

TracStar750P5

COBHAM

.75Meter, Vehicle Mount Antenna System Data Specification

The most important thing we build is trust

TracStar 750 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 MVS 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 TracStar's MVS Series 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 | 75cm Ku-band elliptical (90 cm wide x 66 cm high) |
| Optics | Offset, Prime Focus |
| Axis Drive System | 3-Axis: Polarization over Elevation over Azimuth Roto-Lok® |
| Mount Geometry | Elevation over Azimuth |
| Polarization | Reflector Rotation/feed aligns major axis with orbital arc |

Travel

| | |
|-------------------------|--|
| Azimuth | 180° |
| Elevation | True Elevation readout from calibrated inclinometer |
| Mechanical Polarization | 15° to 75° of Reflector Boresight Motorized ±75° with Manual H/V selection |

Travel Velocity

| | |
|---------------------|-------------------------|
| Slewing / Deploying | |
| Azimuth | 10° per second |
| Elevation | 5° per second |
| Polarization | 5° per second |
| Manual Jog | 1.0° or 0.2° per second |

Electrical Interface

| | |
|----------------------------------|---|
| RF Rx–L-band | with Type N at rear of antenna |
| Tx–Ku | with Type-N at feed flange |
| 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 | 250 Watts |
| Power Consumption–Idle | 20 Watts |

Antenna Characteristics

| | Rx | Tx |
|---------------------------------|--|---------------------------------------|
| Frequency (Ghz) | 10.95-12.75 | 13.75 - 14.5 |
| Gain (±2dBi) | 37.0 dBi @10.95Ghz | 39.3 dBi @14.25Ghz |
| VSWR | 1.30:1 | 1.30:1 |
| Beam width in Orbital Arc | | |
| -3dB | 1.8° | 1.6° |
| -10dB | 3.3° | 2.8° |
| Antenna Noise Temperature | | 55°K |
| Polarization | | Linear, Orthogonal |
| Cross-Pol Isolation | STD Feed | OPT Feed |
| On Axis | 30 dB | 35dB/35dB |
| Off Axis (within 0.3°) | 28dB | 28dB/32dB |
| First Sidelobe Level (typ) | -18dB | -21dB |
| TX Radiation Pattern Compliance | | >1.73° FCC \$25.209, ITU-R S-580-6 |
| Satellite System Compliance | FCC, PanAmSat, Intelsat, Eutelsat | |
| Satellite Approval | PanAmSat USA-8189 | |
| BUC/HPA Capacity | <25W / Separate Case via Coax to Feed | |

| | |
|------------------------------|--|
| Allowable Power | -14dBw/4kHz per FCC, -0dBw/4kHz per ITU |
| Feed Port Isolation Tx to Rx | 70dB |

Weights & Measures

| | |
|---|---|
| Approximate Weight (w/o BUC/ LNB) | 40 to 50 Lbs |
| - Case dependent | (18.14 to 22.67) |
| Stowed Sizes (Dual) | Carry On Suitcase and Cabin Baggage Sizes |
| Manual Operation | Handcranks on all axii |
| Deployed Height | 42" (106.67cm) |
| Case Dimensions | (2 Cases [Ant+Ref] and [Aux Equip]) 25" x 20" x 15" (63.5 x 5.8 x 38.1cm) |
| Antenna and Reflector | 66 lbs (29.93 kg) |
| Auxillary Equipment (Modem, Buc, LNB, Controller, Cables) | 40 lbs (18.14kg) |
| Portable Power Supply / Display Unit | |
| Weight | 4.5 lbs .5 lbs |
| Power Supply | 9" x 10.25" x 2.5" (22.86 x 26 x 6.35 cm) |
| Display Unit | 5 1/2" x 3 1/4" x 1-3/8" (13.96 x 8.25 x 3.45 cm) |
| Rack Mount (1RU) | |
| Weight | 4.5 lbs (1.98 kg) |
| Dimensions | 19" x 8.0" x 1.75" (48.26 x 20.32 x 4.44 cm) |

Antenna Controller

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

Environmental

| | |
|--|----------------------------------|
| Wind—Survival - weighted | |
| 30 mph gusting to 45 mph (38.3 to 72.45 kph) | |
| Operational | 20 mph (32.2 kph) |
| Pointing loss in 10 mph Wind 0.1db, 0.1° typical | |
| Pointing loss in 20 mph Wind 0.2db, 0.2° typical | |
| Temperature—Operational | +15° F to 125° F |
| Survival | -40° F to 140° F |
| Sand and Dust | Method 510.4 per MIL-STD-810F |
| Humidity | Method 507.4 per MIL-STD-810F |
| Solar Radiation | Method 505.4 per MIL-STD-810F |

Specifications subject to change without notice.

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