

## **MPE Calculation for FCC Uncontrolled Environment**

Formula 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

Source Based Time Averaged Duty Cycle is 100% in calculation below

| Maximum peak output power at antenna input terminal:         | 12.33  | (dBm)     |
|--|--------|-----------|
| Maximum peak output power at antenna input terminal:         | 0.0171 | (W)       |
| Maximum antenna gain:  | 0.00   | (dBi)     |
| Maximum antenna gain:  | 1.000  | (numeric) |
| Prediction distance:   | 20     | (cm)      |
| Prediction frequency:  | 915    | (MHz)     |
| Time Averaged Duty Cycle                                     | 100    | %         |
| MPE limit for uncontrolled exposure at prediction frequency: | 6.10   | (W/m^2)   |
| Power density at prediction frequency:                       | 0.0034 | (mW/cm^2) |
| Power density at prediction frequency:                       | 0.034  | (W/m^2)   |
| Maximum allowable antenna gain:                              | 22.54  | (dBi)     |
| Margin of Compliance:  | 22.54  | (dB)      |