

MPE Calculator Model 435 HPDME
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

Tx Frequency (MHz) 1024 Output Power Average (Watts) 1000.0000 Antenna Gain (dBi) 14
dBd + 2.17 = dBi dBi to dBd 3
Antenna Gain (dBd) 11

Cable Loss (dB) 0.0 (dBm) 60.00 Antenna minus cable (dBi) 14.00

Calculated ERP (mw) 12589254.118 EIRP = Po(dBm) + Gain (dB)
Calculated EIRP (mw) 25118864.315 Radiated (EIRP) dBm 74.000
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 71.000

Occupational Limit
3.41333 mW/cm²
General Public Limit
0.68267 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	3.413333333	0.682666667
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
25118864.315	2000.00	787.40	0.49972	65.6167979
25118864.315	1500.00	590.55	0.88840	49.21259843
25118864.315	1250.00	492.13	1.27929	41.01049869
25118864.315	1125.00	442.91	1.57937	36.90944882
25118864.315	1000.00	393.70	1.99890	32.80839895
25118864.315	600.00	236.22	5.55249	19.68503937
25118864.315	550.00	216.54	6.60792	18.04461942
25118864.315	500.00	196.85	7.99558	16.40419948
25118864.315	490.00	192.91	8.32526	16.07611549
25118864.315	480.00	188.98	8.67576	15.7480315
25118864.315	445.00	175.20	10.09416	14.59973753
25118864.315	430.00	169.29	10.81069	14.10761155
25118864.315	420.00	165.35	11.33161	13.77952756
25118864.315	419.00	164.96	11.38576	13.74671916
25118864.315	418.00	164.57	11.44030	13.71391076
25118864.315	417.00	164.17	11.49524	13.68110236
25118864.315	416.00	163.78	11.55057	13.64829396
25118864.315	415.00	163.39	11.60630	13.61548556
25118864.315	410.00	161.42	11.89111	13.45144357
25118864.315	400.00	157.48	12.49310	13.12335958
25118864.315	350.00	137.80	16.31752	11.48293963
25118864.315	300.00	118.11	22.20995	9.842519685
25118864.315	250.00	98.43	31.98233	8.202099738
25118864.315	200.00	78.74	49.97239	6.56167979
25118864.315	150.00	59.06	88.83981	4.921259843
25118864.315	100.00	39.37	199.88957	3.280839895
25118864.315	90.00	35.43	246.77725	2.952755906
25118864.315	80.00	31.50	312.32745	2.624671916
25118864.315	70.00	27.56	407.93790	2.296587927
25118864.315	60.00	23.62	555.24881	1.968503937
25118864.315	50.00	19.69	799.55828	1.640419948

Frequency (MHz)	Occupational Limit minimum Distance (inches/feet)	Public Limit minimum distance (inches/feet)
300-1,500	189" / 15.7'	443" / 37'
1,500-10,000	N/A	N/A

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Thales ATM, Inc.
MODEL: 435HPDME
Test #: 070911
Test to: FCC Parts 2, 15 and 87

SN: 001
FCC ID#: B0J435

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