

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 <sup>2</sup>						
				Antenna Gain (dBi)	24		
		Output Power		dBd + 2.17 = dBi	dBi to dBd 2.2		
Tx Frequency (MHz)	2437	Maximum (Watts)	1.000000	Antenna Gain (dBd)	21.83		
Cable Loss (dB)	0.0	(dBm)	30.00	Antenna minus cable (dBi)	24.00		
	Calculated ERP (mw)	152405.275		EIRP = Po(dBm) + Gain (dB)			
	Calculated EIRP (mw)	251188.643		Radiated (EIRP) dBm	54.000		
				ERP = EIRP - 2.17 dB			
	<b>Occupational Limit</b>			Radiated (ERP) dBm	51.830		
	5.00000 mW/cm <sup>2</sup>	<div style="border: 1px solid black; padding: 5px;">           Power density (S)            EIRP            ----- = mW/cm<sup>2</sup>            4 p r<sup>2</sup>            r (cm) EIRP (mW)         </div>					
	50.00000 W/m <sup>2</sup>						
	<b>General Public Limit</b>						
	1.00000 mW/cm <sup>2</sup>						
	10.00000 W/m <sup>2</sup>						
FCC radio frequency radiation exposure limits per 1.1310 (mW/cm2)							
	Frequency (MHz)	Occupational Limit	Public Limit				
	300-1,500	£300	£1500				
	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)	81.233333333	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 <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet	
251188.643	0.07996	0.79956	500.00	5.00	196.85	0.42	
251188.643	0.12493	1.24931	400.00	4.00	157.48	0.33	
251188.643	0.22210	2.22100	300.00	3.00	118.11	0.25	
251188.643	0.49972	4.99724	200.00	2.00	78.74	0.17	
251188.643	0.65270	6.52701	175.00	1.75	68.90	0.15	
251188.643	0.88840	8.88398	150.00	1.50	59.06	0.13	
251188.643	0.99132	9.91319	142.00	1.42	55.91	0.12	
251188.643	1.38812	13.88122	120.00	1.20	47.24	0.10	
251188.643	1.65198	16.51980	110.00	1.10	43.31	0.09	
251188.643	1.71373	17.13731	108.00	1.08	42.52	0.09	
251188.643	1.81306	18.13057	105.00	1.05	41.34	0.09	
251188.643	1.92128	19.21276	102.00	1.02	40.16	0.09	
251188.643	1.99890	19.98896	100.00	1.00	39.37	0.08	
251188.643	3.55359	35.53592	75.00	0.75	29.53	0.06	
251188.643	5.03627	50.36270	63.00	0.63	24.80	0.05	
251188.643	5.55249	55.52488	60.00	0.60	23.62	0.05	
251188.643	22.20995	222.09952	30.00	0.30	11.81	0.03	
			Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)	
			300-1,500	N/A	N/A	N/A	
			1,500-10,000	0.63	63 / 24.8	1.42	142 / 55.9