**AvL TECHNOLOGIES**

**MODEL 750KCB**

**.75 M AUTO-ACQUISITION MINI-FLYAWAY ANTENNA**

Reflector: .75cm Equiv. 89 x 62 cm Elliptical GRP  
Optics: Offset, Prime Focus  
Drive System: Patented Roto-Lok® 3-axis Positioner  
Mount Geometry: Elevation over Azimuth  
Polarization: Rotation of Reflector/Feed about Boresight  
Controller: One-button Auto-acquisition

**Electrical RF**

<table>
<thead>
<tr>
<th></th>
<th>Receive</th>
<th>Transmit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>11.70-12.75 GHz</td>
<td>13.75-14.5 GHz</td>
</tr>
<tr>
<td>Gain (Midband)</td>
<td>37.8 dBi</td>
<td>39.3 dBi</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.30:1</td>
<td>1.30:1</td>
</tr>
<tr>
<td>Beamwidth on Orbital Arc (degrees)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-3 dB</td>
<td>1.8</td>
<td>1.6</td>
</tr>
<tr>
<td>-10 dB</td>
<td>3.3</td>
<td>2.8</td>
</tr>
<tr>
<td>First Sidelobe Level (Typical)</td>
<td>-18 dB</td>
<td>-21 dB</td>
</tr>
<tr>
<td>Tx Radiation Pattern Compliance &gt; 1.8°</td>
<td>FCC §25.209, ITU-R S.528.5</td>
<td></td>
</tr>
<tr>
<td>Antenna Noise Temperature</td>
<td>50° K at 30° Elevation</td>
<td></td>
</tr>
<tr>
<td>Polarization</td>
<td>Linear Cross or Co-Polarized</td>
<td></td>
</tr>
<tr>
<td>Cross-Pol Isolation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On-Axis (minimum)</td>
<td>30 dB</td>
<td>30 dB</td>
</tr>
<tr>
<td>Off-Axis (within 0.3°)</td>
<td>28 dB</td>
<td>28 dB</td>
</tr>
<tr>
<td>BUC Mounting Capacity</td>
<td>1W, 2W and 4W</td>
<td></td>
</tr>
<tr>
<td>Allowable Power</td>
<td>-14dBw/4kHz per FCC, -0dBw/4kHz per ITU</td>
<td>70 dB</td>
</tr>
<tr>
<td>Feed Port Isolation – TX to RX</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Satellite System Compliance</td>
<td>Intelsat, PanAmSat</td>
<td></td>
</tr>
</tbody>
</table>

**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  
Auto 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 continuous

130 Roberts Street, Asheville, NC · 828.250.9950 · FAX 828.250.9938 · www.avltech.com  
All specifications subject to change without notice.
AvL TECHNOLOGIES
MODEL 750KCB
.75 M AUTO-ACQUISITION MINI-FLYAWAY ANTENNA

**Mechanical**

Az/El/Pol 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
- Peaking: 0.2°/second

Motors
- 24V DC Variable Speed with Optical Encoders

RF Interface
- BUC Mounting: Feed Boom Up to 4-watts
- Coax: Tx and Rx L-band with Type-F at Base of Antenna

Electrical Interface
- 25 ft. (5 m) Cable with Connector for Controller

Weight
- 206 lbs. (94 kg)

Stowed Dimensions
- 54 L x 43 W x 20 H inches (138 L x 109 W x 51 H cm)

**Environmental**

Wind
- Survival with Anchoring: 60 mph (96 kmph)
- Operational w/out Anchoring: 45 mph (72 kmph)

Pointing Loss in Wind
- 20 mph (32 kmph): 0.1 dB Typical, 0.1° Maximum
- 30 Gusting to 45 mph (48 to 72 kmph): 0.3 dB Typical, 0.3° Maximum

Temperature
- Operational: +5° to 125°F (-15° to 52°C)
- Survival: -40° to 140°F (-40° to 60°C)

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