

## 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:	32.71 dBm
Cable and Jumper loss:	0.0 dB
Maximum peak output power at antenna input terminal:	32.71 dBm
	1866.379691 mW
Single Antenna gain (typical):	4.5 dBi
Number of Antennae:	1
Total Antenna gain (typical):	4.5 dBi
	2.818382931 (numeric)
Prediction distance:	25 cm
Prediction frequency:	1660 MHz
MPE limit for uncontrolled exposure at prediction frequency:	1 mW/cm <sup>2</sup>
<b>Power density at prediction frequency: 0.669746 mW/cm<sup>2</sup></b>	
	6.697460 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:	6.697460 W/m <sup>2</sup>
Maximum allowable antenna gain:	6.240898814 dBi
<b>Margin of Compliance:</b>	<b>1.740898814 dB</b>