

Model: 03754		Test Number: 190318	
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 Output power (dBm)	7.60	
	Transmitter Output power (mW)	5.75	
	Transmitter maximum Output power operating at 100% (Watts)	0.006	Antenna Gain (dBi) 1
	Output Power for 100% duty Cycle operation (Watts)	0.006	Antenna Gain (Numeric) 1.26
Tx Frequency (MHz)	2442	Calculation power (Watts) 0.006	dBd + 2.17 = dBi dBi to dBd 2.2
			Antenna Gain (dBd) -1.17
Cable Loss (dB)	0.0	Adjusted Power (dBm) 7.6	Antenna minus cable (dBi) 1.00
	Calculated ERP (mw) 4.395		EIRP = Po(dBm) + Gain (dB)
	Calculated EIRP (mw) 7.244		Radiated (EIRP) dBm 8.600
			ERP = EIRP - 2.17 dB
			Radiated (ERP) dBm 6.430
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $\text{Power density (S) mW/cm}^2 = \frac{\text{EIRP}}{4 \pi r^2}$ <p>r (cm) EIRP (mW)</p> </div>			
Occupational Limit		FCC radio frequency radiation exposure limits per 1.1310	
f/300	mW/cm ²	Frequency (MHz)	Occupational Limit (mW/cm ²)
81.4	W/m ²	30-300	1
		300-1,500	f/300
f/1500	mW/cm ²	1,500-10,000	5
16.3	W/m ²		1
Occupational Limit		IC radio frequency radiation exposure limits per RSS-102	
0.6455f ^{0.5}	W/m ²	Frequency (MHz)	Occupational Limit (W/m ²)
39.7	W/m ²	100-6,000	0.6455f ^{0.5}
		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	10
f = Transmit Frequency (MHz)		f (MHz) =	2442
P _T = Power Input to Antenna (mW)		P _T (mW) =	5.7544
Duty cycle (percentage of operation)		% =	100
P _A = Adjusted Power due to Duty cycle or Cable Loss (mW)		P _A (mW) =	5.75
G _N = Numeric Gain of the Antenna		G _N (numeric) =	1.26
S ₂₀ = Power Density of device at 20cm (mW/m ²)	S ₂₀ =(P _A G _N)/(4πR ₂₀) ²	S ₂₀ (mW/m ²) =	0.00
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) =	5.412
R _C = Minimum distance to the Radiating Element for Compliance (cm)	R _C =√(P _A G _N /4πS _C)	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) =	5.41
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		0.010 Meters

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Revision 1

Garmin International, Inc.
Model: 03754
Test: 190318
Test to: CFR47 15C, RSS-Gen RSS-247
File: 03754 RF Exemption

SN's: 3986442368 / 3986442344
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