

Standalone SAR test exclusion considerations

July 15, 2016

- Device category = Portable device Mobile device
- Transmitting mode = Single Transmitting Simultaneous Transmitting
- Max. transmitting frequency = **5825** MHz
- Min. test separation distance = **200** mm
- Max. Antenna Gain = **1.31** 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. Directional gain: 1.31 dBi

5745 ~ 5825 MHz

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

$$= [0.76 + (200\text{mm} - 50\text{mm} \times 10)] = 1500.8$$

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

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

$$= 0.016973 \text{ mW/cm}^2$$

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