



## APPENDIX I RADIO FREQUENCY EXPOSURE PROCEDURES

According to § 15.247 (i) and § 1.1307(b)(1), system operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

KDB 447498 D01: 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 | SAR Test<br>Exclusion<br>Threshold<br>(mW) |
| 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  |                                            |
| 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  |                                            |

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] \leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR, 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
- 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 distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f_{(\text{GHz})}}] = 3.4/5 \cdot \sqrt{2.402} = 1.05 \leq 3.0$

Threshold at which no SAR required is 10mW and  $\leq 3.0$  for 1-g SAR, Separation distance is 5mm.

**Conclusion :** The SAR measurement is exempt.