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***
- ***RC300 Satellite Companion option***

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 or 4 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 / all-weather shipping cases.

In addition, the antenna is designed to meet International performance specifications for commercial or military applications. The antenna can be upgraded to use the RC300 Flyaway Companion which aids the user in pointing and peaking the antenna on the satellite. Multiple feed configurations and paint schemes are also readily available.

SAT-LITE technologies

1969 Willow Lake Dr., Longview, TX 75693
T: 903-295-3400 F: 903-295-3433
www.sat-litetech.com sales@sat-litetech.com

TECHNICAL SPECIFICATIONS

Electrical Specifications	2 Port C Band Linear Feed		2 Port C Band Circular Feed		2 Port C Band (Insat) Linear Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear / Standard Feed	
	Rx	**Tx**	**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	4.5 - 4.8	6.725 - 7.025	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	33.6	37	37.2	37.8	41.7	43.2
Noise Temperature (°K)										
10 deg El	45		54		48		79		45	
20 deg El	40		47		42		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	-30 dB	-30 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	-26 dB	-26 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		Meets ITU 580
VSWR	1.50:1	1.30:1	1.50:1	1.30:1	1.30:1	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	-70 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	-30 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

Mechanical / Environmental Specifications	
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	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (2 Cases)	
Pedestal Case (Pelican Style)	37.5" x 27.5" x 14.5" (100 lbs)
Reflector Case	31.5" x 31.5" x 16.5" (72 lbs) - 4 Piece Option 51" x 31.5" x 13.5" (95 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)
Survival (tied down, any position)	60 mph
Survival (tied down, stowed above 85 deg el.)	80 mph
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