



### 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 radiator

R = distance to the center of radiation of the antenna

|                                                                  |                             |   |
|------------------------------------------------------------------|-----------------------------|---|
| Maximum peak output power at antenna input terminal:             | 29.6 (dBm)                  | * |
| Maximum peak output power at antenna input terminal:             | 918.3 (mW)                  |   |
| Antenna gain(maximum):                                           | 42.5 (dBi)                  | * |
| Maximum antenna gain:                                            | 17782.79 (numeric)          |   |
| Time Averaging:                                                  | 100 (%)                     | * |
| Prediction distance:                                             | 1200 (cm)                   | * |
| Prediction frequency:                                            | 5700 (MHz)                  | * |
| FCC MPE limit for uncontrolled exposure at prediction frequency: | 1.000 (mW/cm <sup>2</sup> ) |   |
| IC MPE limit for uncontrolled exposure at prediction frequency:  | 30.60 (W/m <sup>2</sup> )   |   |
| Power density at prediction frequency:                           | 0.902 (mW/cm <sup>2</sup> ) |   |
| This equates to:                                                 | 9.02 (W/m <sup>2</sup> )    |   |