

### Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01  
RSS-102, Safety Code 6

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

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: 20.93 (dBm)  
Maximum peak output power at antenna input terminal: 123.8796587 (mW)  
Antenna gain (typical): 13 (dBi)  
Maximum antenna gain: 19.95262315 (numeric)  
Prediction distance: 25 (cm)  
Prediction frequency: 473 (MHz)  
MPE limit for uncontrolled exposure at prediction  
frequency f = 300-1500MHz, f/1500: 0.315333333 (mW/cm<sup>2</sup>)  
Power density at prediction frequency: **0.314710** (mW/cm<sup>2</sup>)  
Maximum allowable antenna gain: **13.00859763** (dBi)  
Margin of Compliance: 0.00859763





