RF EXPOSURE TEST FCC ID: 2AAOI75435B01E2

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.

| 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 | SAR Test Exclusion |
| 1900 | 11 | 22 | 33 | 44 | 54 | Threshold (mW) |
| 2450 | 10 | 19 | 29 | 38 | 48 | 11110011010 (11111) |
| 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 |
| MHz 150 | 30 232 | 35 271 | 40 310 | 45 349 | 50 387 | mm |
| | | | | | | nun |
| 150 | 232 | 271 | 310 | 349 | 387 | mm |
| 150 300 | 232 164 | 271 192 | 310 219 | 349 246 | 387 274 | nun |
| 150 300 450 | 232 164 134 | 271 192 157 | 310 219 179 | 349 246 201 | 387 274 224 | |
| 150 300 450 835 | 232 164 134 98 | 271 192 157 115 | 310 219 179 131 | 349 246 201 148 | 387 274 224 164 | SAR Test |
| 150 300 450 835 900 | 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 |
| 150 300 450 835 900 1500 | 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 |
| 150 300 450 835 900 1500 1900 | 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 |
| 150 300 450 835 900 1500 1900 2450 | 232 164 134 98 95 73 65 57 | 271 192 157 115 111 86 76 67 | 310 219 179 131 126 98 87 77 | 349 246 201 148 142 110 98 86 | 387 274 224 164 158 122 109 96 | SAR Test Exclusion |
| 150 300 450 835 900 1500 1900 2450 3600 | 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 |

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,16 where

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

Power and distance are rounded to the nearest mW and mm before calculation 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.

Maximum measured transmitter power.

| GFSK | | | |
|------|-----------|---|--------------|
| | | Maximum Peak Conducted Output Power (dBm) | Maximum |
| | frequency | | Conducted |
| | range | | Output Power |
| | | | (mW) |
| | 2402 | 2.76 | 1.89 |
| | 2441 | 2.53 | 1.79 |
| | 2480 | 2.47 | 1.77 |

8-DPSK

| frequency range | Maximum Peak Conducted Output Power (dBm) | Maximum Conducted Output Power (mW) |
|--------------------|---|-------------------------------------|
| 2402 | 1.68 | 1.47 |
| 2441 | 1.57 | 1.44 |
| 2480 | 1.49 | 1.41 |

The max.output power E.I.R.P is 2.76dBm=1.89mW, Frequency is 2.402GHz So (1.89/5)* √2.402=0.5859≤ 3.0

Note: $\sqrt{2.402} = 1.550$

Conclusion: No SAR is required.