

## - RF Exposure

### 1. Regulation

According to §15.247(i), systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this Chapter.

#### **KDB447498 was used as the guidance.**

According to §1.1310 and §2.1093 RF exposure is calculated.

### 1.1 Result

Test frequency (GHz)	Conducted Output Power (dBm)	Conducted Output Power (mW)	Min. Test Separation Distance (mm)	SAR Test Exclusion Thresholds ≤ 3.0 for 1-g SAR
Bluetooth Low Energy_GFSK	8.00	6.31	5.00	1.99

1. SAR test exclusion thresholds

$$= [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \cdot [\sqrt{f(GHz)}]$$

$$= [(6.31)/(5)] \cdot [\sqrt{2.480}] = 1.99$$

Mode	Target power [dBm]	Tolerance [dB]	Max tuneup power [dBm]	Average Power [dBm]
Bluetooth_GFSK Lowest	6	±2	8	6.40
Bluetooth_GFSK Middle	6	±2	8	7.19
Bluetooth_GFSK Highest	6	±2	8	7.17
Bluetooth_π/4DQPSK Lowest	3	±2	5	3.27
Bluetooth_π/4DQPSK Middle	3	±2	5	4.29
Bluetooth_π/4DQPSK Highest	3	±2	5	4.29
Bluetooth_8DPSK Lowest	3	±2	5	3.56
Bluetooth_8DPSK Middle	3	±2	5	4.32
Bluetooth_8DPSK Highest	3	±2	5	4.34

### 1.2 RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.