Garmin	Model: GMN-01078		Test Number:	170102		
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					
	Transmitter maximum Output power operating at 100% (Watts)		21.6272		Antenna Gain (dBi)	1
	Output Power for 50% duty Cycle operation (Watts)		10.8136	dBd + 2.17 = dBi	dBi to dBd	2.2
Tx Frequency (MHz)	127.5	Calcualtion power (Watts)	10.8136		Antenna Gain (dBd)	-1.17
Cable Loss (dB)	0.0	(dBm)	40.34		Antenna minus cable (dBi)	1.00
	Calculated ERP (mw)	8259.809			EIRP = Po(dBM) + Gain (dB)	
	Calculated EIRP (mw)	13613.507			Radiated (EIRP) dBm	41.340
					ERP = EIRP - 2.17 dB	
					Radiated (ERP) dBm	39.170

Power density (S)

EIRP
------- = mW/cm^2
4 p r^2

	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310		
1	mW/cm^2	Frequency (MHz)	Occupational Limit (mW/cm^2)	Public Limit (mW/cm^2)
10	W/m^2	30-300	1	0.2
	General Public Limit	300-1,500	f/300	f/1500
0.2	mW/cm^2	1,500-10,000	5	1
2	W/m^2			

	Occupational Limit			
$0.6455f^{0.5}$	W/m^2	IC radio frequency radiation exposure limits per RSS-102		
9.07200	W/m^2	Frequency (MHz)	Occupational Limit (W/m^2)	Public Limit (W/m^2)
	General Public Limit	100-6,000	$0.6455f^{0.5}$	
1.291	W/m^2	6,000-15,000	50	
1.29100	W/m^2	48-300		1.291
		300-6,000		$0.02619f^{0.6834}$
		6,000-15,000	50	10

EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm^2	W/m^2	cm	meter	inches	Feet
13613.507	0.02708	0.27083	200.00	2.00	78.74	0.17
13613.507	0.03001	0.30009	190.00	1.90	74.80	0.16
13613.507	0.03344	0.33436	180.00	1.80	70.87	0.15
13613.507	0.03749	0.37485	170.00	1.70	66.93	0.14
13613.507	0.04232	0.42318	160.00	1.60	62.99	0.13
13613.507	0.04815	0.48148	150.00	1.50	59.06	0.13
13613.507	0.05527	0.55272	140.00	1.40	55.12	0.12
13613.507	0.06933	0.69333	125.00	1.25	49.21	0.10
13613.507	0.12004	1.20036	95.00	0.95	37.40	0.08
13613.507	0.19259	1.92592	75.00	0.75	29.53	0.06
13613.507	0.55957	5.59570	44.00	0.44	17.32	0.04
13613.507	0.67708	6.77080	40.00	0.40	15.75	0.03
13613.507	0.75023	7.50227	38.00	0.38	14.96	0.03
13613.507	0.88435	8.84350	35.00	0.35	13.78	0.03
13613.507	0.99479	9.94792	33.00	0.33	12.99	0.03
13613.507	10.61983	106.19826	10.10	0.10	3.98	0.01
13613.507	43.33314	433.33137	5.00	0.05	1.97	0.00

Frequency (MHz)	FCC Occupational Limit minimum Distance (meters)	Canada Occupational Limit minimum Distance (meters)	FCC Public Limit minimum distance (meters)	Canada Public Limit minimum distance (meters)
30-300	0.33	0.35	0.75	0.95
300-1,500	N/A	N/A	N/A	N/A
1,500-10,000	N/A	N/A	N/A	N/A