

RF EXPOSURE EVALUATION METHOD

FCC ID: X5B-500137A

SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and \leq 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:

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

Maximum measured transmitter power.

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GFSK							
Test Channel	Frequency	Peak Output Power	Peak Output Power				
	(MHz)	(dBm)	(mW)				
CH00	2402	-2.351	0.582				
CH39	2441	-2.051	0.624				
CH78	2480	-2.440	0.570				
π /4-DQPSK							
Test Channel	Frequency	Peak Output Power	Peak Output Power				
	(MHz)	(dBm)	(mW)				
CH00	2402	-0.194	0.956				
CH39	2441	-1.636	0.686				
CH78	2480	-3.003	0.501				
8DPSK							
Test Channel	Frequency	Peak Output Power	Peak Output Power				
	(MHz)	(dBm)	(mW)				
CH00	2402	0.305	1.073				
CH39	2441	-0.346	0.923				
CH78	2480	-1.869	0.650				

Remark: The best case gain of the antenna is 0dBi.

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:

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



ВТ

Test Channel	[(max. power of channel, mW)	(min. test separation distance,mm)]	[f(GHz)]	Result	Limit			
GFSK								
CH00	0.582	5	2.402	0.180	3			
CH39	0.624	5	2.441	0. 195	3			
CH78	0.570	5	2.480	0.180	3			
π /4-DQPSK								
CH00	0.956	5	2.402	0. 296	3			
CH39	0.686	5	2.441	0. 214	3			
CH78	0.501	5	2.480	0. 158	3			
8DPSK								
CH00	1.073	5	2.402	0.333	3			
CH39	0.923	5	2.441	0.289	3			
CH78	0.650	5	2.480	0. 205	3			

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

Conclusion: No SAR is required.