

* 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
2.480	2.0	1.58	5.0	0.50

1. SAR test exclusion thresholds

$$\begin{aligned} &= [(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \\ &= [(1.58)/(5)] \cdot [\sqrt{2.480}] = 0.50 \end{aligned}$$

Mode	Target power (dBm)	Allowed tolerant (dB)	Max tune up power (dBm)	Measured Average power (dBm)
Bluetooth_GFSK _Lowest	1.0	±1	2.0	1.17
Bluetooth_GFSK _Middle	1.0	±1	2.0	1.56
Bluetooth_GFSK _Highest	1.0	±1	2.0	1.18
Bluetooth_II/4DQPSK _Lowest	0	±1	1.0	0.54
Bluetooth_II/4DQPSK _Middle	0	±1	1.0	0.69
Bluetooth_II/4DQPSK _Highest	0	±1	1.0	0.56
Bluetooth_8DPSK _Lowest	0	±1	1.0	0.56
Bluetooth_8DPSK _Middle	0	±1	1.0	0.79
Bluetooth_8DPSK _Highest	0	±1	1.0	0.80

1.2 RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.