

## 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 device output terminal:	12.99 dBm
Cable and Jumper loss:	0.0 dB
Maximum peak output power at antenna input terminal:	12.99 dBm
	19.90673339 mW
Single Antenna gain (typical):	4.9 dBi
Number of Antennae:	1
Total Antenna gain (typical):	4.9 dBi
	3.090295433 (numeric)
Prediction distance:	20 cm
Prediction frequency:	2402 MHz
MPE limit for uncontrolled exposure at prediction frequency:	1 mW/cm <sup>2</sup>
<b>Power density at prediction frequency:</b>	<b>0.012239 mW/cm<sup>2</sup></b>
	0.122386 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:	0.122386 W/m <sup>2</sup>
Maximum allowable antenna gain:	24.02269855 dBi
<b>Margin of Compliance:</b>	<b>19.12269855 dB</b>