MPE Calculation page

MPE Calculator	Laird Technologies		Test Number	100313	
MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.					
	dBi = dB gain compared to an isotropic radiator.				
	S = power density in mW/cm^2			Antenna Gain (dBi)	9
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.17
Tx Frequency (MHz)	2441	(Watts)	0.125000		6.83
				Antenna minus cable (dBi)	9.00
Cable Loss (dB)	0.0	(dBm)	20.97		
	Calculated ERP (mw)	602.435		Radiated (EIRP) dBm	29.969
	Calculated EIRP (mw)	992.910			
				Radiated (ERP) dBm	27.799

Occupational Limit

5.00000 **mW/cm^2**

General Public Limit

1.00000 **mW/cm^2**

Power density (S) = EIRP / (4 p r^2) = mW/cm^2
[r (cm), EIRP (mW)]

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit	Public Limit
300-1,500	f/300	f/1500
1,500-10,000	5	1

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit @ Tx Freq (mW/cm^2)	Public Limit @ Tx Freq (mW/cm^2)
300-1,500	8.136666667	1.627333333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm^2
992.910	70.00	27.56	0.01613
992.910	60.00	23.62	0.02195
992.910	50.00	19.69	0.03161
992.910	40.00	15.75	0.04938
992.910	30.00	11.81	0.08779
992.910	20.00	7.87	0.19753
992.910	10.00	3.94	0.79013
992.910	9.00	3.54	0.97547
992.910	8.00	3.15	1.23458
992.910	7.00	2.76	1.61252
992.910	6.00	2.36	2.19481
992.910	5.00	1.97	3.16053
992.910	4.00	1.57	4.93833
992.910	3.00	1.18	8.77925
992.910	2.00	0.79	19.75332

Frequency (MHz)	Occupational Limit minimum Distance cm / inches	Public Limit minimum distance cm / inches
300-1,500	N/A	N/A
1,500-10,000	4cm / 3.6"	9cm / 1.6"