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FCC ID: V63U-500

# **Operation Description**

The EUT is powered by 9V (1 x 6F22) battery and have one channel for each product, it cannot be tuned by the end user.

During manufacturing process, adjusting the peripheral circuit parameter of U3 1507 to get requested frequency.

Wireless microphone circuit description of U-500.

#### **AUDIO AMP CIRCUIT**

The audio signal is injected via the microphone sensor into the audio amp circuit composed of the amp Q5  $\,$  (N2) , pre-emphasize network (D1, C50, 51, 59 & L12). The level of the output signal is out put to modulation circuit. Integrator (R42-46 & C60-64) control the ocsilator.

#### **OSC & MODULATOR CIRCUIT**

The modulator circuit is a direct FM type built around the local oscillator controlled by Crystal Y1 XTAL1 (36 times to local oscillator), IC (U3 1507). The carrier frequency output from the PIN 8 of U3 and being sent to the RF amplifier which boosts the output to a nominal level (<1mW).

### RF PRE-AMPLIFIER & FINAL AMPLIFIER

The 3-stage amplifier, using two transistors: pre-amp Q4 (N2) and RF final Q7(T33), culminating with a normal transmitter output of <1mW. The output filter (C37~40, L x 8, L7 suppress the output harmonics and matches the output to the integrate antenna.

#### **POWER STEADY CIRCUIT**

2 transistors Q6, Q8 for voltage upper, U4 (7805) and U5(7803) provide voltage to modulation and RF amplifier respectively.