

TracStar2000P9-4MB

COBHAM

2.0 Meter, Fly Away Antenna System Data Specification

The most important thing we build is trust

TracStar2000P9 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.

Ease of Operation

TracStar One Button Control System eliminates the need for:
Leveling the antenna - up to 10 degrees auto correction
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, 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

Setup

Setup Time < 30 minutes

The TracStar 2.0M Fly Away antenna features:

TracStar Controller Options:

- DirectPoint - immediate connection to data satellite*
- Inclined orbit satellite tracking
- Stacking Pedestal with Outtrigger Legs
- Light Weight—Fly Away antenna in 4 cases**
- HPA Mounting Option—Back of Reflector
- Solid Carbon-Fiber Reflector—High EIRP - High-Performance,
- Reliable—Zero-Backlash Roto-Lok® Cable Drive Durability in Extreme and Harsh Conditions
- Unrivalled Az Range of $\pm 200^\circ$, Elevation 0-90°, Pol $\pm 95^\circ$
- Options for — X and C Band

*modem dependent

**feed 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

Size	2.0M Carbon Fiber, 9 Segments
Optics	Offset, Prime Focus, 0.8 F/D
Interchangeable Feeds	CLP, CCP, Ku LPAz/EI
Positioner	Case-based Jack-in-the-Box
Az/EI Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization	Motorized Rotation of Linear Feeds

Travel

Azimuth	$\pm 200^\circ$
Elevation—Operational	5°-90° of boresight with $\pm 200^\circ$ Az Travel
	0-90° of boresight with $\pm 15^\circ$ Az Travel
Polarization	$\pm 95^\circ$ of Linear Feeds - Adjustable within $< 1^\circ$

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)
Interfacility Link	100 ft (30.48M) RG6 Coax
	Low Loss Tx Cable / Standard Rx Cable / 1 Control Cable
	Optional 50' / 80' / 100' / 150' Lengths
Motors	24 VDC Servo w/Optical Encoder, Constant Torque
Controller (1U) Power Supply	50/60Hz, 110/220VAC Single Phase
Power Consumption	250 Watts – Motors Active
Power Consumption	30 Watts – Motors Idle
Emergency Drive	Handcrank on Az, El; 12V leads on pol
BUC Mounting	Quick Deploy on Feed Boom or Rear of Reflector
Waveguide	WR 75 Groove Flange at Interface Point
Coax	RG6 from feed to base plus 100ft (30.48M) Twin RG6 IFL Cable

Antenna Characteristics

C Band	Rx	Tx
Frequency (GHz)	3.625-4.20	5.85-6.425
Gain (Midband) dBi	36.4	40.3
Ant Noise Temp @ 20° El	49°K	
G/T with 20° K LNB, Midband	17.9 dB/K	
Circular Axial Ratio (in cone)	2.3 dB	1.3dB
Linear Cross Pol Isolation (in cone)	>30 dB	>30dB
Power Handling Capability (per port)		1000 watts
Radiation Pattern Compliance	IESS-601 and FCC 47CFR25.209	
Polarization	Linear or Circular Options	

Ku Band	Rx	Tx
Frequency (GHz)	10.95-12.75	13.75-14.5
Gain (Midband) dBi	46.0	47.6
Ant Noise Temp @ 20° El	57°K	
G/T with 50° K LNB, Midband	25.7 dB/K	
Cross Pol Isolation (on axis) dB	35	35
<i>within pointing cone dB</i>	28 std	30 std
<i>within pointing cone dB MultiMode</i>	25 MM	35 MM
Power Handling Capability (per port)		500 watts
Radiation Pattern Compliance	IESS-601 Std. G and FCC 47CFR25.209	
Polarization	Orthogonal Linear, Optional Co-pol linear	

X Band	Rx	Tx
Frequency (GHz)	7.25-7.75	7.9-8.4
Gain (Midband) dBi	42.0	42.8
Ant Noise Temp @ 20° El	50°K	
G/T with 55° K LNB, Midband	21.7 dB/K	
Axial Ratio within Tracking Cone dB	1.21	2.0
Power Handling Capability (per port)		1000 watts
Radiation Pattern Compliance	MIL - STD - 188-164A	
Polarization	Circular RHCP or LHCP	

Optional Features

- Inclined Orbit Satellite Tracking Software
- Beacon Receiver
- World Wide Software Package
- GUI Interface
- Desktop unit with handheld ACU

Weights & Measures

	(cm, kg)
Configuration	Rugged Hardigg Cases
Motorized Positioner	26" x 24" x 30" 150 lbs (66 x 60.9 x 76.2, 68kg)
Outriggers/Feed Boom	71" x 18" x 17" 105 lbs (180.4 x 45.7 x 43.18, 47.6)
Reflector Panels	39" x 39" x 24" 170 lbs standard (99 x 99 x 60.9, 77.1) 150 lbs optional (68.0)
Feeds	
Ku-LP Feed Only	20" x 24" x 12" 50 lbs (50.8 x 60.9 x 30.5, 22.7)
C-CP and C-LP	43" x 27" x 20" 70 lbs (109.2 x 68.6 x 50.8, 31.75)
X-CP, X-LP	43" x 27" x 20" 70 lbs (109.2 x 68.6 x 50.8, 31.75)
<i>Feeds can be packaged up to 3 per 43" case.</i>	
RF Interface	
HPA Mounting	Boom Mount or Rear of Reflector
Set-up Time	Less than 30 minutes

Environmental

Wind - Operational	
Without anchoring	35 mph
With anchoring	45 mph
Survival	80 mph in stowed position
Temperature - Operational	+15°F to 125°F
Survival	-40°F to 140°F

Specifications Subject to Change Without Notice.

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