

FCC ID: 2BNBM-S23

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.

EDR:

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	2.725	1.87	3±1	4.00	2.51	<5	0.77860	3.00	YES
	2.441	3.373	2.17	3±1	4.00	2.51	<5	0.78490	3.00	YES
	2.480	2.865	1.93	3±1	4.00	2.51	<5	0.79114	3.00	YES
$\pi/4$ DQPSK	2.402	3.524	2.25	4±1	5.00	3.16	<5	0.98020	3.00	YES
	2.441	4.114	2.58	4±1	5.00	3.16	<5	0.98813	3.00	YES
	2.480	3.56	2.27	4±1	5.00	3.16	<5	0.99599	3.00	YES

BLE 1M:

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	3.279	2.13	4±1	5.00	3.16	<5	0.98020	3.00	YES
	2.44	3.88	2.44	4±1	5.00	3.16	<5	0.98793	3.00	YES
	2.480	3.233	2.11	4±1	5.00	3.16	<5	0.99599	3.00	YES

BLE 2M:

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	3.516	2.25	4±1	5.00	3.16	<5	0.98020	3.00	YES
	2.44	4.071	2.55	4±1	5.00	3.16	<5	0.98793	3.00	YES
	2.480	3.449	2.21	4±1	5.00	3.16	<5	0.99599	3.00	YES

Conclusion:

For the max result : $0.99599 \leq \text{FCC Limit } 3.0$ for 1g SAR.