

Circuit Description of CARioke

This unit is a 4-selected band FM modulator, with four selectable output frequency (107.1 MHz, 107.3MHz, 107.5MHz, 107.7MHz) which are selected by a slide switch. The unit can be installed in car for listening the music (such as iPod, mp3, CD) or other audio source via car's radio. In addition, the product can mix sound of human (such as singing) and other audio source. Thus, it gives a karaoke effect.

The circuit mainly consists of 4 parts. It includes:

1. Microphone input

This part is an interface for accepting human' sound by connecting a microphone to the input jack.

2. Music source input

This part is designed to connect external music source such as CD player, iPod or MP3.

3. Mixer

This part is used to mix human's sound and music player. And the earphone interface let user can learn the mixed signal if a earphone is inserted to this interface.

4. FM modulation and transmitter

This part consists of a IC: BH1417F. This IC is a FM stereo transmitter IC that transmits signal in commercial band. The IC consists of a stereo modulator for generating stereo composite signals and a FM transmitter for broadcasting FM signal on the air. With additional component, this part work as FM transmitter radiates FM wave on the air through the antenna.