

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) 19
dBi to dBd 3
Tx Frequency (MHz) 2440 Output Power Average (Watts) 0.2500 dBd + 2.17 = dBi
Antenna Gain (dBd) 16
Cable Loss (dB) 0.0 (dBm) 23.98 Antenna minus cable (dBi) 19.00
Calculated ERP (mw) 9952.679
Calculated EIRP (mw) 19858.206
EIRP = Po(dBm) + Gain (dB)
Radiated (EIRP) dBm 42.979
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 39.979

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	8.133333333	1.626666667
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
19858.206	350.00	137.80	0.01290	11.48293963
19858.206	300.00	118.11	0.01756	9.842519685
19858.206	275.00	108.27	0.02090	9.022309711
19858.206	250.00	98.43	0.02528	8.202099738
19858.206	225.00	88.58	0.03122	7.381889764
19858.206	200.00	78.74	0.03951	6.56167979
19858.206	175.00	68.90	0.05160	5.741469816
19858.206	170.00	66.93	0.05468	5.577427822
19858.206	160.00	62.99	0.06173	5.249343832
19858.206	150.00	59.06	0.07023	4.921259843
19858.206	140.00	55.12	0.08063	4.593175853
19858.206	130.00	51.18	0.09351	4.265091864
19858.206	120.00	47.24	0.10974	3.937007874
19858.206	110.00	43.31	0.13060	3.608923885
19858.206	100.00	39.37	0.15803	3.280839895
19858.206	90.00	35.43	0.19509	2.952755906
19858.206	85.00	33.46	0.21872	2.788713911
19858.206	80.00	31.50	0.24692	2.624671916
19858.206	75.00	29.53	0.28094	2.460629921
19858.206	70.00	27.56	0.32250	2.296587927
19858.206	60.00	23.62	0.43896	1.968503937
19858.206	50.00	19.69	0.63211	1.640419948
19858.206	40.00	15.75	0.98767	1.312335958
19858.206	39.00	15.35	1.03897	1.279527559
19858.206	38.00	14.96	1.09437	1.24671916
19858.206	35.00	13.78	1.29001	1.148293963
19858.206	30.00	11.81	1.75585	0.984251969
19858.206	25.00	9.84	2.52843	0.820209974
19858.206	20.00	7.87	3.95066	0.656167979
19858.206	18.00	7.09	4.87736	0.590551181
19858.206	17.00	6.69	5.46805	0.557742782

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

ROGERS LABS, INC.
4405 W. 259th Terrace
Louisburg, KS 66053
Phone/Fax: (913) 837-3214

Deliberant LLC
MODEL: DLB2300, DLB2310, DLB2319
Test #: 060622
Test to: FCC Parts 2 and 15c

FCC ID#: UB8-DLB2300
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