Nemko

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:	27.0	dBm
	Maximum peak output power at antenna input terminal:	501.2	mW
Ant. gain in dBi →	Antenna gain(maximum):	3	dBi
	Maximum antenna gain:	2.0	numeric
Use the duty cycle from test report or 100% →	Time Averaging:	100	%
Separation distance from antenna to user in cm. →	Prediction distance:	20	cm
Freq. in MHz →	Prediction frequency:	153	MHz
	Limit at frequency:	0.20	mW/cm^2
	Power density at prediction frequency:	0.20	mW/cm^2
	This equates to:	1.99	W/m^2