

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)	30	
		Output Power	dBd + 2.17 = dBi	2.17	
Tx Frequency (MHz)	9400	Average (Watts)	4.0000	Antenna Gain (dBd)	27.83
Cable Loss (dB)	0.0	(dBm)	36.02	Antenna minus cable (dBi)	30.00
	Calculated ERP (mw)	2426945.318		EIRP = Po(dBm) + Gain (dB)	
	Calculated EIRP (mw)	4000000.000		Radiated (EIRP) dBm	66.021
				ERP = EIRP - 2.17 dB	
				Radiated (ERP) dBm	63.851
Occupational Limit	5.00000	mW/cm²	Power density (S) EIRP ----- = mW/cm ² 4 p r ² r (cm) EIRP (mW)		
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	31.33333333	6.266666667		
	1,500-10,000	5	1		
	EIRP	Distance	Distance	S	Distance
	milliwatts	cm	inches	mW/cm ²	Feet
	4000000.000	1000.00	393.70	0.31831	32.81
	4000000.000	900.00	354.33	0.39298	29.53
	4000000.000	800.00	314.96	0.49736	26.25
	4000000.000	700.00	275.59	0.64961	22.97
	4000000.000	600.00	236.22	0.88419	19.69
	4000000.000	550.00	216.54	1.05226	18.04
	4000000.000	500.00	196.85	1.27324	16.40
	4000000.000	400.00	157.48	1.98944	13.12
	4000000.000	300.00	118.11	3.53678	9.84
	4000000.000	290.00	114.17	3.78490	9.51
	4000000.000	280.00	110.24	4.06008	9.19
	4000000.000	270.00	106.30	4.36639	8.86
	4000000.000	260.00	102.36	4.70873	8.53
	4000000.000	250.00	98.43	5.09296	8.20
	4000000.000	240.00	94.49	5.52621	7.87
	Frequency (MHz)	Occupational Limit minimum Distance (feet)	Public Limit minimum distance (feet)		
	300-1,500	N/A	N/A		
	1,500-10,000	8.20	18.00		