Nemko

ONE WORLD ○ OUR A

Prediction of MPE limit at a given distance

The chart below demonstates that both Band 4 and Band 13 will comply with the MPE requiren

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

	Band 13	Band 4	
Maximum peak output power at device output terminal:	23.22	24.17	dBm
Cable and Jumper loss:	0.0	0.0	dB
Maximum peak output power at antenna input terminal:	23.22	24.17	dBm
	209.89399	261.2161354	mW
Single Antenna gain (typical):	0	0	dBi
Number of Antennae:	1	1	
Total Antenna gain (typical):	0	0	dBi
	1	1	(numeric)
Prediction distance:	20	20	cm
Prediction frequency:	2132.5	748.5	MHz
MPE limit for uncontrolled exposure at prediction frequency:	1	0.499	mW/cm^2
Power density at prediction frequency:	**0.041757**	**0.051967**	**mW/cm^2**
	0.417571	0.519673	W/m^2
Tx On time:	1.000000	1.000000	ms
Tx period time:	1.000000	1.000000	ms
Average Factor:	100.000000	100.000000	%
Average Power density at prediction frequency:	0.417571	0.519673	W/m^2