

FCC ID: 2AEKR-TG10MK

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 (1Mbps)	2.402	-12.356	0.06	-12±1	-11.00	0.08	<5	0.02462	3.00	YES
	2.441	-7.966	0.16	-7±1	-6.00	0.25	<5	0.07849	3.00	YES
	2.480	-9.327	0.12	-9±1	-8.00	0.16	<5	0.04992	3.00	YES
GFSK (2Mbps)	2.402	-12.342	0.06	-12±1	-11.00	0.08	<5	0.02462	3.00	YES
	2.441	-7.989	0.16	-7±1	-6.00	0.25	<5	0.07849	3.00	YES
	2.480	-9.344	0.12	-9±1	-8.00	0.16	<5	0.04992	3.00	YES

BT:

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	-4.052	0.39	-4±1	-3.00	0.50	<5	0.15535	3.00	YES
	2.441	-0.206	0.95	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	-1.735	0.67	-1±1	0.00	1.00	<5	0.31496	3.00	YES
Pi/4 DQPSK	2.402	-4.787	0.33	-4±1	-3.00	0.50	<5	0.15535	3.00	YES
	2.441	-0.745	0.84	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	-2.213	0.60	-2±1	-1.00	0.79	<5	0.25018	3.00	YES
8DPSK	2.402	-4.763	0.33	-4±1	-3.00	0.50	<5	0.15535	3.00	YES
	2.441	-0.735	0.84	0±1	1.00	1.26	<5	0.39338	3.00	YES
	2.480	-2.204	0.60	-2±1	-1.00	0.79	<5	0.25018	3.00	YES

2.4G WIFI:

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	7.08	5.11	8±1	9.00	7.94	<5	2.46728	3.00	YES
	2.437	7.8	6.03	8±1	9.00	7.94	<5	2.48003	3.00	YES
	2.462	6.96	4.97	7±1	8.00	6.31	<5	1.98004	3.00	YES
802.11g	2.412	6.59	4.56	7±1	8.00	6.31	<5	1.95983	3.00	YES
	2.437	6.21	4.18	7±1	8.00	6.31	<5	1.96996	3.00	YES
	2.462	6.7	4.68	7±1	8.00	6.31	<5	1.98004	3.00	YES
802.11n20	2.412	6.89	4.89	7±1	8.00	6.31	<5	1.95983	3.00	YES
	2.437	6.53	4.50	7±1	8.00	6.31	<5	1.96996	3.00	YES
	2.462	7.57	5.71	8±1	9.00	7.94	<5	2.49272	3.00	YES
802.11n40	2.422	5.03	3.18	6±1	7.00	5.01	<5	1.55997	3.00	YES
	2.437	4.21	2.64	5±1	6.00	3.98	<5	1.24296	3.00	YES
	2.452	5.51	3.56	6±1	7.00	5.01	<5	1.56960	3.00	YES

5G WIFI:

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	5.180	6.612	4.58	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.200	6.850	4.84	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.240	6.398	4.36	7±1	8.00	6.31	<5	2.88865	3.00	YES
802.11n20	5.180	6.437	4.40	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.200	6.553	4.52	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.240	5.769	3.77	6±1	7.00	5.01	<5	2.29454	3.00	YES
802.11n40	5.190	6.487	4.45	7±1	8.00	6.31	<5	2.87484	3.00	YES
	5.230	5.707	3.72	6±1	7.00	5.01	<5	2.29235	3.00	YES
802.11ac20	5.180	6.736	4.72	7±1	8.00	6.31	<5	2.87207	3.00	YES
	5.200	6.787	4.77	7±1	8.00	6.31	<5	2.87761	3.00	YES
	5.240	5.750	3.76	6±1	7.00	5.01	<5	2.29454	3.00	YES
802.11ac40	5.190	6.603	4.57	7±1	8.00	6.31	<5	2.87484	3.00	YES
	5.230	5.683	3.70	6±1	7.00	5.01	<5	2.29235	3.00	YES
802.11ac80	5.210	4.425	2.77	5±1	6.00	3.98	<5	1.81739	3.00	YES

5.8G WIFI:

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	5.745	5.484	3.54	6±1	7.00	5.01	<5	2.40256	3.00	YES
	5.785	4.757	2.99	5±1	6.00	3.98	<5	1.91506	3.00	YES
	5.825	5.978	3.96	6±1	7.00	5.01	<5	2.41923	3.00	YES
802.11n20	5.745	4.798	3.02	5±1	6.00	3.98	<5	1.90842	3.00	YES
	5.785	4.387	2.75	5±1	6.00	3.98	<5	1.91506	3.00	YES
	5.825	4.970	3.14	5±1	6.00	3.98	<5	1.92167	3.00	YES
802.11n40	5.755	3.934	2.47	4±1	5.00	3.16	<5	1.51723	3.00	YES
	5.795	3.190	2.08	4±1	5.00	3.16	<5	1.52250	3.00	YES
802.11ac20	5.745	5.558	3.60	6±1	7.00	5.01	<5	2.40256	3.00	YES
	5.785	5.683	3.70	6±1	7.00	5.01	<5	2.41091	3.00	YES
	5.825	5.753	3.76	6±1	7.00	5.01	<5	2.41923	3.00	YES
802.11ac40	5.755	3.667	2.33	4±1	5.00	3.16	<5	1.51723	3.00	YES
	5.795	3.772	2.38	4±1	5.00	3.16	<5	1.52250	3.00	YES
802.11ac80	5.775	1.000	1.26	2±1	3.00	2.00	<5	0.95897	3.00	YES

Conclusion:

For the max result : $2.88865\text{W/Kg} \leq \text{FCC Limit } 3.0 \text{ for } 1\text{g SAR}$.
The Product unsupported at the same time to Transmitting.