

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) **1**
dBi to dBd **3**
Tx Frequency (MHz) **127.5** Output Power Average (Watts) **20.0000** dBd + 2.17 = dBd Antenna Gain (dBd) **-2**
Cable Loss (dB) **0.0** (dBm) 43.01 Antenna minus cable (dBd) 1.00

Calculated ERP (mw) 12619.147
Calculated EIRP (mw) 25178.508

EIRP = Po(dBm) + Gain (dB)
Radiated (EIRP) dBm 44.010
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 41.010

Occupational Limit
0.42500 mW/cm²
General Public Limit
0.08500 mW/cm²

Power density
(S)
EIRP
----- =
mW/cm²
4 π r²

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	0.425	0.085
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
25178.508	350.00	137.80	0.01636	11.48293963
25178.508	300.00	118.11	0.02226	9.842519685
25178.508	275.00	108.27	0.02649	9.022309711
25178.508	250.00	98.43	0.03206	8.202099738
25178.508	225.00	88.58	0.03958	7.381889764
25178.508	200.00	78.74	0.05009	6.56167979
25178.508	175.00	68.90	0.06543	5.741469816
25178.508	170.00	66.93	0.06933	5.577427822
25178.508	160.00	62.99	0.07827	5.249343832
25178.508	155.00	61.02	0.08340	5.085301837
25178.508	140.00	55.12	0.10223	4.593175853
25178.508	130.00	51.18	0.11856	4.265091864
25178.508	120.00	47.24	0.13914	3.937007874
25178.508	110.00	43.31	0.16559	3.608923885
25178.508	100.00	39.37	0.20036	3.280839895
25178.508	90.00	35.43	0.24736	2.952755906
25178.508	85.00	33.46	0.27732	2.788713911
25178.508	80.00	31.50	0.31307	2.624671916
25178.508	75.00	29.53	0.35620	2.460629921
25178.508	70.00	27.56	0.40891	2.296587927
25178.508	69.00	27.17	0.42084	2.263779528
25178.508	65.00	25.59	0.47423	2.132545932
25178.508	50.00	19.69	0.80146	1.640419948
25178.508	40.00	15.75	1.25228	1.312335958
25178.508	35.00	13.78	1.63563	1.148293963
25178.508	30.00	11.81	2.22627	0.984251969
25178.508	25.00	9.84	3.20583	0.820209974
25178.508	20.00	7.87	5.00911	0.656167979
25178.508	19.00	7.48	5.55025	0.62335958
25178.508	18.00	7.09	6.18408	0.590551181
25178.508	17.00	6.69	6.93302	0.557742782

Frequency (MHz)	Occupational Limit minimum Distance (inches)	Public Limit minimum distance (inches)
300-1,500	27.20	61.02
1,500-10,000	N/A	N/A

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Honeywell International Inc.
Model: KTR2280 FCCID#: ASYKTR2280
Test #: 060731 SN: Y1168
Test to: FCC Parts 2 and 87