

Portable device

According to §15.247(e)(i) and §1.1307(b)(1), 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 level in excess of the Commission's guidelines.

According to KDB447498 D01 General RF Exposure Guidance V06

The 1-g SAR and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 for 10-g extremity SAR, where:

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- The result is rounded to one decimal place for comparison

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

BLE:

Antenna Type: FPCB Antenna

Antenna Gain: 1dBi

Modulation	Channel Freq. (GHz)	Conduct ed power (dBm)	Conducte d power (mW)	Tune-up power (dBm)	Max tune-up power (dBm)	Max tune-up power (mW)	Distance (mm)	Result calculation	1g SAR Exclusion threshold	SAR test exclusion
GFSK-1Mbit	2.402	-8.82	0.131	-9.0±1	-8	0.158	<5	0.04913	3.00	YES
	2.441	-8.74	0.134	-9.0±1	-8	0.158	<5	0.04952	3.00	YES
	2.480	-9.11	0.123	-9.0±1	-8	0.158	<5	0.04992	3.00	YES
GFSK-2Mbit	2.402	-6.36	0.231	-6.5±1	-5.5	0.282	<5	0.08736	3.00	YES
	2.441	-6.62	0.218	-6.5±1	-5.5	0.282	<5	0.08807	3.00	YES
	2.480	-6.73	0.212	-6.5±1	-5.5	0.282	<5	0.08877	3.00	YES

Conclusion:

For the max result: $0.08877 \leq 3.0$ for 1-g SAR, No SAR is required.

Signature:

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