

Model 1080FA 1.2m Mobile VSAT FlyAway Dual-Band Motorized Transportable Antenna

- Unique Features**
 - 1.2m 2-Piece AvL Engineered Composite Reflector
 - Optional 1.2m 4-Piece Reflector
 - Compact Elevation-over-Azimuth Cable Drive Positioner
 - 2 Case Configuration
 - 10-Minute Setup; "One-Button" Auto-Acquisition
- Standard Rx/Tx Feed**
 - 2-Port Ka-Band
- Optional Rx/Tx Feeds**
 - 2-Port Ku-Band Precision
- Optional Integration Support Configurations**
 - Custom BUC Integration
 - Universal BUC Tray
 - FlyAway – Case-Based
 - Fly&Drive with field-installable roof-mount kit
- Market Solutions**
 - Mobile Broadband Internet Access
 - Satellite News Gathering
 - Disaster Relief
 - Oil & Gas Backhaul
 - Defense & Homeland Security
- Polarization Adjustment Standard Colorization**
 - Compact/Rugged Gear Drive
 - AvL Metallic Grey (optional colors available)



Photo Display: 1.2m 4-piece Reflector

Mechanical

Az/El Drive	Motorized AvL Zero Backlash Cable Drive (Patent Pending)
Polarization	RHCP/LHCP Pol Select Option Available
Reflector Construction	Single Piece Carbon Fiber
Axis Travel	Azimuth: 400° (±200°) Elevation: 0-90° antenna bore sight (true elevation from calibrated inclinometer)
Az/El Speed	Slewing/Deploying: Typical: Elevation 1°/second, Azimuth 2°/second
Motors	24 VDC Variable Speed, Constant Torque
Interface	Type F connector(s) at antenna base or 25 ft. (7.6m) Coax from Base
Electrical Interface	One 25 ft. (7.6m) cable with connector from base connector panel to controller
Manual/Emergency Drive	Hand crank for az and el axes
Time to Acquisition	Less than 15 minutes; 8 minutes typical
Size/Weight – Std. Positioner Case	26.0 L x 22.6 W x 21.5 H inches (66 L x 57 W x 55 H cm), weighs approx. 95 lbs. (43 kg)
Size/Weight	
Std. 2 Piece Reflector Case	52.8 L x 33.0 W x 14.2 H inches (134 L x 84 W x 36 H cm), weighs approx. 160 lbs. (73 kg)
Opt. 4 Piece Reflector Case	46.5 L x 37.8 W x 16.3 H inches (118 L x 96 W x 41 H cm), weighs approx. 160 lbs. (73 kg)

Environmental

Wind – Survival	Anchored: deployed: 50 mph (80 kph), stowed (Fly&Drive option only): 100 mph (161 kph)
Wind – Operational	Anchored: 40 mph (64 kph)
Pointing Loss in Wind - Ka (Rx) 30 mph gusting to 45 mph (48 kph gusting to 72 kph)	1.0 dB typical
Temperature:	Operational: +5° to 125° F (-15° to 52° C) Survival: -40° to 140° F (-40° to 60° C)

AvL TECHNOLOGIES

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RF/Electrical

Feed Type ►	Std. 2-Port Ka-Band		Opt. 2-Port Ku-Band Precision	
	Receive	Transmit	Receive	Transmit
Frequency Range (GHz)	19.7 - 20.20	29.5 - 30.0	10.95–12.75	13.75-14.50
Polarization Configuration	RHCP or LHCP		Linear – orthogonal (H/V)	
Gain (mid-band) @ Horn Interface (dBi)	45.9	48.9	41.6 dBi	43.1 dBi
Beam width (degrees)	-3 dB -10 dB	0.9 1.6	1.5° 2.7°	1.2° 2.2°
Radiation Pattern Compliance	FCC 25.209, ITU-R S.580.6		FCC 25.209 and ITU-RS-580-6 Eutelsat	
Antenna Noise Temperature (midband 20°el)	107° K		54°K	
G/T (mid-band, clear horizon) assuming 100 K LNB (dB/K)	22.7			
Power Handling Capability		50W		
VSWR @ Horn Interface	1.30:1	1.30:1	1.30:1	1.30:1
Feed Type	Integral Feed/ Polarizer/OMT/Transceiver		Integral Feed/ Polarizer/OMT/Transceiver	
Axial Ratio	Feed Dependent		Feed Dependent	
Cross-Polarization Isolation	Feed Dependent		Feed Dependent	
Feed Port Isolation – Tx to Rx	Feed Dependent		Feed Dependent	

Controller

Controller ►	AvL AAQ
Features	AvL one button auto-acquisition of selected satellites, including peaking and optimization of cross pol. Internal movement detector and automatic stow. Optional hand-held control and separate power supply. Certified for auto-commissioning on most satellite services.
Size	Embedded ACU with separate 1 Rack Unit Controller Interface Panel (CIP) power supply with LCD and keypad. 250 W and 500 W (1.6m and larger antennas) versions available.
CIP Input Power	120/240 VAC 60/50 Hz, 6/3 A Max. Power consumption is antenna size dependent: During acquisition 150 W or 300 W is typical, ~ 50 W Idle.

Optional Configurations, Upgrades & Services

- Optional 4-piece segmented reflector
- Upgrade to BUC/HPA Mounting (minimum elevation may be restricted)
- Upgrade to Custom RF/IF I/O cabling configurations available
- Custom Colorization (contact factory for available colors)
- Add Custom Logo on Reflector Face (1- or 2-Color; per AvL Logo Policy)
- Spare Parts Kit
- Factory training
- Field-installable roof-mount kit
- Hard Mount pack-up (no foam)
- Optional 3 case pack-up
- Roto-mold case upgrade
- Weight reduction option

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