

Thales ATM Inc.
MPE Calculator

Test Number: 090218GS

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) **10**
Output Power dBi + 2.17 = dBi dBi to dBd 2.2
Tx Frequency (MHz) **330** Maximum (Watts) **10.1000** Antenna Gain (dBd) **7.83**
Cable Loss (dB) **0.0** (dBm) 40.04 Antenna minus cable (dBi) 10.00

Calculated ERP (mw) 61280.369
Calculated EIRP (mw) 101000.000

EIRP = Po(dBM) + Gain (dB)
Radiated (EIRP) dBm 50.043
ERP = EIRP - 2.17 dB
Radiated (ERP) dBm 47.873

Occupational Limit	Power density (S)
1.10000 mW/cm ²	EIRP
	----- = mW/cm ²
General Public Limit	4 π r ²
0.22000 mW/cm ²	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	1.1	0.22
1,500-10,000	5	1

EIRP	Distance	Distance	S	Distance
milliwatts	cm	inches	mW/cm ²	Feet
101000.000	250.00	98.43	0.12860	8.20
101000.000	200.00	78.74	0.20093	6.56
101000.000	150.00	59.06	0.35721	4.92
101000.000	125.00	49.21	0.51439	4.10
101000.000	100.00	39.37	0.80373	3.28
101000.000	85.00	33.46	1.11243	2.79
101000.000	70.00	27.56	1.64027	2.30
101000.000	65.00	25.59	1.90233	2.13
101000.000	60.00	23.62	2.23259	1.97
101000.000	55.00	21.65	2.65697	1.80
101000.000	50.00	19.69	3.21493	1.64
101000.000	45.00	17.72	3.96905	1.48
101000.000	40.00	15.75	5.02333	1.31
101000.000	35.00	13.78	6.56108	1.15
101000.000	30.00	11.81	8.93036	0.98
101000.000	25.00	9.84	12.85972	0.82
101000.000	20.00	7.87	20.09331	0.66

Frequency (MHz)	Occupational Limit minimum Distance (cm / inches)	Public Limit minimum distance (cm / inches)
300-1,500	85 / 33.5	200 / 78.8
1,500-10,000	N/A	N/A

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RFExp ILS420GS

Thales ATM, Inc.
Model: ILS420GS
Test #:090218GS
Test to: FCC Parts 2 and 87

FCCID#: BOJILS420GS

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