

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. Setup time < 30 minutes.

This 1.6M Fly Away antenna features include -

- **Pop-Up Pedestal with Outrigger Legs**
- **Light Weight**—Fly Away antenna stores in 3 cases

- **TracStar Controller Options**—Available Options include DirectPoint and inclined orbit satellite tracking

- **HPA Mounting Option**—Back of Reflector

- **Solid Carbon-Fiber Reflector**—High EIRP - High-Performance and Light-weight Fully-Compliant for FCC, Intelsat,

Panamsat, Eutelsat, Asiasat. Upgradeable to Ka Band and 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°
- **Upgradeable**—to Ka and C Band

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. Featuring:

- Secure, high-speed digital communications
- High-speed internet access
- VoIP—voice calls & calling plans
- RoIP for connecting any 2 Way Radio into an IP communication group
- FAX communications
- Teleconferencing

- Wide area private network extension
- Video broadcasting
- Full time and part time Broadband bandwidth plans

TracStar antennas feature:

- Single button push for automatic satellite acquisition
- Rapid deployment and operation on every Ku-band satellite, worldwide
- Works with every satellite modem
- Eliminates the need for -
-Leveling the antenna up to 10 degrees
-Special test equipment for alignment
-Computers or peripheral equipment to operate the antenna
-Phone calls to network operators or service providers



QUAD-BAND



TracStar1600P4K

Reflector

Reflector Type	1.6M Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Interchangeable Feed	CLP, CCP, XCP, Ku LP, Ka CP or LLP
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
	-5-90° of boresight with ±15° Az Travel
Polarization	±95° of Linear Feeds, Adjustable within < 1°

Travel Velocity

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

Electrical Interface

RF	75Ω Tx / Rx Type F Connector (50Ω option)
Inter-facility Link	100 ft () Dual RG6 Coax, 1 Control Cable Optional 150' Lengths
Motors	24VDC Servo w/ Optical Encoder, Constant Torque
Controller (1U)	Power Supply 50/60Hz, 110/220VAC, Single Phase
Power Consumption	Motors Active—250 Watts
Power Consumption	Idle—30 Watts
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

C-Band	Receive	Transmit
Frequency	3.40-4.20 Ghz	5.85 -6.65 Ghz
Polarization	Linear or circular, convertible to either RHCP or LHCP	
Gain (Midband)	34.0 dBi	38.0 dBi
Antenna Noise Temperature @ 30°	50°K	
G/T with 20°K LNB	15.5 dB/° K	
Radiation Pattern Compliance	29-25 log 1 dBi, 3.5>Θ<36°	
Axial Ratio within Tracking Cone	1.3 dB	
Linear Cross-Polarization with Tracking Cone	>30 dB	
Power Handling Capability	1000 watts per port*	
*Requires special approval by satellite operator		

Ku-Band

	Receive	Transmit
Frequency	10.95-12.75 Ghz	13.75-14.5 Ghz
Gain (Midband) 2 Port	43.7 dBi	45.0 dBi

VSWR -3dB	1.3:1	1.3:1
Beamwidth (degrees)		
-3dB	.86	.72
Antenna Noise Temp @ 30° EL	47°K	
First Sidelobe Level (Typical)	-22dB	-22dB
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)	35 dB	35dB
Power Handling Capability	500 watts per port	
Feed Port Isolation Tx to Rx		75dB

Ka-Band

	Receive	Transmit
Frequency (Commercial)	17.7-20.2 Ghz	27.5-30.0 Ghz
Frequency (Military)	20.2-21.2 Ghz	30.0-31.0 Ghz
Polarization	Linear or Circular	RHCP and LHCP
Gain (20 & 30 Ghz)	47.5 dBi	51.0 dBi
Antenna Noise Temperature @ 30°	50°K	
G/T with 100° LNB	25.9 dB/° K	
Radiation Pattern Compliance	FCC and MIL-STD-188-164A	
Axial Ratio	<1.5 dB	<1.0 dB
Power Handling Capability	250 watts per port	

X-Band—Available Upon Request

Antenna Controller

One button operation automatic satellite acquisition and cross-pol adjustment with integrated GPS/Compass/Level Sensors and user configurable satellite selection.

Weights & Measures

Configuration - Rugged Hardigg Shipping Cases (Metric)	
C, X, Ku Motorized Positioner	24" x 25" x 24" (61x63.5x61) 145 lbs (66)
C, X, Ku Ka Motorized Positioner	27" x 29" x 30" (68.6x73.7x76.2) 170 lbs (77.1)
Outriggers/Feed Boom	20" x 59" x 12" (50.8x150x30.5) 105 lbs (47.6)
Reflector Panels	36" x 34" x 12" (91.5x86.7x30.5) 135 lbs (61.2)
Feeds (C,X and Ka)	20" x 59" x 12" (50.8x149.9x30.5) 95 lbs (43.1)
	30" x 30" x 16" (76.2x76.2x30.5) 95 lbs (43.1)
RF Interface	OR HPA Mounting Separate case or rear of reflector

Environmental

Wind - Operational	
Without anchoring	35 mph
With anchoring	45 mph
- Survival	80 mph in stow position
Temperature Operational	+15° to 125°F
Survival	-40°F to 140°F (-40° to 60° C)

Specifications Subject to Change Without Notice

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