

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.