



## Standalone SAR test exclusion considerations

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- Device category =  Portable device  Mobile device
- Transmitting mode =  Single Transmitting  Simultaneous Transmitting
- Max. transmitting frequency = 919 MHz
- Min. test separation distance = 200 mm
- Max. Antenna Gain = -0.2 dBi
- Max. power with turn-up tolerance = 15.50 dBm = 35.5 mW ( Typical Power = Max. 15.50 dBm )

Note. The max power includes a correction factor of  $10\log(0.4)$  to cover an operational duty factor of 40% as the device will transmit a maximum of 3 transmit packets of 223ms each followed by 1000ms in receive only mode

### 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

$$= [ 0.17 + ( 200\text{mm} - 50\text{mm} ) X ( 919\text{MHz} / 150 ) ] = 919.2$$

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

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

$$= 0.006745 \text{ mW/cm}^2$$

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 =  $0.612666 \text{ mW/cm}^2 ( f/1500 )$