

# TracStar1600P4 MultiBand Fly-Away

# COBHAM

Broadband Anywhere - Anytime  
1.6 Meter Fly Away Antenna System

## Data Specifications

The most important thing we build is trust

### TracStar1600P4 Multi Band 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. Setup time is less than 30 minutes.

### Ease of Operation

TracStar One Button Control System eliminates the need for:  
Leveling the antenna - up to 10 degrees autocorrection  
Special Test Equipment for Alignment - e.g. Spectrum Analyzers



### On-Site Technicians

Calls to Service Provider for service coordination  
Laptop or External PC

### Applications

TracStar antennas work with any satellite modem and depending on the antenna, are compatible with Ku, Ka, C and/or X band networks. Users dependant on reliable, secure, high-speed IP based data communications can continue reliable critical operations from anywhere in the world where satellite access is available.

Providing for our customers -

- Secure, high speed digital communications
- High-speed internet access
- Complete voice and FAX communication solutions
- WAN Extension w/Meshed Remote Sites and Microwave Links
- Video Conferencing
- Streaming Video Solutions
- Complete Bandwidth Solutions

The TracStar 1.6M Fly Away antenna features:

- TracStar Controller Options:
  - DirectPoint - immediate connection to data satellite\*
  - Inclined orbit satellite tracking
  - Stacking Pedestal with Outrigger Legs
  - Light Weight—Fly Away antenna in 3 cases
  - HPA Mounting Option—Back of Reflector
  - Solid Carbon-Fiber Reflector—High EIRP - High-Performance,
  - Lightweight Fully-Compliant for FCC, Intelsat, Panamsat, Eutelsat, Asiasat
  - 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

\*modem dependent

### TracStar Antenna Controller

Industry standard setting one button operation with automatic satellite acquisition and cross-pol adjustment, integrated GPS, Compass and Level Sensors and user configurable satellite selection for primary and secondary satellites.

### Reflector

Reflector Type	1.6M Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Interchangeable Feeds	CLP, CCP, XCP, Ku LP, Ka CP or LLP
Positioner	Patented Roto-Lok®
Mount Geometry	Elevation over Azimuth
Polarization	Motorized Rotation of Feed

### Travel

Azimuth	±200°
EI - 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° per second
Peaking	0.2° per second
Tracking	0.1° per 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-Motors 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

# TracStar1600P4 MultiBand



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## Antenna Characteristics

Ku-Band	Rx	Tx
Frequency (Ghz)	10.95 - 12.75	13.75 - 14.5
Polarization	Orthogonal Standard, Optional CoPol Linear	
Gain (Midband) 2 Port	43.7 dBi	45.3 dBi
Antenna Noise Temp 20° El	54 K	
G/T with 55° K LNB, Midband	19.7 dB/K	
Radiation Pattern Compliance	IESS-601 Std. G and FCC 47CFR §25.209	
Cross Pol Isolation (minimum on axis)	35 dB	35dB
within pointing cone	28dB Std	30dB Std
within pointing cone	25dB MM opt.	35dB MM opt.
Power Handling Capability	500 watts per port	

## Ka-Band

	Rx	Tx
Frequency (Ghz)		
Commercial	17.7-20.2	27.5-30.0
Military	20.2-21.2	30.0-31.0
Polarization	Circular RHCP and LHCP	
Gain Midband (MIL)	50.6 dBi	53.8 dBi
Antenna Noise Temperature @ 20° El	107° K	
G/T with 100° LNB	25.3 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

	Rx	Tx
Frequency (Ghz)	7.25-7.75	7.9-8.4
Polarization	Circular RHCP and LHCP	
Gain Midband	39.7 dBi	40.5 dBi
Antenna Noise Temp @ 20° El	45° K	
G/T with 55° K LNB, Midband	19.7 dB/K	
Radiation Pattern Compliance	MIL-STD-188-164A	
Axial Ratio within Tracking Cone	1.21dB	2.0dB
Power Handling Capability	1000 watts per port	

## C-Band\*

	Rx	Tx
Frequency (Ghz)	3.625-4.20	5.85 -6.425
Polarization	Linear or Circular	
Gain (Midband)	34.2 dBi	38.1 dBi
Antenna Noise Temperature @ 20° El	48° K	
G/T with 20° K LNB	15.5 dB/K	
Radiation Pattern Compliance	29-25 log $\Theta$ dBi, 3.5 $\times$ $\Theta$ <36°	
Axial Ratio within Tracking Cone	2.3 dB	1.3 dB
Linear Cross-Polarization with Tracking Cone	>30 dB	>30 dB
Power Handling Capability	1000 watts per port	
*Requires special approval by satellite operator		

## Weights & Measures

Configuration - Rugged Hardigg Shipping Cases (cm/Kg)	
Motorized Positioner	26"x24"x30" 170 lbs (66 x 61 x 76) (77.1)
Outriggers/Feed/Boom	71"x18"x19" 105 lbs (180.3 x 45.7 x 48.2) (47.6)
Reflector Panels	38"x38"x24" 120 lbs (96.5 x 96.5x 61) (54.4)
Feeds (up to 3 per case)	43"x27"x20" 70 lbs typical (109.2 x 68.6 x 50.8) (31.75)

## Environmental

Wind - Operational w/out anchoring	35 mph (56.3kmh)
w/anchoring	45 mph (72.4kmh)
Survival	80 mph in stow position (128.8kmh)
Temperature Operational	+15° to 125° F (-9.5 to 51.6° C)
Survival	-40° F to 140° F (-40° to 60° C)

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Full Integration

VoIP / RoIP / LAN / WAN / FAX / VPN / Video  
Bandwidth Solutions - Part Time / Full Time  
Phone Termination to PSTN

All specifications subject to change without notice

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