

## Circuit Description

HSM3.0 is a Bluetooth Stereo module which can be used to design Bluetooth car audio. Besides, HSM3.0 can be as a direct connection to any Bluetooth mobile phone when designed into car audio device.

The operating principle is as follows:

### 1. I/O Port

It provides interface to communication with Car audio's main part. These interfaces are TX, RX, Gnd, VCC, SPK\_L+/-, SPK\_R+/-, MIC+/- and Mute signal.

### 2. Bluetooth Module

Bluetooth module takes responsible to process the communication between Car audio and Bluetooth mobile phones. This part is used CSR BC03 Multimedia to perform Bluetooth functions and it includes several Bluetooth profiles which already qualified by SIG.

### 3. Power Management

This part is used to provide appropriate power to Bluetooth module which just only requires 3V3 to operate.

### 4. Codec Circuit

The purpose of Codec circuit is to provide the audio signal and it has been integrated into CSR chip.

### 5. Antenna Matching Network.

Antenna is the part which performs the radio power to Bluetooth Class II standard level and the output range is up to 10 meter in a free space.