

# Standalone SAR test exclusion considerations

July 20, 2017

- Device category =  Portable device  Mobile device
- Transmitting mode =  Single Transmitting  Simultaneous Transmitting
- Max. transmitting frequency = 2441 MHz
- Min. test separation distance = 46 mm
- Max. Antenna Gain = 1.7 dBi
- Measured Max. Peak power = 16.01 dBm = 40.0 mW

Note. Bluetooth

## KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances $\leq 50$ mm

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

$$= [ ( 40\text{mW} / 46\text{mm} ) ] \times [ \sqrt{2.441\text{GHz}} ] = 1.4$$

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

July 20, 2017

- Device category =  Portable device  Mobile device
- Transmitting mode =  Single Transmitting  Simultaneous Transmitting
- Max. transmitting frequency = 2440 MHz
- Min. test separation distance = 46 mm
- Max. Antenna Gain = 1.7 dBi
- Measured Max. Peak power = 3.94 dBm = 2.5 mW

Note. Bluetooth LE

## KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation distances $\leq 50$ mm

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

$$= [ ( 2.5\text{mW} / 46\text{mm} ) ] \times [ \sqrt{2.44\text{GHz}} ] = 0.1$$

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.**