

## OPERATIONAL DESCRIPTION

1. Audio interface network

The audio interface network filters the audio signal received from the MP3 player and adapts the audio level.

2. FM transmitter.

The FM transmitter is based on the BH1418KN IC , which is a single chip FM transmitter . The component includes the pre-emphasis circuit, limiter circuit , low pass filter, and a PLL frequency synthesizer. The transmitter is tuned for transmission within the 88.1÷107.9 MHz frequency band.

3. Matching network

The matching network provides impedance matching between the small antenna to the transmitter.

4. Attenuator

The attenuator limits the radiated electric field level from the transmitter to the level allowed by regulations (such as FCC and CE)

5. Controller

The controller---Cypress CY8C27443, enables frequency tuning of the transmitter and indications

6. Voltage regulators

The voltage regulator ----LM2703 sets the voltage for the components and battery charging

7. Rechargeable battery

A Li-polymer rechargeable battery provides an internal power source to the transmitter. A 180 mAh capacity is provided . The battery is charged from a 4.2 V regulators with a charging current of 180 mA

The charging function is performed by the IC U5---TPS793301.