

## MPE CALCULATION

MPE Limit Calculation: EUT's operating frequencies @ 4940-4990 MHz; highest conducted power = 27.2dBm (peak) therefore, **Limit for Uncontrolled exposure: 1 mW/cm<sup>2</sup> or 10 W/m<sup>2</sup>**

EUT maximum antenna gain = 21 dBi.

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

### EUT with 23dBi Antenna

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

where, S = Power Density (1 mW/cm<sup>2</sup>)  
P = Power Input to antenna (524.8mW)  
G = Antenna Gain (125.8 numeric)

$$R = (66019.8/4*3.14)^{1/2} = (66019.8/12.56)^{1/2} = 72.5\text{cm} \text{ in order to comply with } 1 \text{ mW/cm}^2$$