

## 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:	9.93 dBm
Cable and Jumper loss:	0.0 dB
Maximum peak output power at antenna input terminal:	9.93 dBm
	9.840111058 mW
Single Antenna gain (typical):	3.5 dBi
Number of Antennae:	1
Total Antenna gain (typical):	3.5 dBi
	2.238721139 (numeric)
Prediction distance:	20 cm
Prediction frequency:	2442 MHz
MPE limit for uncontrolled exposure at prediction frequency:	1 mW/cm <sup>2</sup>
<b>Power density at prediction frequency:</b>	<b>0.004383 mW/cm<sup>2</sup></b>
	0.043826 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:	0.043826 W/m <sup>2</sup>
Maximum allowable antenna gain:	27.08269855 dBi
<b>Margin of Compliance:</b>	<b>23.58269855 dB</b>