

## **Operational Description**

The UUT is a Bluetooth speaker with built-in 2.4GHz Bluetooth V4.0 transceiver support A2DP, SPP, TWS.

The number of the channels is 79 in 2402-2480MHz for Bluetooth Enhanced Data Rate (EDR) and channels is 39 in 2402-2480MHz for Bluetooth Low Energy (BLE). The device adapts the frequency hopping spread spectrum modulation. The antenna is printed on PCB and maximum peak gain is -1dBi.

The system receivers have input bandwidths that match the hopping channel bandwidths of their corresponding transmitters and shift frequencies in synchronization with the transmitted signals.

Frequency hopping spread spectrum systems are not required to employ all available hopping channels during each transmission. The transmitter is presented with a continuous data stream. In addition, a system employing short transmission bursts must comply with the definition of a frequency hopping system and must distribute its 79 channels and over the minimum number of hopping channels (75 channels).

The incorporation of intelligence within a frequency hopping spread spectrum system that permits the system to recognize other users within the spectrum band so that it individually and independently chooses and adapts its hopsets to avoid hopping on occupied channels is permitted.

The coordination of frequency hopping systems in any other manner for the express purpose of avoiding the simultaneous occupancy of individual hopping frequencies by multiple transmitters is not permitted.

This device modulation function is support GFSK (1Mbps),  $\pi/4$  DQPSK (2Mbps) and 8DPSK(3Mbps) for Bluetooth EDR, GFSK (1Mbps) for Bluetooth Low Energy.

The UUT powered by 3.7VDC (2600mAH Li-ion polymer battery) or USB charged.