

# 1541 NOVUS

## *1.5 Meter Motorized Vehicle-Mount Antenna*



- **VSAT or SNG Configurations**
- **Integrated Auto Locate Controller with Manual Override**
- **Auto Locate and Peak Features**
- **Precision Resin Fiber Composite Reflector**
- **Handcranks Included**
- **Low Profile and Space-Optimizing Stowed Configuration**
- **Designed for Boom Mounted Single Thread Integration Packages up to 35 lbs**
- **Affordable SNG or Low Cost Mobile VSAT Applications**
- **Intelsat / FCC Compliant (with Appropriate Feed)**
- **Eutelsat Compliant Option (with Appropriate Feed)**

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, precision 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. Other controller options are also available. 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.



<i>Electrical Specifications</i>	2 Port X Band Circular		2 Port Cross Pol Ku Band Linear Pol Feed		2 Port Cross Pol Ku Band Linear Mode Matched	
	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	7.25 - 7.75	7.9 - 8.4	10.7 - 12.75	13.75 - 14.5	10.7 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	38.7	39.5	43.4	45.0	43.4	45.0
Noise Temperature (°K)						
10 deg El	79		65		69	
20 deg El	61		58		60	
Axial Ratio	1.5 dB	1.5 dB				
Cross Pol						
On Axis	-21.3 dB	-21.3 dB	-35 dB	-35 dB	-35 dB	-35 dB
in 1 dB BW	-21.3 dB	-21.3 dB	-27 dB	-27 dB	-25 dB	-35 dB
Sidelobe Compliances		Meets DSCS		Meets ITU 580 FCC		Eutelsat ITU 580 / FCC
VSWR	1.30:1	1.30:1	1.35:1	1.30:1	1.4:1	1.30:1
Isolation						
Tx/Rx	-110 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-110 dB	0 dBm input	-35 dB	0 dBm input	-35 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.5 meters (58.75 in) Fiber Reinforced Polymer
Reflector Configuration	Parabolic Single Offset, 0.78 F/D
Antenna Travel	
Azimuth	± 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Antenna Drive Rate	
Azimuth	3.0°/sec
Elevation	2.5°/sec
Polarization	3.0°/sec
Temperature	
Operational	-17 to 50°C (0 - 122°F)
Survival	-30 to 70°C (-22 - 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	16.75 in (425 mm)
Weight	175 lb (80 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