

## 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: \_\_\_\_\_\_19.15 dBm

Cable and Jumper loss: 0.0 dB

Maximum peak output power at antenna input terminal: 19.15 dBm

82.22426499 mW

Single Antenna gain (typical): 1.5 dBi

Number of Antennae: 1
Total Antenna gain (typical): 1.5 dBi

1.412537545 (numeric)

Prediction distance: 20 cm

Prediction frequency: 2405 MHz

MPE limit for uncontrolled exposure at prediction frequency:

1 mW/cm<sup>2</sup>

Power density at prediction frequency: 0.023106 mW/cm<sup>2</sup>

0.231063 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: 0.231063 W/m²

Maximum allowable antenna gain: 17.86269855 dBi

Margin of Compliance: 16.36269855 dB