

FCC ID: 2BWAV-ZT59

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	2.188	1.66	2±1	3.00	2.00	<5	0.61847	3.00	YES
	2.441	3.095	2.04	3±1	4.00	2.51	<5	0.78490	3.00	YES
	2.480	4.666	2.93	4±1	5.00	3.16	<5	0.99599	3.00	YES

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	2.2	1.66	2±1	3.00	2.00	<5	0.61847	3.00	YES
	2.441	3.2	2.09	3±1	4.00	2.51	<5	0.78490	3.00	YES
	2.480	4.77	3.00	4±1	5.00	3.16	<5	0.99599	3.00	YES
π /4DQPSK	2.402	2.96	1.98	2±1	3.00	2.00	<5	0.61847	3.00	YES
	2.441	4.02	2.52	4±1	5.00	3.16	<5	0.98813	3.00	YES
	2.480	5.64	3.66	5±1	6.00	3.98	<5	1.25388	3.00	YES
8DQPSK	2.402	3.72	2.36	3±1	4.00	2.51	<5	0.77860	3.00	YES
	2.441	4.72	2.96	4±1	5.00	3.16	<5	0.98813	3.00	YES
	2.480	6.32	4.29	6±1	7.00	5.01	<5	1.57854	3.00	YES

Conclusion:

For the max result : $1.57854 \leq$ FCC Limit 3.0 for 1g SAR.