

# TracStar1800K

# COBHAM

## 1.8 Meter, Vehicle Mount Antenna System Data Specification

The most important thing we build is trust

### TracStar1800K 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 access any broadband application over satellite.

The TracStar Series of 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 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. 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 and video broadcasting.

### Reflector

Size 1.8 meter Single-skin Steel  
Ku Band Feed Corrugated Horn, .6 F/D  
Optics Offset, Prime Focus  
Drive System Patented Roto-Lok® Positioner  
Mount Geometry Elevation over Azimuth  
Polarization Adjustment Rotation of Feed

### Travel

Azimuth 400° or ± 200° from Stow Position  
El - Operational 0-65° of reflector boresight  
Polarization ± 95°  
Emergency Drive Handcrank on Az, El & Pol

### Travel Velocity

Slewing / Deploying (Ax/El)  
10.0° per second / 5.0° per second  
Peaking 0.2° per second  
Manual Jog 1.0° or 0.2° per second  
Manual Drive Handcrank on Az and El Axii,  
Leads from 12V DC Pol Motor

### Electrical Interface

RF 75Ω Tx/Rx Type F Connector  
(50Ω option)  
Interfacility Link 32 ft. (9.75M) Dual RG6 Coax,  
1 Control Cable  
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

### Antenna Characteristics

	Rx	Tx
Frequency (Ghz)	10.7 - 12.75	13.75 - 14.5
Gain (Midband) 2-port		
VSWR	45.0 dBi 1.30:1	46.5 dBi 1.30:1
Beamwidth		
-3 dB	0.9°	0.8°
-15 dB	1.9°	1.6°
First Sidelobe Level (Typical)	-18 dB	-20 dB
Radiation Pattern Compliance	FCC §25.209, ITU-R S-580-6	
Antenna Noise Temperature	43° K at 10° Elevation	
Polarization	Orthogonal standard, Optional Co-pol	
Power Handling Capability	40 watts at TX Port	
Cross-Pol Isolation		
On-Axis (minimum)	35 dB	35 dB
Off-Axis (w/in 1dB BW)	22dB	24 dB
Feed Port Isolation - TX to RX	-60 dB	

### Antenna Controller

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

### RF Interface

BUC Mounting Feed Boom or  
Rear of Reflector  
Waveguide WR 75 Groove Flange  
at Interface Point  
Coax RG6 from feed to base  
plus 32ft. (9.75M) Twin RG6 IFL Cable

### Weights & Measures

Weight 360lbs. (163 kgs)  
Stowed Dimensions w/o Feed  
103½" x 74¼" x 22"  
(263 x 189 x 56 cm)  
Stow Height w/Ku Band Feed 28" (71.11 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" x 10.25" x 2.5"  
(22.86 x 26 x 6.35 cm)  
Display Unit 5½" x 3¼" 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" x 8.0" x 1.75"  
(48.26 x 20.32 x 4.44 cm)

### Environmental

Wind - Survival  
Deployed 60 mph (96 kph)  
Stowed 80 mph (128 kph)  
- Operational 30 mph (48 kph),  
Gusts to 45 mph (72 kph)  
Pointing Loss in Winds  
20 mph (32 kph) 0.2 dB RMS, 0.2° Typical  
30 Gusting to 45 mph (48 to 72 kph)  
0.7 dB RMS, 0.4° Typical  
Temperature  
Operational ±5° to 125°F (-29° to 52° C)  
Survival -40° to 140°F (-40° to 60° C)

Specifications subject to change without notice.

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