

1842 NOVUS

1.8 Meter Motorized Vehicle-Mount Antenna



The Sat-Lite Technologies Model 1842 vehicle-mount antenna is designed to offer the end user affordable performance for VSAT or SNG applications in a compact design. This antenna features an integrated auto-locate controller with manual override, glass fiber reinforced reflector, handcranks, and an optional VSAT or low cross pol feed. The control system can be used to work directly with a modem for positive satellite identification. It can also be configured to work with an optional programmable digital video receiver capable of storing up to 10 satellite signposts that can be used to positively identify the satellite. Up to 35 lbs of payload can be mounted on the feedboom for multiple integration packages and options. High gain performance along with the precision surface and payload offer an optimum dB per dollar performance. The antenna is designed to meet required performance specifications for commercial applications.

- ***VSAT or Broadcast Configuration***
- ***Integrated Auto Locate Controller with Manual Override***
- ***Auto Locate and Peak Features along with Handheld Control Unit.***
- ***Precision Glass Fiber Reinforced Reflector***
- ***Handcranks Included***
- ***Low Profile and Space-Optimizing Stowed Configuration***
- ***Designed for Boom Mounted Single Thread Integration Packages up to 35 lbs***
- ***Affordable SNG Applications***
- ***Intelsat / ITU Compliant***
- ***C , X, and Ku Band Feeds***

TECHNICAL SPECIFICATIONS

<i>Electrical Specifications</i>	2 Port Cross-Pol C Band Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.20	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	35.4	39.3	35.4	39.5	41.3	42.0	45.3	46.6
Noise Temperature (°K)								
10 deg El	41		41		60		55	
20 deg El	36		36		56		50	
Axial Ratio			3.0 dB	2.3 dB	1.5 dB	1.5 dB		
Cross Pol								
On Axis	-30 dB	-30 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-30 dB	-30 dB
in 1 dB BW	-23 dB	-23 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-23 dB	-23 dB
Sidelobe Compliances	IESS 207		IESS 207		Meets DSCS		Meets ITU 580	
VSWR	1.50:1	1.30:1	1.50:1	1.30:1	1.30:1	1.30:1	1.50:1	1.30:1
Isolation								
Tx/Rx	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-110 dB	0 dBm input
Rx/Tx	0 dBm input	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.8 meters (70.87 in) - SMC
Reflector Offset Angle	22.6°
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)
Pointing Loss (operational winds)*	2 dB (Ku-band Rx)
Winds ¹	
Operational	35 mph Gusting to 50 mph (56 kph G 81 kph)
Survival	70 mph (112 kph) any position 90 mph (145 kph) stowed
Antenna Stowed Dimensions	Length: 98.5" (2501mm) Width: 72" (1829 mm) Height: 18" (457 mm) [add 3 inches to height (76mm) for optional mount frame]
Weight	275 lb (125 kg) - without integration
Integration ²	
Feedboom Mounted	35 lbs (15.9 kg)
Positioner Mounted	250 lbs (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)	1/2 in (12.7 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

¹ Dependent on vehicle capabilities

² Dependent on mounting position relative to elevation axis

³ Std weight shown, consult factory for special requirements

Note: Specifications subject to change without notice