

TracStar1000P6 Multi Band Fly-Away

COBHAM

Broadband Anywhere - Anytime
1.0 Meter Fly Away Antenna System

Data Specifications

The most important thing we build is trust

TracStar1000P6 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. Assembly and Acquisition in 10 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



TracStar 1000P6 shown with Optional Satellite Kit

Note: This antenna design requires a mounting mechanism such as the Satellite Kit shown or a tripod configuration to allow clearance for the reflector in low look angle configurations.

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

The TracStar 1000P6 Multi Band Fly Away antenna features:

Optional Satellite Kit (shown) for antenna controller, modem and basic Comms solution for Ethernet Output. Alternate Tripod Configuration or Customer Supplied solution available.

Automatic Feed Sensing - Change Feeds and the controller adjusts settings

Light Weight—Most compact and light weight motorized 1M flyaway antenna available

Small—Antenna and reflector segments store in a rugged case weighing less than 70 lbs(32kg) to meet airport requirements for checked baggage

Backpack Option — Can be carried in canvas bag on your back

TracStar Versatility—Integrates with any BUC, configures with any modem

Dependable—Zero-Backlash Roto-Lok® Cable Drive

TracStar Pointing Accuracy - even in high wind load conditions

**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	1.0M Carbon Fiber, Segmented, 6 Pieces
Optics	Offset, Prime Focus
Az/EI Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth

Polarization Alignment

Ku Linear	Motorized Rotation of Feed
Ka, X Circular	Manual, Field Reversible LH/RH

Travel

Azimuth	± 90° (dependent on base/tripod selected)
Elevation-Operational	0°-100° (dependent on base/tripod selected)
Polarization - (Ku Linear)	± 95° Motorized

Travel Velocity

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

Electrical Interface

RF	75W Tx/Tx Type F Connector
Interfacility Link	100' (30.48M) 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	Single Phase, 50/60Hz, 110/220VAC

Power Consumption	
Motors Active	250 Watts
Motors Idle	30 Watts
Emergency Drive	Handcranks on Az/EI axii Thumbwheel on Pol (Ku)

TracStar1000P6K



Broadband Anywhere - Anytime
Data Specifications

Antenna Characteristics Ka Circular (1.0M)	Ku Linear (1.0M)		Ka Circular (1.0M)		X Band Circular (1.2M) w/Reflector Extender Panels	
	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	10.95-12.75	13.75-14.5			7.25-7.75	7.9-8.4
Military (Ghz)			20.2-21.2	30.0 - 31.0		
Commercial (Ghz)			17.7-20.375	27.5-30.0		
Gain (Midband MIL) (dBi)	39.8	41.5	44.6	47.9	37.4	38.1
VSWR	1.3:1	1.3:1	1.3:1	1.3:1	1.3:1	1.3:1
Beamwidth (-3dB)	1.8°	1.5°	1.0°	0.7°	2.3°	2.1°
Radiation Pattern Compliance	FCC 25.209, ITU-R S.580		Per MIL-STD-188-164A		Per MIL-STD-188-164A	
Ant Noise Temp @ 20 EL	55° K		109° K		52° K	
G/T w/55° LNB, midband	19.6 dB/K		21.3 dB/K		17.1 dB/K	
Polarization			RHCP or LHCP	LHCP or RHCP	RHCP or LHCP	LHCP or RHCP
Axial Ratio (dB) (CP Only, within pointing cone)			1.5	1.0	1.2	2.0
Cross Pol Isolation (min dB On-Axis)	35	35				
Cross Pol Isolation Off Axis (in 1 dB BW)	27	28				
Feed Port Isolation (dB, Tx to Rx)	35	85 (with filter)	35	85 w/filter	115 includes optional filter	115 includes optional filter
Power Handling (Watts / Port)		500		250		1000
Weights & Measures	US (in, lbs)		Metric (cm, kg)			
Reflector / Boom Arm	33" x 21" x 16", 49 lbs		83.82 x 53.34 x 40.64, 22.26			
Positioner	19" x 17" x 15", 47 lbs		48.26 x 43.18 x 38.1, 21.32			
Ka Band Feed Kit	25" x 19" x 15", 40 lbs		63.5 x 48.26 x 38.1, 18.14			
X Band Feed Kit	33" x 21" x 16", 63.5 lbs		83.82 x 53.34 x 40.64, 28.8			
Ku Band Feed Kit	18" x 16" x 17", 43.5 lbs		45.72 x 40.64 x 43.18, 19.73			
ODU	28" x 26" x 17", 81.5 lbs		71.12 x 66.04 x 43.18, 36.97			
Control Unit - Hand Held	5-1/2" x 3 -1/4" x 1-3/8", 5 lbs		13.96 x 8.25 x 3.45, 23			
Control Unit - Rack Mount	19" x 8.0" x 1.75", 4.5 lbs		48.26 x 20.32 x 4.44, 2.05			



Environmental

Wind

Operational	20 mph (32 kph)
Operational-Anchored	30 mph (48 kph)
Survival-Anchored	80 mph (128.7 kph)

Pointing Loss in Wind

10 mph (16 kph)	0.1dB, 0.1° Typical
20 mph (32 kph)	0.5dB, 0.3° Typical

Temperature

Operational	± 15° to 125° F (-10° to 52° C)
Survival	-40° to 140° F (-40° to 60° C)

Pointing Loss in Wind (1.0M)

Ku (dB max)	0.7
Ka (dB max)	2.0
X (dB max) (w/Extender Panels)	1.5



For further information please contact:

Cobham SATCOM
Land Systems
1551 College Park Business Center Road
Orlando, Florida 32804 USA
Tel: 1-407-650-9054
Fax: 1-407-650-9086

All Specifications subject to change without notice.

1000P6MB-6-10 © TracStar Systems, Inc. 2010 All Rights Reserved