

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

				Antenna Gain (dBi)	0
		Output Power		dBd + 2.17 = dBi	2.17
Tx Frequency (MHz)	914	(Watts)	0.0050	Antenna Gain (dBd)	-2.17
Cable Loss (dB)	0.0	(dBm)	6.99	Antenna minus cable (dBi)	0.00

Calculated ERP (mw) 3.034
 Calculated EIRP (mw) 5.000
 EIRP = Po(dBm) + Gain (dB)
 Radiated (EIRP) dBm 6.990
 ERP = EIRP - 2.17 dB
 Radiated (ERP) dBm 4.820

Occupational Limit 3.04667	Power density (S) EIRP ----- = mW/cm ² 4 π r ² r (cm) EIRP (mW)
General Public Limit 0.60933	

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	3.04666667	0.60933333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
5.000	250.00	98.43	0.00001
5.000	200.00	78.74	0.00001
5.000	150.00	59.06	0.00002
5.000	100.00	39.37	0.00004
5.000	77.00	30.31	0.00007
5.000	55.00	21.65	0.00013
5.000	50.00	19.69	0.00016
5.000	45.00	17.72	0.00020
5.000	43.00	16.93	0.00022
5.000	40.00	15.75	0.00025
5.000	35.00	13.78	0.00032
5.000	30.00	11.81	0.00044
5.000	25.00	9.84	0.00064
5.000	20.00	7.87	0.00099
5.000	15.00	5.91	0.00177
5.000	10.00	3.94	0.00398
5.000	9.00	3.54	0.00491
5.000	8.00	3.15	0.00622
5.000	7.00	2.76	0.00812
5.000	6.00	2.36	0.01105
5.000	5.00	1.97	0.01592
5.000	4.00	1.57	0.02487
5.000	3.00	1.18	0.04421
5.000	2.00	0.79	0.09947
5.000	1.00	0.39	0.39789
5.000	0.90	0.35	0.49122
5.000	0.81	0.32	0.60644
5.000	0.70	0.28	0.81202
5.000	0.60	0.24	1.10524
5.000	0.50	0.20	1.59155
5.000	0.35	0.14	3.24806

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	0.35	0.81
1,500-10,000	N/A	N/A

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Hopkins Manufacturing Corp.
 MODEL: Brake Buddy Vantage
 Test #:051007
 Test to: FCC Parts 2 and 15.247, RSS-210

FCC ID: TJJ-BB002
 IC:6047A-BB002