

2422 Celero

2.4 Meter Flyaway Antenna



- *Intelsat Compliant*
- *Multi-Band C, X, Ku band Frequencies*
- *Multiple Integration Options*
- *Compact Packaging*
- *Superior Stability in Wind*
- *Excellent Reliability*
- *Minimal Maintenance*
- *Less than 20 min Assembly Time*
- *Captive Hardware*

The Sat-Lite Technologies Model 2422 Celero flyaway antenna offers the most robust performance in its class. This antenna features a 4 piece glass fiber reinforced segmented reflector designed to provide excellent gain characteristics. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal assembly time and offers a unique full motion azimuth design with a fine adjust mechanism. The unique pedestal and leg design also offers 5 to 90 deg of elevation travel with a fully integrated feed boom. The antenna design is modular which reduces the number of pieces required for assembly and results in an improved packaging scheme requiring less time and effort to pack or unpack the antenna. Cases are included.

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. Multiple feed configurations are available.



| <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 | 49.2 |
| 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 | -30 dB | -30 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 | 1.50:1 | 1.30:1 |
| Isolation | | | | | | | | |
| Tx/Rx | -60 dB | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -110 dB | 0 dBm input |
| Rx/Tx | 0 dBm input | -60 dB | 0 dBm input | -60 dB | 0 dBm input | -110 dB | 0 dBm input | -35 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 | 360° with ± 15° fine adjustment |
| 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 | 1 @ 24" x 28" x 23" / 110 lbs (50 kg) |
| Case 4 - Backbeam Upper | 1 @ 52" x 30" x 11" / 120 lbs ea. (54.5 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" / 129 lbs (58.8 kg) |
| Total Packaged Weight (less feed options) | 896 lbs (405 kg) |
| Temperature | |
| Operational | -40 to 60°C (-40 to 140°F) |
| Survival | -50 to 70°C (-58 to 158°F) |
| Pointing Loss (operational winds)** | 3.5 dB peak (Ku-band Rx) |
| Winds | |
| Operational | Up to 25 mph (45 kph) with no ballast or anchors 30 Gusting to 45 mph (40 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

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