

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)	17	
		Output Power		dBd + 2.17 = dBi	dBd to dBd	
Tx Frequency (MHz)	915	Maximum (Watts)	0.500000	Antenna Gain (dBd)	14.83	
Cable Loss (dB)	0.0	(dBm)	26.99	Antenna minus cable (dBi)	17.00	
	Calculated ERP (mw)	15204.425		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	25059.362		Radiated (EIRP) dBm	43.990	
				ERP = EIRP - 2.17 dB		
	Occupational Limit			Radiated (ERP) dBm	41.820	
	3.05000 mW/cm ²	<div style="border: 1px solid black; padding: 5px;"> Power density (S) EIRP ----- = mW/cm² 4 π 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
25059.362	0.19942	1.99416	100.00	1.00	39.37	0.08
25059.362	0.24619	2.46193	90.00	0.90	35.43	0.08
25059.362	0.31159	3.11588	80.00	0.80	31.50	0.07
25059.362	0.40697	4.06972	70.00	0.70	27.56	0.06
25059.362	0.55393	5.53934	60.00	0.60	23.62	0.05
25059.362	0.61378	6.13777	57.00	0.57	22.44	0.05
25059.362	0.65923	6.59227	55.00	0.55	21.65	0.05
25059.362	0.79766	7.97664	50.00	0.50	19.69	0.04
25059.362	1.24635	12.46350	40.00	0.40	15.75	0.03
25059.362	2.21573	22.15734	30.00	0.30	11.81	0.03
25059.362	2.94994	29.49942	26.00	0.260	10.24	0.022
25059.362	4.98540	49.85402	20.00	0.200	7.87	0.017
25059.362	18.61570	186.15703	10.35	0.104	4.07	0.009
25059.362	19.94161	199.41606	10.00	0.100	3.94	0.008
25059.362	24.61927	246.19267	9.00	0.090	3.54	0.008
25059.362	31.15876	311.58760	8.00	0.080	3.15	0.007
25059.362	40.69716	406.97156	7.00	0.070	2.76	0.006
			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		0.26	26 / 10.3	0.570	57 / 22
	1,500-10,000		N/A	N/A	N/A	N/A