

## 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:	23.59 dBm
Cable and Jumper loss:	0.0 dB
Maximum peak output power at antenna input terminal:	23.59 dBm
	229 mW
Single Antenna gain (typical):	8 dBi
Number of Antennae:	1
Total Antenna gain (typical):	8 dBi
	6.31 (numeric)
Prediction distance:	40 cm
Prediction frequency:	476 MHz
MPE limit for uncontrolled exposure at prediction frequency:	0.32 mW/cm <sup>2</sup>
<b>Power density at prediction frequency:</b>	<b>0.072 mW/cm<sup>2</sup></b>
	0.72 W/m <sup>2</sup>
Tx On time:	1.00 ms
Tx period time:	1.00 ms
Average Factor:	100 %
Average Power density at prediction frequency:	0.72 W/m <sup>2</sup>
Maximum allowable antenna gain:	14.5 dBi
<b>Margin of Compliance:</b>	<b>6.5 dB</b>