

FCC ID: 2BNPB-AR401P-25**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.

BLE1M:

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 calculatio n	SAR Exclusion threshold	SAR test exclusion
GFSK	2.402	-0.855	0.82	0±1	1.00	1.26	<5	0.39023	3.00	YES
	2.441	0.763	1.19	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	0.553	1.14	0±1	1.00	1.26	<5	0.39651	3.00	YES

BLE2M:

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 calculatio n	SAR Exclusion threshold	SAR test exclusion
GFSK	2.402	-0.824	0.83	0±1	1.00	1.26	<5	0.39023	3.00	YES
	2.441	0.809	1.20	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	0.63	1.16	0±1	1.00	1.26	<5	0.39651	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 calculatio n	SAR Exclusion threshold	SAR test exclusion
GFSK	2.402	-0.698	0.85	0±1	1.00	1.26	<5	0.39023	3.00	YES
	2.441	0.899	1.23	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	0.7	1.17	0±1	1.00	1.26	<5	0.39651	3.00	YES
π /4DQPSK	2.402	0.103	1.02	0±1	1.00	1.26	<5	0.39023	3.00	YES
	2.441	0.579	1.14	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	0.268	1.06	0±1	1.00	1.26	<5	0.39651	3.00	YES
8DQPSK	2.402	-0.263	0.94	0±1	1.00	1.26	<5	0.39023	3.00	YES
	2.441	0.854	1.22	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	0.532	1.13	0±1	1.00	1.26	<5	0.39651	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 calculatio n	SAR Exclusion threshold	SAR test exclusion
802.11b	2.412	4.842	3.05	4±1	5.00	3.16	<5	0.98224	3.00	YES
	2.437	4.462	2.79	4±1	5.00	3.16	<5	0.98732	3.00	YES
	2.462	4.581	2.87	4±1	5.00	3.16	<5	0.99237	3.00	YES
802.11g	2.412	4.469	2.80	4±1	5.00	3.16	<5	0.98224	3.00	YES
	2.437	3.757	2.38	3±1	4.00	2.51	<5	0.78426	3.00	YES
	2.462	4.83	3.04	4±1	5.00	3.16	<5	0.99237	3.00	YES
802.11n(HT20)	2.412	4.535	2.84	4±1	5.00	3.16	<5	0.98224	3.00	YES
	2.437	3.896	2.45	3±1	4.00	2.51	<5	0.78426	3.00	YES
	2.462	4.352	2.72	4±1	5.00	3.16	<5	0.99237	3.00	YES
802.11n(HT40)	2.422	4.149	2.60	4±1	5.00	3.16	<5	0.98428	3.00	YES
	2.437	4.425	2.77	4±1	5.00	3.16	<5	0.98732	3.00	YES
	2.452	4.87	3.07	4±1	5.00	3.16	<5	0.99035	3.00	YES

5GWIFI:

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 calculatio n	SAR Exclusion threshold	SAR test exclusion
802.11a20	5.18	4.628	2.90	4±1	5.00	3.16	<5	1.43944	3.00	YES
	5.2	4.66	2.92	4±1	5.00	3.16	<5	1.44222	3.00	YES
	5.24	4.408	2.76	4±1	5.00	3.16	<5	1.44776	3.00	YES
802.11ac20	5.18	3.994	2.51	3±1	4.00	2.51	<5	1.14339	3.00	YES
	5.2	4.943	3.12	4±1	5.00	3.16	<5	1.44222	3.00	YES
	5.24	4.77	3.00	4±1	5.00	3.16	<5	1.44776	3.00	YES
802.11ac40	5.19	3.879	2.44	3±1	4.00	2.51	<5	1.14449	3.00	YES
	5.23	4.666	2.93	4±1	5.00	3.16	<5	1.44637	3.00	YES
802.11n(HT20)	5.18	4.25	2.66	4±1	5.00	3.16	<5	1.43944	3.00	YES
	5.2	3.924	2.47	3±1	4.00	2.51	<5	1.14560	3.00	YES
	5.24	4.825	3.04	4±1	5.00	3.16	<5	1.44776	3.00	YES
802.11n(HT40)	5.19	4.732	2.97	4±1	5.00	3.16	<5	1.44083	3.00	YES
	5.23	4.685	2.94	4±1	5.00	3.16	<5	1.44637	3.00	YES

Conclusion:

For the max result : $1.44776 \leq \text{FCC Limit } 3.0$ for 1g SAR.