

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.

WIFI+BT:

Modulation	Channel Freq. (GHz)	Conducted power (dBm)	Conducted 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
802.11b	2.412	9.4	8.71	8.7±1	9.7	9.33	<5	2.89880	3.00	YES
	2.442	9.41	8.73	8.7±1	9.7	9.33	<5	2.91677	3.00	YES
	2.462	9.69	9.31	8.7±1	9.7	9.33	<5	2.92869	3.00	YES
802.11g	2.412	9.59	9.10	8.8±1	9.8	9.55	<5	2.96632	3.00	YES
	2.442	9.48	8.87	8.8±1	9.8	9.55	<5	2.98471	3.00	YES
	2.462	9.8	9.55	8.8±1	9.8	9.55	<5	2.99691	3.00	YES
802.11n HT20	2.412	9.41	8.73	8.7±1	9.7	9.33	<5	2.89880	3.00	YES
	2.442	9.39	8.69	8.7±1	9.7	9.33	<5	2.91677	3.00	YES
	2.462	9.7	9.33	8.7±1	9.7	9.33	<5	2.92869	3.00	YES
802.11n HT40	2.422	9.22	8.36	8.5±1	9.5	8.91	<5	2.77407	3.00	YES
	2.442	9.28	8.47	8.5±1	9.5	8.91	<5	2.78550	3.00	YES
	2.452	9.44	8.79	8.5±1	9.5	8.91	<5	2.79120	3.00	YES
BT3.0-GFSK	2.402	4.129	2.59	4.6±1	5.6	3.63	<5	1.12542	3.00	YES
	2.441	5.55	3.59	4.6±1	5.6	3.63	<5	1.13452	3.00	YES
	2.48	4.622	2.90	4.6±1	5.6	3.63	<5	1.14355	3.00	YES
BT3.0-π/4-DQPSK	2.402	3.296	2.14	2.5±1	3.5	2.24	<5	0.69393	3.00	YES
	2.441	4.841	3.05	2.5±1	3.5	2.24	<5	0.69954	3.00	YES
	2.48	3.916	2.46	2.5±1	3.5	2.24	<5	0.70511	3.00	YES
BT3.0-8-DPSK	2.402	3.427	2.20	4.1±1	5.1	3.24	<5	1.00304	3.00	YES
	2.441	5.012	3.17	4.1±1	5.1	3.24	<5	1.01115	3.00	YES
	2.48	4.049	2.54	4.1±1	5.1	3.24	<5	1.01919	3.00	YES
BLE-GFSK	2.402	4.138	2.59	4.6±1	5.6	3.63	<5	1.12542	3.00	YES
	2.44	5.55	3.59	4.6±1	5.6	3.63	<5	1.13429	3.00	YES
	2.48	4.39	2.75	4.6±1	5.6	3.63	<5	1.14355	3.00	YES

Conclusion:

For the max result : $2.99691 \leq 3.0$ for Max Power Density, compliance RF exposure.

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Signature:

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