MPE Calculation page

MPE Calculator	Dynastream		Test Number	090115	
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)	1
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.17
Tx Frequency (MHz)	2457	(Watts)	0.000177		-1.17
				Antenna minus cable (dBi)	1.00
Cable Loss (dB)	0.0	(dBm)	-7.53		
	Calculated ERP (mw)	0.135		Radiated (EIRP) dBm	-6.529
	Calculated EIRP (mw)	0.222			
				Radiated (ERP) dBm	-8.699

Occupational Limit

5.00000 mW/cm^2

General Public Limit

1.00000 mW/cm^2

Power density (S) =

EIRP
------- = mW/cm^2
4 p r^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	8.19	1.638
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm^2
0.222	10.00	3.94	0.00018
0.222	9.00	3.54	0.00022
0.222	8.00	3.15	0.00028
0.222	7.00	2.76	0.00036
0.222	6.00	2.36	0.00049
0.222	5.00	1.97	0.00071
0.222	4.00	1.57	0.00111
0.222	3.00	1.18	0.00197
0.222	2.00	0.79	0.00442
0.222	1.00	0.39	0.01770
0.222	0.50	0.20	0.07079
0.222	0.40	0.16	0.11061
0.222	0.25	0.10	0.28316
0.222	0.20	0.08	0.44244
0.222	0.14	0.06	0.90293

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	N/A	N/A
1,500-10,000	N/A	0.14