Nemko

ONE WORLD ○ OUR APPROVAL

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 device output terminal:	27.00	dBm
Cable and Jumper loss:	0.0	dB
Maximum peak output power at antenna input terminal:	27.00	dBm
	501.1872336	mW
Single Antenna gain (typical):	5	dBi
Number of Antennae:	1	
Total Antenna gain (typical):	5	dBi
	3.16227766	(numeric)
Prediction distance:	20	cm
Prediction frequency:	915.25	MHz
MPE limit for uncontrolled exposure at prediction frequency:	0.610166667	mW/cm^2

Power density at prediction frequency:	**0.315304**	**mW/cm^2**
	3.153045	W/m^2
Tx On time:	1.000000	ms
Tx period time:	1.000000	ms
Average Factor:	100.000000	%
Average Power density at prediction frequency:	3.153045	W/m^2
Maximum allowable antenna gain:	7.867183338	dBi
Margin of Compliance:	**2.867183338**	**dB**