

.96Meter, Vehicle Mount Antenna System Data Specification

The most important thing we build is trust

TracStar960 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	96cm Ku-band round
Mount	3-Axis: Polarization over Elevation over Azimuth
Polarization	Rotation of Reflector/ Feed System about bore sight

Travel

Azimuth	400° or ± 200° from Stow Position
EI - Operational	0-65° (+) Stow Position
Polarization	± 55° or ± 95°

Travel Velocity

Slewing / Deploying	
Azimuth	10° per second
Elevation	5° 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

Antenna Characteristics

	Rx	Tx
Frequency (Ghz)	10.7 - 12.75	13.75 - 14.5
Gain (±2dBi) Midband @ 11.95Ghz	39.7 dBi	41.2 dBi
Beam width in Orbital Arc -3dB	1.8°@12.0Ghz	1.5°@14.3Ghz
Antenna Noise Temperature	50°K at 10° Elevation 39°K at 20° Elevation 32°K at 30° Elevation	
Antenna Cross-Polarization	≥30dB in 1 dB Contour	
Radiation Pattern Compliance	FCC §25.209, ITU-R S-580-6	
VSWR	1.3:1 Max	
Isolation	35dB Min	70dB Min
Feed Interface	WR75 cover Flange (UBR120)	

Weights & Measures

Approximate Weight (w/o BUC / LNB)	109 lbs (49.42 kg)
Maximum Length with IFL Cables Connected	59" (149.86 cm)
Height	
Stowed	Standard Configuration 14.25" (36.2 cm) Low Rider Configuration 15" (38.1 cm)
Deployed	55.0" (139.7 cm)
Portable Power Supply/Display Unit	
Weight	Power Supply (CE Approved) 4.5 lbs Display Unit 0.5 lbs
Dimensions -	
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. (2.04 kg)
Dimensions	19.0" 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

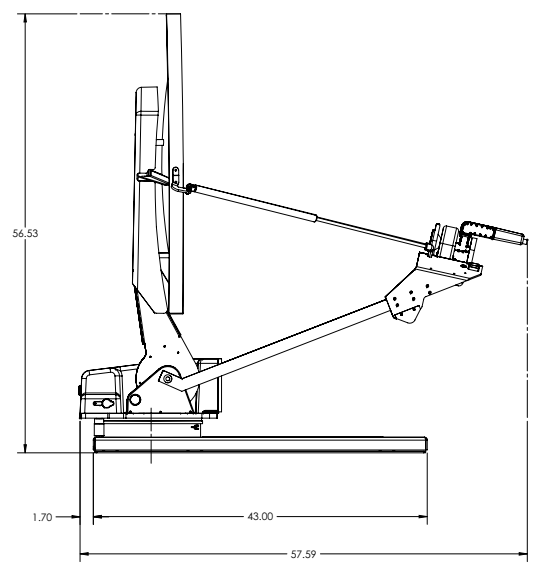
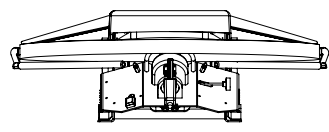
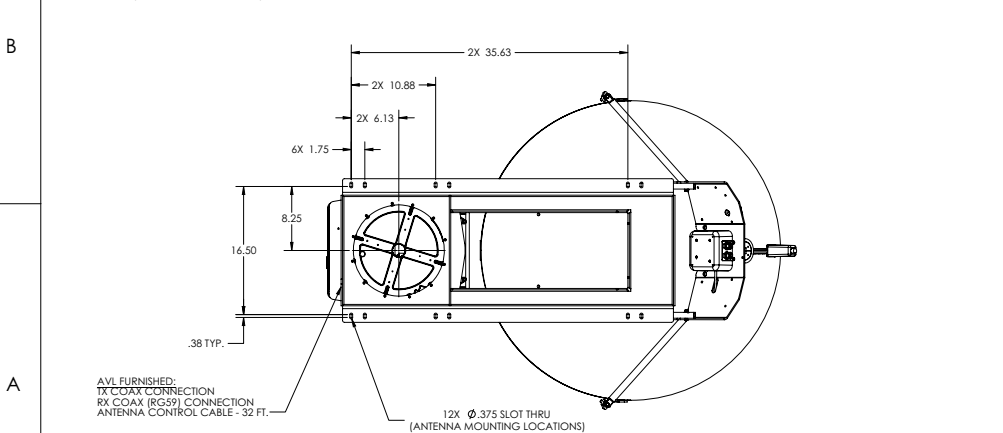
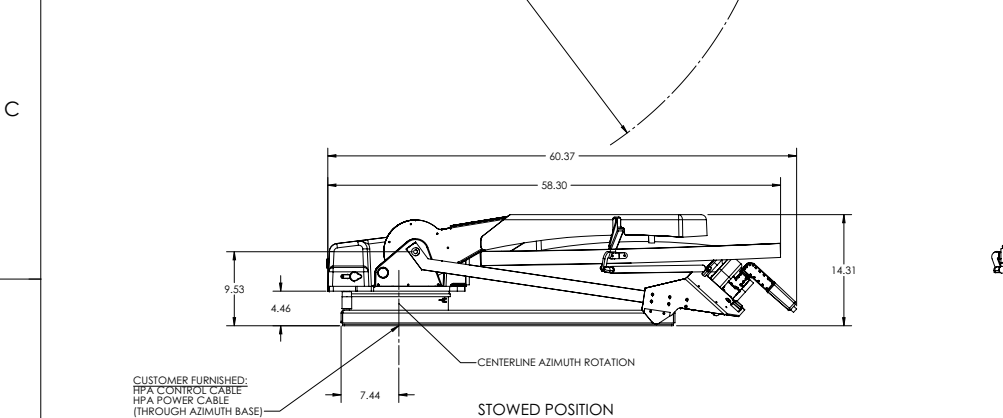
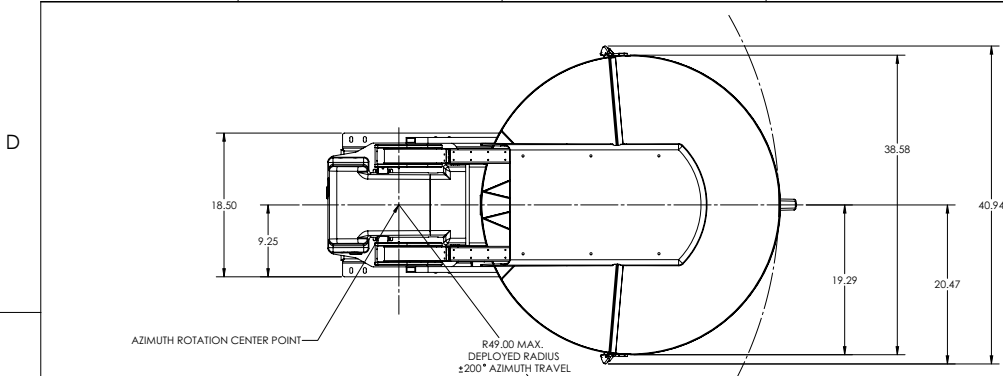
Wind	
Survival Stowed	125 mph (201.25 kph)
Operational	60 mph @ 60° F (96.6 kph)
Temperature	
Operational	-20° F to 125° F
CW Option	-40° F to 125° F
Storage	-30° F to 150° F

Specifications subject to change without notice.

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REVISIONS				
REV.	ECN	DESCRIPTION	APPROVED	DATE
01		INITIAL RELEASE	VBR	11/6/2008



DEPLOYED POSITION

NOTES:
 1. ANTENNA OUTLINE DRAWING ONLY. FOR ENGINEERING DRAWINGS CONTACT AVL TECHNOLOGIES.
 2. ANTENNA WEIGHT = 110 LBS. TO 120 LBS. DEPENDING ON OPTIONS.

QTY PER DASH NO.		PARTS LIST		AVL CONFIDENTIAL AND PROPRIETARY	
<input type="checkbox"/> DO NOT IDENTIFY PER MIL-STD-130 AND ES-001/013 <input type="checkbox"/> RUBBER STAMP <input type="checkbox"/> BAG/TAG <input type="checkbox"/> ENGRAVE <input type="checkbox"/> SILK SCREEN <input type="checkbox"/> STEEL STAMP <input type="checkbox"/> SEE NOTE CHARACTER HEIGHT .13 CHARACTER COLOR BLK LOCATE APPROX AS SHOWN	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES-TOLERANCES ON: FRACTIONS DECIMALS ANGLES ± .03 ± .003 ± .005 ± 1/2°	CONTRACT NUMBER		AVL TECHNOLOGIES ASHEVILLE, NC 960-09 ANTENNA	
MATERIAL: N/A	VBR	4/30/08	DATE	TITLE	
FINISH: N/A	VBR	4/30/08	DATE	SIZE	REV
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		SCALE 1:8	WEIGHT	SHEET	1 OF 1

