

	Model: GMN-01912	Test Number: 190506		
MPE Calculator	RF Exposure 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)	0.0740		
	Percent Duty Cycle operation (%)	100.0	Antenna Gain (dBi)	-10.7
	Output Power for 100% duty Cycle operation (Watts)	0.0740	Antenna Gain (Numeric)	0.09
Tx Frequency (MHz)	2437	Calculation power (Watts)	0.0740	dBd + 2.17 = dBi
				dBi to dBd
				Antenna Gain (dBd)
Cable Loss (dB)	0.0	Adjusted Power (dBm)	18.69	Antenna minus cable (dBi)
				-10.70
	Calculated ERP (mw)	3.82	0.00	EIRP = Po(dBm) + Gain (dB)
	Calculated EIRP (mw)	6.30	0.01	Radiated (EIRP) dBm
				ERP = EIRP - 2.17 dB
				Radiated (ERP) dBm
				5.822
	Power density (S) mW/cm² = $\frac{\text{EIRP}}{4\pi r^2}$ r (cm) EIRP (mW)			
	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310		
		Frequency (MHz)	Occupational Limit (mW/cm ²)	Public Limit (mW/cm ²)
5	mW/cm ²	30-300	1	0.2
50	W/m ²			
	General Public Limit	300-1,500	f/300	f/1500
1	mW/cm ²	1,500-10,000	5	1
10	W/m ²			
	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102		
		Frequency (MHz)	Occupational Limit (W/m ²)	Public Limit (W/m ²)
0.6455f ^{0.5}	W/m ²	100-6,000	0.6455f ^{0.5}	
39.7	W/m ²			
	General Public Limit	6,000-15,000	50	
0.02619f ^{0.6834}	W/m ²	48-300		1.291
5.4	W/m ²	300-6,000		0.02619f ^{0.6834}
		6,000-15,000	50	10
f = Transmit Frequency (MHz)			f (MHz) =	2437
P _T = Power Input to Antenna (mW)			P _T (mW) =	74.0000
Duty cycle (percentage of operation)			% =	100.0
P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)			P _A (mW) =	74.00
G _N = Numeric Gain of the Antenna			GN (numeric) =	0.09
S ₂₀ = Power Density of device at 20cm (W/m ²)		S ₂₀ = (P _A G _N)/(4πR ₂₀) ²	S ₂₀ (W/m ²) =	0.01
S _L = Power Density Limit (W/m ²)			S _L (W/m ²) =	5.404
R _C = Minimum distance to the Radiating Element for Compliance (cm)		R _C = √(P _A G _N /4πS _L)	R _C (cm) =	1.0
S _C = Power Density of the device at the Compliance Distance R _C (W/m ²)		S _C = (P _A G _N)/(4πR _C) ²	S _C (W/m ²) =	5.40
R ₂₀ = 20cm			R ₂₀ =	20
	For Compliance with Canada General Population Limits, User Manual must indicate a minimum separation distance of			1.0 cm
	Or in Meters for Compliance with Canada General Population Limits, a minimum separation distance of			0.0 Meters

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 Revision 1

Garmin International, Inc.
 Model: GMN-01912
 Test: 190506
 Test to: 47 CFR 15C, RSS-210, RSS-247
 File: GMN01912 RF Exemption

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