* 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

Mode	Test frequency (㎒)	Conducted output power (dBm)	Conducted output power (㎽)	Min. test separation distance (㎜)	SAR test exclusion thresholds ≤ 3.0 for 1-g SAR
Bluetooth	2 480	3.00	2.00	5.00	0.63
Bluetooth Low Energy	2 480	6.00	3.98	5.00	1.25
Total	Bluetooth (BDR) + Bluetooth Low Energy				1.88

1. SAR test exclusion thresholds
   = [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(㎓)]
   Bluetooth = [(2.00)/(5)] · [√2.480] = 0.63
   Bluetooth Low Energy = [(3.98)/(5)] · [√2.480] = 1.25

-Bluetooth

Mode	Target power [dBm]	Tolerance [dB]	Max tuneup power [dBm]	Average Power [dBm]
GFSK-Lowest	2.00	±1.0	3.00	2.79
GFSK-Middle	2.00	±1.0	3.00	2.77
GFSK-Highest	2.00	±1.0	3.00	2.75
π/4DQPSK-Lowest	2.00	±1.0	3.00	2.80
π/4DQPSK-Middle	2.00	±1.0	3.00	2.80
π/4DQPSK-Highest	2.00	±1.0	3.00	2.76
8DPSK-Lowest	2.00	±1.0	3.00	2.80
8DPSK-Middle	2.00	±1.0	3.00	2.80
8DPSK-Highest	2.00	±1.0	3.00	2.77

-Bluetooth Low Energy

Mode	Target power [dBm]	Tolerance [dB]	Max tuneup power [dBm]	Average Power [dBm]
Bluetooth Low Energy_ Lowest	5.00	±1.0	6.00	5.34
Bluetooth Low Energy_ Middle	5.00	±1.0	6.00	5.47
Bluetooth Low Energy_ Highest	5.00	±1.0	6.00	5.41

1.2 RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.