

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) **9**
 dBi to dBd **3**
 Tx Frequency (MHz) **960** Output Power Average (Watts) **1000.0000** dBd + 2.17 = dBi
 Antenna Gain (dBd) **6**
 Cable Loss (dB) **0.0** (dBm) 60.00 Antenna minus cable (dB) 9.00

Calculated ERP (mw) 3981071.706
 Calculated EIRP (mw) 7943282.347

EIRP = Po(dBM) + Gain (dB)
 Radiated (EIRP) dBm 69.000
 ERP = EIRP - 2.17 dB
 Radiated (ERP) dBm 66.000

Occupational Limit
3.20000 mW/cm²
General Public Limit
0.64000 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	3.2	0.64
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
7943282.347	1000.00	393.70	0.63211	32.80839895
7943282.347	940.00	370.08	0.71538	30.83989501
7943282.347	800.00	314.96	0.98767	26.24671916
7943282.347	700.00	275.59	1.29001	22.96587927
7943282.347	650.00	255.91	1.49611	21.32545932
7943282.347	600.00	236.22	1.75585	19.68503937
7943282.347	550.00	216.54	2.08961	18.04461942
7943282.347	500.00	196.85	2.52843	16.40419948
7943282.347	475.00	187.01	2.80158	15.5839895
7943282.347	450.00	177.17	3.12151	14.76377953
7943282.347	445.00	175.20	3.19205	14.59973753
7943282.347	430.00	169.29	3.41864	14.10761155
7943282.347	420.00	165.35	3.58337	13.77952756
7943282.347	419.00	164.96	3.60049	13.74671916
7943282.347	418.00	164.57	3.61774	13.71391076
7943282.347	417.00	164.17	3.63511	13.68110236
7943282.347	416.00	163.78	3.65261	13.64829396
7943282.347	415.00	163.39	3.67024	13.61548556
7943282.347	410.00	161.42	3.76030	13.45144357
7943282.347	400.00	157.48	3.95066	13.12335958
7943282.347	350.00	137.80	5.16005	11.48293963
7943282.347	300.00	118.11	7.02340	9.842519685
7943282.347	250.00	98.43	10.11370	8.202099738
7943282.347	200.00	78.74	15.80266	6.56167979
7943282.347	150.00	59.06	28.09361	4.921259843
7943282.347	100.00	39.37	63.21063	3.280839895
7943282.347	90.00	35.43	78.03782	2.952755906
7943282.347	80.00	31.50	98.76661	2.624671916
7943282.347	70.00	27.56	129.00129	2.296587927
7943282.347	60.00	23.62	175.58509	1.968503937
7943282.347	50.00	19.69	252.84253	1.640419948

Frequency (MHz)	Occupational Limit minimum Distance (inches)	Public Limit minimum distance (inches)
300-1,500	175.20	393.00
1,500-10,000	N/A	N/A

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Selex Sistemi Integrati Inc.
 Model: 1119A
 Test #: 060821
 Test to: FCC Parts 2 and 87

FCCID#: JPA1119A
 SN: E200

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