

## Wireless microphone circuit description of IU-2055 电路说明

### **AUDIO CIRCUIT 音频部分**

The audio signal is amplified by U7 (IC 4558), with the audio pre-weight circuit composed of R52, R53, C46, C47. Then the signal is compressed via the companding circuit U6 (IC SA571). The level of the output signal is controlled by the resistor VR1.

### **MODULATOR CIRCUIT 调制部分**

The modulator circuit is direct FM type built around the local oscillator controlled by VCO. The audio signal after VR1 and filter is delivered to modulation transistor Q1 BFG67X, the output signal is sent to RF pre-amp.

### **RF PRE-AMPLIFIER & FINAL AMPLIFIER 放大部分**

Three transistor amplifier stages, using Q1, Q2 & Q5, with the APC of Q3 & Q4, culminating with a normal transmitter output of <1mW. The output filter comprised of L10 and VC3 suppresses the output harmonics and matches the output to the integrate antenna.

### **POWER CIRCUIT 电源部分**

The power is controlled by U3 (48R06), 6371 and voltage-steady module 7803, 7085 to corresponding part respectively.

### **UHF Frequency Adjusting**

By the IR LED of TX, it receives the frequency data IR signal sent by RX , and being input to MCU(U2 15B03L) to control the VCO1 (MVE) by a DC pulse voltage, and the VCO output a corresponding carrier frequency signal.