

TracStar1250P4 MultiBand Fly-Away

COBHAM

Broadband Anywhere - Anytime
1.2 Meter Fly Away Antenna System

Data Specifications

The most important thing we build is trust

TracStar1250P4 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 15 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 Teleconferencing
- Streaming Video Solutions
- Complete Bandwidth Solutions

Pedestal

The TracStar 1.2M Fly Away antenna features:

- Stacking Pedestal with Outrigger Legs
- Light Weight—Fly Away antenna in 2 cases
- HPA Mounting Option—Feed Boom OR Back of Reflector
- Solid Carbon-Fiber Reflector—High EIRP - High-Performance
- 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 X Band

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.

TracStar Controller Options:

- DirectPoint - immediate connection to data satellite*
 - Inclined orbit satellite tracking
- *modem dependent*

Reflector / Feed

Reflector Type	1.2M Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Interchangeable Feeds	XCP, Ku LP, Ka CP or Ka LP
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
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

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Antenna Characteristics

Ku-Band	Rx	Tx
Frequency (Ghz)	10.95 - 12.75	13.75 - 14.5
Polarization	Linear Orthogonal Standard Optional CoPol Linear	
Gain (Midband) 2 Port (dBi)	41.6	43.1
VSWR	1.3:1	1.3:1
Beamwidth (-3db)	1.5°	1.2°
Antenna Noise Temp 20° El	54°K	
G/T with 55°K LNB, Midband	21.3 dB/K	
Radiation Pattern Compliance	FCC §25.209, ITU-R S.580-6, IESS 208	
Ant Noise Temp @ 20° EL	54°K	
G/T with 50° LNB, midband	21.3 dB/K	
Cross Pol Isolation (on axis)	35 dB	35dB
within pointing cone	28dB Std	30dB Std
within pointing cone	25dB MM opt.	35dB MM opt.



Turnkey Solutions Available

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

Feed Port Isolation - Tx to Rx (dB)	35	80**
**includes filter		
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 or Linear	
Gain Midband (MIL) (dBi)	46.2	49.5
VSWR	1.31	1.3:1
Beamwidth (-3dB)	0.8°	0.6°
Antenna Noise Temperature @ 20° El 107°K		
G/T with 100° LNB	23.0 dB/K	
Radiation Pattern Compliance	FCC §25.209 and MIL-STD-188-164A	
Axial Ratio (CP Only, within cone)	1.5 dB	1.0 dB
Feed Port Isolation - Tx to Rx (dB)	30	80**
Power Handling Capability	250 watts per port	

X-Band	Rx	Tx
Frequency (Ghz)	7.25-7.75	7.9-8.4
Polarization	RHCP or LHCP	
Gain Midband (dBi)	37.6	38.1
VSWR	1.3:1	1.3:1
Beamwidth (-3dB)	2.3°	2.1°
Antenna Noise Temp @ 20° El	52°K	
G/T with 55°K LNB, Midband	17.3 dB/K	
Radiation Pattern Compliance	MIL-STD-188-164A	
Axial Ratio within Tracking Cone	1.21dB	2.0dB
Feed Port Isolation - Tx to Rx (dB)**	115	115
Power Handling Capability	1000 watts per port	

DBS Bands Available Upon Request

Weights & Measures

Configuration - Rugged Hardigg Shipping Cases (cm/Kg)	
Motorized Positioner	23"x19"x19" 100 lbs (58.4x48.3x48.3) (45.4)
Outriggers/Feed/Boom/Reflector	30"x30"x16" 100 lbs (76.2x76.2x40.6) (21.6)
Additional Feeds	43"x27"x20" 70 lbs typical (109.2 x 68.6 x 50.8) (14.4)

Environmental

Wind - Operational w/out anchoring	30 mph (56.3kmh)
w/anchoring	30 mph gusting to 45 mph (56.3-72.4kmh)
Survival (anchored)	80 mph in zenith position (128.8kmh)
Pointing Loss In Wid	
Ku Band Rx, Operational Wind Load	0.1dB typical, 0.5 dB max
Ka Band Rx, Operational Wind Load	0.3dB typical, 1.0 dB max
Temperature Operational	-22° to 125° F (-30° to 52° C)
Survival	-40° F to 140° F (-40° to 60° C)

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