

1531 AGILIS

1.5 Meter Motorized Flyaway Antenna



- **Intelsat and Eutelsat Compliant (with Appropriate Feed)**
- **Multi-Band X, Ku or Ka band Capable**
- **4 Piece Segmented Carbon Fiber Reflector**
- **3 Axis Controller for Autolocate and Tracking Options**
- **Compact Pedestal featuring easy point and peak control**
- **Ships in 3 Ruggedized Cases**
- **High Gain / Low Cross Pol Design**
- **Multiple Integration Options**
- **Excellent Reliability**
- **Minimal Maintenance**

The Sat-Lite Technologies Model 1531 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 and controller pack in 3 ruggedized shipping cases.

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



<i>Electrical Specifications</i>	2 Port X Band		2 Port Cross Pol Ku Band		2 Port Cross Pol Ku Band		2 Port Cross Pol Ka Band		
	Circular (Low Axial Ratio)		Linear / Standard Feed		Linear / Mode Matched Feed		Circular		
	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)	38.9	39.5	43.4	45.0	43.4	45.0	47.4	50.8	
Noise Temperature (°K)									
	10 deg El	84		70		65		155	
	20 deg El	66		60		58		106	
Axial Ratio	0.5 dB	0.5 dB					1.5 dB	1.0 dB	
Cross Pol									
	On Axis	-30 dB	-30 dB	-35 dB	-35 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
	in 1 dB BW	-30 dB	-30 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Beamwidth, Midband (3 dB)	1.8°	1.6°	1.1°	0.9°	1.1°	0.9°	0.62	0.42	
Sidelobe Compliances		Meets DSCS		Meets ITU 580		Meets ITU 580 Eutelsat		Meets DSCS	
VSWR	1.30:1	1.30:1	1.35:1	1.30:1	1.40:1	1.30:1	1.35:1	1.35:1	
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	-50 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.5 meters (58.7 in) Carbon Fiber Reinforced Polymer
Reflector Configuration	4 Piece Segmented Carbon Fiber Single Offset
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (3 Cases)	
Positioner /Actuator Case	37.5" x 27.5" x 14.5" (85 lbs)
Legs / Backbeam Case	44.9" x 25.3" x 16.5" (90 lbs)
Reflector Case	42" x 13" x 34.5" (80 lbs)
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
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

850-0015-B

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