

## Wireless microphone circuit description of BM-5 电路说明

### **AUDIO CIRCUIT 音频部分**

The audio signal is injected via the microphone sensor into the audio pre-weight circuit composed of R32, R31, C59, C56. Then the signal is compressed via the companding circuit (IC2 SP575). 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 consist of C43, C31, L5 is delivered to modulation transistor Q1 BFP420, the output signal is sent to RF pre-amp.

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

Two transistor amplifier stages, using Q1 & Q2, culminating with a normal transmitter output of <1mW. The output filter comprised of L4, L3 and C28, C27, C25, C12 suppresses the output harmonics and matches the output to the integrate antenna.

### **POWER CIRCUIT 电源部分**

The power is controlled by IC3 AP2000 and filter L1, C6, C22

### **UHF Frequency Adjusting**

By the IR LED of TX, it receives the frequency data IR signal sent by RX , and being input to MCU(IC4 PIC16F676) & PPL (IC1 MCD8825) to control the VCO by a DC pulse voltage, and the VCO output a corresponding frequency signal.