AvL TECHNOLOGIES

MODEL 965KCB

.96 CM MOTORIZED CASE BASED ANTENNA

Reflector	96 cm - Channel Master
Optics	Offset, Prime Focus
Drive System	Patented Roto-Lok®
Mount Geometry	Elevation over Azimuth
Polarization Adjustment	Rotation of Reflector/Feed about Boresight
Controller	TracStar One-button Auto-acquisition

Electrical RF	**Receive**	**Transmit**
Frequency	10.70-12.75 GHz	13.75-14.5 GHz
Gain (Midband)	39.7 dBi	41.2 dBi
VSWR	1.30:1	1.30:1
Beamwidth on Orbital Arc (degrees)		
-3 dB	1.8	1.5
-10 dB	3.2	2.8
First Sidelobe Level (Typical)	-23 dB	-23 dB
Radiation Pattern Compliance > 1.8°	FCC §25.209, ITU-R S.528.5	
Antenna Noise Temperature	32° K at 30° Elevation	
Polarization	Linear Orthogonal	
Allowable Power	-14dBw/4kHz per FCC, -0dBw/4kHz per ITU	
Cross-Pol Isolation		
On-Axis (minimum)	30 dB	35 dB
Off-Axis (within 1 dB BW)	28 dB	30 dB
Feed Port Isolation – TX to RX	70 dB	
Satellite system Compliance	Intelsat, PanAmSat etc.	

Controller

Type	Fully Automatic Satellite Acquisition, Peaking, and Cross-Pol Adjustment using GPS, Compass, and Level Sensor Inputs with Entry of Desired Satellite, Certified for Auto-commissioning on select services
Positioning Accuracy	≤ ±0.1 degree
Size	
Standard	Power Supply – 9” W x 10.25” D x 2.5”H – 4.5 lbs. Display Unit – 5.5” W x 3.5” D x 1 3/8” H – 0.5 lbs
Optional Rack Mounted Config.	1 RU Chassis 8 in (20 cm) deep, Weight 3.75 lbs. (1.7 kg)
Input Power	110/240 VAC, 1 ph, 50/60 Hz, 5 amps peak, 1 amp cont.

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RevA 7-05

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Mechanical

Az/El Drive System	Patented Roto-Lok® Cable Drive System
Polarization Drive System	Patented Roto-Lok®Cable Drive System
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	Motorized ±75° Manual H/V
Speed	
Slewing/Deploying	10°/sec. Azimuth, 5°/sec. Elevation, 5°/sec. Polarization
Peaking	0.2°/second
Motors	24V DC Variable Speed
BUC Mounting	Up to 4 watts on Feed
RF Interface	
Coax	Tx and Rx L-band with Type-F at Base of Antenna
Electrical Interface	25 ft. (X m) Cable with Connector for Controller
Weight	Case 1 – Positioner case 43”x 28” x 21” 148lbs. (109 cm x 71cm x 54 cm)(68 kg) Case 2 – Reflector/feed case (42”x 42” x 25”) 131 lbs. (107 cm x 107 cm x 64 cm)(59kg)

Environmental

Wind	
Survival with Anchoring	60 mph (96 kmph)
Operational w/out Anchoring	40 mph (72 kmph)
Pointing Loss in Wind	
20 mph (32 kmph)	0.2 dB Typical
30 Gusting to 45 mph (48 to 72 kmph)	0.5 dB Typical
Temperature	
Operational	+5° to 125°F (-15° to 52° C)
Survival	-40° to 125°F (-40° to 52° C)

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NOTE: Technical specifications may change. Please contact AvL before using this information for system design.