

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:

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

✎ $f(\text{GHz})$ 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: [2402 MHz -6.69dBm (0.21 mW) output power]

$$(0.21\text{mW} / 5\text{mm}) \cdot [\sqrt{2.402 \text{ (GHz)}}] = 0.07 < 3.0 \text{ for 1-g SAR}$$

Then SAR evaluation is not required