

MPE Limit Calculation: EUT's operating frequencies @ 2400-2483.5 MHz; highest conducted power = 19.17dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm² or 10 W/m²**

EUT maximum antenna gain = 2.1 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 (82.60mW)
G = Antenna Gain (1.62 numeric)

$$R = (82.60 * 1.62 / 4 * 3.14 * 1.0)^{1/2} = (133.97.34 / 12.56)^{1/2} = 3.26\text{cm}$$

$$S = (82.60 * 1.62 / 4 * 3.14 * 20.0^2) = (133.97 / 5024) = \mathbf{0.0267 \text{ mW/cm}^2 @ 20\text{cm separation}}$$