

FCC ID: 2BGEE-IC50A

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:

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	SAR Exclusion threshold	SAR test exclusion
GFSK	2.402	-1.058	0.78	-1±1	0.00	1.00	<5	0.30997	3.00	YES
	2.44	-1.344	0.73	-1±1	0.00	1.00	<5	0.31241	3.00	YES
	2.480	-1.365	0.73	-1±1	0.00	1.00	<5	0.31496	3.00	YES

NFC:

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	SAR Exclusion threshold	SAR test exclusion
ASK	0.01356	4.75	2.99	4±1	5.00	3.16	<5	0.07365	3.00	YES

Note:dbm=dbuv/m-95.2=100.95-95.2=5.75dBm(ERP), so the conduct peak power=5.75-1=4.75dBm

Conclusion:

For the max result : $0.31496 \leq \text{FCC Limit } 3.0$ for 1g SAR.