

MPE Calculator	Laird Technologies	Test Number	091013		
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)	9	
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.17
Tx Frequency (MHz)	2441	(Watts)	0.125000		6.83
				Antenna minus cable (dBi)	9.00
Cable Loss (dB)	0.0	(dBm)	20.97		
	Calculated ERP (mw)	602.435		Radiated (EIRP) dBm	29.969
	Calculated EIRP (mw)	992.910			
				Radiated (ERP) dBm	27.799
Occupational Limit		Power density (S) = EIRP ----- = mW/cm^2 4 p r^2 [r (cm), EIRP (mW)]			
5.00000	mW/cm^2				
General Public Limit					
1.00000	mW/cm^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 (mW/cm^2)	Public Limit @ Tx Freq (mW/cm^2)		
	300-1,500	8.136666667	1.627333333		
	1,500-10,000	5	1		
EIRP		Distance	Distance	S	
milliwatts		cm	inches	mW/cm^2	
992.910		70.00	27.56	0.01613	
992.910		60.00	23.62	0.02195	
992.910		50.00	19.69	0.03161	
992.910		40.00	15.75	0.04938	
992.910		30.00	11.81	0.08779	
992.910		20.00	7.87	0.19753	
992.910		10.00	3.94	0.79013	
992.910		9.00	3.54	0.97547	
992.910		8.00	3.15	1.23458	
992.910		7.00	2.76	1.61252	
992.910		6.00	2.36	2.19481	
992.910		5.00	1.97	3.16053	
992.910		4.00	1.57	4.93833	
992.910		3.00	1.18	8.77925	
992.910		2.00	0.79	19.75332	
Occupational Limit minimum Distance (cm)					
Frequency (MHz)		Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)		
300-1,500		N/A	N/A		
1,500-10,000		4.00	9.00		