



TracStar1200P4K

Critical Communication Solutions

The TracStar 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.

TracStar antennas are typically owned and operated by:

- Corporations with remote or mobile office and monitoring applications
- Federal, State and Public Safety agencies for law enforcement, emergency response and homeland security communications
- Military rapid deployment, SATCOM on the pause applications

With TracStar's antennas, users enjoy the same reliable, secure, high-speed IP based data communications they are accustomed to in the office, while mobile. Users can get connected Anywhere/Anytime for applications such as:

- Secure, high-speed digital communications
- High-speed internet access
- Voice and FAX communications
- Teleconferencing
- Wide area private network extension
- Video broadcasting

TracStar 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

DUAL-BAND

Ka or Ku



TracStar1200P4K

Reflector

Reflector	1.2 Meter Segmented Carbon Fiber
Optics	Offset, Prime Focus
Interchangeable Feeds	Ku LP, Ka LP, Ka CP
Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization Adjustment	Motorized Rotation of Feed
Military Standard	COTS Plus to MIL-STED-188-164a Type E-V

Travel

Azimuth	400° ±200° from Stow Position
Elevation	15-90° Operational @ 400° Az Travel 5-90° Operational @ 180° Az Travel
Polarization (Linear)	±95°
Emergency Drive	Handcrank on Az, El; Knob on Pol

Travel Velocity

Slewing/Deploying (Ax/El)	2.0° /second
Peaking	0.2°/second
Manual Jog	1.0° or 0.2°/second

Electrical Interface

RF	75Ω Tx / Rx Type F Connector (50Ω option)
Interfacility Link	32 ft (9.75M) 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

Antenna Characteristics—Ku Band

	Receive	Transmit
Frequency (GHz)	10.95-12.75	13.75-14.5
Gain (Midband)		
R/T	41.6 dBi (11.79G)	43.2 dBi (14.25G)
VSWR	1.30:1	1.30:1
Beamwidth (degrees)		
-3 dB	1.4	1.2
-10 dB	2.6	2.2
First Sidelobe Level (Typical)	-22 dB	-25 dB
Radiation Pattern Compliance	FCC §25.209, ITU-R S-580-6	
Antenna Noise Temperature	43° K at 30° Elevation	
Polarization	Linear Orthogonal standard Optional Co-pol	
Power Handling Capability	500 watts per port	
Cross-Pol Isolation		
On-Axis (minimum)	35 dB	35 dB

Off-Axis (within 1 dB BW)	30 dB	26 dB
Off-Axis (peak)	22 dB	22 dB
Feed Port Isolation - TX to RX	75 dB	
Satellite System Compliance		
Standard Feed	FCC and Intelsat	
Mode Matched Feed	ALL	

Antenna Characteristics—Ka Band

	Receive	Transmit
Commercial Frequency (GHz)	17.7—20.2	27.5—30.0
Military Frequency	20.2—21.2	30.0—31.0
Gain (Midband)	46.0 dBi	49.3 dBi
Axial Ratio	<1.5dB	<1.0dB
Power Handling Capability	250 Watts / Port	
Radiation Pattern Compliance	FCC & MIL-STD-188-164A	
Antenna Noise Temperature	50° K at 30° Elevation	
Polarization	Linear or Circular / RHCP or LHCP	
G/T with 100° LNB	24.1 dB/° K	

Antenna Controller

One button operation automatic satellite acquisition with integrated GPS/Compass/Level Sensors and user configurable satellite selection

RF Interface

BUC / HPA Mounting	
2-4 Watt (5 lbs max)	Feed Boom at Feed
8 Watt (10 lbs max)	Base of Feed Boom or Rear of Reflector
16-40 Watt (25 lbs max)	Rear of Reflector on Reflector
Waveguide (BUC)	WR 75 Groove Flange at Interface Point
Coax L-band Tx & Rx	RG59 with Type F at Base of Case Interface Point

Weights & Measures

Ruggedized Cases	
Weight & Measure	
Pedestal Case	170lbs. (78 kg) 43 x 28 x 21 in (109 x 71 x 53 cm)
Reflector/Feed Case	125 lbs (47 kg) 43 x 28 x 21 in (109 x 71 x 53 cm)

Portable Power Supply/Display Unit	
Weight:	
Power Supply / Display Unit	4.5 lbs / .5 lbs. (2.04 / 0.22 kg)
Dimensions	
Power Supply	9"Wx 10.25"Dx2.5"H (22.86 x 26 x 6.35 cm)

Display Unit 5½"W x 3¼"D x 1-3/8" (13.96 x 8.25 x 3.45 cm)

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

Wind	
Deployed (non-anchored)	35 mph
Stowed (anchored)	45 mph
Survival (anchored)	80 mpg
Temperature	
Operational	-30° to 125°F
Survival	-40° to 140°F
Designed to satisfy MIL-STD 810	

Specifications subject to change without notice.

TracStar Systems - Cobham SatCom