

MPE Calculation

MPE Calculator

Test 061213D

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

		Output Power	dBd + 2.17 = dBi	Antenna Gain (dBi)	0.5
		(Watts)		dBi to dBd	2.17
Tx Frequency (MHz)	2457			Antenna Gain (dBd)	-1.67
Cable Loss (dB)	0.0	(dBm)	33.01	Antenna minus cable (dBi)	0.50

Calculated ERP (mw) 1361.539
 Calculated EIRP (mw) 2244.037

EIRP = Po(dBm) + Gain (dB)
 Radiated (EIRP) dBm 33.510
 ERP = EIRP - 2.17 dB
 Radiated (ERP) dBm 31.340

Occupational Limit	Power density
5.00000 mW/cm ²	(S)
	EIRP
General Public Limit	----- =
1.00000 mW/cm ²	mW/cm ²
	4 π r ²

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	8.19	1.638
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
2244.037	50.00	19.69	0.07143
2244.037	40.00	15.75	0.11161
2244.037	30.00	11.81	0.19842
2244.037	25.00	9.84	0.28572
2244.037	20.00	7.87	0.44644
2244.037	15.00	5.91	0.79367
2244.037	14.00	5.51	0.91110
2244.037	13.00	5.12	1.05666
2244.037	12.00	4.72	1.24010
2244.037	11.00	4.33	1.47582
2244.037	10.00	3.94	1.78575
2244.037	9.00	3.54	2.20463
2244.037	8.00	3.15	2.79023
2244.037	7.00	2.76	3.64438
2244.037	6.00	2.36	4.96041
2244.037	5.00	1.97	7.14299
2244.037	4.00	1.57	11.16092
2244.037	3.00	1.18	19.84164
2244.037	2.00	0.79	44.64370
2244.037	1.75	0.69	58.31013
2244.037	1.50	0.59	79.36657
2244.037	1.25	0.49	114.28786
2244.037	1.00	0.39	178.57478
2244.037	0.75	0.30	317.46628
2244.037	0.50	0.20	714.29913

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	6.00	13.00
1,500-10,000	N/A	N/A

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Garmin International, Inc.
 MODEL: 011-01434-00
 Test #:061213D
 Test to: FCC Parts 2, 95, and 15.249

FCC ID#: IPH-01113
 SN: #18