# RF EXPOSURE TEST

FCC ID: AMBJN7

### 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.

		<u>_</u>			<b>-</b>
) 25 mm	20	15	10	5	MHz
5 194	155	116	77	39	150
0 137	110	82	55	27	300
112	89	67	45	22	450
5 82	66	49	33	16	835
	63	47	32	16	900
SAR Test Exclusion	49	37	24	12	1500
Threshold (mW)	44	33	22	11	1900
3 48	38	29	19	10	2450
2 40	32	24	16	8	3600
5 33	26	20	13	7	5200
5 32	26	19	13	6	5400
31	25	19	12	6	5800
5 50 mm	45	40	35	30	MHz
0 207	2.42	210	271	202	150
9 387	349	310	271	232	150
	246	219	192	164	300
6 274					
6 274 1 224	246	219	192	164	300
6 274 1 224 8 164 2 158	246 201	219 179	192 157	164 134	300 450
6 274 1 224 8 164 2 158 0 122 SAR Test	246 201 148	219 179 131	192 157 115	164 134 98	300 450 835
6 274 1 224 8 164 2 158 0 122 SAR Test Exclusion	246 201 148 142	219 179 131 126	192 157 115 111	164 134 98 95	300 450 835 900
6 274 1 224 8 164 2 158 0 122 SAR Test Exclusion Threshold (mW)	246 201 148 142 110	219 179 131 126 98	192 157 115 111 86	164 134 98 95 73	300 450 835 900 1500
6 274 1 224 8 164 2 158 0 122 3 109 5 96  SAR Test Exclusion Threshold (mW)	246 201 148 142 110 98	219 179 131 126 98 87	192 157 115 111 86 76	164 134 98 95 73 65	300 450 835 900 1500 1900
6 274 1 224 8 164 2 158 0 122 8 109 5 96 1 79  SAR Test Exclusion Threshold (mW)	246 201 148 142 110 98 86	219 179 131 126 98 87 77	192 157 115 111 86 76 67	164 134 98 95 73 65 57	300 450 835 900 1500 1900 2450
6 274 1 224 8 164 2 158 0 122 3 109 5 96 1 79 0 66	246 201 148 142 110 98 86 71	219 179 131 126 98 87 77 63	192 157 115 111 86 76 67 55	164 134 98 95 73 65 57 47	300 450 835 900 1500 1900 2450 3600
6 274 1 224 8 164 2 158 0 122 8 109 6 96 1 79 0 66 8 65	246 201 148 142 110 98 86 71 59	219 179 131 126 98 87 77 63 53	192 157 115 111 86 76 67 55 46	164 134 98 95 73 65 57 47 39	300 450 835 900 1500 1900 2450 3600 5200

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 <sub>(GHz)</sub> 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 $\leq 50$ mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation
transmission frequencies between 100 MHz and 0 GHz. When the infilling lest 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	9.31	8.53
2437	9.25	8.41
2462	9.28	8.47

### 802.11G

frequency range	Maximum Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2412	8.43	6.97
2437	8.38	6.89
2462	8.41	6.93

## 802.11N20

frequency range	Maximum Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2412	8.21	6.62
2437	8.15	6.53
2462	8.17	6.56

#### 802.11N 40M

frequency range	Peak Conducted Output Power (dBm)	Maximum Conducted Output Power (mW)
2412	7.04	5.06
2437	6.98	4.99
2462	7.01	5.02

The max.output power E.I.R.P is 9.31dBm=8.53mW, Frequency is 2.412GHz So  $(8.53/5)^*$   $\sqrt{2.412}$ =2.6494 $\lesssim$  3.0

Note:  $\sqrt{2.412} = 1.553$ 

**Conclusion:** No SAR is required.