

### Prediction of MPE limit at a given distance

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

$$S = \frac{PG}{4\pi R^2}$$

where: S = power density

P = power input to the antenna

G = power gain of the antenna in the direction of interest relative to an isotropic radiator

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 27.00 (dBm)

Maximum peak output power at antenna input terminal: 501.1872336 (mW)

Antenna gain(typical): 8.5 (dBi)

Maximum antenna gain: 7.079457844 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 2400-2483.5 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 0.705879 (mW/cm<sup>2</sup>)

Maximum allowable antenna gain: 10.01269855 (dBi)

Margin of Compliance: 1.512698554 (dB)

