

MPE CALCULATION

MPE Limit Calculation: EUT's operating frequencies @ 2400-2483.5 MHz; highest conducted power = 26.5dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm² or 10 W/m²**

EUT maximum antenna gain = 5 dBi.

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

$$S = PG / 4\pi R^2 \quad \text{or} \quad R = \sqrt{PG / 4\pi S}$$

where, S = Power Density (1 mW/cm²)
P = Power Input to antenna (446.7mW)
G = Antenna Gain (3.16 numeric)

$$S = (446.7 * 3.16 / 4 * 3.14 * 20^2) = (1411.5 / 5024) = 0.28 \text{ mW/cm}^2$$

MPE Limit Calculation: EUT's operating frequencies @ 5725 - 5850 MHz; highest conducted power = 25.6dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm² or 10 W/m²**

EUT maximum antenna gain = 5 dBi.

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

$$S = PG / 4\pi R^2 \quad \text{or} \quad R = \sqrt{PG / 4\pi S}$$

where, S = Power Density (1 mW/cm²)
P = Power Input to antenna (363.1mW)
G = Antenna Gain (3.16 numeric)

$$S = (363.1 * 3.16 / 4 * 3.14 * 20^2) = (1147.3 / 5024) = 0.22 \text{ mW/cm}^2$$