

## Prediction of MPE limit at a given distance



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: 22.60 (dBm)

Maximum peak output power at antenna input terminal: 181.9700859 (mW)

Antenna gain(typical): 3 (dBi)

Maximum antenna gain: 1.995262315 (numeric)

Prediction distance: 20 (cm)

Prediction frequency: 2401.416667 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 1.600944445 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 0.072232 (mW/cm<sup>2</sup>)

0.722321 (W/m<sup>2</sup>)

Maximum allowable antenna gain: 16.45646117 (dBi)

Margin of Compliance: 13.45646117 dB