

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.

BT3.0

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	4.97	3.14	5±1	6	3.98	<5	1.23400	3.00	YES
	2.441	5.04	3.19	5±1	6	3.98	<5	1.24398	3.00	YES
	2.480	5.15	3.27	5±1	6	3.98	<5	1.25388	3.00	YES
$\pi/4$ -DQPSK	2.402	7.33	5.41	7.5±1	8.5	7.08	<5	2.19440	3.00	YES
	2.441	7.39	5.48	7.5±1	8.5	7.08	<5	2.21215	3.00	YES
	2.480	7.49	5.61	7.5±1	8.5	7.08	<5	2.22975	3.00	YES
8-DQPSK	2.402	7.84	6.08	7.5±1	8.5	7.08	<5	2.19440	3.00	YES
	2.441	7.88	6.14	7.5±1	8.5	7.08	<5	2.21215	3.00	YES
	2.480	7.98	6.28	7.5±1	8.5	7.08	<5	2.22975	3.00	YES

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
BLE-1M	2.402	1.68	1.47	2±1	3	2.00	<5	0.61847	3.00	YES
	2.440	1.76	1.50	2±1	3	2.00	<5	0.62334	3.00	YES
	2.480	1.8	1.51	2±1	3	2.00	<5	0.62843	3.00	YES
BLE-2M	2.402	1.73	1.49	2±1	3	2.00	<5	0.61847	3.00	YES
	2.440	1.83	1.52	2±1	3	2.00	<5	0.62334	3.00	YES
	2.480	1.86	1.53	2±1	3	2.00	<5	0.62843	3.00	YES

Conclusion:

For the max result : $2.22975 \leq 3.0$ for 1g SAR, SAR is not required.



Signature:

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