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Miniature - Type III

Product description

1. Scope

This document described the FMP-3 miniature type III transmitter

2. Product description

2.1 Product functions

The FMP-3 miniature type III transmitter enables transmission of audio produced by MP3 players to commercial FM receivers.

It utilizes a low power FM transmitter to modulate the audio and transmit the modulated signal in the 88.1÷107.9 MHz frequency band.

The product accepts the audio signal from MP3 audio players thorough a standard 3.5mm jack. .

The product is fed from 5 VDC regulated voltage source through a standard mini USB jack and internal rechargeable battery.

Figure 1 describes the product.

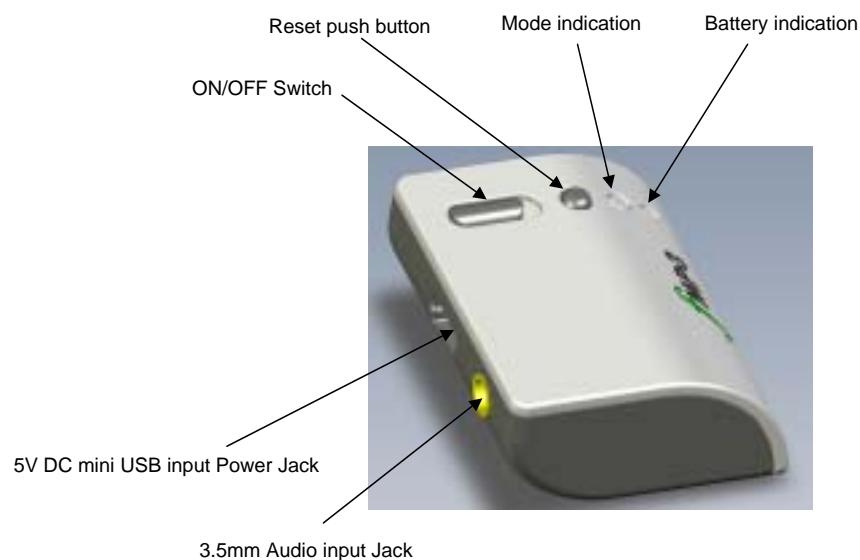


Figure 1: FMP-3 miniature type III transmitter

2.2 *Product description*

The product consist of:

1. Transmitter board
2. Antenna
3. Li-polymer rechargeable battery
4. Plastic enclosure

2.2.1 Transmitter board

Figure 2 describes the functional block diagram of the transmitter board

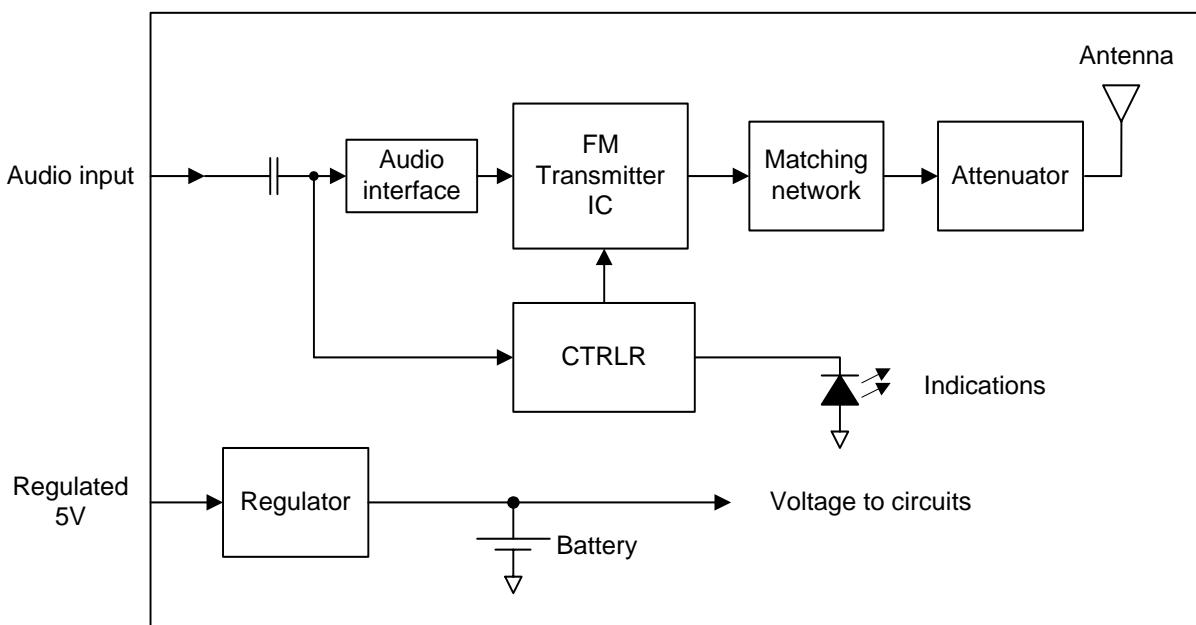


Figure 2: FMP-3 miniature type III transmitter board description

The Transmitter block includes:

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÷108 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 enables frequency tuning of the transmitter and indications

6. Voltage regulators

The voltage regulator 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

FCC NOTE:

THE MANUFACTURER IS NOT RESPONSIBLE FOR ANY RADIO OR TV INTERFERENCE CAUSED BY UNAUTHORIZED MODIFICATIONS TO THIS EQUIPMENT. SUCH MODIFICATIONS COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.