

FCC ID: 2BPZ8-OD20

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	1.894	1.55	2±1	3.00	2.00	<5	0.61847	3.00	YES
	2.441	2.029	1.60	2±1	3.00	2.00	<5	0.62347	3.00	YES
	2.480	1.521	1.42	2±1	3.00	2.00	<5	0.62843	3.00	YES
π /4DQPSK	2.402	2.626	1.83	3±1	4.00	2.51	<5	0.77860	3.00	YES
	2.441	2.737	1.88	3±1	4.00	2.51	<5	0.78490	3.00	YES
	2.480	2.096	1.62	3±1	4.00	2.51	<5	0.79114	3.00	YES
8DQPSK	2.402	2.889	1.94	3±1	4.00	2.51	<5	0.77860	3.00	YES
	2.441	2.98	1.99	3±1	4.00	2.51	<5	0.78490	3.00	YES
	2.480	2.373	1.73	3±1	4.00	2.51	<5	0.79114	3.00	YES

2.4GWIFI:

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
802.11b	2.412	7.896	6.16	8±1	9.00	7.94	<5	2.46728	3.00	YES
	2.437	8.437	6.98	8±1	9.00	7.94	<5	2.48003	3.00	YES
	2.462	8.33	6.81	8±1	9.00	7.94	<5	2.49272	3.00	YES
802.11g	2.412	8.042	6.37	8±1	9.00	7.94	<5	2.46728	3.00	YES
	2.437	8.765	7.52	8±1	9.00	7.94	<5	2.48003	3.00	YES
	2.462	8.589	7.23	8±1	9.00	7.94	<5	2.49272	3.00	YES
802.11n(HT20)	2.412	6.944	4.95	7±1	8.00	6.31	<5	1.95983	3.00	YES
	2.437	7.718	5.91	8±1	9.00	7.94	<5	2.48003	3.00	YES
	2.462	7.596	5.75	8±1	9.00	7.94	<5	2.49272	3.00	YES
802.11n(HT40)	2.422	7.48	5.60	8±1	9.00	7.94	<5	2.47239	3.00	YES
	2.437	7.796	6.02	8±1	9.00	7.94	<5	2.48003	3.00	YES
	2.452	7.91	6.18	8±1	9.00	7.94	<5	2.48766	3.00	YES

5.2GWIFI:

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
802.11a	5.18	8.156	6.54	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.2	8.558	7.17	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.24	8.693	7.40	7±1	8.00	6.31	<5	2.88865	3.00	YES
802.11ac 20	5.18	7.847	6.09	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.2	7.886	6.15	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.24	8.124	6.49	7±1	8.00	6.31	<5	2.88865	3.00	YES
802.11ac 40	5.19	7.741	5.94	7±1	8.00	6.31	<5	2.87484	3.00	YES
	5.23	8.023	6.34	7±1	8.00	6.31	<5	2.88590	3.00	YES
802.11ac 80	5.21	7.459	5.57	7±1	8.00	6.31	<5	2.88037	3.00	YES
802.11n(HT20)	5.18	7.86	6.11	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.2	8.3	6.76	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.24	8.549	7.16	7±1	8.00	6.31	<5	2.88865	3.00	YES
802.11n(HT40)	5.19	7.887	6.15	7±1	8.00	6.31	<5	2.87484	3.00	YES
	5.23	8.142	6.52	7±1	8.00	6.31	<5	2.88590	3.00	YES

Conclusion:

For the max result: 2.88865≤ FCC Limit 3.0 for 1g SAR.