

## 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: 12.87 dBm  
Cable and Jumper loss: 0.0 dB

Maximum peak output power at antenna input terminal: 12.87 dBm  
19.36421964 mW

Single Antenna gain (typical): 3.8 dBi

Number of Antennae: 1

Total Antenna gain (typical): 3.8 dBi

2.398832919 (numeric)

Prediction distance: 20 cm

Prediction frequency: 2412 MHz

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

**Power density at prediction frequency:** 0.009241 mW/cm<sup>2</sup>

0.092412 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: 0.092412 W/m<sup>2</sup>

Maximum allowable antenna gain: 24.14269855 dBi

**Margin of Compliance:** 20.34269855 dB