

# 1872 Celero

## 1.8 Meter Manual / Motorizable 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*
- *Motorization Kits Available*
- *Integrated Feed Boom Options*

The Sat-Lite Technologies Model 1872 Celero manual / motorizable flyaway antenna offers excellent performance for a high value package. This antenna is specifically designed to provide a lower cost alternative over motorized antennas and also allow for a motorization package and controller to be added as an upgrade at a later date. The antenna features full azimuth and elevation travel for operating anywhere and can easily be pointed and peaked on the satellite in minutes. The antenna is offered with C, X, and Ku band feed options or with integrated feed boom / BUC assemblies that can pack in a case. Each assembly can include the feed, BUC, LNB and interfacing waveguide so that entire boom can be easily installed or packed without disconnecting waveguide. The antenna meets international performance specifications for commercial applications.



<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°
Antenna Packaging	
Case 1 - Pedestal Legs / Backbeam	44.9" x 25.3" x 16.5" (100 lbs)
Case 2 - Az Hub / Foot Pads	37.5" x 27.5" x 14.5" (95 lbs)
Cases 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)	395 lbs (180 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***	40 lbs (18 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

\*\* properly anchored

\*\*\* depending on mounting location

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