

The most important thing we build is trust

### TracStar1000 Antenna System

The TracStar Series of vehicle-mount and fly-away antenna systems allows personnel with little or no satellite experience to operate mobile Very Small Aperture Terminal (VSAT) satellite communications equipment, enabling the user to remotely access any broadband application over satellite. This series of one-button-push, auto-acquiring systems are certified for commissioning on most satellite services and 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 the TracStar Series of antennas, users enjoy the same reliable, secure, high-speed IP based data communications they are accustomed to in the office, while mobile. Common mobile applications include anywhere/ anytime high-speed digital communications, internet/intranet access, voice and FAX communications, teleconferencing, wide area private network extension, and video broadcasting.

Standard features of the TracStar 1000 Vehicle-Mount Antenna System:

- Solid resin/fiber composite reflector
- Weatherproof, high-precision 1.0M VSAT terminal with offset, prime focus optical encoders.
- Mechanical Drive systems including Zero-Backlash Az/EI Cable Drive, Compact/Rugged Pol Worm Gear Drive, WR-75 Flex WaveGuide to BUC interface.
- Easy-to-deploy, auto-acquiring satellite Antenna Control Unit (ACU) with compact integration of GPS, compass, level sensors, data satellite configuration interfaces, power supply, and optional Handheld ACU display.
- Manual override capability for emergency use (hand-crankable Az/EI port, hand knob on Pol).



Antenna Characteristics	Ku Linear	
	Receive	Transmit
Frequency (GHz)	10.95-12.75	13.75-14.5
Antenna Gain (dBi ± 0.2)	39.9	41.4
VSWR	1.3:1	1.3:1
Beamwidth (degrees)		
-3dB	1.8	1.5
-10dB	3.2	2.8
Antenna Noise Temperature (°K)		
20° Elevation	55°	
First Sidelobe Level (Typical) dB	-26	-30
Radiation Pattern Compliance	FCC §25.209, ITU-R S.580	
Polarization	Linear Orthogonal Std Optional Co-pol	
Allowable Power	FCC -14dBw/4 kHz ITU -0 dBw/4kHz	
Cross Pol Isolation (dB) On-Axis	30	35
Cross Pol Isolation (dB) Off-Axis	28	30
Feed Port Isolation - Tx to Rx (dB)	35	80 w/filter

## Reflector

Size	1.0M Resin/Fiber Composite
Mount	3-Axis - Elevation over Azimuth
Polarization	Motorized Feed

## Travel

Azimuth	400° or ± 200° from Stow Position
El - Operational	0-90° (+) Stow Position
Polarization	± 95°

## Travel Velocity

Slewing / Deploying	
Azimuth	2° per second
Elevation	2° per second
Manual Jog	1.0° or 0.2° per second

## Electrical Interface

RF	75Ω Tx/Rx Type F Connector
Interfacility Link	32 ft. Twin RG6 Coax, 1 Data Cable
Motors	24 VDC Variable Speed w/Optical Encoders
Controller (1U)/Power Supply	50/60Hz, 110/220VAC, Single Phase
Power Consumption –Motors Active	300 Watts
Power Consumption –Motors Idle	20 Watts

## Weights & Measures

Approximate Weight (w/o BUC / LNB)	111 lbs	(50.35 kg)
Maximum Length with IFL Cables Connected	59"	(149.86 cm)

Height Stowed	15"	(38.1 cm)
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Portable Power Supply/Display Unit		
Weight	Power Supply ( CE Approved)	4.5 lbs
	Display Unit	0.5 lbs

## Antenna Control Unit Dimensions - Desktop

Power Supply	9"x 10.25"x2.5" (22.86 x 26 x 6.35 cm)
Display Unit	5 ½" x 3 ¼" x 1-3/8" (13.96 x 8.25 x 3.45 cm)

## Rack Mount (1RU)

Weight	4.5 lbs.	(2.04 kg)
Dimensions	19.0" x 8.0" x 1.75" (48.26 x 20.32 x 4.44 cm)	

## Environmental

Wind		
Survival Stowed	125 mph	(201.25 kph)
Operational	60 mph @ 60° F	(96.6 kph)
Temperature		
Operational		-20° F to 125° F
CW Option		-40° F to 125° F
Storage		-30° F to 150° F

Specifications subject to change without notice.

## Optional Upgrades and Services

- Handheld Display for Antenna Control Unit
- Rx/Tx Co-polarization kit
- BUC/High Powered Amp mounting (relative to minimum elevation requirements)
- Roof mounting kit
- Custom cabling I/O (RF/IF) and length configurations (50-200 feet in 25-ft increments), and colorization options
- Controller upgrades
- Spare parts and Field repair kits
- Authorized factory training

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