

## 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:	<u>14.21</u> dBm
Cable and Jumper loss:	<u>0.0</u> dB
Maximum peak output power at antenna input terminal:	<u>14.21</u> dBm
	<u>26.36331386</u> mW
Single Antenna gain (typical):	<u>1.9</u> dBi
Number of Antennae:	<u>1</u>
Total Antenna gain (typical):	<u>1.9</u> dBi
	<u>1.548816619</u> (numeric)
Prediction distance:	<u>20</u> cm
Prediction frequency:	<u>2437</u> MHz
MPE limit for uncontrolled exposure at prediction frequency:	<u>1</u> mW/cm <sup>2</sup>
<b>Power density at prediction frequency:</b>	<b>0.008123</b> mW/cm <sup>2</sup>
	<b>0.081233</b> W/m <sup>2</sup>
Tx On time:	<b>1.000000</b> ms
Tx period time:	<b>1.000000</b> ms
Average Factor:	<b>100.000000</b> %
Average Power density at prediction frequency:	<b>0.081233</b> W/m <sup>2</sup>
Maximum allowable antenna gain:	<b>22.80269855</b> dBi
<b>Margin of Compliance:</b>	<b>20.90269855</b> dB