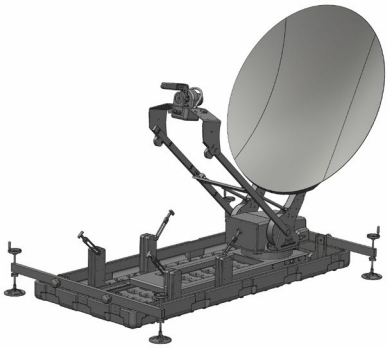
AvL TECHNOLOGIES

Model 1258KFD Mobile VSAT
1.2m Motorized Fly&Drive
Transportable Antenna



Unique Features
- 1.2m AvL Engineered Composite 3-Piece Reflector
- Motorized AvL Az/El Compact Cable Drive Positioner
- Offset, Prime Focus Optics
- 2-Port Ku "Precision" (standard Cross-Pol comp.)
- AvL Auto-Acquisition Controller w/ Web Browser GUI
- Dual-Mode Configuration: 1-Case Pack-Up with Removable Outriggers for Ground/FlyAway Mode

Standard Interfaces
- 75-ohm Embedded IF Cabling
- 25-ft. (50-ohm) Remote IF Cable Kit
- I/O Panel for Remote IF & Cabling

Options
- Universal BUC Mounting Kit
- 50-ohm Embedded (& Remote) IF Cabling/Connectors
- Enhanced Cross-Pol 2-Port Ku (Mode-Matched) Feed
- Custom Reflector Logo
- 100' control/IF cables on reel

Mechanical

Az/El Drive	Motorized AvL Zero Backlash Cable Drive (Patent Pending)
Polarization Drive System	Motorized Worm Gear Drive
Reflector Construction	1.2m 3-Piece AvL Engineered Composite
Axis Travel	
Azimuth	400° (± 200°)
Elevation	5°-90° (reflector bore sight from calibrated inclinometer)
Polarization	± 95°
Az/El Speed	
Slewing/Deploying (typical)	2°/second az (typical); 1°/second el (typical)
Peaking	0.2°/second (typical)
Motors	24V DC variable speed, constant torque
RF Interface	
Feed Tx Input	WR75 Waveguide @ Feed TX Input (Cover Flange)
Coax	Rx and Tx: Type F (75-ohm) connectors on panel at antenna base
BUC Mounting (Optional)	Feed boom (maximum weight 15 lb.)
Controller Interface	One 25-ft. cable with connector from base connector panel to controller
Manual/Emergency Drive	Common handcrank for az, el, and pol axes
Case Transport Weight (w/ Lid)	Approximately 240 lbs. (excludes CFE equipment: BUC, modem, LNB, etc.)
Case Transport Dimensions	75.4" L x 33.4" W x 28.0" H (191.5cm L x 85cm W x 71.1cm H)
Time to Acquisition	Less than 10 minutes, 5 minutes typical

Environmental

Wind – Survival	Deployed/Anchored: Stowed/Anchored:	65 mph (105 kph) 80 mph (128 kph)
Wind - Operational	Without Anchoring: With Anchoring:	Gusts to 30 mph (48 kph) 30 gusting to 45 mph (48g72 kph)
Pointing Loss in Wind (Ku RX):		
20 mph (32 kph)	1.0 dB (typical)	
30 mph gusting to 45 mph (48 kph gusting to 72 kph)	2.0 dB (typical)	
Temperature:		
Operational	-22°F to 125°F (-30° to 52°C)	
Survival	-40°F to 140°F (-40° to 60°C)	

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RF/Electrical

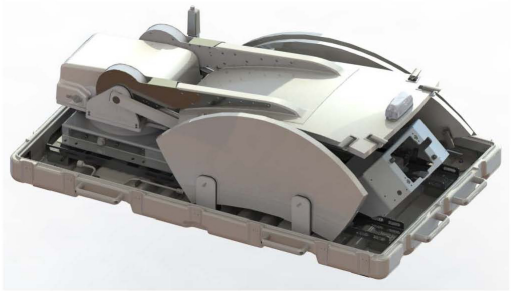
Feed Type ►	Std. 2-Port Precision Ku	
RF Parameter ▼	**Receive**	**Transmit**
Frequency Range (GHz)	10.95 – 12.75 GHz	13.75-14.50 GHz
Gain (mid-band)	42.0 dBi	43.2 dBi
VSWR	1.30:1	1.30:1
Beam width		
-3 dB	1.4°	1.2°
-10 dB	2.5°	2.1°
Radiation Pattern Compliance	FCC § 25.209, ITU-R S.580-6	
Antenna Noise Temp.	54K at 20° elevation, 11.85 GHz	n/a
G/T (50˚ LNB, midband, clear horizon)	21.5 dB/˚ K	n/a
Polarization Type	Linear orthogonal	
Allowable Power		
FCC	n/a	-14 dBw / 4 kHz
ITU	n/a	-0 dBw / 4 kHz
Cross-Polarization Isolation		
On Axis (minimum)	30 dB	35 dB
Off Axis (within 1 dB BW)	28 dB	30 dB
Feed Port Isolation	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
CIP Input Power	120/240 VAC 60/50 Hz, 6/3 A Max. Power consumption is antenna size dependent: During acquisition 150 W, ~ 50 W Idle

Available Options, Upgrades & Services

- ☐ Universal BUC Mounting Kit
- ☐ 50-ohm Embedded (& 25-ft. Remote) IF Cabling/Connectors
- ☐ Increased (50-ft) Remote IF Cable Length (std. 50- or opt. 75-ohm)
- ☐ Enhanced Cross-Pol 2-Port Ku (Mode-Matched) Feed
- ☐ Custom Reflector Logo
- ☐ Custom RF/IF I/O cabling configurations available
- ☐ Recommended Spare Parts Kit
- ☐ Extended Warranty



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