

### 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:         | 27.00 (dBm)        |
| Maximum peak output power at antenna input terminal:         | 501.187 (mW)       |
| Antenna gain(typical):                                       | 2 (dBi)            |
| Maximum antenna gain:                                        | 1.585 (numeric)    |
| Prediction distance:                                         | 20 (cm)            |
| Prediction frequency:                                        | 915 (MHz)          |
| MPE limit for uncontrolled exposure at prediction frequency: | 0.6 (mW/cm^2)      |
| Power density at prediction frequency:                       | 0.158027 (mW/cm^2) |
| Maximum allowable antenna gain:                              | 7.8 (dBi)          |
| Margin of Compliance at 20 cm =                              | 5.8 dB             |