MPE Calculation page for 011-01450-xx.

MPE Calculator Garmin Zumo Test 060712

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)	0.5
		Output Power	dBd + 2.17 = dBi	dBi to dBd	2.17
Tx Frequency (MH	2457	(Watts)	0.0005	Antenna Gain (dBd)	-1.67
Cable Loss (dB)	0.0	(dBm)	-3.01	Antenna minus cable (dBi)	0.50

Calculated ERP (mw) 0.340
Calculated EIRP (mw) 0.561

EIRP = Po(dBM) + Gain (dB)
Radiated (EIRP) dBm -2.510
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm -4.680

Occupational Limit
5.00000 mW/cm^2

General Public Limit
1.00000 mW/cm^2

Power density (S)
EIRP
-------- = mW/cm^2
4 π r^2
r (cm) EIRP (mW)

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	ccupational Lir	Public Limit
300-1,500	f/300	f/1500
1,500-10,000	5	1

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit @ Tx Freq (mW/cm^2)	Public Limit @ Tx Freq (mW/cm^2)
300-1,500	8.19	1.638
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm^2
0.561	50.00	19.69	0.00002
0.561	40.00	15.75	0.00003
0.561	30.00	11.81	0.00005
0.561	25.00	9.84	0.00007
0.561	20.00	7.87	0.00011
0.561	15.00	5.91	0.00020
0.561	14.00	5.51	0.00023
0.561	13.00	5.12	0.00026
0.561	12.00	4.72	0.00031
0.561	11.00	4.33	0.00037
0.561	10.00	3.94	0.00045
0.561	9.00	3.54	0.00055
0.561	8.00	3.15	0.00070
0.561	7.00	2.76	0.00091
0.561	6.00	2.36	0.00124
0.561	5.00	1.97	0.00179
0.561	4.00	1.57	0.00279
0.561	3.00	1.18	0.00496
0.561	2.00	0.79	0.01116
0.561	1.75	0.69	0.01458
0.561	1.50	0.59	0.01984
0.561	1.25	0.49	0.02857
0.561	1.00	0.39	0.04464
0.561	0.75	0.30	0.07937
0.561	0.50	0.20	0.17857

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	N/A	N/A
1,500-10,000	N/A	N/A