

Circuit Description of SongBird

Music signal from MP3 is modulated and then transmitted to the FM radio at the high frequency from 106.7MHz to 107.9MHz, step 0.4MHz, which can be used to listen MP3 music in the car FM radio system.

The circuit includes the following block function:

- Power supply
- Channel select
- FM transmitting IC (BH1417)

Power supply circuits include the DC-DC parts, the DC-DC circuit that converts the 3V battery to 5V for system work

Channel select slide switch select the FM transmitting frequency from 106.7 to 107.9 MHz.

BH1417 is a FM stereo transmitter IC that transmits simple configuration. The IC consists of a stereo modulator for generating stereo signals and a FM transmitter for broadcasting a FM signal on the air. The stereo modulator generates a composite signal, which consists of the MAIN, SUB, and pilot signal from a 38Khz oscillator. The FM transmitter radiates FM wave on the air by modulating the carrier signal with a composite signal