

## 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

Fundamental transmit (prediction) frequency:	<u>2412</u> MHz
Maximum measured conducted peak output power:	<u>24.30</u> dBm
Cable and/or jumper loss:	<u>0.0</u> dB
Maximum peak power at antenna input terminal:	<u>24.30</u> dBm
Tx On time:	<u>100.000</u> ms
Tx period time:	<u>100.000</u> ms
Average factor:	<u>100</u> %
Maximum calculated average power at antenna input terminal:	<u>269.153</u> mW
Single Antenna gain (typical):	<u>1</u> dBi
Number of antennae:	<u>1</u>
Total system gain (typical):	<u>1.000</u> dBi
MPE limit for uncontrolled exposure at prediction frequency:	<u>1</u> mW/cm <sup>2</sup>
	<u>10</u> W/m <sup>2</sup>
Minimum calculated prediction distance for compliance:	<u>5</u> cm
Typical (declared) distance:	<u>20</u> cm
<b>Average power density at prediction frequency:</b>	<b><u>0.067411</u> mW/cm<sup>2</sup></b>
	<b><u>0.67411</u> W/m<sup>2</sup></b>
<b>Margin of Compliance:</b>	<b><u>11.71270</u> dB</b>
Maximum allowable antenna gain:	<u>12.71270</u> dBi