

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) **24**
dBi to dBd 2.17
Tx Frequency (MHz) **2440** Output Power Average (Watts) **0.2500** dBd + 2.17 = dBi
Antenna Gain (dBd) **21.83**
Cable Loss (dB) **0.0** (dBm) 23.98 Antenna minus cable (dBi) 24.00

Calculated ERP (mw) 38101.319
Calculated EIRP (mw) 62797.161

EIRP = Po(dBm) + Gain (dB)
Radiated (EIRP) dBm 47.979
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 45.809

Occupational Limit
5.00000 mW/cm²
----- = mW/cm²
General Public Limit
1.00000 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	8.133333333	1.626666667
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
62797.161	350.00	137.80	0.04079	11.48293963
62797.161	300.00	118.11	0.05552	9.842519685
62797.161	275.00	108.27	0.06608	9.022309711
62797.161	250.00	98.43	0.07996	8.202099738
62797.161	225.00	88.58	0.09871	7.381889764
62797.161	200.00	78.74	0.12493	6.56167979
62797.161	175.00	68.90	0.16318	5.741469816
62797.161	170.00	66.93	0.17291	5.577427822
62797.161	160.00	62.99	0.19520	5.249343832
62797.161	150.00	59.06	0.22210	4.921259843
62797.161	140.00	55.12	0.25496	4.593175853
62797.161	130.00	51.18	0.29569	4.265091864
62797.161	120.00	47.24	0.34703	3.937007874
62797.161	110.00	43.31	0.41299	3.608923885
62797.161	100.00	39.37	0.49972	3.280839895
62797.161	90.00	35.43	0.61694	2.952755906
62797.161	85.00	33.46	0.69166	2.788713911
62797.161	80.00	31.50	0.78082	2.624671916
62797.161	75.00	29.53	0.88840	2.460629921
62797.161	70.00	27.56	1.01984	2.296587927
62797.161	65.00	25.59	1.18278	2.132545932
62797.161	60.00	23.62	1.38812	1.968503937
62797.161	55.00	21.65	1.65198	1.804461942
62797.161	50.00	19.69	1.99890	1.640419948
62797.161	45.00	17.72	2.46777	1.476377953
62797.161	40.00	15.75	3.12327	1.312335958
62797.161	35.00	13.78	4.07938	1.148293963
62797.161	34.00	13.39	4.32287	1.115485564
62797.161	33.00	12.99	4.58883	1.082677165
62797.161	32.00	12.60	4.88012	1.049868766
62797.161	31.00	12.20	5.20004	1.017060367

Frequency (MHz)	Occupational Limit minimum Distance (feet)	Public Limit minimum distance (feet)
300-1,500	N/A	N/A
1,500-10,000	1.05	2.30

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E-ZY.NET
MODELS: EZ03-D and EZ03-14
Test #: 060407
Test to: FCC Parts 2 and 15C

IC: 5940A-EZ031100
FCC ID#: R5A EZ031100
Page 1 of 1