

MPE Calculation page

MPE Calculator	Bushnell Inc	Test Number	100615A	
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	dBi to dBd
		(Watts)	0.000026	2.17
Tx Frequency (MHz)	916.7			-1.17
			Antenna minus cable (dBi)	1.00
Cable Loss (dB)	0.0	(dBm)	-15.83	
	Calculated ERP (mw)	0.020	Radiated (EIRP) dBm	-14.829
	Calculated EIRP (mw)	0.033		
			Radiated (ERP) dBm	-16.999
	Occupational Limit	<div>Power density (S)</div> <div>EIRP</div> <div>----- = mW/cm^2</div> <div>4 π r^2</div> <div>r (cm) EIRP (mW)</div>		
3.05567	mW/cm^2			
General Public Limit				
0.61113	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	
	1,500-100,000	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	3.055666667	0.611133333	
	1,500-100,000	5	1	
	EIRP	Distance	Distance	S
	milliwatts	cm	inches	mW/cm^2
	0.033	50.00	19.69	0.00000
	0.033	40.00	15.75	0.00000
	0.033	30.00	11.81	0.00000
	0.033	20.00	7.87	0.00001
	0.033	10.00	3.94	0.00003
	0.033	5.00	1.97	0.00010
	0.033	4.00	1.57	0.00016
	0.033	3.00	1.18	0.00029
	0.033	2.00	0.79	0.00065
	0.033	1.00	0.39	0.00262
	0.033	0.50	0.20	0.01047
	0.033	0.25	0.10	0.04188
	0.033	0.20	0.08	0.06544
	0.033	0.10	0.04	0.26176
	0.033	0.07	0.03	0.53421
	Frequency (MHz)	Occupational Limit minimum Distance (cm / in)	Public Limit minimum distance (cm / in)	
	300-1,500	N/A	0.07 / 0.03"	
	1,500-10,000	N/A	N/A	