

MPE Calculator

Lectrosonics DBZSMV Test 060814V

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	dBi to dBd	2.17
Tx Frequency (MHz)	950	(Watts)	0.1000	Antenna Gain (dBd)	-2.17
Cable Loss (dB)	0.0	(dBm)	20.00	Antenna minus cable (dBi)	0.00

Calculated ERP (mw) 60.674

Calculated EIRP (mw) 100.000

EIRP = Po(dBm) + Gain (dB)

Radiated (EIRP) dBm 20.000

ERP = EIRP - 2.17 dB

Radiated (ERP) dBm 17.830

Occupational Limit

3.16667 mW/cm²

General Public Limit

0.63333 mW/cm²

Power density (S)	=	
EIRP	=	
mW/cm ²	=	
$4 \pi r^2$		

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	3.16666667	0.633333333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
100.000	50.00	19.69	0.00318
100.000	40.00	15.75	0.00497
100.000	30.00	11.81	0.00884
100.000	25.00	9.84	0.01273
100.000	20.00	7.87	0.01989
100.000	15.00	5.91	0.03537
100.000	14.00	5.51	0.04060
100.000	13.00	5.12	0.04709
100.000	12.00	4.72	0.05526
100.000	11.00	4.33	0.06577
100.000	10.00	3.94	0.07958
100.000	9.00	3.54	0.09824
100.000	8.00	3.15	0.12434
100.000	7.00	2.76	0.16240
100.000	6.00	2.36	0.22105
100.000	5.75	2.26	0.24069
100.000	5.50	2.17	0.26307
100.000	4.00	1.57	0.49736
100.000	3.60	1.42	0.61402
100.000	2.50	0.98	1.27324
100.000	2.00	0.79	1.98944
100.000	1.60	0.63	3.10849
100.000	1.00	0.39	7.95775
100.000	0.75	0.30	14.14711
100.000	0.50	0.20	31.83099

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
300-1,500	1.60	3.60
1,500-10,000	N/A	N/A

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LectroSonics Inc.
 MODEL: SM
 Test #: 0608014V
 Test to: FCC Parts 2 and 74

FCCID#: DBZSMV
 S/N:P451