

AvL TECHNOLOGIES

Model 1278 Mobile VSAT 1.2m Motorized Transportable Vehicle-Mount Antenna

- Unique Features**
- 1.2m AvL Engineered Composite Reflector
 - Zero Backlash AvL Cable Drive
 - Compact/Rugged Pol Gear Drive
 - Rotary Joint on Pol Axis with Flex W/G to BUC
 - “One-Button” Auto-Acquisition
 - 2-Port Ku “Precision” (standard Cross-Pol comp.)
 - 2-Port Ku “Mode-Match” (enhanced Cross-Pol comp.)
- Standard Rx/Tx Feed**
- Optional Rx/Tx Feeds**
- Motorized Worm Gear Drive
 - AvL Metallic Gray (optional colors available)
 - 3-year warranty on Mobile VSAT products
- Polarization Adjustment**
- Standard Colorization**
- Warranty**



Mechanical

Az/EI Drive	Motorized AvL Zero Backlash Cable Drive (Patent Pending)
Polarization Drive System	Motorized Worm Gear Drive
Reflector Construction	1.2m Single Piece AvL Engineered Composite
Axis Travel	
Azimuth	400° (±200°)
Elevation	0-90° antenna boresight
Mechanical	
Electrical	Standard limits at 5° to 65° (CE Approval) or 0° to 90°
Polarization	±95°
Az/EI Speed	
Slewing/Deploying (typical)	2°/second
Peaking (typical)	0.2°/second
Motors	24 VDC Variable Speed, Constant Torque
RF Interface	
BUC Mounting	Feed boom, 25 lbs. max. weight
Waveguide	Flex waveguide from feed with O-ring groove
Coax	Two Type F connectors at antenna base
Electrical Interface	One 32 ft. cable with connectors to controller
Manual/Emergency Drive	Handcrank on Az and EI axes, hand knob on Pol
Weight (approximate)	155 to 185 lbs. (70.5 to 84 kg) depending on options
Stowed Dimensions	68.5 L x 48 W x 19.6 H inches (174 L x 122 W x 49.8 H cm)
Time to Acquisition	Less than 10 minutes, 8 minutes typical
Mounting	Pallet for vehicle roof mounting

Environmental

Wind – Survival	Deployed: 65 mph (105 kph); Stowed: 80 mph (129 kph)
Wind - Operational	45 mph (72 kph)
Pointing Loss in Wind (Ku RX):	
20 mph (32 kph)	0.5 dB typical
30 mph gusting to 45 mph (48 kph gusting to 56 kph)	1.0 dB typical
Temperature:	
Operational	-25° to 125° F (-31° to 52° C)
Survival	-40° 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	13.75 - 14.50
Polarization Configuration	Linear orthogonal standard, optional co-pol	
Gain (mid-band) (dBi)	41.6	43.1
Beamwidth -3dB (Degrees)	1.5	1.2
-10 dB (Degrees)	2.7	2.2
Radiation Pattern Compliance	FCC §25.209, ITU-R S.580-6	
Antenna Noise Temperature	54° K @ 20° elevation	
Allowable Power	FCC: -14 dBw/4 kHz ITU: -0 dBw/4 kHz	
VSWR	1.30:1	1.30:1
Cross-Polarization Isolation (dB)		
On Axis (minimum)	35	35
Off Axis (within 1 dB BW)	27	28
Feed Port Isolation	35	80
Output Flange Interface	WR75 Flat flange	

Controller

Standard Controller

Standard Features	One button auto-acquisition of selected satellites, including peaking and optimization of cross pol. Internal movement detector and automatic stow. Includes a hand-held control and separate power supply. Certified for auto-commissioning on most satellite services.
Size	10 x 9 x 2.5 inch power supply
Input Power	100 - 240 VAC 50/60 Hz 4 A peak, 190 W Antenna running with max load

Available Options, Upgrades & Services

- Upgrade from 2-Port Precision Ku Feed to 2-Port Enhanced Cross-Pol (Mode-Matched) Ku
- BUC/HPA mounting*
- Cowling*
- Thule roof bar mounting kit
- Flexible waveguide
- Controller
 - World wide Software Upgrade
 - 1RU power supply
 - Additional cable lengths

*Minimum elevation may be restricted by these options