

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:

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

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:

FOR BLE:

[2402MHz: -1.241dBm (0.75mW) output power]

$(0.75\text{mW} / 5\text{mm}) * [\sqrt{2.402(\text{GHz})}] = 0.23 < 3.0$ for 1-g SAR

Then SAR evaluation is not require