

MPE Calculator Lectrosonics DBZUM450M Test 060809M
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
	(Watts)		dBi to dBd	2.17
Tx Frequency (MHz)	653	0.2500	Antenna Gain (dBd)	-2.17
Cable Loss (dB)	0.0	(dBm) 23.98	Antenna minus cable (dBi)	0.00
	Calculated ERP (mw)	151.684	EIRP = Po(dBm) + Gain (dB)	
	Calculated EIRP (mw)	250.000	Radiated (EIRP) dBm	23.979
			ERP = EIRP - 2.17 dB	
			Radiated (ERP) dBm	21.809

2.17667	Occupational Limit	Power density (S) EIRP ----- = mW/cm ² 4 π r ²
0.43533	General Public Limit	

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	2.17666667	0.43533333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
250.000	50.00	19.69	0.00796
250.000	40.00	15.75	0.01243
250.000	30.00	11.81	0.02210
250.000	25.00	9.84	0.03183
250.000	20.00	7.87	0.04974
250.000	15.00	5.91	0.08842
250.000	14.00	5.51	0.10150
250.000	13.00	5.12	0.11772
250.000	12.00	4.72	0.13816
250.000	11.00	4.33	0.16442
250.000	10.00	3.94	0.19894
250.000	9.00	3.54	0.24561
250.000	8.00	3.15	0.31085
250.000	7.00	2.76	0.40601
250.000	6.90	2.72	0.41786
250.000	6.80	2.68	0.43024
250.000	5.50	2.17	0.65767
250.000	5.00	1.97	0.79577
250.000	4.00	1.57	1.24340
250.000	3.10	1.22	2.07017
250.000	2.00	0.79	4.97359
250.000	1.50	0.59	8.84194
250.000	1.00	0.39	19.89437
250.000	0.75	0.30	35.36777
250.000	0.50	0.20	79.57747

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	3.10	6.80
1,500-10,000	N/A	N/A

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LectroSonics Inc.
MODEL: UM450
Test #: 060809M
Test to: FCC Parts 2 and 74

FCCID#: DBZUM450M
S/N:P402