

## 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: 18.90 dBm

Cable and Jumper loss: 0.0 dB

Maximum peak output power at antenna input terminal: 18.90 dBm

77.62471166 mW

Single Antenna gain (typical): 3.8 dBi

Number of Antennae:

Total Antenna gain (typical): 3.8 dBi

2.398832919 (numeric)

20 cm Prediction distance: Prediction frequency: 2412 MHz

1 mW/cm<sup>2</sup> MPE limit for uncontrolled exposure at prediction frequency:

> 0.037045 mW/cm<sup>2</sup> Power density at prediction frequency:

0.370450 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: 0.370450 W/m<sup>2</sup>

Maximum allowable antenna gain: 18.11269855 dBi

Margin of Compliance: 14.31269855 dB