

32588 Operation principle

1. FM Transmitter

The input of left and right audio signal comes into the BH1417, a FM stereo transmitter IC, which is powered by 4.5 VDC from the LM317 voltage regulator. The audio signal is first pre-emphasized and leveled by input stage of BH1417 and then modulated by a stereo modulator to generate a composite signal. The composite signal is then modulated with the carrier signal to form the FM signal for transmitting. The output FM signal from the BH1417 is coupled to and amplified by transistor 2SC9018 and then radiated on to the air with the antenna.

A frequency selector switch is used to change the input level of the frequency control pins 15-18 of BH1417 to select the transmitted frequency. With this application 4 different frequencies can be selected, 88.1,88.3,88.5,88.7MHz.

2. 5 volt charger

Through the cigarette lighter plug, the DC12V from the car is connected to the MC34063 DC-DC converter to obtain a stabilized 5 volt as a source for charging.