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, light-weight, 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.

SAT-LITE technologies

TECHNICAL SPECIFICATIONS

Electrical Specifications	2 Port X Band Circular (Low Axial Ratio)		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	
	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
Beamdwidth, 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

Mechanical / Environmental Specifications	
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

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

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