AvL TECHNOLOGIES

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	• Custom BUC Integration • Universal BUC Tray
Configurations	• 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	Compact/Rugged Gear Drive
Standard Colorization	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 0.1°/second, Azimuth 2º/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		21.5" H x 22.6" W x 26.0" L (55cm H x 58cm W x 66cm L), weighs approx. 95 lbs. (43 kg)
Size/Weight		
Std. 2 Piece Reflector Case		14.2" H x 33.0" W x 52.8" L (36cm H x 84cm W x 134cm L), weighs approx. 160 lbs. (73 kg)
Opt. 4 Piece Reflector Case		16.3" H x 37.5" W x 46.5" L (41cm H x 95cm W x 118cm L), 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)

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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)	46.1	49.6	41.6 dBi	43.1 dBi
Beam width (degrees) -3 dB	0.9	0.6	1.5°	1.2°
-10 dB	1.6	1.1	2.7°	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)	22.8			
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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All specifications subject to change without notice.
Rev. 7-29-2015