

## SAR test exclusion

According to KDB 447498 D01 General RF Exposure Guidance v05, section 4.3.1

At 100 MHz to 6 GHz and for test separation distances  $\leq 50$  mm, the SAR test exclusion threshold is determined according to the following;

a)  $\left[ \frac{\text{(max. power of channel, including tune-up tolerance, mW)}}{\text{(min. test separation distance, mm)}} \right] \times [\sqrt{f(\text{GHz})}] \leq 3.0$

### 1. SAR test exclusion threshold

Frequency : 2480 MHz (min. separation distances = 5 mm)

SAR test exclusion thresholds(5 mm) =  $\left[ \frac{0.1}{5} \times \sqrt{2.480} \right] = 0.031 \leq 3.0$ .

| Mode      | Frequency (MHz) | Tune up output Power (dBm) | Measured max output power (dBm) | Separation Distance (mm) | $\leq 3.0$ |
|-----------|-----------------|----------------------------|---------------------------------|--------------------------|------------|
| Bluetooth | 2402            | $-16 \pm 3$                | -13.8                           | 5                        | 0.015      |
| Bluetooth | 2442            | $-15 \pm 3$                | -12.78                          | 5                        | 0.019      |
| Bluetooth | 2480            | $-13 \pm 3$                | -10.76                          | 5                        | 0.031      |

$[\text{Tune up power, dBm}] = [9\text{Target power, dBm} \pm \text{tune-up tolerance, dBm}]$

Maximum tuned up power =  $(-13 \text{ dBm} \pm 3 \text{ dBm}) = -10.0 \text{ dBm} = 0.1 \text{ mW}$

Measured max output power = -10.76 dBm

### 2. Conclusion : Bluetooth SAR was not required

