

# 1832 Celero

## 1.8 Meter Motorized 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 15 min Assembly Time***
- ***Captive Hardware***
- ***Autolocate Controller Options***
- ***Integrated Feed Boom Options***

The Sat-Lite Technologies Model 1832 Celero motorized flyaway antenna offers excellent performance for a high value package. This antenna is specifically designed to provide a lower cost alternative for autolocate system requirements. A manual (non-motorized) antenna configuration can be supplied with autolocate assistance through the use of a customer furnished web browser. This option allows the un-trained user to easily position and peak the antenna on the satellite without the requirement of a fully motorized system. Alternatively, a fully motorized system can be provided to offer the same result at the push of a button. A ruggedized outdoor mounted controller, motorized azimuth hub assembly, and motorized elevation jack assembly are used in the fully motorized configuration. Both manual and motorized systems are designed specifically for lower power VSAT applications using a BUC and a modem. Other options are available as well. The system is also offered with integrated feed boom assemblies that can pack in a case. Each assembly can include the feed, BUC, LNB and interfacing waveguide. The antenna meets international performance specifications for commercial applications and is readily available in C, X, and Ku band frequencies.



<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	13.75 - 14.5
Gain (Midband, dBi)	35.4	39.3	35.4	39.5	41.3	42.0	45.3	46.6
Noise Temperature (°K)								
10 deg El	41		41		60		55	
20 deg El	36		36		56		50	
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 BW	-23 dB	-23 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-23 dB	-23 dB
Sidelobe Compliances	IESS 207		IESS 207		Meets DSCS		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	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.8 meters (70.87 in) Glass Fiber Reinforced Polyester
Reflector Configuration	Parabolic Single Offset, 0.6 F/D (2 piece or 4 piece option)
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Motorized Antenna Packaging (Tri-Band Configuration**)	
Case 1 - Pedestal Legs / Backbeam	44.9" x 25.3" x 16.5" (100 lbs)
Case 2 - Az Hub / Foot Pads / El Actuator / CTRLR	37.5" x 27.5" x 14.5" (120 lbs)
Case 3 & 4 - (4 piece SMC reflector)	41" x 13.5" x 39" (100 lbs ea.)
Integrated Feedboom Case with BUC (Per Band)	(Depending on Feed)
Total Weight (less feed options)	420 lbs (191 kg)
Temperature	
Operational	-20 to 60°C (-4 to 140°F)
Survival	-40 to 70°C (-48 to 158°F)
Pointing Loss (operational winds)**	3dB peak (Ku-band Rx)
Winds	
Operational	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***	60 lbs (27.2 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 <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> )
Radial Ice (survival)	1/2 in (12.7 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

850-0021-D

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