

## 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: 19.10 dBm

Cable and Jumper loss: 0.0 dB

Maximum peak output power at antenna input terminal: 19.10 dBm

81.28305162 mW

Single Antenna gain (typical): 2.9 and 3.8 dBi

Number of Antennae: 2

Total Antenna gain (typical): 6.4 dBi

4.365158322 (numeric)

Prediction distance: 20 cm

Prediction frequency: 5710 MHz

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

**Power density at prediction frequency:** 0.070588 mW/cm<sup>2</sup>

0.705879 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: 0.705879 W/m<sup>2</sup>

Maximum allowable antenna gain: 17.91269855 dBi

**Margin of Compliance:** 11.51269855 dB