

## 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

EIRP      23.47    dBm

Single Antenna gain (typical): 4.4 dBi  
 Number of Antennae: 1  
 Total Antenna gain (typical): 4.4 dBi  
    2.754228703 (numeric)  
 Prediction distance: 20 cm  
 Prediction frequency: 2402 MHz  
 MPE limit for uncontrolled exposure at prediction frequency: 1 mW/cm<sup>2</sup>

**Power density at prediction frequency: 0.044231 mW/cm<sup>2</sup>**  
    0.442313 W/m<sup>2</sup>  
 Tx On time: 1.000000 ms  
 Tx period time: 1.000000 ms  
 Average Factor: 100.000000 %  
 Average Power density at prediction frequency: 0.442313 W/m<sup>2</sup>  
 Maximum allowable antenna gain: 17.94269855 dBi  
  
**Margin of Compliance: 13.54269855 dB**