

AvL TECHNOLOGIES

MODEL 750 iMoVSAT

Mobile Satellite Antenna System



Mechanical

Reflector	75cm Prodelin or Channel Master
Mount Geometry	Elevation over Azimuth
Polarization	Rotation of Reflector/Feed System about Boresight
Travel	
Azimuth	400° or $\pm 200^\circ$ from Stow Position
Elevation -Operational	0-65° or 0-90° of boresight
Total	0-150°
Polarization	$\pm 55^\circ$ or $\pm 95^\circ$
Speed	
Slewing/Deploying	10°/sec. in Azimuth, 5°/sec. in Elevation, 5°/sec. in Polarization
Peaking	0.2°/second
Motors	24V DC Variable Speed
Electrical Interface	
RF	Tx and Rx Type F Connectors at Base of Antenna
Controller	15 ft. Cable from Antenna to Remote Control Box
Weight	80 lbs. with Standard RF Electronics

Environmental

Wind	
Survival	
Deployed	80 mph
Stowed	140 mph
Operational -Tracking	60 mph at 60° F
Boresight Backlash	
Az Degrees	.01 dB
El Degrees	.05 dB
Pol Degrees	.05 dB
Beam Deflection	
20 mph	.1 dB
30 gusting to 45 mph	.3 dB
Temperature	
Operational	-20°F to 125°F
Survival	-30°F to 125°F

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Electrical RF

Frequency
Gain (Midband)
VSWR
Beamwidth in Orbital Arc(degrees)
 -3 dB
Radiation Pattern ($1.8^\circ < \Theta < 20^\circ$)
Antenna Noise Temperature
 30° Elevation Angle
Polarization
Allowable Transmit Power
Cross-Pol Isolation
 On-Axis
 Off-Axis within 1 dB BW
 Maximum Off-Axis
Feed Port Isolation
 TX/RX

Receive

10.95-12.75 GHz
37.8 dBi
1.30:1
2.0
50°K
Linear
30 dB
28 dB
21 dB

Transmit

13.75 -14.5 GHz
39.3 dBi
1.30:1
1.6
29-25 Log Θ dBi
Linear
2 Watts
30 dB
28 dB
25 dB
100 dB

Controller

Type	Automatic Satellite Acquisition with GPS/Compass/Level Sensors/Pre-loaded Library of Satellite Positions
Manual Mode Input	Menu Driven by Front Panel Buttons
Automatic Mode Input	Automatically Locates, Peaks-Up, and Minimizes Cross-Pol
Display	Two Lines 3/8" High 16 Characters per Line
Size	Two Rack Units High or Two Units 6"x 6" x 3.5"
Input Power	110V AC, 1ph, 60Hz, 5 amps peak