

Garmin	Model: GMN-01410	Test Number:	190423			
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)	13.3352		Antenna Gain (dBi)	2.2	
	Output Power for 50% duty Cycle operation (Watts)	6.6676	dBd + 2.17 = dBi	dBi to dBd	2.2	
Tx Frequency (MHz)	127	Calculation power (Watts)	6.6676	Antenna Gain (dBd)	0.03	
Cable Loss (dB)	0.0	(dBm)	38.24	Antenna minus cable (dBi)	2.20	
	Calculated ERP (mw)	6713.825		EIRP = Po(dBm) + Gain (dB)		
	Calculated EIRP (mw)	11065.474		Radiated (EIRP) dBm	40.440	
				ERP = EIRP - 2.17 dB		
				Radiated (ERP) dBm	38.270	
		<div style="border: 1px solid black; padding: 5px; width: fit-content;"> Power density (S) $\frac{\text{EIRP}}{4 \pi r^2} = \text{mW/cm}^2$ </div>				
	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	1/300	1/1500		
0.2	mW/cm ²	1,500-10,000	5	1		
2	W/m ²					
	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102				
$0.6455 f^{0.5}$	W/m ²	Frequency (MHz)	Occupational Limit (W/m ²)	Public Limit (W/m ²)		
9.05420	W/m ²	100-6,000	$0.6455 f^{0.5}$			
	General Public Limit	6,000-15,000	50			
1.291	W/m ²	48-300		1.291		
1.29100	W/m ²	300-6,000		$0.02619 f^{0.6834}$		
		6,000-15,000	50	10		
EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm ²	W/m ²	cm	meter	inches	Feet
11065.474	0.02201	0.22014	200.00	2.00	78.74	0.17
11065.474	0.02439	0.24392	190.00	1.90	74.80	0.16
11065.474	0.02718	0.27178	180.00	1.80	70.87	0.15
11065.474	0.03047	0.30469	170.00	1.70	66.93	0.14
11065.474	0.03440	0.34397	160.00	1.60	62.99	0.13
11065.474	0.03914	0.39136	150.00	1.50	59.06	0.13
11065.474	0.08806	0.88056	100.00	1.00	39.37	0.08
11065.474	0.10871	1.08711	90.00	0.90	35.43	0.08
11065.474	0.12188	1.21877	85.00	0.85	33.46	0.07
11065.474	0.12480	1.24796	84.00	0.84	33.07	0.07
11065.474	0.19616	1.96160	67.00	0.67	26.38	0.06
11065.474	0.24460	2.44601	60.00	0.60	23.62	0.05
11065.474	0.35222	3.52225	50.00	0.50	19.69	0.04
11065.474	0.55035	5.50352	40.00	0.40	15.75	0.03
11065.474	0.85992	8.59924	32.00	0.32	12.60	0.03
11065.474	0.97840	9.78403	30.00	0.30	11.81	0.03
11065.474	1.40890	14.08900	25.00	0.25	9.84	0.02
		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	0.30	0.32	0.67	0.84
		300-1,500	N/A	N/A	N/A	N/A
		1,500-10,000	N/A	N/A	N/A	N/A

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Model: GMN-02232
 Test: 190423
 File: GMN02232 TNB RF Exposure

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