



### 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

|  | Pt. 15   | Pt. 90    |                       |
|--|----------|-----------|-----------------------|
| Maximum peak output power at antenna input terminal:         | -27.30   | 33.18     | (dBm)                 |
| Maximum peak output power at antenna input terminal:         | 0.001862 | 2079.6967 | (mW)                  |
| Antenna gain(typical):                                       | -20      | 5.2       | (dBi)                 |
| Maximum antenna gain:  | 0.01     | 3.3113112 | (numeric)             |
| Prediction distance:   | 60       | 60        | (cm)                  |
| Prediction frequency:  | 927.25   | 151.25    | (MHz)                 |
| MPE limit for uncontrolled exposure at prediction frequency: | 0.6      | 0.2       | (mW/cm <sup>2</sup> ) |

Power density at prediction frequency: 1.48E-10 0.15223 (mW/cm<sup>2</sup>)

Multiple transmitter Calculation: (Sum of all fractional Contributions)

0.00000 + 0.15223 <1.0