AvL TECHNOLOGIES

MODEL 2010C AvL Carbon Fiber
2.0 METER MOTORIZED VEHICULAR SNG ANTENNA

Reflector	2.0 meter AvL Carbon-Fiber
Feed	Precision Horn
Optics	Offset, Prime Focus, .8 F/D
Drive System	Patented Roto-Lok® Positioner
Mount Geometry	Elevation over Azimuth
Polarization Adjustment	Rotation of Feed

Electrical RF

	Receive	Transmit
Frequency	3.625 - 4.2 GHz	5.850 - 6.425 GHz
Optional Insat	4.5 - 4.8 GHz	6.725 – 7.025 GHz
Gain (Midband)		
2-port	36.3 dBi	40.1 dBi
VSWR	1.30:1	1.30:1
Beamwidth (degrees)		
-3 dB	2.5	1.7
-10 dB	4.8	3.2
First Sidelobe Level (Typical)	-20 dB	-23 dB
Radiation Pattern		
Transmit – 1.8°to 30°		29-25 Log Ø
Receive – 2.7° to 30°	32-25 Log Ø	
Antenna Noise Temperature	48° K at 10° Elevation	
Polarization	Linear standard, Optional Circular	
Power Handling Capability		0.5KW per port
Cross-Pol Isolation – On-axis		
Linear	35 dB	35 dB
Circular	19 dB	25 dB
Feed Port Isolation – TX to RX	70 dB	
Satellite System Compliance	Compatible for 2º Spacing	

Controllers

Standard	Three-axis Jog Control & Display with Auto-stow
Optional Upgrades	
Semi-automatic Operation	Drive to calculated position based on operator entered vehicle location, heading, plus satellite (longitude or listed)
Automatic Operation	Drive to calculated position based on auto GPS and Flux-Gate Compass data and satellite peaking with LNB signal
Auto-acquisition	One-button acquisition of selected satellite including peaking and optimization of cross-pol (certified for auto-commissioning on select services)
Size	Two Rack Units for Semi-automatic & Automatic Controllers
Input Power	110/240 VAC, 1 ph, 50/60 Hz, 9/5 amps peak, 1A cont.

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Mechanical

Az/El Drive System	Patented Roto-Lok® Cable Drive System
Polarization Drive System	Non back-driving Worm Gear
Travel	
Azimuth	270° Standard, 400° Optional for 2-port or Feed Boom Mounted HPA
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° for 2-port and 3-port Feeds
Speed	
Slewing/Deploying	2°/second
Peaking	0.2°/second
Motors	24V DC Variable Speed, Constant Torque
RF Interface	
HPA Mounting	Feed Boom, Rear of Reflector or Inside Truck
Axis Transition	Rotary Joints in Az and El, Flex in Pol
Waveguide	WR 137 Cover Flange at Interface Point
Coax	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 El Axii, Leads from 12VDC Pol Motor
Weight	300 lbs. (136 kg)
Stowed Dimensions	103½ L x 80 W x 20 H inches (263 L x 203 W x 51 H cm)

Environmental

Wind	
Survival	
Deployed	60 mph (121 kmph)
Stowed	100 mph (161 kmph)
Operational	45 mph (72 kmph), Gusts to 60 mph (97 kmph)
Pointing Loss in Wind	
20 mph (32 kmph)	0.05 dB max
30 Gusting to 45 mph (48 to 72 kmph)	0.2 dB max
Temperature	
Operational	+5° to 125°F (-15° to 52° C)
Survival	-40° to 140°F (-40° to 60° C)

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