

1231 AGILIS

1.2 Meter Motorized Carbon Fiber Flyaway Antenna



- **Intelsat and Eutelsat Compliant**
- **Multi-Band X, Ku or Ka band Capable**
- **4 Piece Segmented Carbon Fiber Reflector**
- **Compact Pedestal featuring easy point and peak control**
- **Ships in 3 Ruggedized Cases**
- **High Gain / Low Cross Pol Design**
- **Superior Stability in Wind**
- **Multiple Integration Options**
- **Excellent Reliability**
- **Minimal Maintenance**

The Sat-Lite Technologies Model 1231 motorized flyaway antenna is highly portable, compact, lightweight, and can be assembled by one person in less than 15 minutes. The antenna features a 4 piece segmented carbon fiber composite reflector designed to provide exceptional performance in a lightweight package. The motorized elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite. The antenna packs in 3 ruggedized shipping cases and includes options for integration kits.

In addition, the antenna is designed to meet International performance specifications for commercial or military applications and is readily available in X, Ku and/or Ka band frequencies. Multiple feed configurations and paint schemes are readily available.



<i>Electrical Specifications</i>	2 Port X Band Circular		2 Port Cross Pol Ku Band Linear / Standard Feed		2 Port Cross Pol Ku Band Linear / Mode Matched Feed		2 Port Cross Pol Ka Band Circular Polarization		
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	
Frequency (GHz)	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75	13.75 - 14.5	10.95 - 12.75	13.75 - 14.5	20.2 - 21.2	30.0 - 31.0	
Gain (Midband, dBi)	37.3	37.9	41.6	43.4	41.6	43.4	46.1	49.3	
Noise Temperature (°K)									
	10 deg EI	77	69		66		155		
	20 deg EI	61	59		58		106		
Axial Ratio	1.5 dB	1.5 dB					1.5 dB	1.0 dB	
Cross Pol									
	On Axis	-21.3 dB	-21.3 dB	-35 dB	-35 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
	in 1 dB BW	-21.3 dB	-21.3 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Sidelobe Compliances		Meets DSCS		Meets ITU 580 FCC		Meets ITU 580 FCC		Meets ITU 580	
VSWR	1.30:1	1.30:1	1.35:1	1.30:1	1.50:1	1.30:1	1.35:1	1.30:1	
Isolation									
Tx/Rx	-110 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	
Rx/Tx	0 dBm input	-110 dB	0 dBm input	-30 dB	0 dBm input	-30 dB	0 dBm input	-30 dB	

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.2 meters (47.2 in) Carbon Fiber Reinforced Polymer
Reflector Configuration	4 Piece Segmented Single Offset
Antenna Travel	
Azimuth	400° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (3 Cases)	
Pedestal Case (Compression Molded)	31.5" (80 cm) x 20.5" (52cm) x 15.7" (40 cm) 70 lbs (32 Kg)
Motorization Case (Compression Molded)	31.5" (80 cm) x 20.5" (52cm) x 15.7" (40 cm) 70 lbs (32 Kg)
Reflector Case (Roto Molded)	30" (76 cm) x 30" (76 cm) x 16" (40.5 cm) 70 lbs (32 Kg)
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)
Integration	
Feedboom Mounted ¹	35 lbs (16 Kg)
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

¹ Dependent on mounting position relative to elevation axis
 Note: Specifications subject to change without notice