

2041 PELORIS

2.0 Meter Motorized Vehicle-Mount SNG Antenna



The Sat-Lite Technologies Model 2041 vehicle-mount antenna is a robust and light-weight precision antenna designed for the most demanding high power broadband applications. This antenna features a carbon fiber composite reflector and aluminum backbeam structure designed to provide exceptional performance in a lightweight package. The custom-designed elevation-over-azimuth cable drive pedestal provides superior stiffness with minimal backlash and maintenance.

In addition, the antenna has a long focal length geometry (0.8 F/D) designed to meet international performance specifications for commercial or military applications and is available in C, X, Ku and/or Ka band frequencies. Multiple feed configurations are also available for 2 port, 3 port, and 4 port applications. A host of amplifier mounting packages or waveguide installations are also standard product offerings.

- ***Intelsat and Eutelsat Compliant (Using Appropriate Feed)***
- ***Multi-Band C, X, Ku or Ka band Frequencies***
- ***Multiple Integration Options***
- ***Integrated Controller with Tracking Options Available***
- ***Carbon Fiber Reflector with Precision Aluminum Backbeam Structure***
- ***Low Profile and Space-Optimizing Stow Position***
- ***Superior Stability in Wind***
- ***Excellent Reliability***
- ***Minimal Maintenance***
- ***High Wind Option Available***



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TECHNICAL SPECIFICATIONS



2.0 Meter RF Specifications	2 Port Cross-Pol C Band Extended Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular Polarization		2 Port Cross-Pol Ku Band Linear / Mode Matched Feed		2 Port Ka Band Circular Polarization	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
	Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.2	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.95 - 12.75	13.75 - 14.5	20.2 - 21.2
Gain (Midband, dBi)	36.6	40.5	36.5	40.5	42.0	42.6	46.1	47.8	50.5	53.7
Noise Temperature (K)										
10 deg EI	52		55		68		53		144	
20 deg EI	45		49		64		48		120	
Cross Pol										
On Axis	-30 dB	-30 dB	-20 dB	-27 dB	-30 dB	-30 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-26 dB	-26 dB	-20 dB	-27 dB	-30 dB	-30 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Axial Ratio			1.6 dB	0.75 dB	0.5 dB	0.5 dB			1.5 dB	1 dB
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Mil-Std 188-164		ITU, FCC Eutelsat		Mil-Std 188-164	
VSWR	1.40:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-85 dB	0 dB input	-85 dB	0 dB input	-110 dB	0 dB input	-85 dB	0 dB input	-85 dB	0 dB input
Rx/Tx	0 dB input	-35 dB	0 dB input	-50 dB	0 dB input	-110 dB	0 dB input	-30 dB	0 dB input	-30 dB

Mechanical/Environmental Specifications	
Reflector	2.0 meters (78.75 in) - Carbon Fiber
Reflector Offset Angle (deg)	17.8
Antenna Travel	
Azimuth	± 200° continuous
Elevation	0 - 90° of reflector boresight
Polarization	± 90°
Antenna Drive Rate	
Azimuth	1.5°/sec
Elevation	1.5°/sec
Polarization	2°/sec
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Tracking Loss (operational winds)*	3dB peak (Ku-band Rx)
Winds ¹	
Operational	45 mph Gusting to 60 mph (72 kph G 96 kph)
Survival	70 mph (112 kph) any position 90 mph (145 kph) stowed
Antenna Stowed Dimensions	Length: 101" (2565mm) Width: 79" (2006 mm) Height: 20 in (508 mm)
Weight	290 lb (132 kg) - without integration
Integration ²	
Feedboom Mounted	100 lbs (45 kg)
Positioner Mounted	250lbs (113 kg)
Rain	
Operational	4 in/h (10 cm/h)
Survival	6 in/h (15 cm/h)
Relative Humidity	0 - 100%
Solar Radiation	360 btu/h/ft ² (1000 Kcal/h/m ²)
Radial Ice (survival)	1 in (25.4 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

* Using appropriate tracking controller ** Contact Factory

1 Dependent on vehicle capabilities

2 Dependent on mounting position relative to elevation axis

Note: Specifications subject to change without notice

850-0040-H

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