

2432 Celero

2.4 Meter Motorized Flyaway Antenna



The Sat-Lite Technologies Model 2432 Celero motorized transportable antenna offers excellent performance in a high value package. This antenna features a 4 piece segmented reflector and custom design fully motorized elevation-over-azimuth tripod pedestal that can be assembled in approximately 15 minutes. The azimuth and elevation drives provide a full range of motion to make use of the auto-locate features of the controller without repositioning or reconfiguring the pedestal or reflector once fully assembled. The modular design also allows for existing manual drive antennas to be upgraded to a motorized configuration.

Integrated feedbooms are readily available for C, X, and Ku bands that included BUC mounting and waveguide connections for rapid assembly and easy packing. The antenna control system includes a pre-wired outdoor mounted controller for fast assembly. GPS, Compass, Modem interface, and DVB receiver options are readily available for true auto acquire and peak features. Tracking options include software and an integrated L- Band beacon receiver if necessary. The antenna is designed to meet international performance specifications for commercial or military applications and is readily available in C, X, and Ku band frequencies.

- **Intelsat Compliant**
- **Multi-Band C, X, Ku band Frequencies**
- **Multiple Integration Options**
- **2 Axis Motorized Pedestal Configuration**
- **Motorized Polarization For Linear Feeds**
- **Full range of motion for Azimuth. Makes full use of auto-locate control options.**
- **Excellent Reliability**
- **Minimal Maintenance**
- **Less than 20 min Assembly Time**
- **Captive Hardware**
- **Feedboom Mounted Integration with heavy payload**



| <i>Electrical Specifications</i> | 2 Port Cross-Pol C Band Linear Feed | | 2 Port Cross-Pol C Band Circular Feed | | 2 Port X Band Circular | | 2 Port Cross Pol Ku Band Linear | |
|----------------------------------|-------------------------------------|-------------|---------------------------------------|--------------|------------------------|-------------|---------------------------------|---------------|
| | Rx | Tx | Rx | Tx | Rx | Tx | Rx | Tx |
| | Frequency (GHz) | 3.40 - 4.20 | 5.85 - 6.725 | 3.625 - 4.20 | 5.85 - 6.425 | 7.25 - 7.75 | 7.9 - 8.4 | 10.70 - 12.75 |
| Gain (Midband, dBi) | 38.0 | 42.0 | 38.0 | 42.2 | 43.7 | 44.3 | 47.6 | 49.0 |
| Noise Temperature (°K) | | | | | | | | |
| 10 deg El | 39 | | 42 | | 56 | | 58 | |
| 20 deg El | 34 | | 36 | | 52 | | 55 | |
| Axial Ratio | | | 3.0 dB | 2.3 dB | 1.5 dB | 1.5 dB | | |
| Cross Pol | | | | | | | | |
| On Axis | -30 dB | -30 dB | -15.3 dB | -17.5 dB | -21.3 dB | -21.3 dB | -35 dB | -35 dB |
| Sidelobe Compliances | ITU 580 / IESS 207 | | ITU 580 / IESS 207 | | Meets DSCS | | IESS 208 | |
| VSWR | 1.50:1 | 1.30:1 | 1.50:1 | 1.30:1 | 1.30:1 | 1.30:1 | 1.35:1 | 1.30:1 |
| Isolation | | | | | | | | |
| Tx/Rx | -60 dB | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -85 dB | 0 dBm input |
| Rx/Tx | 0 dBm input | -60 dB | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -30 dB |

| <i>Mechanical / Environmental Specifications</i> | |
|--|--|
| Reflector | 2.4 meters (96 in) Glass Fiber Reinforced Polyester |
| Reflector Configuration | Parabolic Single Offset (4 piece) |
| Antenna Travel | |
| Azimuth (Full Motion) | +/- 200° |
| Elevation | 5 - 90° of reflector bore sight |
| Polarization | ± 90° |
| Antenna Packaging | |
| Cases 1 & 2 - Reflector Cases | 2 @ 56" x 50" x 20" / 195 lbs ea. (88.6 kg ea.) |
| Case 3 - Backbeam Lower / Controller | 1 @ 24" x 28" x 23" / 120 lbs (54.5 kg) |
| Case 4 - Backbeam Upper / El Actuator | 1 @ 52" x 30" x 11" / 176 lbs ea. (80 kg ea.) |
| Case 5 - Pedestal Legs | 1 @ 62" x 27" x 22" / 147 lbs (66.8 kg) |
| Case 6 - Kingpost Positioner | 1 @ 22" x 23" x 31" / 155 lbs (70 kg) |
| Total Packaged Weight (less feed options) | 988 lbs (449 kg) |
| Temperature | |
| Operational | -20 to 60°C (-4 to 140°F) |
| Survival | -40 to 70°C (-40 to 158°F) |
| Pointing Loss (operational winds)** | 3.5 dB peak (Ku-band Rx) |
| Winds | |
| Operational | 30 Gusting to 45 mph (48 kph G 72 kph) with ballast or anchors |
| Survival | 60 mph (96 kph) with tie downs / any position |
| Feedboom Mounted Integration*** | 85 lbs (38.6 kg) |
| Rain | |
| Operational | 2 in/h (5 cm/h) |
| Survival | 4 in/h (10 cm/h) |
| Relative Humidity | 0 - 100% (condensing) |
| Solar Radiation | 360 btu/h/ft ² (1000 Kcal/h/m ²) |
| Radial Ice (survival) | 1/2 in (12.7 mm) |
| Corrosive Atmosphere | As encountered in coastal and/or industrial areas |

Note: Specifications subject to change without notice

850-0019-4

* Feed packaged separately dependent on options ordered
 ** Performance dependent on proper installation and ballast/anchors
 *** Dependent on position of weight. Consult Engineering for details