

Thales ATM Inc.
MPE Calculator

Test Number: 090218LOC
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) 110 Output Power Maximum (Watts) 25.0000 Antenna Gain (dBi) 9
dBd + 2.17 = dBi dBi to dBd 2.2
Antenna Gain (dBd) 6.83
Cable Loss (dB) 0.0 (dBm) 43.98 Antenna minus cable (dBi) 9.00

Calculated ERP (mw) 120486.949
Calculated EIRP (mw) 198582.059

EIRP = Po(dBM) + Gain (dB)
Radiated (EIRP) dBm 52.979
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 50.809

Occupational Limit
0.36667 mW/cm²
General Public Limit
0.07333 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	0.366666667	0.073333333
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
198582.059	500.00	196.85	0.06321	16.40
198582.059	465.00	183.07	0.07308	15.26
198582.059	450.00	177.17	0.07804	14.76
198582.059	425.00	167.32	0.08749	13.94
198582.059	400.00	157.48	0.09877	13.12
198582.059	375.00	147.64	0.11237	12.30
198582.059	350.00	137.80	0.12900	11.48
198582.059	325.00	127.95	0.14961	10.66
198582.059	300.00	118.11	0.17559	9.84
198582.059	275.00	108.27	0.20896	9.02
198582.059	250.00	98.43	0.25284	8.20
198582.059	225.00	88.58	0.31215	7.38
198582.059	215.00	84.65	0.34186	7.05
198582.059	210.00	82.68	0.35834	6.89
198582.059	205.00	80.71	0.37603	6.73
198582.059	200.00	78.74	0.39507	6.56
198582.059	175.00	68.90	0.51601	5.74

Frequency (MHz)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (cm / inches)
300-1,500	210 / 82.7	465 / 183
1,500-10,000	N/A	N/A

Rogers Labs, Inc.
4405 W. 259th Terrace
Louisburg, KS 66053
Phone/Fax: (913) 837-3214
RFExp ILS420LOC

Thales ATM, Inc.
Model: ILS420LOC
Test #:090218Loc
Test to: FCC Parts 2 and 87

FCCID#: BOJILS420LOC

Page 1 of 1
Date: 2/18/2009