

RF Exposure evaluation

According to 447498 D01 General RF
Exposure Guidance v05

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:

$$\left[\frac{\text{(max. power of channel, including} \right. \\ \left. \text{tune-up tolerance, mW)}}{\text{(min. test} \right. \\ \left. \text{separation distance, mm)}} \right] \cdot [\sqrt{f(\text{GHz})}] \leq \\ 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g} \\ \text{extremity SAR, where}$$

$f(\text{GHz})$ 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

Worse case is as below: [2441 MHz 2.99dBm
(1.991mW) output power]

$$(1.991\text{mW} / 5\text{mm}) \cdot [\sqrt{2.441(\text{GHz})}] = 0.63$$

<3.0 for 1-g SAR

Then SAR evaluation is not required