

MPE Calculator	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)	1.8	
		Output Power		dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	915	Maximum (Watts)	0.004238		Antenna Gain (dBd)	-0.37
Cable Loss (dB)	0.0	(dBm)	6.27		Antenna minus cable (dBi)	1.80
	Calculated ERP (mw)	3.892		EIRP = Po(dBM) + Gain (dB)		
	Calculated EIRP (mw)	6.414			Radiated (EIRP) dBm	8.071
				ERP = EIRP - 2.17 dB		
Occupational Limit					Radiated (ERP) dBm	5.901
3.05000	mW/cm ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² 4 p r² r (cm) EIRP (mW) </div>				
30.50000	W/m ²					
General Public Limit						
0.61000	mW/cm ²					
6.10000	W/m ²					
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	Public Limit @ Tx Freq (mW/cm ²)			
	300-1,500 (mW/cm2)	3.05	0.61			
	300-1,500 (W/m2)	30.5	6.1			
	1,500-10,000 (mW/cm2)	5	1			
	1,500-10,000 (W/m2)	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
6.414	0.00005	0.00051	100.00	1.00	39.37	0.08
6.414	0.00006	0.00063	90.00	0.90	35.43	0.08
6.414	0.00008	0.00080	80.00	0.80	31.50	0.07
6.414	0.00010	0.00104	70.00	0.70	27.56	0.06
6.414	0.00014	0.00142	60.00	0.60	23.62	0.05
6.414	0.00020	0.00204	50.00	0.50	19.69	0.04
6.414	0.00510	0.05104	10.00	0.10	3.94	0.01
6.414	0.00057	0.00567	30.00	0.30	11.81	0.03
6.414	0.00128	0.01276	20.00	0.20	7.87	0.02
6.414	0.00227	0.02268	15.00	0.15	5.91	0.01
6.414	0.00510	0.05104	10.00	0.100	3.94	0.008
6.414	0.02042	0.20416	5.00	0.050	1.97	0.004
6.414	0.03190	0.31900	4.00	0.040	1.57	0.003
6.414	0.05671	0.56711	3.00	0.030	1.18	0.003
6.414	0.12760	1.27600	2.00	0.020	0.79	0.002
6.414	0.51040	5.10401	1.00	0.010	0.39	0.001
6.414	0.63012	6.30125	0.90	0.009	0.35	0.001
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
		Frequency (MHz)				
		300-1,500	N/A	N/A	0.01	1 / 0.4
		1,500-10,000	N/A	N/A	N/A	N/A