

Standalone SAR test exclusion considerations

July 22, 2016

- Device category = ☐ Portable device ☒ Mobile device
- Transmitting mode = ☒ Single Transmitting ☐ Simultaneous Transmitting
- Max. transmitting frequency = 2462 MHz
- Min. test separation distance = 200 mm
- Max. Antenna Gain = 3.17 dBi
- Max. power with turn-up tolerance = 16.50 dBm = 44.7 mW (Typical Power = Max. 16.50 dBm)

Note. ANT1 : 1.200 dBi , ANT2 : 3.170 dBi
802.11b

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

= [0.35 + (200mm - 50mm X 10)] = 1500.4

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.*

Maximum Permissible Exposure(MPE) evaluation for mobile device

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

$$= 0.018452 \text{ mW/cm}^2$$

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

July 22, 2016

- Device category = ☐ Portable device ☒ Mobile device
- Transmitting mode = ☐ Single Transmitting ☒ Simultaneous Transmitting
- Max. transmitting frequency = 2462 MHz
- Min. test separation distance = 200 mm
- Max. Antenna Gain = 5.251 dBi
- Max. power with turn-up tolerance = 18.00 dBm = 63.1 mW (Typical Power = Max. 18.00 dBm)
- 1st Transceiver = 15.00 dBm , 2nd Transceiver = 15.00 dBm

Note. ANT1 : 1.200 dBi , ANT2 : 3.170 dBi , Directional Gain : 5.251 dBi (Using correlated signal)
802.11g/n

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

= [0.5 + (200mm - 50mm X 10)] = 1500.5

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

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

$$= 0.042059 \text{ mW/cm}^2$$

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