

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 V05

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 calculated.

Maximum measured transmitter power:

Bluetooth 4.0 DTS:

Transmit Frequency (GHz)	Mode	Measured Power (dBm)	Tune-up power (dBm)	Max tune-up power(dBm)	Result calculation	1-g SAR
2.402	GFSK	7.933	7±1	8	1.9558	3.00
2.440	GFSK	7.966	7±1	8	1.9712	3.00
2.480	GFSK	7.148	7±1	8	1.9873	3.00

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	9.40	8.8±1	9.8	2.9663	3
2.437	11b	9.61	8.8±1	9.8	2.9817	3
2.462	11b	9.63	8.8±1	9.8	2.9969	3
2.412	11g	8.89	8.5±1	9.5	2.7683	3
2.437	11g	9.17	8.5±1	9.5	2.7826	3
2.462	11g	9.33	8.5±1	9.5	2.7969	3
2.412	11n HT20	8.64	8.5±1	9.5	2.7683	3
2.437	11n HT20	9.15	8.5±1	9.5	2.7826	3
2.462	11n HT20	9.18	8.5±1	9.5	2.7969	3
2.422	11n HT40	8.07	8±1	9	2.4724	3
2.437	11n HT40	8.54	8±1	9	2.4800	3
2.452	11n HT40	8.96	8±1	9	2.4877	3

Conclusion:

For the max result $2.9969 \leq 3.0$ for 1-g SAR extremity SAR, No SAR is required.

Sincerely,



Signature

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