



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>20.00</u> | (dBm) |
| Maximum peak output power at antenna input terminal: | <u>0.100</u> | (W) |
| Maximum antenna gain: | <u>2.70</u> | (dBi) |
| Maximum antenna gain: | <u>1.862</u> | (numeric) |
| Prediction distance: | <u>20</u> | (cm) |
| Prediction frequency: | <u>1925</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>0.0370</u> | (mW/cm ²) |
| Power density at prediction frequency: | <u>0.370</u> | (W/m ²) |
| Maximum allowable antenna gain: | <u>17.01</u> | (dBi) |
| Margin of Compliance: | <u>14.31</u> | (dB) |