

Technical Description

The equipment under test (EUT) is part of a new gaming system for learning and play. It is 2.4GHz transceiver of a Siftable Block with 78 channels operating at 2402 - 2479MHz. It is powered by 1 X 3.7V lithium battery.

Channel List

2402	2403	2404	2405	2406	2407	2408	2409	2410
2411	2412	2413	2414	2415	2416	2417	2418	2419
2420	2421	2422	2423	2424	2425	2426	2427	2428
2429	2430	2431	2432	2433	2434	2435	2436	2437
2438	2439	2440	2441	2442	2443	2444	2445	2446
2447	2448	2449	2450	2451	2452	2453	2454	2455
2456	2457	2458	2459	2460	2461	2462	2463	2464
2465	2466	2467	2468	2469	2470	2471	2472	2473
2474	2475	2476	2477	2478	2479			

Modulation Type: GFSK

Antenna Type: Integral antenna

The functions of main ICs are mentioned as below.

- 1) U1 acts as MCU (Arm core).
- 2) U2 acts as Battery Charger IC.
- 3) U3 and U12 act as regulated IC to get a stable operated voltage from battery.
- 4) U4 acts as white LED Step-Up Converter.
- 5) U5, U9, U11 and U13 act as Neighbour detectors that detect other neighbour Siftable blocks direction (top, bottom, left and right) to support multi-block play game.
- 6) U6 acts as 3-axis motion sensor and detects 3-axis motion to support different games requirement.
- 7) U7 acts as buffer GATE of MCU.
- 8) U8 acts as 2.4GHz transceiver which is functioned communication between the block and the PC via a USB radio dongle.
- 9) UI0 acts as Memory (SPI flash).
- 10) Y1 acts as Oscillator for U1 and Y2 acts as Oscillator for U8.