

MPE Calculation page

MPE Calculator Garmin 011-01722-00 Test Number 070823
 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/cm²

			Antenna Gain (dBi)	1
		Output Power	dBi to dBd	2.17
		(Watts)	Antenna Gain (dBd)	-1.17
Tx Frequency (MHz)	2460			
Cable Loss (dB)	0.0	(dBm)	Antenna minus cable (dBi)	1.00
Calculated ERP (mw)	0.053		EIRP = Po(dBm) + Gain (dB)	
Calculated EIRP (mw)	0.088		Radiated (EIRP) dBm	-10.549
			ERP = EIRP - 2.17 dB	
			Radiated (ERP) dBm	-12.719

Occupational Limit
5.00000 mW/cm²

General Public Limit
1.00000 mW/cm²

Power density (S) =
 EIRP
 ----- = mW/cm²
 4 π r²
 [r (cm), EIRP (mW)]

FCC radio frequency radiation exposure limits per 1.1310		
Frequency (MHz)	Occupational Limit	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	8.2	1.64
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
0.088	50.00	19.69	0.00000
0.088	40.00	15.75	0.00000
0.088	30.00	11.81	0.00001
0.088	25.00	9.84	0.00001
0.088	20.00	7.87	0.00002
0.088	15.00	5.91	0.00003
0.088	14.00	5.51	0.00004
0.088	13.00	5.12	0.00004
0.088	12.00	4.72	0.00005
0.088	11.00	4.33	0.00006
0.088	10.00	3.94	0.00007
0.088	9.00	3.54	0.00009
0.088	8.00	3.15	0.00011
0.088	7.00	2.76	0.00014
0.088	6.00	2.36	0.00019
0.088	5.00	1.97	0.00028
0.088	4.00	1.57	0.00044
0.088	3.00	1.18	0.00078
0.088	2.00	0.79	0.00175
0.088	1.75	0.69	0.00229
0.088	1.50	0.59	0.00312
0.088	1.00	0.39	0.00701
0.088	0.50	0.20	0.02805
0.088	0.20	0.08	0.17532
0.088	0.10	0.04	0.70127

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	0.10