

Garmin	Model: GMN-01776					
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)	5.1	
			Output Power	dBd + 2.17 = dBi		2.2
			Average (Watts)		Antenna Gain (dBd)	2.93
Tx Frequency (MHz)	1090					
Cable Loss (dB)	0.0	(dBm)		35.9	Antenna minus cable (dBi)	5.10
	Calculated ERP (mw)	7657.105		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	12620.153			Radiated (EIRP) dBm	41.011
			Power density (S)	ERP = EIRP - 2.17 dB		
			EIRP		Radiated (ERP) dBm	38.841
			----- = mW/cm <sup>2</sup>			
			4 π r <sup>2</sup>			
			EIRP (mW), r (cm)			
	<b>Occupational Limit</b>	FCC radio frequency radiation exposure limits per 1.1310				
3.63	mW/cm <sup>2</sup>	Frequency (MHz)	Occupational Limit (mW/cm <sup>2</sup> )	Public Limit (mW/cm <sup>2</sup> )		
36.33	W/m <sup>2</sup>	300-1,500	ƒ300	ƒ1500		
	<b>General Public Limit</b>	1,500-10,000	5	1		
0.73	mW/cm <sup>2</sup>					
7.27	W/m <sup>2</sup>					
	<b>Occupational Limit</b>	IC radio frequency radiation exposure limits per RSS-102				
0.6455 <sup>0.5</sup>	W/m <sup>2</sup>	Frequency (MHz)	Occupational Limit (W/m <sup>2</sup> )	Public Limit (W/m <sup>2</sup> )		
21.31128	W/m <sup>2</sup>	100-6,000	0.6455 <sup>0.5</sup>			
	<b>General Public Limit</b>	6,000-15,000	50			
0.02619 <sup>0.8834</sup>	W/m <sup>2</sup>	48-300		1.291		
3.11826	W/m <sup>2</sup>	300-6,000		0.02619 <sup>0.8834</sup>		
		6,000-15,000	50	10		
<b>EIRP</b>	<b>S</b>	<b>S</b>	<b>Distance</b>	<b>Distance</b>	<b>Distance</b>	<b>Distance</b>
milliwatts	mW/cm <sup>2</sup>	W/m <sup>2</sup>	cm	meter	inches	Feet
12620.153	0.10043	1.004	100.00	1.00	39.37	3.28
12620.153	0.12399	1.240	90.00	0.90	35.43	2.95
12620.153	0.15692	1.569	80.00	0.80	31.50	2.62
12620.153	0.20496	2.050	70.00	0.70	27.56	2.30
12620.153	0.27897	2.790	60.00	0.60	23.62	1.97
12620.153	0.40171	4.017	50.00	0.50	19.69	1.64
12620.153	0.62767	6.277	40.00	0.40	15.75	1.31
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12620.153	1.11587	11.159	30.00	0.30	11.81	0.98
12620.153	2.51070	25.107	20.00	0.20	7.87	0.66
12620.153	4.46347	44.635	15.00	0.150	5.91	0.49
12620.153	10.04280	100.428	10.00	0.100	3.94	0.33
12620.153	15.69187	156.919	8.00	0.080	3.15	0.26
12620.153	20.49551	204.955	7.00	0.070	2.76	0.23
12620.153	27.89666	278.967	6.00	0.060	2.36	0.20
12620.153	40.17119	401.712	5.00	0.050	1.97	0.16
12620.153	62.76749	627.675	4.00	0.040	1.57	0.13
			Frequency (MHz)	Occupational Limit minimum Distance (meters)	Public Limit minimum distance (meters)	
			47CFR 1.1310	0.20	0.40	
			RSS-102			

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Revision 1

Garmin International, Inc.  
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