

## Circuit Description Theory of Operations

### Circuit Description

#### Transmitter:

##### 1. Audio Amplifier and Compressor

Audio signal from condenser MIC is amplified by Q9. Compressor IC U1(GL6552D) will increase the dynamic range of the input audio signal . Adjust VR2 to control the Modulation Deviation.

##### 2. Power Indicator

VR1 Q6 Q7 Q8 and D3 for control the Power LED, the LED will OFF if the battery voltage is low.

##### 3. Switch Control

SW2 is used to select the status such as: OFF/STANDBY/TALK, SW1 for the momentarily MUTE.

##### 4. RF Oscillator and Amplifier

RF oscillator is composed of Q1 X1 L2 D1 and D2 etc. It generates the LO of the transmitter and it can be modulated by the audio signal. Q2 is buffer amplifier. The filter further reduce those unwanted harmonic signal. Q3 Q4 is the RF power amplifier for the transmitter.