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.
Accordance to KDB 447498 D01 v05r02 , clause 4.3.1 Standalone SAR test exclusion considerations
  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)] • [$\sqrt{f(GHz)}$] ≤ 3.0 for 1-g SAR and ≤ 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.

Test Channe	Frequency	Maximum Peak Conducted Output Power（PK）	Maximum Peak Conducted Output Power（AV）	LIMIT
TX 802.11b Mode				
	(MHz)	(dBm)	(dBm)	dBm
CH01	2412	10.75	7.32	30
CH06	2437	10.91	7.63	30
CH11	2462	10.94	7.61	30
TX 802.11g Mode				
CH01	2412	10.55	7.29	30
CH06	2437	10.05	6.94	30
CH11	2462	9.26	5.41	30
TX 802.11n(20) Mode				
CH01	2412	10.75	7.45	30
CH06	2437	10.29	7.26	30
CH11	2462	9.68	6.44	30
TX 802.11n(40) Mode				
CH03	2422	7.33	4.13	30
CH06	2437	6.84	3.53	30
CH09	2452	6.78	3.45	30

Remark: The best case gain of the antenna is 3.0 dBi.

3.0 dBi logarithmic terms convert to numeric result is nearly 2.0

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)] ・ [$\sqrt{f(GHz)}$]

Test Channel	Range	tune up max AV power (dBm)	[(max. power of channel, including tune-up tolerance, mW)	(min. test separation distance,mm)]	[f(GHz)]	Result	Limit
TX 802.11b Mode							
CH01	7+/-1	8	6.31	50	2412	0.1960	3
CH06	7+/-1	8	6.31	50	2437	0.1970	3
CH11	7+/-1	8	6.31	50	2462	0.1980	3
TX 802.11g Mode							
CH01	7+/-1	8	6.31	50	2412	0.1960	3
CH06	7+/-1	8	6.31	50	2437	0.1970	3
CH11	7+/-1	8	6.31	50	2462	0.1980	3
TX 802.11n-HT20 Mode							
CH01	7+/-1	8	6.31	50	2412	0.1960	3
CH06	7+/-1	8	6.31	50	2437	0.1970	3
CH11	7+/-1	8	6.31	50	2462	0.1980	3
TX 802.11n-HT40 Mode							
CH03	5+/-1	6	3.98	50	2422	0.1239	3
CH06	5+/-1	6	3.98	50	2437	0.1243	3
CH09	5+/-1	6	3.98	50	2452	0.1246	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.