



### 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 antenna input terminal:         | <u>22.9</u> (dBm)                  | * |
| Maximum peak output power at antenna input terminal:         | <u>195.0</u> (mW)                  |   |
| Antenna gain(maximum):                                       | <u>0.8</u> (dBi)                   | * |
| Maximum antenna gain:                                        | <u>1.20</u> (numeric)              |   |
| Time Averaging:                                              | <u>100</u> (%)                     | * |
| Prediction distance:                                         | <u>20</u> (cm)                     | * |
| Prediction frequency:                                        | <u>2412</u> (MHz)                  | * |
| MPE limit for uncontrolled exposure at prediction frequency: | <u>1.000</u> (mW/cm <sup>2</sup> ) |   |
| Power density at prediction frequency:                       | 0.047 (mW/cm <sup>2</sup> )        |   |
| This equates to:                                             | 0.466 W/m <sup>2</sup>             |   |