

FCC ID: 2AIOIC640P

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 and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

$$[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance, mm})] * [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$

$f(\text{GHz})$ 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.

We used a distance 5mm to calculated

Maximum measured transmitter power:

WIFI :

802.11b/g/n HT20/n HT40:

Transmit Frequency (GHz)	Mode	Max Conducted Power (dBm)	tune-up power (dBm)	Max tune-up power (dBm)	Result calculation	1-g SAR
2.412	11b	8.12	8.0±1	9.0	2.4673	3.0
2.437	11b	8.23	8.0±1	9.0	2.4800	3.0
2.462	11b	8.07	8.0±1	9.0	2.4927	3.0
2.412	11g	8.57	8.0±1	9.0	2.4673	3.0
2.437	11g	8.55	8.0±1	9.0	2.4800	3.0
2.462	11g	8.40	8.0±1	9.0	2.4927	3.0
2.412	11n HT20	8.48	8.0±1	9.0	2.4673	3.0
2.437	11n HT20	8.68	8.0±1	9.0	2.4800	3.0
2.462	11n HT20	8.56	8.0±1	9.0	2.4927	3.0
2.422	11n HT40	8.21	8.0±1	9.0	2.4724	3.0
2.437	11n HT40	8.25	8.0±1	9.0	2.4800	3.0
2.452	11n HT40	8.17	8.0±1	9.0	2.4877	3.0

BT DSS:

Transmit Frequency (GHz)	Mode	Measured power (dBm)	Tune-up power (dBm)	Max tune-up power (dBm)	Result calculation	1-g SAR
2.402	GFSK	4.335	4.0±1	5.0	0.9802	3.0
2.441	GFSK	4.425	4.0±1	5.0	0.9881	3.0
2.480	GFSK	3.746	4.0±1	5.0	0.9960	3.0
2.402	1/4Π-DQPSK	2.339	2.0±1	3.0	0.6185	3.0
2.441	1/4Π-DQPSK	2.495	2.0±1	3.0	0.6235	3.0
2.480	1/4Π-DQPSK	1.955	2.0±1	3.0	0.6284	3.0
2.402	8DPSK	2.910	3.0±1	4.0	0.7786	3.0
2.441	8DPSK	3.058	3.0±1	4.0	0.7849	3.0
2.480	8DPSK	2.510	3.0±1	4.0	0.7911	3.0

Conclusion:

For the max result : $2.4927 \leq 3.0$ for 1-g SAR extremity SAR, No SAR is required.

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