

**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 the antenna terminal: 10 dBm (dBm)  
Maximum peak output power at the antenna terminal: 10 (mW)  
Antenna gain(typical): 2.4 (dBi)  
Maximum antenna gain: 1.737800829 (numeric)  
Prediction distance: 20 (cm)  
Prediction frequency: 902.7 (MHz)  
MPE limit for uncontrolled exposure at prediction frequency: 0.6018 (mW/cm<sup>2</sup>)  
  
Power density at prediction frequency: **0.003457** (mW/cm<sup>2</sup>)  
  
Maximum allowable antenna gain: **24.80722039** (dBi)