

Model 1080FA 1.0m Mobile VSAT FlyAway Dual-Band Motorized Transportable Antenna

- Unique Features**
- 1.0m Single Piece AvL Engineered Composite Reflector
 - Optional 1.0m 2-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

- Custom BUC Integration

Support Configurations

- Universal BUC Tray

Market Solutions

- FlyAway – Case-Based
- Fly&Drive with field-installable roof-mount kit

- Mobile Broadband Internet Access

- Satellite News Gathering

- Disaster Relief

- Oil & Gas Backhaul

- Defense & Homeland Security

Polarization Adjustment

Standard Colorization AvL Metallic Grey (optional colors available)



Mechanical

| | |
|------------------------------------|--|
| Az/EI 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/EI 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. Reflector Case | 44.5 L x 42.8 W x 12.0 H inches (113 L x 109 W x 30.5 H cm), weighs approx. 146 lbs. (66 kg) |
| Opt. 2-Piece Reflector Case | 46 L x 29.3 W x 13.5 H inches (117 L x 74 W x 34 H cm), weighs approx. 146 lbs. (66 kg) |

Environmental

| | |
|---|---|
| Wind – Survival | Anchored: deployed: 60 mph (97 kph), stowed (Fly&Drive only): 100 mph (161 kph) |
| Wind – Operational | Anchored: 45 mph (72 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 | -25° to 125° F (-32° to 52° C) |
| Survival | -40° to 140° F (-40° to 60° C) |

AvL TECHNOLOGIES

Model 1080FA 1.0m Mobile VSAT FlyAway Dual-Band Motorized Transportable Antenna

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) | 44.3 | 47.3 | 40.0 dBi | 41.5 dBi |
| Beam width (degrees) | -3 dB -10 dB | 1.1 1.9 | 0.7 1.3 | 1.8° 1.5° 3.2° 2.8° |
| Radiation Pattern Compliance | FCC 25.209 and ITU-R S.580.6 | | FCC 25.209, ITU-RS-580-6 and Eutelsat | |
| Antenna Noise Temperature (midband 20°el) | 107° K | | 55°K | |
| G/T (mid-band, clear horizon) assuming 100 K LNB (dB/K) | 21.0 | | | |
| Power Handling Capability | 50W | | | |
| VSWR @ Horn Interface | 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 2-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

Request A Quote