



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>3.51</u> (dBm)
Maximum peak output power at antenna input terminal:	<u>0.00224</u> (W)
Maximum antenna gain:	<u>6.90</u> (dBi)
Maximum antenna gain:	<u>4.898</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>0.0022</u> (mW/cm ²)
Power density at prediction frequency:	<u>0.022</u> (W/m ²)
Maximum allowable antenna gain:	<u>33.50</u> (dBi)
Margin of Compliance:	<u>26.60</u> (dB)