

FCC ID: 2AKU5ZC07

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 DTS:

Transmit Frequency (GHz)	Mode	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR
2.402	GFSK	2.62	4	0.78	3.0
2.440	GFSK	3.34	4	0.78	3.0
2.480	GFSK	2.64	4	0.79	3.0

BT DSS:

Transmit Frequency (GHz)	Mode	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR
2.402	GFSK	5.37	6	1.23	3.0
2.441	GFSK	5.69	6	1.24	3.0
2.480	GFSK	5.43	6	1.25	3.0
2.402	pi/4-DQPSK	4.66	6	1.23	3.0
2.441	pi/4-DQPSK	4.81	6	1.24	3.0
2.480	pi/4-DQPSK	4.42	6	1.25	3.0
2.402	8DPSK	5.09	6	1.23	3.0
2.441	8DPSK	5.21	6	1.24	3.0
2.480	8DPSK	4.88	6	1.25	3.0

WIFI 2.4G:

Transmit Frequency (GHz)	Mode	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR
2412	802.11b	9.11	9.5	2.77	3
2437	802.11b	9.27	9.5	2.78	3
2462	802.11b	8.95	9.5	2.80	3
2412	802.11g	9.05	9.5	2.77	3
2437	802.11g	9.30	9.5	2.78	3

2462	802.11g	8.35	9.5	2.80	3
2412	802.11n(HT20)	8.02	9	2.47	3
2437	802.11n(HT20)	8.42	9	2.48	3
2462	802.11n(HT20)	7.63	9	2.49	3
2412	802.11n(HT40)	3.12	4	0.78	3
2437	802.11n(HT40)	3.41	4	0.78	3
2462	802.11n(HT40)	2.88	4	0.79	3

WIFI 5G:

Band	Operating mode	Channel Number	Channel Freq. (MHz)	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR	
U-NII – 1	802.11a	CH36	5180	6.58	7	2.28	3	
		CH40	5200	6.15	7	2.29	3	
		CH48	5240	5.73	7	2.29	3	
	802.11n-HT20	CH36	5180	6.48	7	7	2.28	3
		CH40	5200	6.15	7	7	2.29	3
		CH48	5240	5.69	7	7	2.29	3
	802.11ac(HT20)	CH36	5180	6.28	7	7	2.28	3
		CH40	5200	6.16	7	7	2.29	3
		CH48	5240	5.51	7	7	2.29	3
	802.11n-HT40	CH38	5190	5.94	7	7	2.28	3
		CH46	5230	5.41	6	6	1.82	3
	802.11ac(HT40)	CH38	5190	5.75	7	7	2.28	3
		CH46	5230	5.38	6	6	1.82	3
	802.11ac(HT80)	CH42	5210	4.17	5	5	1.44	3

Band	Operating mode	Channel Number	Channel Freq. (MHz)	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR	
U-NII – 2A	802.11a	CH52	5260	4.58	6	1.83	3	
		CH56	5280	5.19	6	1.83	3	
		CH64	5320	6.20	7	2.31	3	
	802.11n-HT20	CH52	5260	4.58	6	6	1.83	3
		CH56	5280	4.84	6	6	1.83	3
		CH64	5320	6.04	7	7	2.31	3
	802.11ac(HT20)	CH52	5260	4.46	6	6	1.83	3
		CH56	5280	4.70	6	6	1.83	3
		CH64	5320	5.76	7	7	2.31	3
	802.11n-HT40	CH54	5270	4.22	5	5	1.45	3
		CH62	5310	5.37	6	6	1.83	3
	802.11ac(HT40)	CH54	5270	4.30	5	5	1.45	3
		CH62	5310	5.43	6	6	1.83	3
	802.11ac(HT80)	CH58	5290	3.34	4	4	1.16	3

Band	Operating mode	Channel Number	Channel Freq. (MHz)	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR
U-NII – 2C	802.11a	CH100	5500	7.51	8	2.96	3
		CH116	5580	6.66	7	2.37	3
		CH140	5700	3.98	5	1.51	3
	802.11n-HT20	CH100	5500	7.17	8	2.96	3
		CH116	5580	6.54	7	2.37	3
		CH140	5700	4.02	5	1.51	3
	802.11ac(HT20)	CH100	5500	7.11	8	2.96	3
		CH116	5580	6.37	7	2.37	3
		CH140	5700	3.86	5	1.51	3
	802.11n-HT40	CH102	5510	6.82	7	2.35	3
		CH134	5670	4.64	5	1.51	3
	802.11ac(HT40)	CH102	5510	7.03	8	2.96	3
		CH134	5670	4.59	5	1.51	3
	802.11ac(HT80)	CH106	5530	3.45	4	1.18	3

Band	Operating mode	Channel Number	Channel Freq. (MHz)	peak conducted output power (dBm)	tune up maximum power	Result calculation	1-g SAR	
U-NII – 3	802.11a	CH149	5745	5.27	6	1.91	3	
		CH157	5785	5.49	6	1.92	3	
		CH165	5825	4.06	5	1.53	3	
	802.11n-HT20	CH149	5745	4.91	6	6	1.91	3
		CH157	5785	5.27	6	6	1.92	3
		CH165	5825	3.92	5	5	1.53	3
	802.11ac(HT20)	CH149	5745	4.96	6	6	1.91	3
		CH157	5785	5.13	6	6	1.92	3
		CH165	5825	3.89	4	4	1.21	3
	802.11n-HT40	CH151	5755	5.02	6	6	1.91	3
		CH159	5795	4.87	6	6	1.92	3
	802.11ac(HT40)	CH151	5755	5.01	6	6	1.91	3
		CH159	5795	4.91	6	6	1.92	3
	802.11ac(HT80)	CH42	5210	5.26	6	6	1.82	3

Conclusion:

For the max result : $2.96 \leq 3.0$ for 1-g SAR extremity SAR, No SAR is required.

Signature:



Date: 2021.8.19

NAME AND TITLE (Please print or type): Lisa Wang/Manager

COMPANY (Please print or type): Shenzhen EMTEK Co.,Ltd./Building 69, Majialong Industry Zone, Nanshan District, Shenzhen, Guangdong, China