

MPE Calculation page

MPE Calculator

Test Number: 080930

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/cm²

			Antenna Gain (dBi)	0
			dBi to dBd	2.17
Tx Frequency (<small>Power density (S) = ERP ----- (mW/cm²) 4 π r² [r (cm), ERP (mW)]</small>	2457	Output Power dBd + 2.17 = dBd	0.001000
			Antenna minus cable (dBi)	0.00
Cable Loss (dB)		0.0		0.00

Calculated ERP (mw)	0.607	Radiated (EIRP) dBm	0.000
Calculated EIRP (mw)	1.000	Radiated (ERP) dBm	-2.170

Occupational Limit
5.00000 mW/cm²

General Public Limit
1.00000 mW/cm²

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
1.000	50.00	19.69	0.00003
1.000	25.00	9.84	0.00013
1.000	20.00	7.87	0.00020
1.000	15.00	5.91	0.00035
1.000	10.00	3.94	0.00080
1.000	5.00	1.97	0.00318
1.000	4.00	1.57	0.00497
1.000	3.00	1.18	0.00884
1.000	2.00	0.79	0.01989
1.000	1.00	0.39	0.07958
1.000	0.50	0.20	0.31831
1.000	0.29	0.11	0.94622
1.000	0.25	0.10	1.27324

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm) / inches
300-1,500	N/A	N/A
1,500-10,000	N/A	(0.29) / 0.11