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.

SAT-LITE technologies

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TECHNICAL SPECIFICATIONS

Electrical Specifications	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	13.75 - 14.5
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	41		51		57		58	
20 deg El	37		46		53		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

Mechanical / Environmental Specifications	
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

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

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