

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 <sup>2</sup>			
Transmitter maximum Output power operating at 100% (Watts)		0.0740		
Percent Duty Cycle operation (%)		100.0		Antenna Gain (dBi)
Output Power for 100% duty Cycle operation (Watts)		0.0740		Antenna Gain (Numeric)
Tx Frequency (MHz)	2437	Calculation power (Watts)	0.0740	dBi to dBd
				dBd + 2.17 = dBi
				Antenna Gain (dBd)
Cable Loss (dB)	0.0	Adjusted Power (dBm)	18.69	Antenna minus cable (dBi)
	Calculated ERP (mw)	3.82		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
	Occupational Limit			
	FCC radio frequency radiation exposure limits per 1.1310			
5	mW/cm <sup>2</sup>	Frequency (MHz)	Occupational Limit (mW/cm <sup>2</sup> )	Public Limit (mW/cm <sup>2</sup> )
50	W/m <sup>2</sup>	30-300	1	0.2
	General Public Limit			
1	mW/cm <sup>2</sup>	300-1,500	ƒ/300	ƒ/1500
10	W/m <sup>2</sup>	1,500-10,000	5	1
	Occupational Limit			
	IC radio frequency radiation exposure limits per RSS-102			
0.6455 f <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> )
39.7	W/m <sup>2</sup>	100-6,000	0.6455 f <sup>0.5</sup>	
	General Public Limit			
0.02619 f <sup>0.6834</sup>	W/m <sup>2</sup>	6,000-15,000	50	
5.4	W/m <sup>2</sup>	48-300		1.291
		300-6,000		0.02619 f <sup>0.6834</sup>
		6,000-15,000	50	10
f = Transmit Frequency (MHz)			f (MHz) =	2437
P <sub>T</sub> = Power Input to Antenna (mW)			P <sub>T</sub> (mW) =	74.0000
Duty cycle (percentage of operation)			% =	100.0
P <sub>A</sub> = Adjusted Power due to Duty cycle or Cable Loss (mW)			P <sub>A</sub> (mW) =	74.00
G <sub>N</sub> = Numeric Gain of the Antenna			GN (numeric) =	0.09
S <sub>20</sub> = Power Density of device at 20cm (W/m <sup>2</sup> )		S <sub>20</sub> =(P <sub>A</sub> G <sub>N</sub> )/(4πR <sub>20</sub> ) <sup>2</sup>	S <sub>20</sub> (W/m <sup>2</sup> ) =	0.01
S <sub>L</sub> = Power Density Limit (W/m <sup>2</sup> )			S <sub>L</sub> (W/m <sup>2</sup> )=	5.404
R <sub>C</sub> = Minimum distance to the Radiating Element for Compliance (cm)		R <sub>C</sub> =√(P <sub>A</sub> G <sub>N</sub> /4πS <sub>L</sub> )	R <sub>C</sub> (cm) =	1.0
S <sub>C</sub> = Power Density of the device at the Compliance Distance R <sub>C</sub> (W/m <sup>2</sup> )		S <sub>C</sub> =(P <sub>A</sub> G <sub>N</sub> )/(4πR <sub>C</sub> ) <sup>2</sup>	S <sub>C</sub> (W/m <sup>2</sup> ) =	5.40
R <sub>20</sub> = 20cm			R <sub>20</sub> =	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