

MPE Calculator

Lectrosonics DBZLMAL Test 070202L

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
				dBi to dBd	2.17
Tx Frequency (MHz)	563.1	Output Power (Watts)	0.0900	Antenna Gain (dBd)	-2.17
Cable Loss (dB)	0.0	(dBm)	19.54	Antenna minus cable (dBi)	0.00

Calculated ERP (mw)	54.606	EIRP = Po(dBM) + Gain (dB)	
Calculated EIRP (mw)	90.000	Radiated (EIRP) dBm	19.542
		ERP = EIRP - 2.17 dB	
		Radiated (ERP) dBm	17.372

Occupational Limit	Power density (S)
1.87700 mW/cm ²	EIRP
	----- = mW/cm ²
General Public Limit	4 π r ²
0.37540 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	1.877	0.3754
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
90.000	50.00	19.69	0.00286
90.000	40.00	15.75	0.00448
90.000	30.00	11.81	0.00796
90.000	25.00	9.84	0.01146
90.000	20.00	7.87	0.01790
90.000	15.00	5.91	0.03183
90.000	14.00	5.51	0.03654
90.000	13.00	5.12	0.04238
90.000	12.00	4.72	0.04974
90.000	11.00	4.33	0.05919
90.000	10.00	3.94	0.07162
90.000	9.00	3.54	0.08842
90.000	8.00	3.15	0.11191
90.000	7.00	2.76	0.14616
90.000	6.00	2.36	0.19894
90.000	5.75	2.26	0.21662
90.000	5.50	2.17	0.23676
90.000	4.40	1.73	0.36994
90.000	3.00	1.18	0.79577
90.000	2.50	0.98	1.14592
90.000	2.00	0.79	1.79049
90.000	1.50	0.59	3.18310
90.000	1.00	0.39	7.16197
90.000	0.75	0.30	12.73240
90.000	0.50	0.20	28.64789

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	2.00	4.40
1,500-10,000	N/A	N/A

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LectroSonics Inc.
 Model: LMaL
 Test #:070202L
 Test to: FCC Parts 2 and 74

FCCID#: DBZLMAL
 S/N:P478