

## 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  $\leq 50$  mm are determined by:

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

$f(\text{GHz})$  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

### **2.4G:**

Worse case Mode:

Output power= -1.394 dBm, Ant gain= -0.93 dBi, EIRP=-2.324 dBm

[2441MHz: -2.324dBm(0.59mW) output power(EIRP)]

$(0.59\text{mW} / 5\text{mm}) \cdot [\sqrt{2441(\text{GHz})}] = 0.18 < 3.0$  for 1-g SAR

### **BLE:**

Worse case Mode:

Output power= -4.205dBm, Ant gain= 2.99dBi, EIRP= -1.215dBm

[2480MHz: -1.215dBm(0.76mW) output power(EIRP)]

$(0.76\text{mW} / 5\text{mm}) \cdot [\sqrt{2402(\text{GHz})}] = 0.24 < 3.0$  for 1-g SAR

Then 2.4G and BLE cannot transmit at the same time.

Then SAR evaluation is not required