

# 1541 NOVUS

## **1.5 Meter Motorized Vehicle-Mount Antenna**



- **VSAT or Broadcast Configuration**
- **Integrated Auto Locate Controller with Manual Override**
- **Auto Locate and Peak Features along with Handheld Control Unit.**
- **Carbon Fiber 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 / FCC Compliant**
- **C Band and X Band Capable**

The Sat-Lite Technologies Model 1541 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, carbon fiber composite reflector, handcranks, and an optional VSAT or low cross pol feed. The integrated control system includes a 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 Ku Band performance specifications for commercial applications.



# TECHNICAL SPECIFICATIONS



<i>Electrical Specifications</i>	<b>2 Port Cross Pol Ku Band Linear / VSAT Feed</b>		<b>2 Port Cross Pol Ku Band Linear / Low Cross Pol Feed</b>	
	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>
Frequency (GHz)	10.70 - 12.75	13.75 - 14.5	10.7 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	43.4	45.0	43.4	45.0
Noise Temperature (°K)				
10 deg El	70		65	
20 deg El	60		58	
Axial Ratio				
Cross Pol				
On Axis	-30 dB	-30 dB	-35 dB	-35 dB
in 1 dB BW	-25 dB	-25 dB	-27 dB	-27 dB
Sidelobe Compliances		Meets ITU 580 FCC		Meets ITU 580 FCC
VSWR	1.45:1	1.30:1	1.35:1	1.30:1
Isolation				
Tx/Rx	-110 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-35 dB	0 dBm input	-35 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.5 meters (58.75 in) Carbon Fiber Reinforced Polymer
Reflector Configuration	Parabolic Single Offset, 0.78 F/D (16.9 deg offset)
Antenna Travel	
Azimuth	± 200° continuous
Elevation	0 - 90° of reflector bore sight
Polarization	± 90°
Antenna Drive Rate	
Azimuth	5.0°/sec
Elevation	2.5°/sec
Polarization	3.0°/sec
Temperature	
Operational	-17 to 50°C (0 - 122°F)
Survival	-30 to 70°C (-40 - 158°F)
Winds <sup>1</sup>	
Operational	40 mph (64 khp)
Survival	65 mph (104 kph) deployed any position 90 mph (144 kph) stowed
Antenna Stow Height	18 in (457 mm)
Weight	185 lb (84 kg) - with Ku Feed and controller
Integration <sup>2</sup>	
Feedboom Mounted <sup>3</sup>	35 lbs
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 <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> )
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

850-0016-B