

Standalone SAR test exclusion considerations

July 19, 2017

- Device category = Portable device Mobile device
- Transmitting mode = Single Transmitting Simultaneous Transmitting
- Max. transmitting frequency = 2402 MHz
- Min. test separation distance = 0 mm
- Max. Antenna Gain = -1.1 dBi
- Max. power with turn-up tolerance = 4.00 dBm = 2.6 mW (Typical Power = Max. 4.00 dBm)

Note. Zigbee

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)] · [$\sqrt{f(\text{GHz})}$] ≤ 3.0 for 1g SAR and ≤ 7.5 for 10g extremity SAR

$$= [(2.6\text{mW} / 5\text{mm})] \times [\sqrt{2.402\text{GHz}}] = 0.81$$

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.