

## 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>8.41</u> dBm
Cable and Jumper loss:	<u>0.0</u> dB
Maximum peak output power at antenna input terminal:	<u>8.41</u> dBm
	<u>6.93425806</u> mW
Single Antenna gain (typical):	<u>6</u> dBi
Number of Antennae:	<u>1</u>
Total Antenna gain (typical):	<u>6</u> dBi
	<u>3.981071706</u> (numeric)
Prediction distance:	<u>20</u> cm
Prediction frequency:	<u>2402</u> MHz
MPE limit for uncontrolled exposure at prediction frequency:	<u>1</u> mW/cm <sup>2</sup>

**Power density at prediction frequency:** **0.005492** mW/cm<sup>2</sup>

**0.054920** 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: **0.054920** W/m<sup>2</sup>

Maximum allowable antenna gain: **28.60269855** dBi

**Margin of Compliance:** **22.60269855** dB