FCC ID: RJE 169202-00

Circuit Description

Please see schematic of RJE 169202-00 for reference.

1) U2 is a complete FM stereo transmitter IC. This circuit has a stereo audio input and a 75-ohm RF output.

2) Frequency of operation is determined by program data supplied by U1 (Master) to U2 (Slave).

3) U1 is a Micro-Controller IC with a built-in 1mhz internal clock oscillator. This IC is controlled by push button switches SW1, SW2, and SW3.

4) SW1 decrements frequency of operation. SW2 increments frequency of operation. SW3 puts frequency to memory mode. Software in U1 keeps track of set frequency by storing this data into internal memory.

5) Transmitting frequency is displayed in Mhz by 4-digit LED readout. Whenever the operating frequency is changed by user, frequency changes upwards or downwards in fixed 200khz steps.

6) When maximum frequency of 107.9Mhz is reached, if user presses "UP" button, frequency "Wraps around" to 88.1Mhz. Similarly, when minimum frequency of 88.1Mhz is reached, if user presses "DOWN" button, frequency "Wraps around" to 107.9Mhz. Software of product will not allow operation outside of FM band.

7) There is no ON/OFF switch for this product. Circuit goes ON when product is plugged to automobile cigarette lighter outlet. Product is exclusively designed for in-automobile use only so that user can listen to MP3 player via the automobile FM radio system.

8) Power consumption of FM transmitter IC (U2) is 20ma typical at 5v.

9) This product also supplies 12v operating power to MP3 player.

Antenna:

1) Antenna is inside cable going to MP3 player.

2) RF schematic of antenna is shown below: