

.45 Meter, Vehicle Mount In-Motion Antenna System Data Specification

The most important thing we build is trust

TracStar i450M Antenna System

The iMVS Series from TracStar is built to track a single satellite while mounted on a stationary or moving vehicle traveling over improved or unimproved road conditions.

Users now have the freedom and flexibility to move quickly Anywhere/Anytime on the road using a communications terminal that is very responsive and Internet/Intranet compatible.

The iMVS Series terminals are used for:

- Military wheeled or tracked vehicles
- Federal, State and Public Safety agencies for law enforcement, emergency response and home-land security communications
- Enterprise Organizations
- Trains, boats, limos, RV's and SUV's
- News Gathering and Multi-Media production crews



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

- Secure digital communications up to 2 Mbps
- High-speed Internet access
- VoIP communications
- Teleconferencing
- Wide area private network extension
- Video broadcasting

TracStar uses:

- Electromechanically steered AZ, EL, & POL Axi
- No Special Test Equipment for alignment
- No Computers or peripheral equipment to operate the antenna



- No external INU
- No Phone calls to network operators or service providers
- Control software from Commercial Markets

Every antenna comes equipped with the following standard equipment:

- Tracking antenna and LNB (HPA Optional)
- Built-in Attitude, Heading and Rate Sensors
- Power Interface Unit and Interface Cables
- Adjacent Satellite Transmit Mute Protection

Reflector/Pedestal

Size	45 cm Elliptical Equivalent
Mount Geometry	Elevation over Azimuth
Polarization	Linear Phase Shift

Travel

Azimuth	360° continuous
Elevation	20-70°
Polarization	±95°

Tracking

Acceleration	>200°/s ²
Velocity	>100°/s
Meets FCC Part 25.222	

Interfaces

RF	Tx / Rx 50 ohm at 950-2150 MHz
ACU	25 ft. Cable with Connectors
Power	120VAC, 500 watts, 5 amps (max.)
Modem	RS-232
Graphic	2-Line Menu Display

Antenna Characteristics

Transmit Frequency	13.75–14.5 GHz
Receive Frequency	10.95–12.75 GHz
EIRP (Typical with Radome)	
25 Watt	46.5 dBw
40 Watt	48.6 dBw
80 Watt	51.6 dBw
G/T (Typical with Radome)	11.5 dB/K

System Performance

Transmit	*Up to 4Mbps
Receive	*Up to 45 Mbps
*Data Rate Performance is a function of the satellite Link (Beam EIRP & G/T) and modem configuration. Maximum EIRP Density Allowed without Waivers	
FCC	13.5 dBw/4Khz
ITU	19.5 dBw/4Khz

Weights & Measures

Antenna System	
Weight (25W or 40W BUC included)	142 lbs (64.4kg)
Dimensions	45" x 11.5" (114.3 x 29.2cm)
Portable Power Supply/Display Unit	
Display Unit Only	
Weight	0.5 lbs (.22kg)
Dimensions	5 1/2" x 3 1/4" x 1-3/8" (114.3 x 29.2 cm)
Rack Mount (1RU) Unit	
Weight	8.0 lbs (3.6 kg)
Dimensions	19.0" x 8.0" x 1.75" (48.2 x 34.2 x 4.4 cm)

Antenna Controller

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

Environmental

Wind	100 mph (153 Kph)
Temperature	
Operational	-30° C - 50° C
Non-operational	-40° C - 50° C
Humidity	100% at -30° C - +30° C
Altitude	15,000'
Rain	2"/hr at 40 mph
Shock and Vibration	Tested to MIL-STD-810F 514.5 Category 4

Specifications subject to change without notice.

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