

FCC ID: 2BGDD-PH02

RF exposure evaluation

§ 2.1093 Radiofrequency radiation exposure evaluation: Portable Devices.

According to § 15.247(i) and § 1.1307b(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 guidance.

The 1-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances ≤ 50 mm are determined by:

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

- $f(\text{GHz})$ is the RF channel transmit frequency in GHz
- Power and distance are rounded to the nearest mW and mm before calculation
- When the minimum test separation distance is < 5 mm, a distance of 5 mm according is applied to determine SAR test exclusion.
- The result is rounded to one decimal place for comparison
- GFSK

Modulation	Frequency (GHz)	Max. Power (dBm)	Tune-up (dBm)	Tune-up (mW)	Test distance (mm)	Result	Simultaneous transmission	exclusion thresholds for 1-g SAR
WIFI	2.437	8.72	9.0	7.94	5	2.48	2.64	3.0
BT	2.480	-3.17	-3.0	0.50	5	0.16		

Conclusion:

For the max result: $2.64\text{W/Kg} \leq \text{FCC Limit } 3.0 \text{ for } 1\text{g SAR}.$