

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	-0.61	0.87	0±1	1	1.26	<5	0.39023	3.00	YES
	2.441	1.03	1.27	1±1	2	1.58	<5	0.49524	3.00	YES
	2.480	1.14	1.30	1±1	2	1.58	<5	0.49918	3.00	YES
$\pi/4$ -DQPSK	2.402	0.66	1.16	1±1	2	1.58	<5	0.49127	3.00	YES
	2.441	2.2	1.66	2±1	3	2.00	<5	0.62347	3.00	YES
	2.480	2.31	1.70	2±1	3	2.00	<5	0.62843	3.00	YES
8-DQPSK	2.402	0.97	1.25	1±1	2	1.58	<5	0.49127	3.00	YES
	2.441	2.6	1.82	2±1	3	2.00	<5	0.62347	3.00	YES
	2.480	2.69	1.86	2±1	3	2.00	<5	0.62843	3.00	YES
BLE(1M)	2.402	-2.8	0.52	-3±1	-2	0.63	<5	0.19558	3.00	YES
	2.440	-3.01	0.50	-3±1	-2	0.63	<5	0.19712	3.00	YES
	2.480	-3.48	0.45	-3±1	-2	0.63	<5	0.19873	3.00	YES
BLE(2M)	2.402	-2.8	0.52	-3±1	-2	0.63	<5	0.19558	3.00	YES
	2.440	-3.01	0.50	-3±1	-2	0.63	<5	0.19712	3.00	YES
	2.480	-3.48	0.45	-3±1	-2	0.63	<5	0.19873	3.00	YES

Conclusion:

For the max result : $0.62843 \leq 3.0$ for 1g SAR, SAR is not required.



Signature:

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