

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:

$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0$ for 1-g SAR and ≤ 7.5 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: [5240 MHz 2.77dBm (1.89 mW) output power]

$$(1.89 \text{ mW} / 5\text{mm}) \cdot [\sqrt{5.240 \text{ (GHz)}}] = 0.9 < 3.0 \text{ for 1-g SAR}$$

Worse case is as below: [5785 MHz 2.67dBm (1.85 mW) output power]

$$(1.85 \text{ mW} / 5\text{mm}) \cdot [\sqrt{5.785 \text{ (GHz)}}] = 0.9 < 3.0 \text{ for 1-g SAR}$$

Worse case is as below: [2412 MHz 7.24dBm (5.3 mW) output power]

$$(5.3 \text{ mW} / 5\text{mm}) \cdot [\sqrt{2.412 \text{ (GHz)}}] = 1.6 < 3.0 \text{ for 1-g SAR}$$

Then SAR evaluation is not required