

AVL TECHNOLOGIES

MODEL 1888 MOBILE VSAT ANTENNA SYSTEM



Mechanical

Reflector Type	1.8M Prime Focus Offset
Reflector Construction	Single Skin Aluminum
Mount Geometry	Elevation over Azimuth
Polarization	Rotation of Feed
Travel	
Azimuth	270°
Elevation	
Operational	0-90° boresight
Total	0-160°
Polarization	±95°
Speed	
Slewing/Deploying	2°/second
Peaking	0.2°/second
Drive System	Roto-Lok ®
Motors	24V DC Variable Speed
RF Interface	
Waveguide	WR 75 Flex at Feed Boom
Coax	RG59
Electrical Interface	25 ft. Cable with Connectors for Controller
Manual	7/16 Hex Socket Wrench on Az and El Axis
Finish	
Reflector/Feed	White Powder Coat
Positioner	Gold Anodize
Weight	300 lbs.

Environmental

Wind	
Survival	
Deployed	80 mph
Stowed	125 mph
Operational	
Slewing	45 mph gusting to 60 mph at 60° F
Boresight Backlash Tx Gain Loss	Tx Gain Loss 0.2 dB Max, .1 dB Typical
Boresight Deflection Tx Gain Loss	.5 dB Typical in 30 gusting to 45 mph winds
Temperature	
Operational	-20°F to 125°F
Survival	-40°F to 140°F

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<u>Electrical RF</u>	<u>Receive</u>	<u>Transmit</u>
Frequency	10.7-12.2 GHz	13.75-14.5 GHz
Gain (Midband)	45.0 dBi	46.7 dBi
VSWR		1.30:1
Beamwidth (degrees)		
-3 dB	.91	.78
-15 dB	1.91	1.62
First Sidelobe Level	-20 dB	-20 dB
Radiation Pattern	Meets FCC requirements for 2° Spacing Meets Intelsat Type G & K3 Requirements	
Antenna Noise Temperature		
30° Elevation Angle	47°K	
Polarization	Linear	Linear
Power Handling Capability		1KW per port
Cross-Pol Isolation		
On-Axis	35 dB	35 dB
Off-Axis (within .5 dB BW)	25 dB	26 dB
Off-Axis (within 1 dB BW)	22 dB	24 dB
Feed Port Isolation -		
TX/RX	40 dB	70 dB
 <u>Controller</u>		
AvL2050A	Jog Controller	
AvL2055A	Smart Jog Controller	
RC3000A	Full-function controller with opt. GPS and Flux-Gate	
Size	Two rack units high	
Input Power	110V AC, 1 ph, 60 Hz, 15 amp	