

AVL TECHNOLOGIES

1.2M FLY AND DRIVE

Model USA and Global



Mechanical

Reflector	1.2M Offset
Mount Geometry	Elevation over Azimuth
Polarization	Rotation of Feed Horn
Travel	
Azimuth	300° Standard 400° Optional
Elevation -Operational	0-65° or 0-90° of boresight
Total	0-160°
Polarization	±95°
Speed	
Slewing/Deploying	2°/second
Peaking	0.2°/second
Motors	24V DC Variable Speed, Constant Torque
RF Interface	
HPA Mounting	Feed Boom or Inside Vehicle
Axis Transition	Az-Rotary Joint, EI-Flexguide
Waveguide	WR 75 Cover Flange at Pallet
Coax	Type N at Interface Box
Electrical Interface	10 ft. Removable Cables
Manual Drive	Handcrank on Az and EI Axis, Leads from 12VDC Pol Motor

Shipping Configuration

Main Pallet/Container with Positioner	105 lbs.	59 in. lg. x 25 in. wide x 21 in. tall
Reflector Panel Container	55 lbs.	29 in. lg. x 29 in. wide x 27 in. tall
Feed & Vehicle Attachment Components	100 lbs.	59 in. lg. x 25 in. wide x 21 in. tall

Environmental

Wind	
Survival	
Deployed	50 mph
Stowed	100 mph
Operational	30 mph at 60° F
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	10.95-12.75 GHz	13.75 -14.5 GHz
Gain (Midband)		
R/T	42.2 dBi	43.6 dBi
VSWR	1.30:1	1.30:1
Beamwidth (degrees)		
-3 dB	1.3	1.1
-10 dB	2.2	1.9
First Sidelobe Level (+/- 2 dB)	-30 dB	-30 dB
Radiation Pattern	Meets FCC, EutelSat, and Intelsat Specifications	
Antenna Noise Temperature		
30° Elevation Angle	40°K	
Polarization	Linear	Switchable
Power Handling Capability		1.0KW
Model USA Cross-Pol Isolation		
On-Axis	35 dB	40 dB
Off-Axis within 1 dB BW	27 dB	35 dB
Maximum Off-Axis	21 dB	30 dB
Model Global Cross-Pol Isolation		
On-Axis	35 dB	35 dB
Off-Axis within 1 dB BW	30 dB	35 dB
Maximum Off-Axis	22 dB	30 dB
Feed Port Isolation		
TX/RX		80 dB

Controller

Type	Full Function or Jog Controller
Manual Mode Input	Front Panel Keypad for Jog/Run/Run To/Stow
Automatic Mode Input	GPS, Flux-Gate Compass and Antenna LNB
Size	Two Rack Units High
Input Power	110V AC, 1ph, 60Hz, 10 amp

