- 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 (㎓)	Conducted Output Power (㏈m)	Conducted Output Power (㎽)	Min. Test Separation Distance (㎜)	SAR Test Exclusion Thresholds ≤ 3.0 for 1-g SAR
Bluetooth Low Energy _Lowest	-11.00	0.08	5.00	0.02
Bluetooth Low Energy _Middle	-11.00	0.08	5.00	0.02
Bluetooth Low Energy _Highest	-11.00	0.08	5.00	0.03

1. SAR test exclusion thresholds
   = [(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] · [√f(㎓)]
   = [(0.08)/(5)] · [√2.402] = 0.0248

Mode	Target power [㏈m]	Tolerance [㏈]	Max tuneup power [㏈m]	Average Power [㏈m]
Bluetooth Low Energy _Lowest	-13.0	±2.00	-11.0	-11.64
Bluetooth Low Energy _Middle	-13.0	±2.00	-11.0	-12.25
Bluetooth Low Energy _Highest	-13.0	±2.00	-11.0	-12.92

1.2 RF Exposure Compliance Issue

Therefore, EUT is not required the SAR Evaluation.