Wireless microphone circuit description

Description

9VDC battery will supply to the microphone. The microphone modulated VHF signal format and transmits through the RF channel of 174MHz to 216MHz.

AUDIO CIRCUIT

The audio signal is injected via the microphone sensor into the audio circuit composed of the op amp and compressed circuit with IC1 csc31101.

The level of the output signal is controlled by the resistor R9,R10.

MODULATOR CIRCUIT

The modulator circuit is a direct VHF type built around the local oscillator controlled by D1, TX1, L1~5 and C20,C21,C25,C30,C31. The modulated output from the oscillator is sent to the RF pre-amp and RF final amplifier which boosts the output to a nominal level (<10mW).

RF PRE-AMPLIFIER & FINAL AMPLIFIER

The 3 transistor amplifier stages, using Q1,Q4,Q5(two 9018 type and KSP10 transistors), culminating with a normal transmitter output of <10mW. The output filter comprised of L6,C32, suppresses the output harmonics and matches the output to the integrate antenna.