

MPE Limit Calculation: EUT's operating frequencies @ 2.4 – 2.4835 GHz; Highest conducted power is in g mode on channel 1 = 24.93 dBm (peak).

**Limit for Uncontrolled exposure: 1 mW/cm<sup>2</sup>.**

EUT maximum antenna gain = 5.5 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 milli Watts

G = Numeric Antenna Gain

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

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

$$\text{Power at antenna port} = 312 \text{ mW}$$

$$\text{Antenna Gain} = 5.5 \text{ dBi}$$

$$\text{Numeric antenna gain} = 10^{5.5/10} = 3.5$$

$$S = (312)(3.5) / 4(3.1416)(20)^2$$

$$S = 0.22 \text{ mW/cm}^2$$

Therefore, the channel meets the Uncontrolled Exposure Limit.