

### 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:         | 31.31   | (dBm)     |
| Maximum peak output power at antenna input terminal:         | 1352.1  | (mW)      |
| Antenna gain(typical):                                       | 2.15    | (dBi)     |
| Maximum antenna gain:  | 1.641   | (numeric) |
| Prediction distance:   | 20      | (cm)      |
| Source Based Time Average Duty Cycle:                        | 100     | (%)       |
| Prediction frequency:  | 848.8   | (MHz)     |
| MPE limit for uncontrolled exposure at prediction frequency: | 0.566   | (mW/cm^2) |
| Power density at prediction frequency:                       | 0.44130 | (mW/cm^2) |
| Power density at prediction frequency:                       | 4.4130  | (W/m^2)   |
| Margin of Compliance:  | 1.08    | (dB)      |