

Technical Description

The Equipment-Under-Test (EUT) 1201784 is a Bluetooth Portable Music Receiver. The EUT contains a Bluetooth radio which can accept wireless audio signal via Bluetooth devices. The Bluetooth module in the EUT is operating in the frequency range from 2402MHz to 2480MHz (79 channels with 1MHz channel spacing). The analog audio signal is then played back at the 3.5mm phone plug output. It is powered by internal 3.7V rechargeable batteries. The batteries can be charged by USB port (5VDC). Bluetooth 4.0 BLE is not used by the EUT.

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 (U1):

- 1) ATS2823 (UZ1) acts as the 2.4GHz radio core of Bluetooth module (U1).
- 2) 26MHz crystal (YZ1) provides clock for Bluetooth RF IC ATS2823 (UZ1).

2. Other Components:

- 3) W25Q16 (U2) is Flash memory for ATS2823 (UZ1).
- 4) WS4508E (U3) is 3.7V battery charging IC.

Bluetooth 3.0

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			