

# Standalone SAR test exclusion considerations

December 18, 2017

- Device category = ☒ Portable device ☐ Mobile device
- Transmitting mode = ☒ Single Transmitting ☐ Simultaneous Transmitting
- Max. transmitting frequency = 2480 MHz
- Min. test separation distance = 5 mm
- Max. Antenna Gain = 1.99 dBi
- Max. power with turn-up tolerance = 0.00 dBm = 1.000 mW ( Typical Power = Range: -1.00 dBm ± 1.00 dB

Note. Bluetooth (BDR)

## KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation 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  
= [ ( 1mW / 5mm ) ] X [ √2.48GHz ] = 0.315

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.

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- Max. transmitting frequency = 2480 MHz
- Min. test separation distance = 5 mm
- Max. Antenna Gain = 1.99 dBi
- Max. power with turn-up tolerance = -3.50 dBm = 0.447 mW ( Typical Power = Range: -4.50 dBm ± 1.00 dB

Note. Bluetooth (EDR)

**KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation 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  
= [ ( 0.447mW / 5mm ) ] X [ √2.48GHz ] = 0.141

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.**

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- Device category = ☒ Portable device ☐ Mobile device
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- Max. transmitting frequency = 2480 MHz
- Min. test separation distance = 5 mm
- Max. Antenna Gain = 1.99 dBi
- Max. power with turn-up tolerance = 0.50 dBm = 1.123 mW ( Typical Power = Range: -0.50 dBm ± 1.00 dB

Note. Bluetooth LE

## KDB 447498 D01 clause 4.3.1 Step 1) SAR test exclusion thresholds for 100MHz to 6GHz at test separation 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

= [ ( 1.123mW / 5mm ) ] X [ √2.48GHz ] = 0.354

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.