

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:

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

Worse case is as below: [2480MHz 9.060 dBm (8.05mW)
output power]

$$(8.05\text{mW} / 5 \text{ mm}) \cdot [\sqrt{2.480 \text{ (GHz)}}] = 2.5 < 3 \text{ for 1-g SAR}$$
Then SAR evaluation is not required