

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:	29.47	(dBm)
Maximum peak output power at antenna input terminal:	0.885	(W)
Maximum antenna gain:	4.00	(dBi)
Maximum antenna gain:	2.512	(numeric)
Prediction distance:	20	(cm)
Prediction frequency:	5800	(MHz)
Time Averaged Duty Cycle	100	%
MPE limit for uncontrolled exposure at prediction frequency:	10.00	(W/m^2)
Power density at prediction frequency:	0.4423	(mW/cm^2)
Power density at prediction frequency:	4.423	(W/m^2)
Maximum allowable antenna gain:	7.54	(dBi)
Margin of Compliance:	3.54	(dB)