## 1832 Celero

## 1.8 Meter Motorized Flyaway Antenna





- Intelsat Compliant
- Multi-Band C, X, Ku band Frequencies
- Ships in 4 Ruggedized Cases
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
- All Captive Hardware
- Autolocate Controller with Compass, GPS, and DVBS-2 Receiver
- 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 ruggedized outdoor mounted controller, motorized azimuth hub assembly, and motorized elevation jack assembly provide a full featured autolocate platform that can identify and peak on a target satellite in about 3 minutes. The controller uses a compass, GPS, and DVBS-2 receiver that can be programmed to peak on known satellite carriers. The unit can also be supplied to work with a modem. 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 and controller are CE certified as an option and meet international performance specifications for commercial applications and is readily available in C, X, and Ku band frequencies.



## **TECHNICAL SPECIFICATIONS**



Electrical	2 Port Cross-Pol C Band		2 Port Cross-Pol C Band		2 Port X Band		2 Port Cross Pol Ku Band	
	Linear Feed		Circular Feed		Circular		Linear	
Specifications	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	-35 dB	-35 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	1.40:1	1.30:1
Isolation								
Tx/Rx	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-85 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	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 / CTLR	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					

Feed packaged separately dependent on options ordered

<sup>\*\*</sup> Performance dependent on proper installation and ballast/anchors \*\*\* Dependent on position of weight. Consult Engineering for details