Technical Description

The Equipment-Under-Test (EUT) 1201800 is a Bluetooth Music Transmitter. The EUT can accept analog audio signal from 3.5mm phone jack input and SPDIF digital audio optical input. The Bluetooth radio inside the EUT will transmit wireless audio signal to the Bluetooth devices which has been paired with the EUT. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The EUT is powered by an AC/DC adaptor (Model: LGSPSC0500030UL, Input: 100-240VAC, Output: 5VDC).

2.4GHz Bluetooth Module:
Modulation Type: GFSK
Antenna Type: Integral, Internal
Frequency Range: 2402MHz - 2480MHz, 1MHz channel spacing, 79 channels

Antenna Type: Internal integral
Antenna Gain: 0dBi
Nominal RF power range: +6dBm to +9dBm

The functions of main ICs are mentioned below.

1. Bluetooth module (U6) BM21:

1) IS1621 (U1) acts as the 2.4GHz radio core of Bluetooth module (U6) BM21.
2) 16MHz crystal (X1) provides clock for Bluetooth RF IC IS1621.

2. Other Components:

1) WM8804 (U2) is DIR SPDIF Digital Audio Interface.
2) DLR2102 (U3) is SPDIF Optical Digital Input.
3) WM8524 (U4) is DAC for SPDIF Optical Digital input.
4) 48752 (U5) is audio switch for Optical or Analog audio input.
5) AO3401 (Q1) is MOSFET for analog line input audio detect.
6) 12MHz crystal (Y1) provide operating clock for WM8804 (U2).
7) BM21 (U6) is Bluetooth module.
8) ME6208K50 (U7) is 5.0V regulator.
9) ME6206K33 (U8) is 3.3V regulator.

Bluetooth

CH. NO.	FRE.	Hex Value		CH. NO.	FRE.	Hex Value		CH. NO	FRE.	Hex Value		CH. NO	FRE.	Hex Value
CH0	2402MHz	0		CH26	2428MHz	1A		CH52	2454MHz	34		CH78	2480MHz	4E
CH1	2403MHz	1		CH27	2429MHz	1B		CH53	2455MHz	35				
CH2	2404MHz	2		CH28	2430MHz	1C		CH54	2456MHz	36				
CH3	2405MHz	3		CH29	2431MHz	1D		CH55	2457MHz	37				
CH4	2406MHz	4		CH30	2432MHz	1E		CH56	2458MHz	38				
CH5	2407MHz	5		CH31	2433MHz	1F		CH57	2459MHz	39				
CH6	2408MHz	6		CH32	2434MHz	20		CH58	2460MHz	3A				
CH7	2409MHz	7		CH33	2435MHz	21		CH59	2461MHz	3B				
CH8	2410MHz	8		CH34	2436MHz	22		CH60	2462MHz	3C				
CH9	2411MHz	9		CH35	2437MHz	23		CH61	2463MHz	3D				
CH10	2412MHz	A		CH36	2438MHz	24		CH62	2464MHz	3E				
CH11	2413MHz	B		CH37	2439MHz	25		CH63	2465MHz	3F				
CH12	2414MHz	C		CH38	2440MHz	26		CH64	2466MHz	40				
CH13	2415MHz	D		CH39	2441MHz	27		CH65	2467MHz	41				
CH14	2416MHz	E		CH40	2442MHz	28		CH66	2468MHz	42				
CH15	2417MHz	F		CH41	2443MHz	29		CH67	2469MHz	43				
CH16	2418MHz	10		CH42	2444MHz	2A		CH68	2470MHz	44				
CH17	2419MHz	11		CH43	2445MHz	2B		CH69	2471MHz	45				
CH18	2420MHz	12		CH44	2446MHz	2C		CH70	2472MHz	46				
CH19	2421MHz	13		CH45	2447MHz	2D		CH71	2473MHz	47				
CH20	2422MHz	14		CH46	2448MHz	2E		CH72	2474MHz	48				
CH21	2423MHz	15		CH47	2449MHz	2F		CH73	2475MHz	49				
CH22	2424MHz	16		CH48	2450MHz	30		CH74	2476MHz	4A				
CH23	2425MHz	17		CH49	2451MHz	31		CH75	2477MHz	4B				
CH24	2426MHz	18		CH50	2452MHz	32		CH76	2478MHz	4C				
CH25	2427MHz	19		CH51	2453MHz	33		CH77	2479MHz	4D				