

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:

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

- $f(\text{GHz})$ 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:

[2437MHz 9.32dBm (8.55 mW) output power]

$$(8.55 \text{ mW} / 5 \text{ mm}) \cdot [\sqrt{2.437(\text{GHz})}] = 2.7 < 3 \text{ for 1-g SAR}$$

Then SAR evaluation is not required