

MPE Calculation page

Garmin	Model: A1AVGB00	Test Number:	110621A			
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	dBi to dBd	
		Maximum (Watts)	0.002000		Antenna Gain (dBd)	
Tx Frequency (MHz)	2441				-1.17	
Cable Loss (dB)	0.0	(dBm)	3.01	Antenna minus cable (dBi)		
					1.00	
	Calculated ERP (mw)	1.528		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	2.518		Radiated (EIRP) dBm		
				ERP = EIRP - 2.17 dB		
	Occupational Limit			Radiated (ERP) dBm		
	5.00000 mW/cm ²			1.840		
	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						
	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	Public Limit @ Tx Freq (mW/cm ²)			
	300-1,500 (mW/cm ²)	8.136666667	1.627333333			
	300-1,500 (W/m ²)	81.366666667	16.273333333			
	1,500-10,000 (mW/cm ²)	5	1			
	1,500-10,000 (W/m ²)	50	10			
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
2.518	0.00200	0.02004	10.00	0.10	3.94	0.01
2.518	0.00247	0.02474	9.00	0.09	3.54	0.01
2.518	0.00313	0.03131	8.00	0.08	3.15	0.01
2.518	0.00409	0.04089	7.00	0.07	2.76	0.01
2.518	0.00557	0.05566	6.00	0.06	2.36	0.01
2.518	0.00801	0.08015	5.00	0.05	1.97	0.00
2.518	0.01252	0.12523	4.00	0.04	1.57	0.00
2.518	0.02226	0.22263	3.00	0.03	1.18	0.00
2.518	0.05009	0.50091	2.00	0.02	0.79	0.00
2.518	0.20036	2.00364	1.00	0.01	0.39	0.00
2.518	0.24736	2.47363	0.90	0.009	0.35	0.001
2.518	0.31307	3.13069	0.80	0.008	0.31	0.001
2.518	0.40891	4.08907	0.70	0.007	0.28	0.001
2.518	0.55657	5.56567	0.60	0.006	0.24	0.001
2.518	0.80146	8.01457	0.50	0.005	0.20	0.000
2.518	1.25228	12.52276	0.40	0.004	0.16	0.000
2.518	2.22627	22.26269	0.30	0.003	0.12	0.000
			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	N/A	N/A	N/A	N/A