

AVL TECHNOLOGIES

MODEL 1278K MOBILE VSAT

1.2 METER MOTORIZED VEHICULAR ANTENNA



Reflector	1.2 Meter
Optics	Offset, Prime Focus, .8 f/d
Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization	Rotation of Feed

Electrical RF

	<u>Receive</u>	<u>Transmit</u>
Frequency Range	10.95-12.75 GHz	13.75-14.5 GHz
Gain (Midband)	42.0 dBi	43.2 dBi
VSWR	1.30:1	1.30:1
Beamwidth (degrees)		
-3 dB	1.4	1.2
-10 dB	2.5	2.1
First Sidelobe Level (Typical)	-19 dB	-22 dB
Radiation Pattern Compliance	FCC §25.209, ITU-R S.528.5	
Antenna Noise Temperature	30° K at 30° Elevation	
Polarization	Linear Orthogonal Standard, Optional Co-pol	
Power Handling Capability		40 Watts
Cross-Pol Isolation		
On-Axis (minimum)	35 dB	35 dB
Off-Axis (within 1 dB BW)	26 dB	28 dB
Off-Axis (peak)	22 dB	25 dB
Feed Port Isolation – TX to RX	75 dB	
Satellite System Compliance	FCC and PanAmSat Worldwide	

Controllers

Optional Upgrades	
Auto-acquisition	One-button acquisition of selected satellite including peaking and optimization of cross-pol (certified for auto-commissioning on most satellite services)
Size	Single Rack Unit for Auto-acquisition
Input Power	110/240 VAC, 1 ph, 50/60 Hz, 6/3A peak, 1A continuous

Reflector Options

Reflector Back Cover

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Mechanical

Az/EI Drive System	Patented Roto-Lok® Cable Drive System
Polarization Drive System	Stainless Steel Chain Drive
Reflector Material	Glass Reinforced Plastics
Travel	
Azimuth	400°
Elevation	True elevation readout from calibrated inclinometer
Mechanical	0° to 90° of reflector boresight
Electrical	Standard limits at 5° to 65° (CE Approval) or 5° to 90°
Polarization	±95°
Speed	
Slewing/Deploying	2°/second
Peaking	0.2°/second
Motors	24V DC Variable Speed, Constant Torque
RF Interface	
BUC Mounting	Feed Boom
Waveguide	Grove Flexiible Waveguide From Feed
Coax	2-RG59 run from feed to base plus 25 ft. (8 m)
Electrical Interface	25 ft. (8 m) Cable with Connectors for Controller
Manual Drive	Handcrank on Az and EI Axii,
Weight	115 to 125 lbs. (52 to 57 kg) depending on options selected
Stowed Dimensions	74 L x 49 W x 17 H inches (188 L x 125 W x 43 H cm)

Environmental

Wind	
Survival	
Deployed	65 mph (121 kmph)
Stowed	80 mph (161 kmph)
Operational	45 mph (72 kmph)
Pointing Loss in Wind	
20 mph (32 kmph)	0.5 dB Typical
30 Gusting to 45 mph (48 to 72 kmph)	1.0 dB Typical
Temperature	
Operational	+5° to 125°F (-15° to 52°C)
Survival	-40° to 140°F (-40° to 60°C)