

MPE Calculation page for 011-01278-xx.

MPE Calculator Garmin 011-01278-xx Test Number 070628
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

Tx Frequency (MHz) 2441 Output Power (Watts) 0.0013 dBi to dBd 2.17 Antenna Gain (dBi) 1
Antenna Gain (dBd) -1.17

Cable Loss (dB) 0.0 (dBm) 1.00 Antenna minus cable (dBi) 1.00

Calculated ERP (mw) 0.962 EIRP = Po(dBm) + Gain (dB)
Calculated EIRP (mw) 1.586 Radiated (EIRP) dBm 2.004
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm -0.166

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	8.136666667	1.627333333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
1.586	50.00	19.69	0.00005
1.586	40.00	15.75	0.00008
1.586	30.00	11.81	0.00014
1.586	25.00	9.84	0.00020
1.586	20.00	7.87	0.00032
1.586	15.00	5.91	0.00056
1.586	14.00	5.51	0.00064
1.586	13.00	5.12	0.00075
1.586	12.00	4.72	0.00088
1.586	11.00	4.33	0.00104
1.586	10.00	3.94	0.00126
1.586	9.00	3.54	0.00156
1.586	8.00	3.15	0.00197
1.586	7.00	2.76	0.00258
1.586	6.00	2.36	0.00351
1.586	5.00	1.97	0.00505
1.586	4.00	1.57	0.00789
1.586	3.00	1.18	0.01403
1.586	2.00	0.79	0.03156
1.586	1.75	0.69	0.04122
1.586	1.50	0.59	0.05610
1.586	1.25	0.49	0.08079
1.586	1.00	0.39	0.12623
1.586	0.75	0.30	0.22441
1.586	0.50	0.20	0.50492

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