



TracStar1220P4K

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

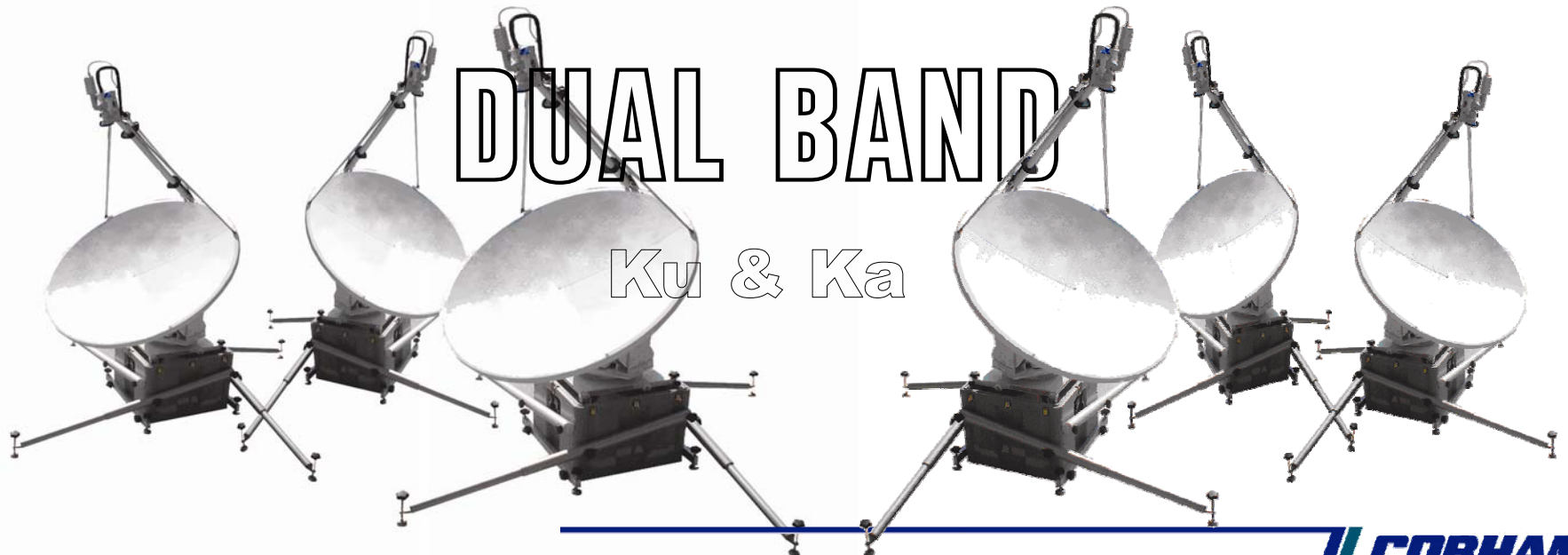
pause applications

With TracStar 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



TracStar1200P2 F&D

Reflector

Reflector Type	1.2M—4 Segment Carbon Fiber
Optics	Offset, Prime Focus, 0.8 F/D
Interchangeable Feeds	Ku LP, Ka LP, Ka CP
Positioner	Case-based Jack-in-the-Box
Az/EI Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization Adjustment	Motorized Rotation Feed
Military Standard	MIL-STD-188-164a Type E-V

Travel

Travel - Azimuth	400°
- Elevation: Operational	5-100° of boresight with 400° Az Travel
	0-100° of boresight with ±15° Az Travel
- Polarization	±95° for Linear Feeds, Adjustable within <1°

Travel Velocity

Speed - Slewing/Deploying	2°/second
- Peaking	0.2°/second
Electrical Interface	100 ft. IFL Cable
Emergency Drive	Handcrank on Az, EI; Knob on Pol

Ku-Band

	<u>Receive</u>	<u>Transmit</u>
Frequency	10.95-12.75 GHz	13.75-14.5 GHz
Gain (Midband)		
R/T	41.6 dBi	43.2 dBi
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	Better than FCC §25.209, ITU-R S-580-6	
Antenna Noise Temp	43° K at 30° Elevation	
Polarization	Linear Orthogonal standard, Optional Co-pol	
Power Handling Capability	0.5KW per port	
Cross-Pol Isolation		
On-Axis (minimum)	35 dB	35 dB
Off-Axis (within 1 dB BW)	30 dB	26 dB (35dB with Mode-matched)

Off-Axis (peak)	22 dB	22 dB (32dB with Mode-matched)
Feed Port Isolation – TX to RX		75 dB
Satellite System Compliance		FCC, Intelsat, and PanAmSat

Ka-Band

	<u>Receive</u>	<u>Transmit</u>
Frequency (Commercial)	17.7-20.2 GHz	27.5-30.0 Ghz
Frequency (Military)	20.2-21.2 Ghz	30.0-31.0 GHz
Polarization	Linear or circular, convertible to either RHCP or LHCP	
Gain (Midband)	46.0 dBi	49.3 dBi
Antenna Noise Temp @ 30°	50°K	
G/T with 100° LNB	24.1 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	

Controller

Auto-Acquisition	One-button deploy with full-automatic satellite acquisition, peaking, and cross-pol adjustment using GPS, compass, and level-sensor inputs; certified for auto-commission on certain satellite systems
Operator Interface	Front panel keyboard with 2-line display
Auto Positioning Accuracy	± 0.2°
Input Power	90/256 VAC, Single Phase, 50/60 Hz, 6/3A

Weights & Measures

Configuration - Rugged Cases		
Motorized Positioner	24" x 25" x 24"	145 lbs.
Outriggers/Feed Boom		
Ku-LP and Ka Feed	20" x 59" x 12"	105 lbs.
Reflector Panels	36" x 34" x 12"	110 lbs.

Environmental

Wind - Operational-mph	
Without anchoring	35 mph
With anchoring	45 mph
- Survival (anchored)	80 mph in zenith stowed position
Temperature - Operational	5° to 125°F
- Survival	-40°F to 140°F

TracStar Systems - Cobham SatCom

1551 College Park Business Center Rd • Orlando, FL 32804 • +407.650.9054 • FAX +407.650.9086 • <http://www.tracstar.net> • sales@tracstar.net
1220P4-3-07 © TracStar Systems, Inc. 2007 All Rights Reserved