

RF Exposure evaluation

According to 447498 D01 General RF Exposure Guidance v06

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:

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

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:

| Mode | f (GHz) | Antenna Distance (mm) | RF output power | | SAR Test Exclusion Threshold | SAR Test Exclusion |
|------|------------|-----------------------------|-----------------|-------|------------------------------------|-----------------------|
| | | | dBm | mW | | |
| BLE | 2.440 | 5 | -3.51 | 0.446 | 0.14 < 3.0 | Yes |

Then SAR evaluation is not required.