RF EXPOSURE TEST FCC ID: 2ACRX-EX9

SAR Test Exclusion Thresholds for 100 MHz - 6 GHz and \leq 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 77 116 155 194 300 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 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 13 19 26 32 5200 7 13 20 26 33 5400 6 12							
300	mm	25	20	15	10	5	MHz
A50		194	155	116	77	39	150
835 16 33 49 66 82 900 16 32 47 63 79 1500 12 24 37 49 61 1900 11 22 33 44 54 1900 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 MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900	_	137	110	82	55	27	300
1500 16 32 47 63 79 1500 12 24 37 49 61 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 11 22 33 44 54 1900 19 29 38 48 48 3600 8 16 24 32 40 1900 26 33 1900 26 32 1900 10 12 19 25 31 1900 10 10 10 10 10 10		112	89	67	45	22	450
1500		82	66	49	33	16	835
1500		79	63	47	32	16	900
1900	•	61	49	37	24	12	1500
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 MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600		54	44	33	22	11	1900
5200 7 13 20 26 33 5400 6 13 19 26 32 5800 6 12 19 25 31 MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400		48	38	29	19	10	2450
5400 6 13 19 26 32 5800 6 12 19 25 31 MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400		40	32	24	16	8	3600
5800 6 12 19 25 31 MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		33	26	20	13	7	5200
MHz 30 35 40 45 50 mm 150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		32	26	19	13	6	5400
150 232 271 310 349 387 300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		31	25	19	12	6	5800
300 164 192 219 246 274 450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65	mm	50	45	40	35	30	MHz
450 134 157 179 201 224 835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		387	349	310	271	232	150
835 98 115 131 148 164 900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		274	246	219	192	164	300
900 95 111 126 142 158 1500 73 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		2/4					
1500 73 86 98 110 122 SAR Test Exclusion Threshold (mW) 1900 65 76 87 98 109 Threshold (mW) 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65			201	179	157	134	450
1500 75 86 98 110 122 1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		224					
1900 65 76 87 98 109 2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65	CAD T.	224 164	148	131	115	98	835
2450 57 67 77 86 96 3600 47 55 63 71 79 5200 39 46 53 59 66 5400 39 45 52 58 65		224 164 158	148 142	131 126	115 111	98 95	835 900
5200 39 46 53 59 66 5400 39 45 52 58 65	Exclusion	224 164 158 122 109	148 142 110 98	131 126 98 87	115 111 86 76	98 95 73 65	835 900 1500
5400 39 45 52 58 65	Exclusion	224 164 158 122 109 96	148 142 110 98 86	131 126 98 87	115 111 86 76 67	98 95 73 65	835 900 1500 1900
	Exclusion	224 164 158 122 109 96	148 142 110 98 86	131 126 98 87 77	115 111 86 76 67	98 95 73 65 57	835 900 1500 1900 2450
5800 37 44 50 56 62	Exclusion	224 164 158 122 109 96 79 66	148 142 110 98 86 71 59	131 126 98 87 77 63 53	115 111 86 76 67 55 46	98 95 73 65 57 47 39	835 900 1500 1900 2450 3600
	Exclusion	224 164 158 122 109 96 79 66 65	148 142 110 98 86 71 59	131 126 98 87 77 63 53	115 111 86 76 67 55 46	98 95 73 65 57 47 39 39	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 \leq 50 mm are determined by:

 $[(max.\ power\ of\ channel,\ including\ tune-up\ tolerance,\ mW)/(min.\ test\ separation\ distance,\ mm)] \ \bullet$

[\surd f(GHz)] \leqslant 3.0 for 1-g SAR and \leqslant 7.5 for 10-g extremity SAR,16 where

 $f_{(\text{GHz})}\, is$ the RF channel transmit frequency in GHz

Power and distance are rounded to the nearest mW and mm before calculation $\ensuremath{^{17}}$

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.

WiFi

Channel	Frequency (MHz)	PK Output Power (dBm)	PK Output Power (mW)	Limit (dBm)
IEEE 802.11 b	2437	9.0	7.94	30
IEEE 802.11 g	2437	8.0	6.31	30
IEEE 802.11 n/HT20	2462	7.0	5.01	30
IEEE 802.11 n/HT40	2422	7.0	5.01	30

The WiFi max.output power E.I.R.P is 9.0dBm=7.94mW, Frequency is 2.437GHz So $(7.94/5)^*$ $\sqrt{2.437}$ =2.48 \leq 3.0

Note: $\sqrt{2.437} = 1.561$

Conclusion: No SAR is required.