

### 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 isotropic

R = distance to the center of radiation of the antenna

|                                                              |          |           |
|--------------------------------------------------------------|----------|-----------|
| Maximum peak output power at antenna input terminal:         | 20.95    | (dBm)     |
| Maximum peak output power at antenna input terminal:         | 124.5    | (mW)      |
| Antenna gain(typical):                                       | 30       | (dBi)     |
| Maximum antenna gain:                                        | 1000.000 | (numeric) |
| Prediction distance:                                         | 110      | (cm)      |
| Source Based Time Average Duty Cycle:                        | 100      | (%)       |
| Prediction frequency:                                        | 5745     | (MHz)     |
| MPE limit for uncontrolled exposure at prediction frequency: | 1.000    | (mW/cm^2) |
| Power density at prediction frequency:                       | 0.81847  | (mW/cm^2) |
| Power density at prediction frequency:                       | 8.1847   | (W/m^2)   |
| Margin of Compliance:                                        | 0.87     | (dB)      |