

### SAR Test Reduction and Exclusion

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 (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
- 3.0 and 7.5 are referred to as the numeric thresholds in the step 2 below

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 according to 5) in section 4.1 of 447498 D01 General RF Exposure Guidance v05r02 is applied to determine SAR test exclusion.

**Note:** Minimum test separation distance from antenna to outer enclosure is found to be 6mm.

#### Calculations:

- ❖ f (GHz) = 2.480GHz
- ❖ Power = 1.485mW
- ❖ Minimum test separation distance = 6mm

**$[(1.485\text{mW}) / (6\text{mm})] \cdot [\sqrt{(2.480)}] = 0.4$**

**Limit:** should be  $\leq 3.0$  for 1-g SAR and  $\leq 7.5$  for 10-g extremity SAR

**Note:** The result is rounded to one decimal place for comparison. The Operating frequency at which the maximum RF output power was observed is used for above calculation.