

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			
		Output Power		dBd + 2.17 = dBi	2.2			
Tx Frequency (MHz)	2437	Maximum (Watts)	0.070651	Antenna Gain (dBd)	-1.17			
Cable Loss (dB)	0.0	(dBm)	18.49	Antenna minus cable (dBi)	1.00			
	Calculated ERP (mw)	53.966		EIRP = Po(dBm) + Gain (dB)				
	Calculated EIRP (mw)	88.945		Radiated (EIRP) dBm	19.491			
				ERP = EIRP - 2.17 dB				
	Occupational Limit			Radiated (ERP) dBm	17.321			
	5.00000 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>						
	50.00000 W/m ²							
	General Public Limit							
	1.00000 mW/cm ²							
	10.00000 W/m ²							
FCC radio frequency radiation exposure limits per 1.1310 (mW/cm2)								
	Frequency (MHz)	Occupational Limit	Public Limit					
	300-1,500	ƒ300	ƒ1500					
	1,500-10,000	5	1					
FCC radio frequency radiation exposure limits per 1.1310								
	Frequency (MHz)	Occupational Limit	Public Limit					
	300-1,500 (mW/cm2)	8.123333333	1.624666667					
	300-1,500 (W/m2)	81.23333333	16.24666667					
	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		
88.945	0.00003	0.00028	500.00	5.00	196.85	16.40		
88.945	0.00004	0.00044	400.00	4.00	157.48	13.12		
88.945	0.00008	0.00079	300.00	3.00	118.11	9.84		
88.945	0.00018	0.00177	200.00	2.00	78.74	6.56		
88.945	0.00071	0.00708	100.00	1.00	39.37	3.28		
88.945	0.00087	0.00874	90.00	0.90	35.43	2.95		
88.945	0.00111	0.01106	80.00	0.80	31.50	2.62		
88.945	0.00144	0.01444	70.00	0.70	27.56	2.30		
88.945	0.00197	0.01966	60.00	0.60	23.62	1.97		
88.945	0.00283	0.02831	50.00	0.50	19.69	1.64		
88.945	0.00442	0.04424	40.00	0.40	15.75	1.31		
88.945	0.00786	0.07864	30.00	0.30	11.81	0.98		
88.945	0.01770	0.17695	20.00	0.20	7.87	0.66		
88.945	0.07078	0.70780	10.00	0.10	3.94	0.33		
88.945	0.11059	1.10594	8.00	0.08	3.15	0.26		
88.945	0.28312	2.83121	5.00	0.05	1.97	0.16		
88.945	0.97092	9.70921	2.70	0.03	1.06	0.09		
			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	N/A	N/A		
	1,500-10,000				0.03	2.7 / 1		