

## Operation Description

### 1. Device concept

This device is radio transmitter that transmit music which comes from multimedia device such as MP3, CD, MD Player and Walk-man using FM radio frequency by Radio transmission method.

This device is designed to enjoy listening the music by Audio speaker of vehicle or Home A/V system without using Ear-microphone.

### 2. Each section of Device

2-1 ANT

2-2 STERO AUDIO INPUT

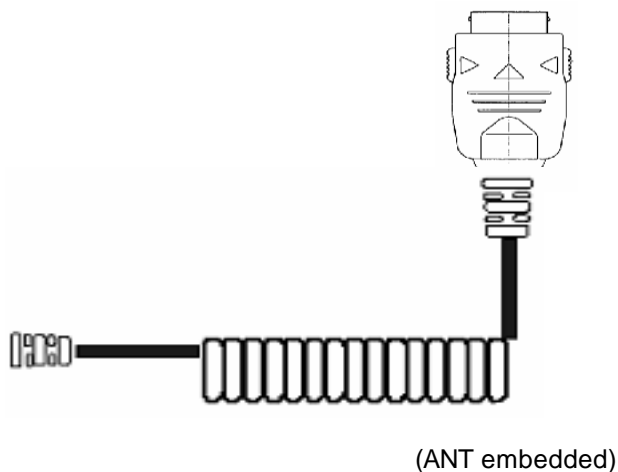
2-3 POWER

2-4 VCO (VOLTAGE CONTROLLED OSCILLATOR)

2-5 FM OSCILLATOR

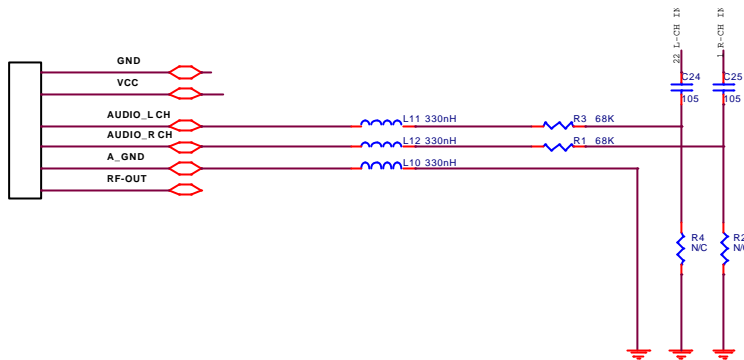
### 3. Explanation of each section

#### 3-1 ANTENNA (ANT) Section



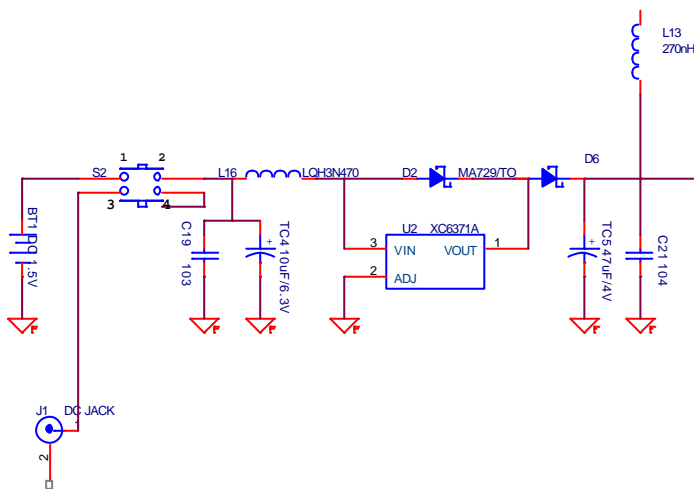
- Antenna is composed with Wired Ear-Jack Call Code type, and radiates radio frequency in the air through this wire.

### 3-2 STEREO AUDIO INPUT Section



- Stereo L, R signal comes from MP3 player through L11, L12. This signal is regulated by resistor R1, R3. Then this Stereo L,R signal is forwarded to Pin 22 and 1 of BH1417F through C24 and C25.

### 3-3 Power section



- When using AAA 1.5V-Battery

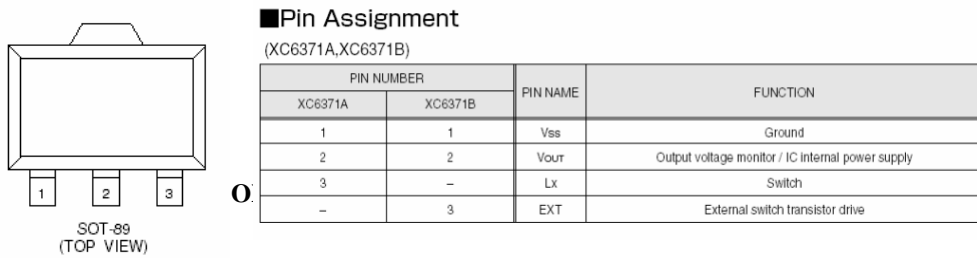
Battery Power section is mainly composed with XC6371A which is DC/DC Converter Control IC. XC6371A increases the power from 1.5V(which comes from Battery) to 3.3V, and then forward it to BH1415F.

- When using Cigar-Jack power of Vehicle

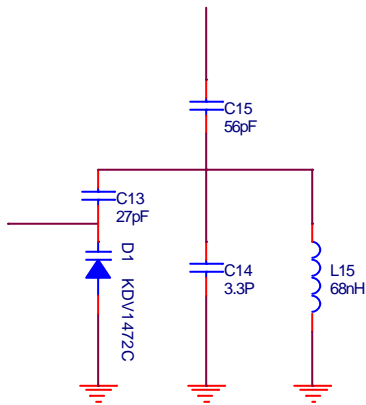
The 12VDC power of Vehicle is forwarded through DC Jack, and the power is regulated with constant 3.3VDC by regulator, and then the power is forwarded to BH1415F.

TC5 and C21 eliminates the noise of the power line.

- DC/DC Converter(XC6371A)

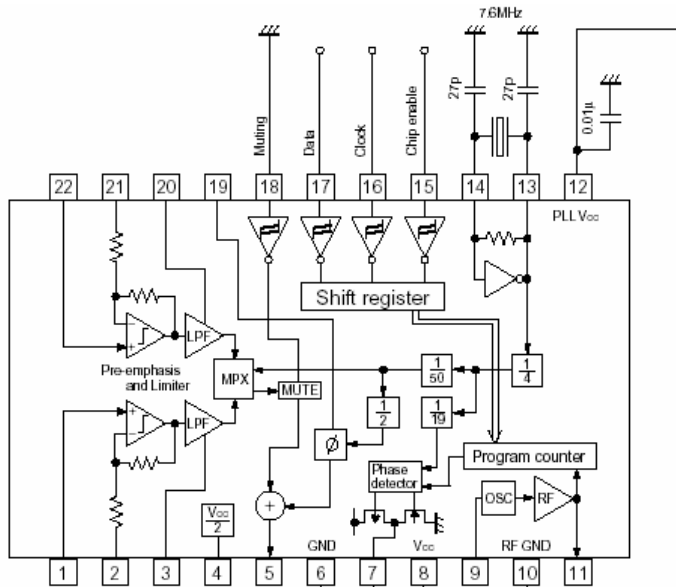


### 3-4 VCO (VOLTAGE CONTROLLED OSCILLATOR) Section



- This VCO(voltage controlled Oscillator) is Frequency tuning section. VCO tunes the voltage precisely, makes the RF output frequency to the frequency that the user sets, and fixes it.

### 3-5 FM Oscillation Section



- FM oscillation section oscillates with 7.6 MHz X-tal frequency, by the PLL modulation method, generates 19 kHz and FM bands of frequency which is required for FM frequency transmission.