

# AvL TECHNOLOGIES

## Model 1.2m 1268 FA Mobile VSAT Motorized Transportable FlyAway Antenna

- Unique Features**
- 1.2m 4-piece AvL Carbon Fiber Reflector
  - Case-based positioner
  - 15-Minute Setup; One-Button Auto-Acquisition
  - 2-Port Ku Precision (standard Cross-Pol comp.)
  - 2-Port Ku Mode-Match (enhanced Cross-Pol comp.)
  - MIL-STD-188-164a Type E-V
  - Motorized Rotation of Feed
  - White, OD Green or Desert Tan (optional colors available)

**Standard Rx/Tx Feed**

**Optional Rx/Tx Feeds**

**Military Standard**

**Polarization Adjustment**

**Standard Colorization**



### Mechanical

Az/EI Drive	Motorized AvL Low Backlash Cable Drive System (Patent Pending)
Polarization Drive System	Motorized Rotation of Feed
Reflector Construction	1.2m Segmented 4-piece Carbon Fiber
Axis Travel	
Azimuth	±200°
Elevation (reflector boresight)	0°-95° of boresight
Polarization	±91° for Linear Feeds, Adjustable within <1°
Az/EI Speed	
Slewing/Deploying (typical)	2°/second
Peaking (typical)	0.2°/second
Tracking (typical)	0.1°/second
Motors	24V DC variable speed, constant torque
Interfaces	
BUC Mounting	Feed boom or behind reflector (additional CFE case or optional case required)
RF	Std. 50 ohm Coax (2) at base, cover flange at feed Tx port
Electrical	30 ft. cable with connectors for controller
Manual/Emergency Drive	Handcrank for Az and EI, knob on pol axis
Configuration	Rugged cases
Motorized Positioner	22" x 21" x 23"; less than 165 lbs.
Outriggers/Feed Boom/ Reflector	43" x 28" x 21; less than 110 lbs.
Set-up Time	Less than 15 minutes

### Environmental

Wind – Survival (anchored)	80 mph in zenith stowed position
Wind – Operational	
Without Anchoring	30 mph
With Anchoring	30 mph gusting to 45 mph
Temperature:	
Operational	-22° to 125°F (-30° to 52°C)
Survival	-40° to 140°F (-40° to 60°C)

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### RF/Electrical

Feed Type ►	Std. 2-Port Precision Ku	
RF Parameter ▼	Receive	Transmit
Frequency Range (GHz)	10.95-12.75 GHz	13.75-14.5 GHz
Polarization Configuration	Linear Orthogonal standard, Optional Co-pol	
Gain (mid-band)	41.6 dBi	43.1 dBi
Beamwidth (midband)		
-3 dB	1.5	1.2
-10 dB	2.7	2.3
Radiation Pattern Compliance	FCC §25.209, ITU-R S.580	
Antenna Noise Temp.	54° K at 20° Elevation, 11.85 GHz	
Power Handling Capability	0.5KW per port	
VSWR	1.30:1	1.30:1
Cross-Polarization Isolation		
On Axis (minimum)	35 dB	35 dB
Off Axis ( within 1 dB BW )	27 dB	28 dB (35dB with Mode-matched)
Port-to-Port Isolation	35 dB	85 dB
Satellite System Compliance	FCC, Intelsat and PanAmSat	

### Controller

Feature ▼	Controller Type ►	Std. Auto-Acquire with Opt. Ethernet IP Interface	Opt. Enhanced Auto-Acquire with Ethernet IP Interface
Standard Features		Fully-automatic satellite acquisition, with automatic azimuth, elevation and cross-polarization peaking; includes on-board, one-button deploy/acquire interface for pre-configured systems; includes on-board GPS, electronic compass, level sensors and auto-compensation; customer-configurable satellite list. <i>Note: Beacon Receiver or Modem as acquisition signal source may be required for non-commercial satellites.</i>	
Integration		Embedded w/ Handheld, incl. Shelf-Mount P/S (optional 1RU w/ front-panel keypad + integral P/S)	Embedded w/ Ethernet IP Interface (P/S optional) (optional rack-mount P/S available)
User Interface		Menu-driven display w/ keypad	Intelligent/simple GUI for on-board or remote CFE laptop
Input Power		115/230 VAC (at rack); up to 200W	28V DC (at antenna positioner); optional 115/230 VAC rack-mount power supply; up to 200W
Software Upgrades/Options		Inclined orbit tracking (using step-track or TLE track); automatic band sensing	Inclined orbit tracking (using step-track, memory track, or TLE track); automatic band sensing

### Available Options, Upgrades & Services

- BUC/HPA mounting
- Optional 75 ohm coax
- Waveguide interconnect options
- Beacon receiver – inclined orbit tracking – resolvers/upgrade
- Grounding options (lightning conductor)
- Anchoring kit options
- Custom logo on reflector face (1- or 2-color; per AvL Logo Policy)
- Controller options – see above
- Spare parts kit