

MPE Calculations for NLite E

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

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

MPE Limit Calculation: EUT's operating frequencies @ **5725 - 5850**;
highest conducted power = 29.93 dBm (peak) therefore, Limit for
Uncontrolled exposure: 1 mW/cm² or 10 W/m²

EUT maximum antenna gain = **30 dBi**.

where, S = Power Density (1 mW/cm²)

P = Power Input to antenna (984.0mW)

G = Antenna Gain (1000 numeric)

$$S = (984 * 1000 / 4 * 3.14 * 20^2) = (1000000 / 5024) = \mathbf{195.76 \text{ mW/cm}^2}$$

Calculating for R

$$R = \sqrt{PG / 4\pi S}$$

$$R = \sqrt{(984 * 1000) / 4\pi(1)}$$

$$R = \mathbf{279.8 \text{ cm}}$$