

AVL TECHNOLOGIES

MODEL 1012K SNG Global

1.0M AUTO-ACQUISITION MINI- FLYAWAY ANTENNA

| | |
|---------------|--------------------------------------|
| Reflector | 1.0 meter, 4-Piece AvL Carbon Fiber |
| Optics | Offset, Prime Focus, .8 f/d |
| Feed | Mode Match |
| Drive System | Patented Roto-Lok® 3-axis Positioner |
| Configuration | Two case Motorized Flyaway |
| Controller | Auto-acquisition |



Electrical RF

| | <u>Receive</u> | <u>Transmit</u> | | |
|-------------------------------------|--|-----------------|-----------|--------------|
| Frequency | 10.95-12.75 GHz | 13.75-14.5 GHz | | |
| Gain (Midband) | | | | |
| R/T | 39.8 dBi | 41.5 dBi | | |
| VSWR | 1.30:1 | 1.30:1 | | |
| Beamwidth (degrees) | | | | |
| -3 dB | 1.6 | 1.4 | | |
| -10 dB | 2.8 | 2.3 | | |
| First Sidelobe Level | -22 dB | -25 dB | | |
| Radiation Pattern Compliance > 1.5° | | | | |
| Standard Feed | FCC §25.209, ITU-R S.528.5 | | | |
| Precision and Mode-Matched | 3dB Better than FCC §25.209, ITU-R S.528.5 | | | |
| Antenna Noise Temperature | 46° K at 30° Elevation | | | |
| Polarization | Orthogonal standard, Optional Co-pol | | | |
| Power Handling Capability | 40 watts | | | |
| Allowable Power | -14dBw/4kHz per FCC, -0dBw/4kHz per ITU | | | |
| Cross-Pol Isolation | | Std. | Precision | Mode-Matched |
| On-Axis (minimum) | 35 dB | 35 dB | 35 dB | 35 dB |
| Off-Axis (within 0.3°) | 25 dB | 28 dB | 32 dB | 35 dB |
| Peak | 22 dB | 24 dB | 24 dB | 29 dB |
| Feed Port Isolation – TX to RX | 75 dB | | | |
| Satellite System Compliance | | | | |
| Mode Match | FCC, PanAmSat, Intelsat, Eutelsat, AsiaSat | | | |

Controller

| | |
|-------------------------------|--|
| Type | Fully Automatic Satellite Acquisition, Peaking, and Cross-Pol Adjustment using GPS, Compass, and Level Sensor Inputs with Entry of Desired Satellite |
| Auto Pointing Accuracy | ≤ ±0.2 degree |
| Size | |
| Standard | Two Cases 6 x 6 x 3.5 in (15 x 15 x 9 cm) |
| 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, 6/3A peak, 1A continuous |

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Mechanical

| | |
|------------------------|---|
| Az/EI/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 15° to 65° (CE Approval) or 15° to 90° |
| Polarization | ±75° Motorized, H/V Switching Manual |
| Speed | |
| Slewing/Deploying | 8°/sec. in Azimuth, 5°/sec. in Elevation, 5°/sec. in Polarization |
| Peaking | 0.2°/second |
| Motors | 24V DC Variable Speed with Optical Encoders |
| RF Interface | |
| BUC/HPA Mounting | |
| 2 watt | Feed Boom |
| 4 watt | Base of Feed Boom or Rear of Reflector |
| 8-40 watt | In Reflector Case |
| Waveguide | WR 75 Cover Flange at Feed Interface Point |
| Coax (L-band TX & RX) | RG59 with Type-F at Base of Case Interface Point |
| Electrical Interface | 15 ft. (5 m) Removable Cables for Controller |
| Manual Drive | Handcrank on Az, EI, Pol Axis |

Shipping Configuration

| | |
|---------------------------------------|---|
| Standard (Platt) Cases | |
| Positioner Case | 98 lbs. (43 kg.), 23 x 33 x 13.5 in (58 x 84 x 34 cm) |
| Reflector/Feed/Controller/BUC Case | 70 lbs. (32 kg.), 23 x 33 x 13.5 in (58 x 84 x 34 cm) |
| Optional Rugged (Hardigg) Cases | |
| Positioner Case (with Shock Mounting) | 140 lbs. (64 kg.), 27 x 37 x 16 in (69 x 94 x 41 cm) |
| Reflector/Feed/Controller/BUC Case | 80 lbs. (36 kg.), 27 x 37 x 16 in (69 x 94 x 41 cm) |

Environmental

| | |
|---|------------------------------|
| Pointing Loss in Wind (with Cases anchored) | |
| 20 mph (32 kmph) | 0.1 dB, 0.15 degrees Maximum |
| 30 Gusting to 45 mph (48 to 72 kmph) | 0.6 dB, 0.30 degrees Maximum |
| Temperature | |
| Operational | +5° to 125°F (-15° to 52°C) |
| Survival | -40° to 140°F (-40° to 60°C) |