



Prediction of MPE limit at a given distance

Equation 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

Maximum peak output power at antenna input terminal:	30.0 (dBm)	*
Maximum peak output power at antenna input terminal:	1000.0 (mW)	
Antenna gain(maximum):	21 (dBi)	*
Maximum antenna gain:	125.89 (numeric)	
Time Averaging:	100 (%)	*
Prediction distance:	1000 (cm)	*
Prediction frequency:	869 (MHz)	*
MPE limit for uncontrolled exposure at prediction frequency:	0.579 (mW/cm^2)	
Power density at prediction frequency:	0.010 (mW/cm^2)	

This equates to: 0.10 W/m^2

The antenna is specified at the time of licensing for this device. A gain of 21 dBi is used for the MPE prediction as a typical gain. RF exposure is dealt with at the time of licensing.