RF EXPOSURE TEST

FCC ID: 2ACFF1361-001

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.

5	10	15	20	25	mm
39	77	116	155	194	
27	55	82	110	137	
22	45	67	89	112	
16	33	49	66	82	
16	32	47	63	79	
12	24	37	49	61	SAR Test Exclusion
11	22	33	44	54	Threshold (mW)
10	19	29	38	48	(,
8	16	24	32	40	
7	13	20	26	33	
6	13	19	26	32	
6	12	19	25	31	
30	35	40	45	50	mm
	55	40	43	30	mm
232	271	310	349	387	111111
					111111
232	271	310	349	387	шш
232 164	271 192	310 219	349 246	387 274	шп
232 164 134	271 192 157	310 219 179	349 246 201	387 274 224	
232 164 134 98	271 192 157 115	310 219 179 131	349 246 201 148	387 274 224 164	SAR Test
232 164 134 98 95	271 192 157 115 111	310 219 179 131 126	349 246 201 148 142	387 274 224 164 158	SAR Test Exclusion
232 164 134 98 95 73	271 192 157 115 111 86	310 219 179 131 126 98	349 246 201 148 142 110	387 274 224 164 158 122	SAR Test
232 164 134 98 95 73 65	271 192 157 115 111 86 76	310 219 179 131 126 98 87	349 246 201 148 142 110 98	387 274 224 164 158 122 109	SAR Test Exclusion
232 164 134 98 95 73 65 57	271 192 157 115 111 86 76 67 55 46	310 219 179 131 126 98 87 77 63 53	349 246 201 148 142 110 98 86 71 59	387 274 224 164 158 122 109 96 79 66	SAR Test Exclusion
232 164 134 98 95 73 65 57 47	271 192 157 115 111 86 76 67 55	310 219 179 131 126 98 87 77 63	349 246 201 148 142 110 98 86 71	387 274 224 164 158 122 109 96 79	SAR Test Exclusion
	27 22 16 16 12 11 10 8 7 6 6	27 55 22 45 16 33 16 32 12 24 11 22 10 19 8 16 7 13 6 13 6 12	27 55 82 22 45 67 16 33 49 16 32 47 12 24 37 11 22 33 10 19 29 8 16 24 7 13 20 6 13 19 6 12 19	27 55 82 110 22 45 67 89 16 33 49 66 16 32 47 63 12 24 37 49 11 22 33 44 10 19 29 38 8 16 24 32 7 13 20 26 6 13 19 26 6 12 19 25	27 55 82 110 137 22 45 67 89 112 16 33 49 66 82 16 32 47 63 79 12 24 37 49 61 11 22 33 44 54 10 19 29 38 48 8 16 24 32 40 7 13 20 26 33 6 13 19 26 32 6 12 19 25 31

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:

\leq 50 mm are determined by:
[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] •
[$\sqrt{f_{\text{(GHz)}}}$] \leq 3.0 for 1-g SAR and \leq 7.5 for 10-g extremity SAR,16 where
\square f _(GHz) is the RF channel transmit frequency in GHz
\square Power and distance are rounded to the nearest mW and mm before calculation 17
\square 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.

802.11B

frequency range	Maximum Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2412	9.43	8.77
2437	9.19	8.30
2462	9.26	8.43

802.11G

frequency range	Maximum Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2412	8.89	7.74
2437	8.74	7.48
2462	8.85	7.67

802.11N20

frequency range	Maximum Peak Conducted Output Power (dBm)	Maximum Conducted Output Power
2412	8.53	(mW) 7.13
2437	8.48	7.05
2462	8.29	6.75

802.11N 40M

frequency range	Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2422	8.04	6.37
2437	7.95	6.24
2452	7.86	6.11

For 802.11 B

The max.output power is 9.43dBm=8.77mW, Frequency is 2.412GHz So $(8.77/5)^*$ $\sqrt{2.412}=2.724 \le 3.0$

Note: $\sqrt{2.412} = 1.553$

The max.output power is 9.19dBm=8.30mW, Frequency is 2.437GHz So $(8.30/5)^*$ $\sqrt{2.437}=2.591 \le 3.0$

Note: $\sqrt{2.437} = 1.561$

The max.output power is 9.26dBm=8.43mW, Frequency is 2.462GHz So $(8.43/5)^*$ $\sqrt{2.462}=2.645 \leqslant 3.0$

Note: $\sqrt{2.462} = 1.569$

For 802.11 G

The max.output power is 8.89dBm=7.74mW, Frequency is 2.412GHz So $(7.74/5)^*$ $\sqrt{2.412}$ =2.404 \leqslant 3.0

Note: $\sqrt{2.412} = 1.553$

The max.output power is 8.74dBm=7.48mW, Frequency is 2.437GHz So $(7.48/5)^*$ $\sqrt{2.437}$ =2.335 \lesssim 3.0

Note: $\sqrt{2.437} = 1.561$

The max.output power is 8.85dBm=7.67mW, Frequency is 2.462GHz So $(7.67/5)^*$ $\sqrt{2.462}=2.407 \leqslant 3.0$

Note: $\sqrt{2.462} = 1.569$

For 802.11 N20

The max.output power is 8.53dBm=7.13mW, Frequency is 2.412GHz

So (7.13/5)* √2.412=2.215≤ 3.0

Note: $\sqrt{2.412} = 1.553$

The max.output power is 8.48dBm=7.05mW, Frequency is 2.437GHz

So (7.05/5)* √2.437=2.010≤ 3.0

Note: $\sqrt{2.437} = 1.561$

The max.output power is 8.29dBm=6.75mW, Frequency is 2.462GHz

So (6.75/5)* √2.462=2.118≤ 3.0

Note: $\sqrt{2.462} = 1.569$

For 802.11 N40

The max.output power is 8.04dBm=6.37mW, Frequency is 2.422GHz

So $(6.37/5)^* \sqrt{2.422} = 1.982 \le 3.0$

Note: $\sqrt{2.422} = 1.556$

The max.output power is 7.95dBm=6.24mW, Frequency is 2.437GHz

So $(6.24/5)^* \sqrt{2.437} = 1.948 \le 3.0$

Note: $\sqrt{2.437} = 1.561$

The max.output power is 7.86dBm=6.11mW, Frequency is 2.52GHz

So $(6.11/5)^* \sqrt{2.452} = 1.914 \le 3.0$

Note: $\sqrt{2.452} = 1.566$

Conclusion: No SAR is required.