

## **Operation Description**

EUT is a multi-function 2.1 -channel sound system, it has an AUX interface, can play the analog audio signal, with built-in bluetooth module, can play audio in bluetooth devices, optical fiber input interface, can demodulation and play SPDIF audio signal, have HDMI interface, an input and an output.

### **Technical specification**

#### **1. Bluetooth**

Frequency:2.402-2.480GHz and hopping at 79 chanel

Modulation:GFSK,  $\pi/4$ -DQPSK,8DQPSK Digital baseband signal will changed to Gauss impulse through Gauss filter.Then the signal will be modulated by FSK,which is called as GFSK(Gauss Frequency shift keying).

Antenna Specification: Integral Antenna

Bluetooth Type Support: Bluetooth 2.1+EDR

#### **2. HDMI**

In line with the HDMI 1.4 specification

Support 1080p video format

Support ARC(Audio Return Channel) Receiving

Support Standard Audio,DSD Audio and HD(HBR) Audio

## **Circuit and work description**

The Bluetooth module is provided by "buildwin", the above including the bluetooth chip, crystal, printed antenna.

When play music via bluetooth 2.4 GHz antenna received signals, the demodulation of bluetooth chip digital audio signal, through the UART interface transmit to MCU - AX2228, it has A built-in D/A converter, after conversion of analog signals, and then sent to the A/D conversion chip - level after PCM1808 into the digital audio signal, and then output to the digital audio power amplifier chip TAS5731M, through TAS5731M PWM signal decoding, enlarged, again after LC filter, ultimate recovery as the analog audio signal, drive the speaker.

HDMI and optical, by the SPDIF audio signal decoder UDA1352TS decoded output analog audio signal.