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MPE Calculation page
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MPE Calculator   Test Number: 080101
MPE uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.

				Antenna Gain (dBi)	1
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.17
Tx Frequency (MHz)	2457	(Watts)	0.000208		-1.17
				Antenna minus cable (dBi)	1.00
Cable Loss (dB)	0.0	(dBm)	-6.82		

dBi = dB gain compared to an isotropic radiator.
S = power density in mW/cm^2

Calculated ERP (mw) 0.159
Calculated EIRP (mw) 0.262

Radiated (EIRP) dBm   -5.819

Radiated (ERP) dBm   -7.989

Occupational Limit

5.00000   **mW/cm²**

General Public Limit

1.00000   **mW/cm²**

Power density (S) =
EIRP
------   (mW/cm^2)
$4 \pi r^2$
[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/cm²
0.262	50.00	19.69	0.00001
0.262	40.00	15.75	0.00001
0.262	30.00	11.81	0.00002
0.262	25.00	9.84	0.00003
0.262	20.00	7.87	0.00005
0.262	15.00	5.91	0.00009
0.262	14.00	5.51	0.00011
0.262	13.00	5.12	0.00012
0.262	12.00	4.72	0.00014
0.262	11.00	4.33	0.00017
0.262	10.00	3.94	0.00021
0.262	9.00	3.54	0.00026
0.262	8.00	3.15	0.00033
0.262	7.00	2.76	0.00043
0.262	6.00	2.36	0.00058
0.262	5.00	1.97	0.00083
0.262	4.00	1.57	0.00130
0.262	3.00	1.18	0.00232
0.262	2.00	0.79	0.00521
0.262	1.00	0.39	0.02084
0.262	0.50	0.20	0.08335
0.262	0.40	0.16	0.13024
0.262	0.30	0.12	0.23153
0.262	0.20	0.08	0.52095
0.262	0.15	0.06	0.92613

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	0.15