AvL TECHNOLOGIES

MODEL 1610C SNG

1.6 METER MOTORIZED VEHICULAR ANTENNA

Shown in Ku-band.

Reflector	1.6 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

Buy Now!

	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	34.4 dBi	38.2 dBi
VSWR	1.30:1	1.30:1
Beamwidth (degrees)		
-3 dB (Optional Insat)	2.9	2.0
-10 dB (Optional Insat)	5.3	3.6
First Sidelobe Level (Typical)	-20 dB	-23 dB
Radiation Pattern		
Transmit – Beyond main beam		29-25 Log Ø
Receive – Beyond main beam	32-25 Log Ø	
Antenna Noise Temperature	48° K at 10° Elevation	
Polarization	Linear standard, Optional Circular	
Power Handling Capability		1.0KW 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	ITU	

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 with select CFE modems
Size	2 Rack Units (complete electronics) or 1 RU (with antenna mounted electronics) Options
Input Power	110/240 VAC, 1 ph, 50/60 Hz, 8/4 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	400° Standard
Elevation	True elevation readout from calibrated inclinometer
Mechanical	0° to 90° of Boresight (no cowling or boom mounted BUC)
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	
Waveguide	WR 137 Cover Flange at Interface Point
HPA Mounting	Feed Boom, Rear of reflector, or Inside Vehicle Options
Axis Transition	Rotary Joints for Azimuth, Elevation, Flex in Pol
Waveguide	WR 137 Cover Flanges at Feed (or Optional Waveguide Integration)
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, Hand Knob on Pol
Weight	300 lbs. (136 kg)
Stowed Dimensions	90 L x 62 W x 21 H inches (229 L x 157 W x 53 H cm)
	Optional 18 inch Height (46 cm)

Environmental

Wind	
Survival, Deployed	80 mph (129 kmph)
Survival, 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
30 Gusting to 45 mph (48 to 72 kmph)	0.1 dB Typical, 0.3 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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