AvL TECHNOLOGIES

MODEL 1060K SNG

1.0 M AUTO-ACQUISITION CASE BASED ANTENNA

Reflector	1.0m AvL Carbon Fiber
Optics	Offset, Prime Focus
Reflector Construction	Six Segment Carbon Fiber
Drive System	Patented Roto-Lok® 3-axis Positioner
Mount Geometry	Elevation over Azimuth
Polarization Adjustment	Rotation of Feed
Case Options	70lb/32kg Backpack, Rugged Shipping Case
Controller	One-button Auto-acquisition

Electrical RF	**Receive**	**Transmit**	
Gain (Midband)			
R/T	39.8 dBi	41.5 dBi	
VSWR	1.30:1	1.30:1	
Beamwidth (degrees)			
-3 dB	1.6	1.4	
-10 dB	2.8	2.3	
First Sidelobe Level	-22 dB	-25 dB	
Tx Radiation Pattern Compliance > 1.5°	3 dB Better than FCC §25.209, ITU-R S.528.5		
Antenna Noise Temperature	50° K at 30° Elevation		
Polarization	Linear Orthogonal		
Cross-Pol Isolation		Std. Feed	Opt. Feed
On-Axis (typical)	30 dB	35 dB	35 dB
Off-Axis (within 0.3°)	28 dB	28 dB	32 dB
Satellite System Compliance	FCC, PanAmSat, Intelsat (Eutelsat with Opt. Feed)		
BUC/HPA Capacity	<25W in Separate Case via Power Coax to Feed		
Allowable Power	-14dBw/4kHz per FCC, -0dBw/4kHz per ITU		
Feed Port Isolation – TX to RX	70 dB		

Controller

Type	One Button Deploy with Fully Automatic Satellite Acquisition, Peaking, and Cross-Pol Adjustment using GPS, Compass, and Level Sensor Inputs, Certified for Auto-Commissioning on Certain Satellite Systems
Operator Interface	GUI Interface Program via CFE Computer for Manual/Jog Operation or Reprogramming User/Data Satellite
Auto Positioning Accuracy	≤ ±0.1 degree
Input Power Requirements	24-28VDC, 300w peak, Optional 90-256V AC Power Supply

130 Roberts Street, Asheville, NC · 828.250.9950 · FAX 828.250.9938 · www.avltech.com

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MODEL 1060K iSNG

1M AUTO-ACQUISITION CASE BASED ANTENNA

Mechanical

Az/El/Pol Drive System	Patented Roto-Lok® Cable Drive System
Travel	
Azimuth	225° (+90° to -135°)
Elevation	True elevation readout from calibrated inclinometer
Mechanical	15° to 75° of Reflector Boresight
Polarization	Motorized ±95°
Speed	
Slewing/Deploying	10°/sec. Azimuth, 5°/sec. Elevation, 5°/sec. Polarization
Peaking	0.2°/second
Motors	24V DC Variable Speed with Optical Encoders
RF Interface	
Rx	L-band with Type-N at Rear of Antenna
Tx	Ku with Type-N at Feed Flange
Antenna System Weight	68 lbs. (31 kg)
Manual Operation	Handcranks On All Axii
Assembly	No Tools Required
	Assembly and Acquisition in 10 minutes

Environmental

Wind	
Operational	20 mph (32 kph),
Operational with Anchoring Weights	30 mph (48 kph)
Survival with Anchoring Weights	40 mph (64 kph)
Pointing Loss in Wind	
10 mph (16 kmph)	0.1 dB, 0.1° Typical
20 mph (32 kmph)	0.5 dB, 0.3° Typical
Temperature	
Operational	+15° to 125°F (-10° to 52°C)
Survival	-40° to 140°F (-40° to 60°C)
Sand and Dust	Method 510.4 per MIL-STD-810F
Humidity	Method 507.4 per MIL-STD-810F
Shock and Drop in Shipping Case	Method 514.5 per MIL-STD-810F
Solar Radiation	Method 505.4 per MIL-STD-810F

Options

Optional Power Supply with Handheld Operator Interface	
Standard	Power Supply with Hand Held Wt. 4.7 lbs. (2.1 kg)
Rack Mounted	1 RU Chassis 8 in (20 cm) deep, Wt. 4.6 lbs. (2.1 kg)
Input Power Requirements	90-256V AC, 300 watts peak, 60 watts continuous

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