

AVL TECHNOLOGIES

MODEL 1278KFD Mobile VSAT Fly&Drive Antenna System



| | |
|----------------|-------------------------------|
| Reflector | 1.2 Meter |
| Optics | Offset, Prime Focus, .8 f//d |
| Drive System | Patented Roto-Lok® Positioner |
| Mount Geometry | Elevation over Azimuth |
| Polarization | Rotation of Feed |

Electrical RF

Receive

Transmit

| | | |
|--------------------------------|---|----------------|
| Frequency Range | 10.95-12.75 Ghz | 13.75-14.5 Ghz |
| Gain (Midband) | 42.0 dBi | 43.2 dBi |
| VSWR | 1.30:1 | 1.30:1 |
| Beamwidth (degrees) | | |
| -3 dB | 1.4 | 1.2 |
| -10 dB | 2.5 | 2.1 |
| First Sidelobe Level (Typical) | -19 dB | -22 dB |
| Radiation Pattern Compliance | FCC §25.209, ITU-R S.528.5 | |
| Antenna Noise Temperature | 30°K at 30° Elevation | |
| Polarization | Linear Orthogonal Standard, Optional Co-pol | |
| Power Handling Capability | 40 Watts | |
| Cross Pol Isolation | | |
| On-Axis (minimum) | 35 dB | 35 dB |
| Off-Axis (within 1 dB BW) | 26 dB | 28 dB |
| Off-Axis (peak) | 22 dB | 25 dB |
| Feed Port Isolation - TX to Rx | 75 dB | |
| Satellite System Compliance | FCC and PanAmSat Worldwide | |

Controllers

Optional Upgrades
Auto-acquisition

One-button acquisition of selected satellite including peaking and optimization of cross pol (certified for auto-commissioning on most satellite services)
Standard: Power Supply and Hand-held
Optional: 1 Rack Unit
110/240 VAC, 1 ph, 50/60 Hz, 6/3A peak, 1A continuous

Size

Input Power

Reflector Options

2-piece molded reflector or 4-piece carbon fiber reflector

Mechanical

Az/EI Drive System
Polarization Drive System
Reflector Material
Travel

Patented Roto-Lok® Cable Drive System
Stainless Steel Chain Drive
Glass Reinforced Plastics or Carbon Fiber

 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

±95°

Speed

 Slewing/Deploying

2°/second

 Peaking

0.2°/second

| | |
|---|--|
| Motors | 24V DC Variable Speed, Constant Torque |
| RF Interface | |
| BUC Mounting | Feed Boom |
| Waveguide | Grove Flexible Waveguide From Feed |
| Coax | 2-RG59 run from feed to base plus 25 ft. (8 m) |
| Electrical Interface | 25 ft. (8 m) Cable with Connectors for Controller |
| Manual Drive | Handcrank on Az and El Axii |
| Weight Drive Configuration | 140 lbs. (63.5 Kg) |
| Weight Flyaway Configuration | Case #1 185 lbs. (84 Kg) Motorized Auto Acquisition Positioner |
| | Case #2 45 lbs. (20.4 Kg) 2 piece Reflector |
| | Case #2 29 lbs. (13.2 Kg) 2 or 4 piece Carbon Fiber (Option) |
| Positioner | 55 L x 21 W x 26 H inches (140 L x 53 W x 66 H cm) |
| 2 Piece Reflector with Bag | 52 L x 32 W x 6 H inches (132 L x 81 W x 15 H cm) |
| 2 Piece Reflector Bag (Carbon Fiber) Option | 52 L x 32 W x 6 H inches (132 L x 81 W x 15 H cm) |
| 4 Piece Reflector Bag (Carbon Fiber) Option | 27 L x 27 W x 6 H inches (Qty2) (69 L x 69 L x 15H cm) |

Environmental

Wind

| | |
|--------------------------------------|-------------------------------|
| Survival | |
| Deployed | 65 mph (121 kmph) |
| Stowed | 80 mph (161 kmph) |
| Operational | 45 mph (72 kmph) |
| Pointing Loss in Wind | |
| 20 mph (32 kmph) | 0.5 dB Typical |
| 30 Gusting to 45 mph (48 to 72 kmph) | 1.0 dB Typical |
| Temperature | |
| Operational | ±5° to 125°F (-15° to 52° C) |
| Survival | -40° to 140°F (-40° to 60° C) |