\mu$ H) suppresses the output harmonics and matches the output to the integrate antenna, with output detector consist by Q4 and LED.

### **POWER SUPPLY.**

the input voltage is supplied by a 9V battery, and with a power indication LED and 2 conductor as filter.