

## 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:	2402 MHz
Maximum measured conducted peak output power:	3.91 dBm
Cable and/or jumper loss:	0.0 dB
Maximum peak power at antenna input terminal:	3.91 dBm
Tx On time:	1.000 ms
Tx period time:	1.000 ms
Average factor:	100 %
Maximum calculated average power at antenna input terminal:	2.460 mW
Single Antenna gain (typical):	2 dBi
Number of antennae:	1
Total system gain (typical):	2.0 dBi
MPE limit for uncontrolled exposure at prediction frequency:	1 mW/cm <sup>2</sup>
	10 W/m <sup>2</sup>
Minimum calculated prediction distance for compliance:	1 cm
Typical (declared) distance:	20 cm
Average power density at prediction frequency:	0.000776 mW/cm <sup>2</sup>
	0.00776 W/m <sup>2</sup>
Margin of Compliance:	31.10270 dB
Maximum allowable antenna gain:	33.10270 dBi