

MPE Limit Calculation: EUT's operating frequencies @ 2400-2483.5 MHz; highest conducted power = 19.02dBm (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 (83.17mW)
G = Antenna Gain (1.62 numeric)

$$R = (83.17 * 1.62 / 4 * 3.14 * 1.0)^{1/2} = (134.90 / 12.56)^{1/2} = 3.28 \text{ cm}$$

$$S = (83.17 * 1.62 / 4 * 3.14 * 20.0^2) = (134.90 / 5024) = \mathbf{0.0268 \text{ mW/cm}^2} @ 20 \text{ cm separation}$$