

### 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 for transmission frequencies between 100 MHz and 6 GHz according to section 4.3.1 of 447498 D01 General RF Exposure Guidance v06 is applied to determine SAR test exclusion.

**Note:** Minimum test separation distance from antenna to outer enclosure is found to be 5.2mm.

#### Calculations:

- ❖ f (GHz) = 2.45GHz
- ❖ Power = 0.85mW
- ❖ Minimum test separation distance = 5.2mm

**$[(0.85\text{mW}) / (5.2\text{mm})] \cdot [\sqrt{2.45}] = 0.25$**

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