

1223 Celero

1.2 Meter Flyaway Antenna



- *Intelsat Compliant*
- *Multi-Band Capable*
- *Multiple Integration Options*
- *Compact Packaging*
- *Superior Stability*
- *Excellent Reliability*
- *Minimal Maintenance*
- *Less than 15 min Assembly Time*
- *Captive Hardware*

The Sat-Lite Technologies Model 1223 Celero flyaway antenna is highly portable, compact, light-weight, and can be assembled by one person in less than 15 minutes. The antenna features a 2 piece segmented glass fiber reinforced reflector with compact pedestal and is designed to be value priced while providing exceptional performance in a lightweight package. The elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite. The antenna packs in 2 ruggedized shipping cases.

In addition, the antenna is designed to meet International performance specifications for commercial or military applications. Multiple feed configurations and paint schemes are readily available.



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TECHNICAL SPECIFICATIONS



<i>Electrical Specifications</i>	2 Port C Band Linear Feed		2 Port C Band Circular Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear / Standard Feed		
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	
Frequency (GHz)	3.625 - 4.20	5.85 - 6.425	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)	31.9	35.9	31.9	35.9	37.2	37.8	41.7	43.2	
Noise Temperature (*K)									
	10 deg El	45	54		79		45		
	20 deg El	40	47		61		31		
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
	in 1 dB contour	-26 dB	-26 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-30 dB	-30 dB
Sidelobe Compliances		IESS 601 Std G		IESS 601 Std G		Meets ITU 580		Meets ITU 580	
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	-50 dB	0 dBm input	-50 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.2 meters (47.2 in) Glass Fiber Reinforced Polyester
Reflector Configuration	2 or 4 Piece Segmented Single Offset
Antenna Travel	
Azimuth	360° continuous with fine adjust
Elevation	0 - 90° of reflector bore sight
Polarization	± 90°
Packaging (2 Cases)	
Pedestal Case (Pelican Style)	37.5" x 27.5" x 14.5" (95 lbs)
Reflector Case	30" x 27" x 17" (85 lbs) - 4 Piece Option 51" x 31.5" x 13.5" (75 lbs) - 2 Piece Option
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational	30 mph Gusting to 45 mph (48 kph G 72 kph)
Integration	
Feedboom Mounted ¹	30 lbs
Rain	
Operational	4 in/h (10 cm/h)
Survival	6 in/h (15 cm/h)
Relative Humidity	0 - 100%
Solar Radiation	360 btu/h/ft ² (1000 Kcal/h/m ²)
Radial Ice (survival)	1 in (25.4 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

¹ Dependent on mounting position relative to elevation axis
 Note: Specifications subject to change without notice