

FCC ID: 2BB8I-S15

Portable device

According to §15.247(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 and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0$ 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;

The test exclusions are applicable only when the minimum test separation distance is ≤ 50 mm

and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

We use 5mm as separation distance to calculate.

Maximum measured transmitter power:

BT

	Channel Freq. (MHz)	Max Transmit Power (dBm)	Max tune-up power (dBm)	Result calculation	1-g SAR
GFSK	2402	1.05	2	0.49	3.0
	2441	1.22	2	0.49	3.0
	2480	1.97	2	0.50	3.0
pi/4-DQPSK	2402	1.02	3	0.49	3.0
	2441	1.52	2	0.49	3.0
	2480	1.24	2	0.50	3.0
8DPSK	2402	1.23	2	0.49	3.0
	2441	1.76	2	0.49	3.0
	2480	1.46	2	0.50	3.0

BLE

BLE 1M	2402	1.38	2	0.49	3.0
	2441	1.61	2	0.49	3.0
	2480	2.82	3	0.63	3.0

WIFI2.4G

WIFI802.11b	2412	4.47	5	0.98	3.0
	2437	5.13	6	1.24	3.0
	2462	5.34	6	1.25	3.0
WIFI802.11g	2412	4.83	5	0.98	3.0
	2437	5.17	6	1.24	3.0
	2462	5.68	6	1.25	3.0
WIFI802.11n20	2412	4.00	5	0.98	3.0
	2437	5.08	6	1.24	3.0
	2462	5.72	6	1.25	3.0
WIFI802.11n40	2422	4.89	5	0.98	3.0
	2437	5.13	6	1.24	3.0
	2452	5.24	6	1.25	3.0

WIFI 5.1G

WIFI802.11a	5180	5.31	6	1.81	3.0
	5200	5.90	6	1.81	3.0
	5240	5.71	6	1.82	3.0
WIFI802.11n20	5180	5.01	6	1.81	3.0
	5200	5.77	6	1.81	3.0
	5240	5.21	6	1.82	3.0
WIFI802.11n40	5190	2.33	3	0.91	3.0
	5230	6.22	7	2.29	3.0
WIFI802.11 ac20	5180	5.09	6	1.81	3.0
	5200	5.81	6	1.81	3.0
	5240	5.58	6	1.82	3.0
WIFI802.11 ac40	5190	2.35	3	0.91	3.0
	5230	6.20	7	2.29	3.0
WIFI802.11 ac80	5210	4.12	5	1.44	3.0

WIFI5.8G

WIFI802.11a	5745	5.44	6	1.91	3.0
	5785	5.26	6	1.92	3.0
	5825	4.74	6	1.92	3.0
WIFI802.11n20	5745	5.37	6	1.91	3.0
	5785	5.22	6	1.92	3.0
	5825	4.56	5	1.53	3.0
WIFI802.11n40	5755	5.26	6	1.91	3.0
	5795	5.11	6	1.92	3.0
WIFI802.11 ac20	5745	5.31	6	1.91	3.0
	5785	4.82	5	1.52	3.0
	5825	4.45	5	1.53	3.0
WIFI802.11 ac40	5755	5.14	6	1.91	3.0
	5795	5.19	6	1.92	3.0
WIFI802.11 ac80	5775	4.79	5	1.52	3.0

Conclusion:

For the max result : $0.99 \leq 3.0$ for 1-g SAR extremity SAR, No SAR is required.