

## Standalone SAR test exclusion considerations(Bluetooth)

December 14, 2017

- Device category =  Portable device  Mobile device
- Transmitting mode =  Single Transmitting  Simultaneous Transmitting
- Max. transmitting frequency = 2480 MHz
- Min. test separation distance = 40 mm
- Max. Antenna Gain = 0.52 dBi
- Measured power(Average) = 16.74 dBm
- Max. power with turn-up tolerance = 17.50 dBm = **56.3** mW

Note. Please refer to the operation descriptoin for the max tune-up.

### KDB 447498 D01 clasue 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separationn distances ≤ 50 mm

[ ( max. power of channel, including tune-up tolerance, mW ) / ( min. test separation distance, mm ) ] · [ √f(GHz) ] ≤ 3.0 for 1g SAR and ≤ 7.5 for 10g extremity SAR  
= [ ( **56.3mW / 40mm** ) ] X [ √**2.48GHz** ] = **2.2**

Note. The calculation result was rounded to one decimal place for comparison.

**→ SAR evaluation for general population exposure conditions by measurement or numerical simulation is not required.**

## Standalone SAR test exclusion considerations(Bluetooth LE)

December 14, 2017

- Device category =  Portable device  Mobile device
- Transmitting mode =  Single Transmitting  Simultaneous Transmitting
- Max. transmitting frequency = 2480 MHz
- Min. test separation distance = 40 mm
- Max. Antenna Gain = 0.52 dBi
- Measured power(Average) = 0.46 dBm
- Max. power with turn-up tolerance = 1.50 dBm = **1.50** mW

Note. Please refer to the operation descriptoin for the max tune-up.

### KDB 447498 D01 clasue 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separationn distances ≤ 50 mm

$$[ ( \text{max. power of channel, including tune-up tolerance, mW} ) / ( \text{min. test separation distance, mm} ) ] \cdot [ \sqrt{f(\text{GHz})} ] \leq 3.0 \text{ for 1g SAR and } \leq 7.5 \text{ for 10g extremity SAR}$$
$$= [ ( 1.5\text{mW} / 40\text{mm} ) ] \times [ \sqrt{2.48\text{GHz}} ] = 0.1$$

Note. The calculation result was rounded to one decimal place for comparison.

**→ SAR evaluation for general population exposure conditions by measurement or numerical simulation is not required.**