

2433 Celero

2.4 Meter Motorized Flyaway Antenna



- **Intelsat Compliant**
- **Multi-Band C, X, Ku band Frequencies**
- **Three Axis Motorized Drive System**
- **Multiple Integration Options**
- **Compact Packaging**
- **Superior Stability in Wind**
- **Excellent Reliability**
- **Minimal Maintenance**
- **Less than 20 min Assembly Time**

The Sat-Lite Technologies Model 2433 Celero motorized flyaway antenna offers the most robust performance in its class. This antenna features a 4-piece carbon composite segmented reflector designed to provide excellent gain characteristics. The custom-designed elevation-over-azimuth tripod pedestal includes a low backlash azimuth cable drive system and a high stiffness elevation actuator that can be driven manually or electrically. The unique pedestal and leg design also offers 5 to 90 deg of elevation travel with a fully integrated feed boom. The antenna design is modular which reduces the number of pieces required for assembly and results in an improved packaging scheme requiring less time and effort to pack or unpack the antenna. Cases and control system are included.

The antenna is designed to meet international performance specifications for commercial or other applications and is readily available in C, X, and Ku band frequencies. Multiple feed configurations are available.



TECHNICAL SPECIFICATIONS



Electrical Specifications	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	
	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	10.95 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	38.0	41.8	38.0	41.8	43.7	44.3	47.1	49.1
Noise Temperature (K)								
10 deg El	44		56		78		64	
20 deg El	40		52		74		60	
Axial Ratio			3.0 dB	2.3 dB	1.5 dB	1.5 dB		
Cross Pol								
On Axis	-30 dB	-30 dB	-16 dB	-17 dB	-21 dB	-21 dB	-35 dB	-35 dB
Sidelobe Compliances	IESS 207		IESS 207		ITU 580 / Mil-Std 188-164		IESS 208	
VSWR	1.35 : 1	1.30:1	1.35 : 1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1
Isolation								
Tx/Rx	-75 dB	0 dB	-75 dB	0 dB input	-110 dB	0 dB input	-80 dB	0 dB input
Rx/Tx	0 dB input	-60 dB	0 dB input	-60 dB	0 dB input	-110 dB	0 dB input	-35 dB
Output Interface	CPR-229F	CPR-137F	CPR-229F	CPR-137F	WR-112 (UBR84)	WR-112 (UBR84)	WR75 Flat	WR75 Flat

Mechanical / Environmental Specifications

Reflector	2.4 meters (96 in) Carbon/Glass Fiber Reinforced Polymer
Reflector Configuration	Parabolic Single Offset (4 piece)
Antenna Travel	
Azimuth	+/- 200° with manual adjust
Elevation	5 - 90° of reflector bore sight
Polarization	± 90° for Linear Feeds
Antenna Packaging	
Case 1 - Reflector Case	1 @ 51" x 50 1/2" x13 " / 136 lbs (61.8 kg ea.)
Case 2 - Backbeam Lower/Lower Feedboom	1 @ 45" x 25" x 17" / 140 lbs (63.6 kg)
Case 3 - Pedestal Legs / Upper Feedboom / Controller	1 @ 67 1/4" x 27 3/8" x 13" / 150 lbs (68 kg)
Case 4 - Pedestal Hub Case	1 @ 30 x 25 x 24 in / 160 lbs (73 kg)
Total Packaged Weight (less feed options)	586 lbs (266 kg)
Feeds - C / X / Ku - Pack individually	Typical RF Case 24" x 20" x 12" / 30 lbs (13.6 kg) Each
Integrated Feeds with Booms - Optional 1 Case / Band	Specify CFE BUC / Packs in 1 Case Per Band
Temperature	
Operational	-20 to 60°C (-4 to 140°F)
Survival	-50 to 70°C (-58 to 158°F)
Pointing Loss (operational winds)**	3.5 dB 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) fully anchored / any position
Feedboom Mounted Integration***	85 lbs (38.6 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 ² (1000 Kcal/h/m ²)
Radial Ice (survival)	1/2 in (12.7 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

Note: Specifications subject to change without notice

* Feed packaged separately dependent on options ordered

** Performance dependent on proper installation and ballast/anchors

*** Dependent on position of weight. Consult Engineering for details