



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 isotropic radiator
R = distance to the center of radiation of the antenna

PWR in dBm	Maximum peak output power at antenna input terminal:	48.6	dBm
	Maximum peak output power at antenna input terminal:	72400.1	mW
	Ant. gain in dBi	12	dBi
	Antenna gain(maximum):	15.8	numeric
Use the duty cycle from test report or 100%	Time Averaging:	100	%
Separation distance from antenna to user in cm.	Prediction distance:	600	cm
Freq. in MHz	Prediction frequency:	869	MHz
	FCC MPE limit for uncontrolled exposure at prediction frequency:	0.58	mW/cm ²
	IC MPE limit for uncontrolled exposure at prediction frequency:	2.67	W/m ²
	Power density at prediction frequency:	0.25	mW/cm ²
	This equates to:	2.54	W/m ²