

## 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:                     | 8.85 dBm                  |
| Cable and Jumper loss:   | 0.0 dB                    |
| Maximum peak output power at antenna input terminal:                     | 8.85 dBm                  |
|  | 7.673614894 mW            |
| Single Antenna gain (typical):   | 2 dBi                     |
| Number of Antennae:  | 1                         |
| Total Antenna gain (typical):  | 2 dBi                     |
|  | 1.584893192 (numeric)     |
| Prediction distance:   | 20 cm                     |
| Prediction frequency:  | 2402 MHz                  |
| MPE limit for uncontrolled exposure at prediction frequency:             | 1 mW/cm <sup>2</sup>      |
| <b>Power density at prediction frequency: 0.002420 mW/cm<sup>2</sup></b> |                           |
|  | 0.024195 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:                           | 0.024195 W/m <sup>2</sup> |
| Maximum allowable antenna gain:  | 28.16269855 dBi           |
| <b>Margin of Compliance:</b>   | <b>26.16269855 dB</b>     |