AvL TECHNOLOGIES

Model 1.2m 1098FA
Mobile VSAT FlyAway Ku-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
- Case-Based System; 2 Case Configuration
- 10-Minute Setup; “One-Button” Auto-Acquisition

Standard Rx/Tx Feed
- 2-Port Ku-Band Precision

Optional Integration Support
- Custom BUC Integration
- Universal BUC Tray

Polarization Adjustment
- Compact/Rugged Gear Drive

Standard Colorization
- AvL Metallic Grey (optional colors available)

Mechanical

Az/El Drive	Motorized AvL Zero Backlash Cable Drive System (Patent Pending)
Polarization Drive System	Motorized Worm Gear
Reflector Construction	1.2m 2-Piece AvL Engineered Composite
Axis Travel	
Azimuth	400° (±200°)
Elevation (reflector bore sight)	0°-90° antenna bore sight (true elevation readout from calibrated inclinometer)
Polarization	± 95°
Az/El Speed	
Slewing/Deploying (typical)	2°/second azimuth; 2°/second elevation; 2°/second polarization
Peaking	0.2°/second
Motors	24V DC variable speed, constant torque
Standard Integration Interfaces	
Tx Input @ Feed	Ku: WR 75 Cover Flange at Feed Tx Port; Type F coax from BUC to base
Rx Input (AvL-supplied coax)	Type F coax from LNB to base
BUC (& other CFE) Mounting	Feed boom (maximum weight 16 lbs. (7.3 kg))
Controller Interface	One 30-ft. (9.1m) cable with connector from base connector panel to controller
Manual/Emergency Drive	Common hand crank for azimuth, elevation and polarization axes
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 (Ku RX):	
20 mph (32 kph)	0.7 dB typical
25 gusting 40 mph (40/64kph)	1.5 dB typical
Temperature:	
Operational	-22°F to 125°F (-30°C to 52°C)
Survival	-40°F to 140°F (-40°C to 60°C)

AvL TECHNOLOGIES

Model 1.2m 1098FA Mobile VSAT FlyAway Ku-Band Motorized Transportable Antenna

RF/Electrical

Feed Type ►	Std. 2-Port Precision Ku	
RF Parameter ▼	**Receive**	**Transmit**
Frequency Range (GHz)	10.95–12.75	13.75-14.50
Polarization Configuration	Linear – orthogonal (H/V)	
Gain (mid-band)	41.6 dBi	43.1 dBi
-3dB Beam width (Degrees)	1.5°	1.2°
-10dB Beam width (Degrees)	2.7°	2.2°
Radiation Pattern Compliance	FCC 25.209 and ITU-RS-580-6 Eutelsat	
Antenna Noise Temp. (mid-band, 20° el)	54K	--
Maximum Feed Transmit (Tx) Power	--	FCC: -14 dBw/4 kHz ITU: -0 dBw/4 kHz
VSWR	1.30:1	1.30:1
Axial Ratio (Ka and X only, within pointing cone)	--	--
Cross-Polarization Isolation		
On Axis (minimum)	35 dB	35 dB
Off Axis (within 1 dB BW)	27 dB	28 dB
Feed Port Isolation (Tx to Rx)	35 dB	80 dB

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

Available Options, Upgrades & Services

Reflector configurations	Standard: 1.2m 2-piece segmentation	Upgrade: 1.2m 4-piece segmented
Standard Feed	Standard: 2-Port Precision Ku-band	
Mechanical upgrades		Upgrade: BUC/HPA Mounting (minimum elevation may be restricted)
RF/Electrical upgrades		Upgrade: Custom RF/IF I/O cabling configurations
Control System upgrades	Standard: TracStar Auto-Acquire	Upgrade: AvL AAQ
Customization options	Standard colorization: AvL Metallic Grey	Upgrade: custom colorization and/or custom logo on reflector
Additional options & services		Power Supply for AAQ Controller
		Spare Parts Kit
		Factory Training
		Fly and Drive Upgrade Kit
Pack-up configurations	Standard: 2 Case Foam Pack-Up	Upgrade: Hard Mount 2 Case Pack-Up

Request A Quote