



### 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>4.50</u>	(dBm)
Maximum peak output power at antenna input terminal:	<u>0.003</u>	(W)
Maximum antenna gain:	<u>4.70</u>	(dBi)
Maximum antenna gain:	<u>2.951</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>0.0017</u>	(mW/cm^2)
Power density at prediction frequency:	<u>0.017</u>	(W/m^2)
Maximum allowable antenna gain:	<u>32.51</u>	(dBi)
Margin of Compliance:	<u>27.81</u>	(dB)