

## **MPE Prediction**

FCC Rule: 15.247(b)(5)

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess of the Commission's guidelines. See § 1.1307(b)(1) of this Chapter.

Frequency	Electric Field	Magnetic Field	Power Density	Average Time	
Range	Strength (V/m)	Strength (A/m)	(mW/cm2)	(minutes)	
(MHz)	_	-			
(A)Limits For Occupational / Control Exposures					
30-300	61.4	0.163	1.0	6	
300-1500			F/300	6	
1500-100,000			5	6	
(B)Limits For General Population / Uncontrolled Exposure					
30-300	27.5	0.073	0.2	30	
300-1500			F/1500	30	
1500-100,000			1.0	30	

## LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

F = Frequency in MHz

## Prediction of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

PG S= -----4 p R<sup>2</sup>

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

 $\mathbf{R}$  = distance to the center of radiation of the antenna

Registrationnumber : UOM20303-4887-E-16



Maximum peak output power at antenna input terminal:	23.52 (dBm)
Maximum peak output power at antenna input terminal:	224.8 (mW)
Antenna gain(maximal):	5 (dBi)
Prediction distance:	10 (cm)
Prediction frequency:	2412 (MHz)
MPE limit for uncontrolled exposure at prediction frequency:	1.0 (mW/cm <sup>2</sup> )
Power density at prediction frequency:	0.894451 (mW/cm <sup>2</sup> )
Maximum allowable antenna gain:	5.59 (dBi)

The manual instruct the user to install and operate the device in a minimum distance of 20 cm between antenna and the users body.

Registrationnumber : UOM20303-4887-E-16