

## 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:         | 14.01 dBm                         |
| Cable and Jumper loss:                                       | 0.0 dB                            |
| Maximum peak output power at antenna input terminal:         | 14.01 dBm                         |
|  | 25.17676928 mW                    |
| Single Antenna gain (typical):                               | 2.47 dBi                          |
| Number of Antennae:  | 1                                 |
| Total Antenna gain (typical):                                | 2.47 dBi                          |
|  | 1.766037821 (numeric)             |
| Prediction distance:   | 20 cm                             |
| Prediction frequency:  | 5500 MHz                          |
| MPE limit for uncontrolled exposure at prediction frequency: | 1 mW/cm <sup>2</sup>              |
| <b>Power density at prediction frequency:</b>                | <b>0.008846 mW/cm<sup>2</sup></b> |
|  | 0.088457 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:               | 0.088457 W/m <sup>2</sup>         |
| Maximum allowable antenna gain:                              | 23.00269855 dBi                   |
| <b>Margin of Compliance:</b>                                 | <b>20.53269855 dB</b>             |