RF EXPOSURE EVALUATION METHOD

FCC ID: 2AECY-S-32

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:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] • [√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.

BT 3.0

1Mbps			
Test Channel	Frequency (MHz)	Peak Output Power (dBm)	Peak Output Power (mW)
CH00	2402	3.60	2.291
CH39	2441	3.51	2.244
CH78	2480	3.81	2.404
2Mbps			
CH00	2402	2.36	1.722
CH39	2441	3.05	2.018
CH78	2480	2.94	1.968
3Mbps			
CH00	2402	2.63	1.832
CH39	2441	3.41	2.193
CH78	2480	3.40	2.188

BLE

Test Channe	Frequency	Maximum Conducted Output Power(PK)	Maximum Conducted Output Power(mW)
	(MHz)	(dBm)	dBm
CH00	2402	3.46	2.218
CH19	2440	4.03	2.529
CH39	2480	4.55	2.851

Remark: The best case gain of the antenna is 0.5dBi.
0. 5 dBi logarithmic terms convert to numeric result is nearly 1.12

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)]

BT 3.0

Test Channel	Range	tune up max power (dBm)	[(max. power of channel, including tune-up tolerance, mW)	(min. test separation distance,mm)]	[f(GHz)]	Result	Limit
1Mbps							
CH00	2~4	4	2.512	5	2.402	0.779	3
CH39	2~4	4	2.512	5	2.441	0.785	3
CH78	2~4	4	2.512	5	2.480	0.791	3
2Mbps							
CH00	2~4	4	2.512	5	2.402	0.779	3
CH39	2~4	4	2.512	5	2.441	0.785	3
CH78	2~4	4	2.512	5	2.480	0.791	3
3Mbps							
CH00	2~4	4	2.512	5	2.402	0.779	3
CH39	2~4	4	2.512	5	2.441	0.785	3
CH78	2~4	4	2.512	5	2.480	0.791	3
BLE							
CH00	3~5	5	3.162	5	2.402	0.980	3
CH19	3~5	5	3.162	5	2.441	0.988	3
CH39	3~5	5	3.162	5	2.480	0.996	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.