

## 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 isotropic

R = distance to the center of radiation of the antenna

Maximum peak output power at antenna input terminal: 36.00 (dBm)

Maximum peak output power at antenna input terminal: 3981 (mW)

Isotropic antenna gain(typical): 9 (dBi)

Isotropic antenna gain(numeric): 7.943 (numeric)

Prediction distance: 100 (cm)

Source Based Time Average Duty Cycle: 100 (%)

Prediction frequency: 469 (MHz)

MPE limit for uncontrolled exposure at prediction frequency: 0.313 (mW/cm<sup>2</sup>)

Power density at prediction frequency: 0.2516 (mW/cm<sup>2</sup>)

Margin of Compliance: 0.9

Power density (W/m): 2.5165

Maximum peak output power at antenna input terminal: 36.00 (dBm)  
Maximum peak output power at antenna input terminal: 3981 (mW)  
Isotropic antenna gain(typical): 15 (dBi)  
Isotropic antenna gain(numeric): 31.623 (numeric)  
Prediction distance: 200 (cm)  
Source Based Time Average Duty Cycle: 100 (%)  
Prediction frequency: 469 (MHz)  
MPE limit for uncontrolled exposure at prediction frequency: 0.313 (mW/cm<sup>2</sup>)  
Power density at prediction frequency: 0.2505 (mW/cm<sup>2</sup>)  
Margin of Compliance: 1.0  
  
Power density (W/m): 2.5046