

3. Testing Facilities

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4. EUT Description and Operational Description

4.1 General Description

Bluetooth is a short-range radio link intended to replace the cable(s) connecting portable and/or fixed electronic devices. Key features are robustness, low complexity, low power, and low cost.

Bluetooth operates in the unlicensed ISM band at 2.4 GHz. A frequency hop transceiver is applied to combat interference and fading. A shaped, binary FM modulation is applied to minimize transceiver complexity. The symbol rate is 1Ms/s. A slotted channel is applied with a nominal slot length of 625 μ s. For full duplex transmission, a Time-Division Duplex (TDD) scheme is used.

4.2 Product Function and Intended use

The submitted sample is a wireless headset based on the Bluetooth technology. Bluetooth is a short-range radio link intended to be a cable replacement between portable and/or fixed electronic devices.

Bluetooth operates in the unlicensed ISM Band at 2.4 GHz. In the US a band of 83.5 MHz width is available. In this band, 79 RF channels spaced 1MHz apart are defined.

The channel is represented by a pseudo-random hopping sequence through the 79 channels. The channel is divided into time slots, with a nominal slot length of 625 μ s, where each slot corresponds to different RF hop frequencies. The nominal hop rate is 1600 hops/s. The symbol rate on the channel is 1 Ms/s. the low, middle and high operating frequency is 2402Mhz, 2441Mhz and 2480Mhz respectively.