

MPE Calculation page

Garmin International, Inc. Model: 01204

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/cm²

Tx Frequency (MHz)	2460	Output Power Average (Watts)	0.0006	Antenna Gain (dBi)	0
				dBd + 2.17 = dBi	2.2
				Antenna Gain (dBd)	-2.17
Cable Loss (dB)	0.0	(dBm)	-2.33	Antenna minus cable (dBi)	0.00

Calculated ERP (mw) 0.355

Calculated EIRP (mw) 0.585

EIRP = Po(dBm) + Gain (dB)

Radiated (EIRP) dBm -2.328

ERP = EIRP - 2.17 dB

Radiated (ERP) dBm -4.498

Occupational Limit	Power density (S)
5.00000 mW/cm ²	EIRP
	----- = mW/cm ²
General Public Limit	4 π r ²
1.00000 mW/cm ²	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	Distance
milliwatts	cm	inches	mW/cm ²	Feet
0.585	100.00	39.37	0.00000	3.28084
0.585	90.00	35.43	0.00001	2.952756
0.585	80.00	31.50	0.00001	2.624672
0.585	70.00	27.56	0.00001	2.296588
0.585	60.00	23.62	0.00001	1.968504
0.585	50.00	19.69	0.00002	1.64042
0.585	40.00	15.75	0.00003	1.312336
0.585	30.00	11.81	0.00005	0.984252
0.585	25.00	9.84	0.00007	0.82021
0.585	24.00	9.45	0.00008	0.787402
0.585	23.00	9.06	0.00009	0.754593
0.585	22.00	8.66	0.00010	0.721785
0.585	21.00	8.27	0.00011	0.688976
0.585	20.00	7.87	0.00012	0.656168
0.585	19.00	7.48	0.00013	0.62336
0.585	18.00	7.09	0.00014	0.590551
0.585	17.00	6.69	0.00016	0.557743
0.585	16.00	6.30	0.00018	0.524934
0.585	15.00	5.91	0.00021	0.492126
0.585	10.00	3.94	0.00047	0.328084
0.585	9.00	3.54	0.00057	0.295276
0.585	8.00	3.15	0.00073	0.262467
0.585	7.00	2.76	0.00095	0.229659
0.585	6.00	2.36	0.00129	0.19685
0.585	5.00	1.97	0.00186	0.164042
0.585	4.00	1.57	0.00291	0.131234
0.585	3.00	1.18	0.00517	0.098425
0.585	2.00	0.79	0.01164	0.065617
0.585	1.00	0.39	0.04655	0.032808
0.585	0.50	0.20	0.18621	0.016404
0.585	0.25	0.10	0.74485	0.008202

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	0.25

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MODEL: 011-01204-xx

Test #:070621

Test to: CFR47, 2, 15.239, and 15.249, RSS-210 Page 1 of 1

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