Technical Description

The Equipment Under Test (EUT) is a 2.4GHz Bluetooth music receiver powered by 5.0VDC from an AC/DC adaptor. The AC/DC adaptor can accept universal input voltage (100V-240VAC). The EUT is a Bluetooth 4.0 device and it is compatible with the Bluetooth host version 3.0. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz which transmit by 79 frequency hopping signal between 2402MHz and 2480MHz (Channel Frequency = 2402+1(K-1), K=1, 2, 3 ......79). The EUT shall be connected to the speaker or amplifier through the audio cable and pairing with the bluetooth device to play the music of the bluetooth device. When the EUT is switched ON, the light will flash red. The corresponding Bluetooth device would be searched and connected to the EUT before playing audio. After pairing, the light will be switched to blue. The EUT is using non-adaptive frequency hopping in the Bluetooth module as declared by the applicant.

2.4GHz Bluetooth Module:
Modulation Type: GFSK (1Mbps), π/4-DQPSK (2Mbps), 8-DPSK (3Mbps).
Antenna Type: Integral, Internal (PCB Trace)
Frequency Range: 2402MHz and 2480MHz, (Channel Frequency=2402+1(K-1), K=1, 2, 3 ……79).

Nominal field strength is 101.6dBμV/m @ 3m
Production Tolerance of field strength is +/- 3dB
Antenna gain is 0dBi

The functions of main ICs are mentioned below.

1. BlueTooth module BT1207PA(U1):
1) BC8645 acts as the 2.4GHz radio core of Bluetooth module (U1) (BT1207PA).
2) 26MHz crystal (Y1) provides clock for BC8645
3) U2 (24C64) is serial EEPROM for parameter backup of BC8645.

2. Regulator:
1) U2 (BT5117)

3. Audio circuit:
1) U3 (PT2308) is a stereo headphone driver chip