

MPE Limit Calculation: EUT's operating frequencies @ 2412-2462 MHz; highest conducted power = 26.77dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm<sup>2</sup>**.

EUT maximum antenna gain = 8 dBi.

Equation from page 18 of OET 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where,

S = Power Density mW/m<sup>2</sup>

P = Power Input to antenna mili Watts

G = Numeric Antenna Gain

R = Distance to the center of radiation of the antenna (20 cm for Mobile

minimum distance)

$$\text{Antenna Numeric Gain} = 10^{\text{dBi}/10}$$

$$\text{Power at antenna port} = 476.5 \text{ mW}$$

$$\text{Antenna Gain} = 8 \text{ dBi}$$

$$\text{Numeric antenna gain} = 10^{8/10} = 6.31$$

$$S = (476.5)(6.31) / 4(3.1416)(20)^2$$

$$S = 0.598 \text{ mW/cm}^2$$

Therefore, EUT meets the Uncontrolled Exposure limit.

MPE Limit Calculation: EUT's operating frequencies @ 5725-5825 MHz; highest conducted power = 22.56 dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm<sup>2</sup>**.

EUT maximum antenna gain = 9 dBi.

Equation from page 18 of OET 65, Edition 97-01

$$S = PG / 4\pi R^2$$

where,

S = Power Density mW/m<sup>2</sup>

P = Power Input to antenna milliwatts

G = Numeric Antenna Gain

R = Distance to the center of radiation of the antenna (20 cm for Mobile

minimum distance)

$$\text{Antenna Numeric Gain} = 10^{\text{dBi}/10}$$

$$\text{Power at antenna port} = 180.3 \text{ mW}$$

$$\text{Antenna Gain} = 9 \text{ dBi}$$

$$\text{Numeric antenna gain} = 10^{9/10} = 7.94$$

$$S = (180.3)(7.94) / 4(3.1416)(20)^2$$

$$S = 0.285 \text{ mW/cm}^2$$

Therefore, EUT meets the Uncontrolled Exposure limit.