## **RF EXPOSURE TEST**

FCC ID: 2ACGXMW-301

## 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<br>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  | 15   | 50   |   |
|   | 33  | 40  | 45   | 50   | mm  |
| 232   | 271   | 310   | 349  | 387  | mm  |
|   |   |   |  |  | mm  |
| 232   | 271   | 310   | 349  | 387  | mm  |
| 232<br>164  | 271<br>192  | 310<br>219  | 349<br>246   | 387<br>274   | mm  |
| 232<br>164<br>134                                     | 271<br>192<br>157   | 310<br>219<br>179   | 349<br>246<br>201  | 387<br>274<br>224  |   |
| 232<br>164<br>134<br>98                               | 271<br>192<br>157<br>115                                      | 310<br>219<br>179<br>131  | 349<br>246<br>201<br>148   | 387<br>274<br>224<br>164   | SAR Test  |
| 232<br>164<br>134<br>98<br>95                         | 271<br>192<br>157<br>115<br>111                               | 310<br>219<br>179<br>131<br>126   | 349<br>246<br>201<br>148<br>142  | 387<br>274<br>224<br>164<br>158  | SAR Test<br>Exclusion   |
| 232<br>164<br>134<br>98<br>95<br>73                   | 271<br>192<br>157<br>115<br>111<br>86                         | 310<br>219<br>179<br>131<br>126<br>98   | 349<br>246<br>201<br>148<br>142<br>110   | 387<br>274<br>224<br>164<br>158<br>122   | SAR Test  |
| 232<br>164<br>134<br>98<br>95<br>73<br>65             | 271<br>192<br>157<br>115<br>111<br>86<br>76                   | 310<br>219<br>179<br>131<br>126<br>98<br>87   | 349<br>246<br>201<br>148<br>142<br>110<br>98   | 387<br>274<br>224<br>164<br>158<br>122<br>109  | SAR Test<br>Exclusion   |
| 232<br>164<br>134<br>98<br>95<br>73<br>65<br>57       | 271<br>192<br>157<br>115<br>111<br>86<br>76<br>67<br>55<br>46 | 310<br>219<br>179<br>131<br>126<br>98<br>87<br>77<br>63<br>53   | 349<br>246<br>201<br>148<br>142<br>110<br>98<br>86<br>71<br>59   | 387<br>274<br>224<br>164<br>158<br>122<br>109<br>96<br>79<br>66  | SAR Test<br>Exclusion   |
| 232<br>164<br>134<br>98<br>95<br>73<br>65<br>57<br>47 | 271<br>192<br>157<br>115<br>111<br>86<br>76<br>67<br>55       | 310<br>219<br>179<br>131<br>126<br>98<br>87<br>77<br>63   | 349<br>246<br>201<br>148<br>142<br>110<br>98<br>86<br>71   | 387<br>274<br>224<br>164<br>158<br>122<br>109<br>96<br>79  | SAR Test<br>Exclusion   |
|   | 27<br>22<br>16<br>16<br>12<br>11<br>10<br>8<br>7<br>6<br>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 <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               |
| ☐ 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 |

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 distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

Maximum measured transmitter power.

| frequency<br>range | Maximum Peak<br>Conducted Output Power<br>(dBm) | Maximum Conducted Output Power (mW) |
|--------------------|---|-------------------------------------|
| 2402               | 1.54  | 1.43                                |
| 2440               | 1.38  | 1.37                                |
| 2480               | 1.25  | 1.33                                |

The max.output power is 1.54dBm=1.43mW, Frequency is 2.402GHz So  $(1.43/5)^*$   $\sqrt{2.402=0.4433} \le 3.0$ 

Note:  $\sqrt{2.402} = 1.55$ 

The max.output power is 1.38dBm=1.37mW, Frequency is 2.441GHz

So  $(1.37/5)^* \sqrt{2.441} = 0.42744 \le 3.0$ 

Note:  $\sqrt{2.441} = 1.56$ 

The max.output power is 1.25dBm=1.33mW, Frequency is 2.48GHz

So (1.33/5)\* √2.48=0.41762≤ 3.0

Note:  $\sqrt{2.48} = 1.57$ 

Conclusion: No SAR is required.