RF EXPOSURE EVALUATION METHOD

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.

MHz	5	10	15	20	25	mm
150	39	77	116	155	194	SAR Test Exclusion Threshold (mW)
300	27	55	82	110	137	
450	22	45	67	89	112	
835	16	33	49	66	82	
900	16	32	47	63	79	
1500	12	24	37	49	61	
1900	11	22	33	44	54	
2450	10	19	29	38	48	
3600	8	16	24	32	40	
5200	7	13	20	26	33	
5400	6	13	19	26	32	
5800	6	12	19	25	31	

Maximum measured transmitter power

TX 802.11b Mode				
Test Channe	Frequency	Maximum Peak Conducted Output Power（PK）	Maximum Average Conducted Output Power（AV）	Maximum Average Conducted Output Power（AV）
	(MHz)	(dBm)	(dBm)	mW
CH01	2412	10.15	9.32	8.551
CH06	2437	10.18	9.35	8.610
CH11	2462	10.04	9.24	8.395
TX 802.11g Mode				
CH01	2412	10.06	9.27	8.453
CH06	2437	9.89	9.23	8.375
CH11	2462	9.82	9.19	8.299
TX 802.11n(20) Mode				
CH01	2412	9.83	8.58	7.211
CH06	2437	9.65	8.47	7.031
CH11	2462	9.47	8.41	6.934

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

0 dBi logarithmic terms convert to numeric result is nearly 1

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)] • [√f(GHz)]

WIFI:

Mode	[(max. power of channel, including tune-up tolerance, mW)	(min. test separation distance,mm)]	[√f(GHz)]	Result	Limit
802.11b					
CH01	8.913	5	2.412	2.768	3
CH06	8.913	5	2.437	2.783	3
CH11	8.913	5	2.462	2.797	3
802.11g					
CH01	8.913	5	2.412	2.768	3
CH06	8.913	5	2.437	2.783	3
CH11	8.913	5	2.462	2.797	3
802.11n(20)					
CH01	7.943	5	2.412	2.467	3
CH06	7.943	5	2.437	2.480	3
CH11	7.943	5	2.462	2.493	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.