



Standalone SAR test exclusion considerations

January 31, 2018

- Device category = Portable device Mobile device
- Transmitting mode = Single Transmitting Simultaneous Transmitting
- Max. transmitting frequency = 1907.6 MHz
- Min. test separation distance = 300 mm
- Max. Antenna Gain = 3.86 dBi
- Max. power with turn-up tolerance = 24.00 dBm = 251.2 mW (Typical Power = Max. 24.00 dBm)

Note. WCDMA B2

KDB 447498 D01 clause 4.3.1 Step 2-2) SAR test exclusion thresholds for 1500MHz to 6GHz at test separation distances > 50 mm

[Threshold at 50 mm + (test separation distance - 50 mm) X 10] mW

= [1.16 + (300mm - 50mm X 10)] = 2501.2

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.

Maximum Permissible Exposure(MPE) evaluation for mobile device

$$S = P G / (4 R^2 \pi) , \text{ mW/cm}^2$$

$$= 0.054022 \text{ mW/cm}^2$$

S = Maximum power density

P = Maximum power with turn-up tolerance

G = Numeric power gain of the antenna

R = Distance from transmitting antenna

Conclusion: The exposure condition of this device is compliant with FCC rules.

The limit for maximum permissible exposure = 1.000000 mW/cm²



Standalone SAR test exclusion considerations

January 31, 2018

- Device category = Portable device Mobile device
- Transmitting mode = Single Transmitting Simultaneous Transmitting
- Max. transmitting frequency = 848.8 MHz
- Min. test separation distance = 300 mm
- Max. Antenna Gain = 2.72 dBi
- Max. power with turn-up tolerance = 34.00 dBm = 2511.9 mW (Typical Power = Max. 34.00 dBm)

Note. GSM850

KDB 447498 D01 clause 4.3.1 Step 2-1) SAR test exclusion thresholds for 100MHz to 1500MHz at test separation distances > 50 mm

[Threshold at 50 mm + (test separation distance - 50 mm) X (f(MHz) / 150)] mW

= [7.71 + (300mm - 50mm) X (848.8MHz / 150)] = 1422.4

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

The SAR evaluation is required.

Maximum Permissible Exposure(MPE) evaluation for mobile device

$$S = P G / (4 R^2 \pi) , \text{ mW/cm}^2$$

$$= 0.415480 \text{ mW/cm}^2$$

S = Maximum power density
P = Maximum power with turn-up tolerance

G = Numeric power gain of the antenna
R = Distance from transmitting antenna

Conclusion: The exposure condition of this device is compliant with FCC rules.

The limit for maximum permissible exposure = 0.565866 mW/cm² (f/1500)

