This small memory device must be inserted into a memory card slot for operation. Supporting Card programmers may be attached to computer equipment for programming. In the programming mode (connected to a computer) the transmitter is inoperable. Once programmed, the card would be removed and placed in the remote mounted equipment for use. In this mode the device may provide wireless access for use in updating the data held on the memory card providing information for the end user. The transmitting antenna element is located inside the plastic enclosure providing typical separation distances greater than 6 mm. In this state (with the transmitter operational) the device will remain at least 20 cm from the user.

The User manual indicates a separation distance of 20 cm for mobile configuration and RF exposure compliance.

Garmin	Model Flight Stream 510		Test Number:		151103			
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						Antenna Gain (dBi)	1.7
		Output Power		dBd + 2.17 = dBi			dBi to dBd	2.2
Tx Frequency (MHz)	2437	Maximum (Watts)		0.008974			Antenna Gain (dBd)	-0.47
Cable Loss (dB)	0.0	(dBm)		9.5			Antenna minus cable (dBi)	1.70
	Calculated ERP (mw) 8.054			EIRP = Po(dBM) + Gain (dB)				
	Calculated EIRP (mw) 13.274						Radiated (EIRP) dBm	11.230
				ERP = EIRP - 2.17 dB			Radiated (ERP) dBm	9.060

Power density (S)

$$\frac{EIRP}{4\, p\, r^2} = mW/cm^2$$

EIRP (mW), r (cm)

	Occupational Limit	FCC radio frequency radiation exposure limits per 1.1310				
5	mW/cm^2	Frequency (MHz)	Occupational Limit (mW/cm²)		Public Limit (mW/cm²)	
50	W/m^2	300-1,500	f/300		f/1500	
	General Public Limit	1,500-10,000	5		1	
1	mW/cm^2					
10	W/m^2					

	Occupational Limit	IC radio frequency radiation exposure limits per RSS-102				
0.6455f^{0.5}	W/m^2	Frequency (MHz)	Occupational Limit (W/m²)		Public Limit (W/m²)	
0.95312	W/m^2	100-6,000	0.6455f^{0.5}			
	General Public Limit	6,000-15,000	50			
0.02619f^{0.6834}	W/m^2	48-300			1.291	
5.40397	W/m^2	300-6,000			0.02619f^{0.6834}	
		6,000-15,000	50		10	

EIRP	S	S	Distance	Distance	Distance	Distance
milliwatts	mW/cm²	W/m²	cm	meter	inches	Feet
13.274	0.00013	0.00130	90.00	0.90	35.43	2.95
13.274	0.00017	0.00165	80.00	0.80	31.50	2.62
13.274	0.00022	0.00216	70.00	0.70	27.56	2.30
13.274	0.00029	0.00293	60.00	0.60	23.62	1.97
13.274	0.00042	0.00423	50.00	0.50	19.69	1.64
13.274	0.00066	0.00660	40.00	0.40	15.75	1.31
13.274	0.00117	0.01174	30.00	0.30	11.81	0.98
13.274	0.00264	0.02641	20.00	0.20	7.87	0.66
13.274	0.01056	0.10563	10.00	0.10	3.94	0.33
13.274	0.01650	0.16505	8.00	0.08	3.15	0.26
13.274	0.02934	0.29342	6.00	0.060	2.36	0.20
13.274	0.04225	0.42252	5.00	0.050	1.97	0.16
13.274	0.06602	0.66019	4.00	0.040	1.57	0.13
13.274	0.11737	1.17367	3.00	0.030	1.18	0.10
13.274	0.26408	2.64077	2.00	0.020	0.79	0.07
13.274	0.46947	4.69470	1.50	0.015	0.59	0.05
13.274	1.05631	10.56307	1.00	0.010	0.39	0.03

Frequency (MHz)	Occupational Limit minimum Distance (meters)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (meters)	Public Limit minimum distance (cm / inches)
47CFR 1.1310	N/A	N/A	0.015	1.5 / 0.6
RSS-102	N/A	N/A	0.015	1.5 / 0.6