

## 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

| PWR in dBm Maximum peak output power at antenna input terminal:      | 19.0 dBm                |
|--|-------------------------|
| Maximum peak output power at antenna input terminal:                 | 79.4 mW                 |
| Ant. gain in dBi Antenna gain(maximum):                              | 0.01 dBi                |
| Maximum antenna gain:  | 1.0 numeric             |
| Use the duty cycle from test report or 100% Time Averaging:          | 100 %                   |
| Separation distance from antenna to user in cm. Prediction distance: | 20 cm                   |
| Freq. in MHz Prediction frequency:                                   | 915 MHz                 |
| FCC MPE limit for uncontrolled exposure at prediction frequency:     | 0.61 mW/cm <sup>2</sup> |
| IC MPE limit for uncontrolled exposure at prediction frequency:      | 2.77 W/m <sup>2</sup>   |
| Power density at prediction frequency:                               | 0.02 mW/cm <sup>2</sup> |
| This equates to:   | $0.16 \text{ W/m}^2$    |