

Circuit Description

The audio signal which inputs to the microphone is amplified by LM358. This amplified signal is then modulated by the FM modulation (X1, X2, T3, D1). The frequency of the crystal oscillator is multiplied by three by the frequency tripler Q2 ($16.61\text{MHz} \times 3 = 49.83\text{MHz}$ and $16.625\text{MHz} \times 3 = 49.875\text{MHz}$) to the carrier frequency, then this signal is further amplified by Q1 and pass through the LPF(L1, C01) before transmits to the antenna.

Antenna, Ground and Power Source

The antenna consists of a 14.2cm long telescoping chrome over brass tubing. There is no external ground connection. The ground is only that of the printed circuit board. Electric current is supplied by a 120V a.c - 6Vd.c. adaptor.