

MPE Calculation page for IPH-01249

MPE Calculator Test Number: 071116

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) 1
 Output Power dBd + 2.17 = dBi dBi to dBd 2.17
 Tx Frequency (MHz) 88.1 (Watts) 0.00000002 -1.17
 Antenna minus cable (dBi) 1.00
 Cable Loss (dB) 0.0 (dBm) -47.93

Calculated ERP (mw) 0.000 Radiated (EIRP) dBm -46.932

Calculated EIRP (mw) 0.000 Radiated (ERP) dBm -49.102

Occupational Limit
1.00000 mW/cm²

General Public Limit
0.20000 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 @ Tx Freq (mW/cm ²)	Public Limit @ Tx Freq (mW/cm ²)
30-300	1	0.2
300-1,500	0.293666667	0.058733333
1,500-10,000	5	1

EIRP	Distance	Distance	S
milliwatts	cm	inches	mW/cm ²
0.000	50.00	19.69	0.00000
0.000	40.00	15.75	0.00000
0.000	30.00	11.81	0.00000
0.000	25.00	9.84	0.00000
0.000	20.00	7.87	0.00000
0.000	15.00	5.91	0.00000
0.000	14.00	5.51	0.00000
0.000	13.00	5.12	0.00000
0.000	12.00	4.72	0.00000
0.000	11.00	4.33	0.00000
0.000	10.00	3.94	0.00000
0.000	9.00	3.54	0.00000
0.000	8.00	3.15	0.00000
0.000	7.00	2.76	0.00000
0.000	6.00	2.36	0.00000
0.000	5.00	1.97	0.00000
0.000	4.00	1.57	0.00000
0.000	3.00	1.18	0.00000
0.000	2.00	0.79	0.00000
0.000	1.00	0.39	0.00000
0.000	0.50	0.20	0.00001
0.000	0.40	0.16	0.00001
0.000	0.35	0.14	0.00001
0.000	0.25	0.10	0.00003
0.000	0.10	0.04	0.00016

Frequency (MHz)	Occupational Limit minimum Distance (cm)	Public Limit minimum distance (cm)
30-300	N/A	(N/A) <0.1
300-1,500	N/A	N/A
1,500-10,000	N/A	N/A