

Technical Description

The Equipment Under Test (EUT) is Mini Compo with Bluetooth. It can accept analog and Digital audio input sources: FM radio, Audio CD play back, 3.5mm phone-jack line-in and wireless Bluetooth device. The EUT support the analog audio output sources: 3.5mm headphone jack and Audio Line out. The Bluetooth module in the EUT operates in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing).

2.4GHz Bluetooth Module:

Modulation Type: GFSK

Antenna Type: Integral, Internal (PCB Trace)

Frequency Range: 2402MHz - 2480MHz, 1MHz channel spacing, 79 channels

Nominal field strength is 90.4dB μ V/m @ 3m

Production Tolerance of field strength is +/- 3dB

Antenna gain is 0dBi

The functions of main ICs are mentioned below.

1. Bluetooth module BM81SPK01 (IC206):

- 1) U1 (IS1684S) acts as the 2.4GHz radio core of Bluetooth module (U2) (BM81SPK01NB2), which is integrating with audio CODEC.
- 2) 16MHz crystal (X1) provides clock for Bluetooth RF IC IS1681S (U1).
- 3) U2 (24C32) is serial EEPROM for parameter backup of U1 (IS1681S).

2. Power Supply portion:

- 1) Regulator for RF module: (IC 301) S78L05 and (IC300) PT1117T33
- 2) Regulator for CD (U504) SA9259

3. Control MCU:

- 1) U2 SC9637B
- 2) 8.4672 MHz crystal (Y1) provides clock for control MCU

4. Amplifier

- 1) IC6 SA9614
- 2) U200 TA8227P
- 3) IC304 UTC4558

5. Broadcast FM radio Tuner

- 1) IC101 TA2111