## 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 the antenna terminal:           | <u>10.51</u> (dBm)    |
|--|-----------------------|
| Maximum peak output power at the antenna terminal:           | 11.23828393 (mW)      |
| Antenna gain(typical):                                       | <u>1.9</u> (dBi)      |
| Maximum antenna gain:  | 1.548816619 (numeric) |
| Prediction distance:   | <u>    20 </u> (cm)   |
| Prediction frequency:  | <u>2482</u> (MHz)     |
| MPE limit for uncontrolled exposure at prediction frequency: | 1 (mW/cm^2)           |
|  |                       |
| Power density at prediction frequency:                       | 0.003463 (mW/cm^2)    |
|  |                       |
| Maximum allowable antenna gain:                              | 26.50569855 (dBi)     |