## 1.2. Operational Description

The EUT is an Intel® Dual Band Wireless-AC 7260 with built-in 2.4GHz Bluetooth V4.0, V3.0+HS, V2.1+EDR transceiver. The number of the channels is 79 in Bluetooth V3.0, V2.1+EDR mode and in Bluetooth V4.0 mode the channel number is 40. The device adapts the frequency hopping spread spectrum modulation. The antenna is PIFA / Dipole antenna and provides diversity function to improve the receiving function.

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.

The Bluetooth features a fully integrated zero-IF transmitter. The baseband transmit data is GFSK-modulated in the modem block and unconverted to the 2.4 GHz ISM band in the transmitter path. The transmitter path consists of signal filtering, I/Q up conversion, output power amplifier, and RF filtering. The transmitter path also incorporates π/4 – DQPSK for 2 Mbps and 8 – DPSK for 3 Mbps to support EDR. The transmitter section is compatible to the Bluetooth Low Energy specification.

The EUT is forward-compatible with the impending Bluetooth Low Energy operating mode, which provides a dramatic reduction in the power consumption of the Bluetooth radio and baseband. The primary application for this mode is to provide support for low data rate devices, such as sensors and remote controls.

This equipment includes WLAN and Bluetooth, which can not transmit signals simultaneously.