

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***
- ***Ideal for C Band with Minimum Width***



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<i>Electrical Specifications</i>	2 Port Cross-Pol C Band		2 Port Cross-Pol C Band		2 Port Cross-Pol C Band		2 Port X Band		2 Port Cross-Pol Ku Band	
	Extended Linear Feed		Std. Linear Feed		Circular Feed		Circular Polarization		Linear / Mode Matched Feed	
	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	3.625 - 4.2	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.95 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	36.6	40.5	36.6	40.6	36.5	40.6	42.1	42.7	46.0	47.8
Noise Temperature (°K)										
10 deg E	51		45		55		68		53	
20 deg E	45		40		50		64		48	
Cross Pol										
On Axis	-30 dB	-30 dB	-30 dB	-30 dB	-20 dB	-27 dB	-30 dB	-30 dB	-35 dB	-35 dB
in 1 dB BW	-26 dB	-26 dB	-26 dB	-26 dB	-20 dB	-27 dB	-30 dB	-30 dB	-25 dB	-35 dB
Axial Ratio					1.6 dB	0.75 dB	0.5 dB	0.5 dB		
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		MI-Std 188-164A		ITU, FCC Eutelsat	
VSWR	1.40:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-85 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	-120 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-120 dB	0 dBm input	-30 dB

<i>Mechanical/Environmental Specifications</i>	
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: 103 5/8" (2632mm) Width: 78 3/4" (2000 mm) Height: 18 1/8 in (461 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