TracStar SYSTEMS

TracStar2000

Critical Communication Solutions

The Trac*Star* 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 include -

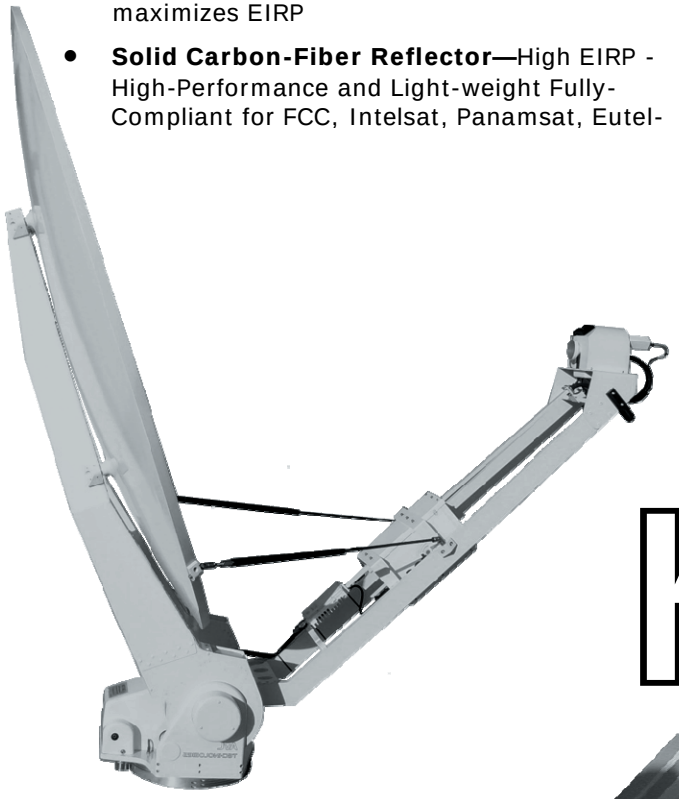
- **POD Option—**Stows safely behind attractive ergonomic windbreak barrier
- **TracStar Controller Options—**Available Options include DirectPoint and inclined orbit satellite tracking
- **HPA Mounting Options—** Feed Boom and Dual HPA minimizes waveguide losses and maximizes EIRP
- **Solid Carbon-Fiber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

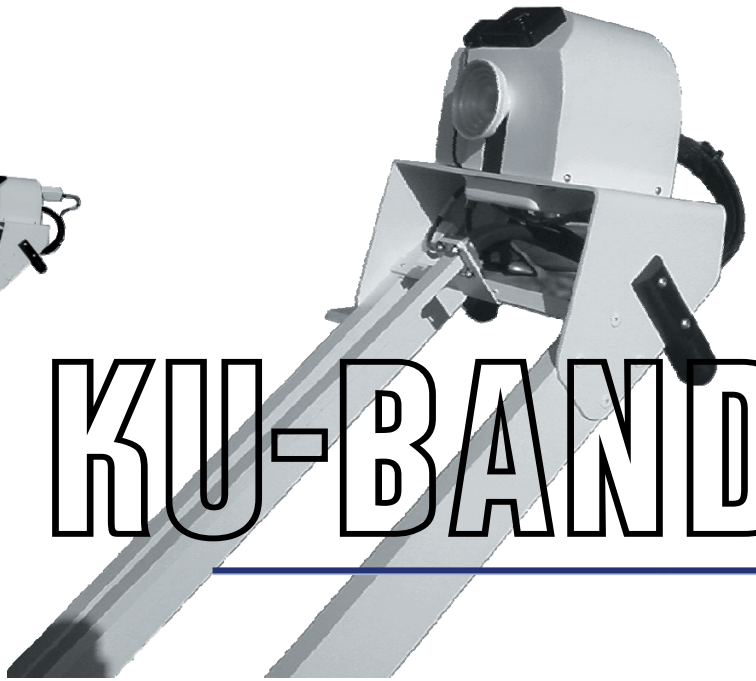
With Trac*Star* antennas, users enjoy the same reliable, secure, high-speed IP based data communications they are accustomed to in the office, while mobile. Further, complete solutions are available for one-stop shopping with field proven and reliable critical communication solutions. Featuring:

- 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

Trac*Star* 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





KU-BAND

COBHAM

TracStar2000

Reflector

Reflector Type	2.0M Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Feed	Precision Horn
Az/El 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°/second
Peaking	0.2°/second
Tracking	0.1°/second

Electrical Interface

RF	75Ω Tx / Rx Type F Connector (50Ω option)
Inter-facility Link	30 ft (9.14M) Dual RG6 Coax, 1 Control Cable Optional 50'/ 80' / 100' / 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, El; 12V leads on pol
BUC Mounting	Feed Boom or Rear of Reflector
Waveguide	WR 75 Groove Flange at Interface Point

Antenna Characteristics

Ku-Band	**Receive**	**Transmit**
Frequency	10.95-12.75 Ghz	13.75-14.5 Ghz
Gain (Midband) 2 Port	45.7 dBi	47.5 dBi
VSWR –3dB	1.3:1	1.3:1
Beamwidth (degrees)		
-3dB	.86	.72
-15dB	1.65	1.4
Antenna Noise Temp @ 10° 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)		
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 and cross-pol adjustment 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 (inches)	19"W x 8.0"D x 1.75"H	(48.26 x 20.32 x 4.44 cm)

Environmental

Survival

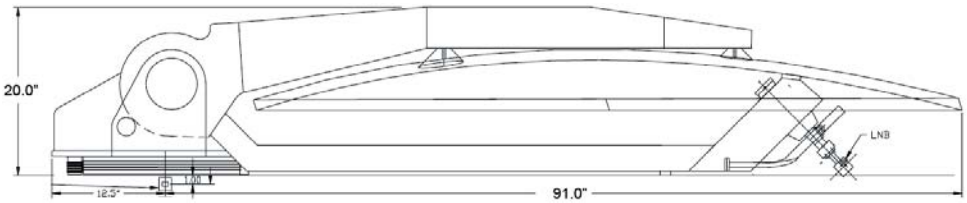
Deployed	60 mph	(121kmph)
Stowed	100 mph	(161kmph)
Operational	45 mph	(72 kmph), Gusts to 60 mph (97 kmph)

Pointing loss in Wind

20 mph (32 kmph)	0.2 dB Typical
30 Gusting to 45 mph (48 to 72 kmph)	1.0 Typical

Temperature

Operational	± 5° to 125° F (-15° to 52° C)
Survival	-40° to 140° F (-40° to 60° C)



Specifications subject to change without notice

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