

Circuit Description Theory of Operations

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Transmitter(TX):

1.Audio Amplifier and Compressor

Audio signal from dynamic Mic is amplified by Q200 Q201. Compressor IC U200(GL6552D) will increase the dynamic range of the voice signal . C225 R226 R227 are the Pre-emphasis circuit and the audio signal is amplified further by Q205. Adjust VR200 to control the Modulation Deviation.

2.ALC Circuit

ALC circuit are built by Q202 D200 Q203 and Q204, it will improve further the dynamic range of the voice.

3.Power and Low Battery Circuit

U201 D201 and L201 etc. are 5V DC-DC convertor circuit for all circuit to provide DC power. Q206 Q207 and Q208 will control the Power LED D202, the LED will light off if the battery is weak.

4.Switch Control

SW200 is Talk/Mute/OFF slide control switch.

5.RF Oscillator and Amplifier

RF oscillator are built by Q100 X100(three frequencies: 14.1254MHz/14.1871MHz/14.3254MHz) L101 D101 D102 and L100 etc. same times they will modulated with audio signal and selects the desired frequency at this stage, Q101 is buffer amplifier, Fil100 will filter further those unwanted carriers frequency, Q102 Q103 amplifier stage provide the maximum RF power.