

FCC ID:2BRBH-ECH0A01

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:

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

f(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:

WIFI

	Channel Freq. (MHz)	Max Transmit Power (dBm)	Max tune-up power (dBm)	Result calculation	1-g SAR
802.11b	2412	8.86	8	1.96	3.0
	2437	7.73	7	1.56	3.0
	2462	8.96	8	1.98	3.0
802.11g	2412	8.52	8	1.96	3.0
	2437	8.56	8	1.97	3.0
	2462	7.63	7	1.57	3.0
802.11n20	2412	8.37	8	1.96	3.0
	2437	7.14	7	1.56	3.0
	2462	7.54	7	1.57	3.0
802.11n40	2422	8.09	8	1.96	3.0
	2437	8.8	8	1.97	3.0
	2452	8.18	8	1.98	3.0

Conclusion:

For the max result : $0.20 \leq 3.0$ for 1-g SAR extremity SAR, No SAR is required.