

RF EXPOSURE EVALUATION METHOD

FCC ID: 2AD9EMM50

SAR Test Exclusion Thresholds for 100 MHz – 6 GHz and ≤ 50 mm

Approximate SAR Test Exclusion Power Thresholds at Selected Frequencies and Test Separation Distances are illustrated in the following Table.

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:

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

Maximum measured transmitter power.

BT

BT 1M			
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)
CH00	2402	8.096	6.451
CH39	2441	7.902	6.169
CH78	2480	7.682	5.864
BT 2M			
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)
CH00	2402	9.056	8.046
CH39	2441	8.851	7.675
CH78	2480	8.818	7.617
BT 3M			
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)
CH00	2402	9.511	8.935
CH39	2441	9.360	8.630
CH78	2480	9.516	8.945

Remark: The best case gain of the antenna is 2dBi.

0 dBi logarithmic terms convert to numeric result is nearly 1.00

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:

$$\frac{[(\text{max. power of channel, including tune-up tolerance, mW})/(\text{min. test separation distance,mm})] \cdot [\sqrt{f(\text{GHz})}]$$

BT

Test Channel	max power (dBm)	[(max. power of channel, including tune-up tolerance, mW)	(min. test separation distance,mm)]	[f(GHz)]	Result	Limit
BT 1M						
CH00	8.096	6.451	5	2.402	1.999	3
CH19	7.902	6.169	5	2.441	1.928	3
CH39	7.682	5.864	5	2.480	1.847	3
BT 2M						
CH00	9.056	8.046	5	2.402	2.494	3
CH19	8.851	7.675	5	2.441	2.398	3
CH39	8.818	7.617	5	2.480	2.399	3
BT 3M						
CH00	9.511	8.935	5	2.402	2.770	3
CH19	9.360	8.630	5	2.441	2.697	3
CH39	9.516	8.945	5	2.480	2.817	3

The test Result is less than 3.0 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR.

Conclusion: No SAR is required.