

2.0 Meter, Vehicle Mount Antenna System Data Specification

The most important thing we build is trust

TracStar2000 Antenna System

The TracStar auto-deploy auto-acquire antenna system allows personnel with little or no satellite experience to operate mobile Very Small Aperture Terminal (VSAT) satellite communications equipment, enabling the user to access any broadband application over satellite.

This 2.0M antenna features:

- POD Option—Stows safely behind attractive ergonomic windbreak barrier
- TracStar Controller Options—Available Options include DirectPoint and inclined orbit satellite tracking
- HPA Mounting Options— Feed Boom and Dual HPA minimizes waveguide losses and maximizes EIRP



- Solid Carbon-Fiber Reflector—High EIRP - High-Performance and Light-weight Fully-Compliant for FCC, Intelsat, Panamsat, Eutelsat. May be used as Ku Band or C Band
- Reliable—Zero-Backlash Roto-Lok® Cable Drive Durability in Extreme and Harsh Conditions Unrivaled Az Range of 400°, Elevation 0-90°, Pol ±95°

With TracStar antennas, users enjoy the same reliable, secure, high-speed IP based data communications they are accustomed to in the office, while mobile. Further, complete solutions are available for one-stop shopping with field proven and reliable critical communication solutions.

Reflector

Size	2.0M Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Feed	Precision Horn
Az/EI Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization	Motorized Rotation of Feed

Travel

Azimuth	400°
Elevation—Operational	0-90° of boresight with 400° Az Travel
Polarization	±95° for 2 Port Feed

Travel Velocity

Slewing/Deploying	2° per second
Peaking	0.2° per second
Tracking	0.1° per second

Electrical Interface

RF	75Ω Tx/Rx Type F Connector (50Ω option)
Interfacility Link	30 ft (9.14M) Dual RG6 Coax, 1 Control Cable
	Optional 50' / 80' / 100' / 150' Lengths
Motors	24 VDC Servo w/Optical Encoder, Constant Torque
Controller (1U) Power Supply	50/60Hz, 110/220VAC Single Phase
Power Consumption	250 Watts
—Motors Active	
Power Consumption	30 Watts
—Motors Idle	
Emergency Drive	Handcrank on Az, EI; 12V leads on pol
BUC Mounting	Feed Boom or Rear of Reflector
Waveguide	WR 75 Groove Flange at Interface Point

Antenna Characteristics

Ku Band	Rx	Tx
Frequency (Ghz)	10.95-12.75	13.75-14.5
Gain (Midband) 2-port		
	45.7 dBi	47.5 dBi
VSWR	1.30:1	1.30:1
Beamwidth		
-3 dB	.86°	.72°
-15 dB	1.65°	1.4°
Antenna Noise Temperature		
	47° K at 10° Elevation	
First Sidelobe Level (Typical)		
	-22 dB	-22 dB
Radiation Pattern Compliance		
>3dB better than FCC §25.209, ITU-R S.580.6		
Polarization	Orthogonal Standard, Optional CoPol	

Cross Pol Isolation (minimum on axis)

Linear	35 dB	35dB
Power Handling Capability	500 watts per port	
Feed Port Isolation Tx to Rx	75dB	

Antenna Controller

One button operation automatic satellite acquisition with integrated GPS/Compass/Level Sensors and user configurable satellite selection

Weights & Measures

Antenna Stowed Height	20" (51 cm)
Antenna Stowed Length	103.5" (263 cm)
Antenna Deployed Height	102" (259 cm)
Antenna Width	80" (203 cm)
Weight	300 lbs (136 kg)
Controller—Rack Mount (1RU)	
Weight	4.5 lbs (2.04 kg)
Dimensions	19" x 8.0" x 1.75" (48.26 x 20.32 x 4.44 cm)

Environmental

Wind - Survival	
Deployed	60 mph (96 kph)
Stowed	100 mph (161 kph)
Operational	45 mph (72 kph), Gusts to 60 mph (96 kph)
Pointing Loss in Wind	
20 mph (32 kph)	0.2 dB Typical
30 Gusting to 45 mph	(48 to 72 kph) 1.0 Typical
Temperature	
Operational	±5° to 125°F (-29° to 52° C)
Survival	-40° to 140°F (-40° to 60° C)

Specifications subject to change without notice.

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