



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: | <u>4.20</u> | (dBm) |
| Maximum peak output power at antenna input terminal: | <u>0.003</u> | (W) |
| Maximum antenna gain: | <u>4.20</u> | (dBi) |
| Maximum antenna gain: | <u>2.630</u> | (numeric) |
| Prediction distance: | <u>20</u> | (cm) |
| Prediction frequency: | <u>2440</u> | (MHz) |
| Time Averaged Duty Cycle | <u>100</u> | % |
| MPE limit for uncontrolled exposure at prediction frequency: | <u>10.00</u> | (W/m^2) |
| Power density at prediction frequency: | <u>0.0014</u> | (mW/cm^2) |
| Power density at prediction frequency: | <u>0.014</u> | (W/m^2) |
| Maximum allowable antenna gain: | <u>32.81</u> | (dBi) |
| Margin of Compliance: | <u>28.61</u> | (dB) |