1231 AGILIS

1.2 Meter Motorized Carbon Fiber Flyaway Antenna

- ***Intelsat and Eutelsat Compliant with appropriate Feed***
- ***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, 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 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.

SAT-LITE technologies

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TECHNICAL SPECIFICATIONS

Electrical Specifications	2 Port C Band (Insat) Linear Feed		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	Rx	Tx
Frequency (GHz)	4.5 - 4.8	6.725 - 7.025	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75	13.75 - 14.5	10.7 - 12.75	13.75 - 14.5	20.2 - 21.2	30.0 - 31.0
Gain (Midband, dBi)	33.6	37.1	37.6	38.2	42.2	43.6	42.2	43.6	46.4	49.7
Noise Temperature (K)										
10 deg El	48		77		65		66		160	
20 deg El	42		61		55		58		125	
Axial Ratio			1.5 dB	1.5 dB					1.5 dB	1.0 dB
Cross Pol										
On Axis	-30 dB	-30 dB	-21.3 dB	-21.3 dB	-35 dB	-35 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-26 dB	-26 dB	-21.3 dB	-21.3 dB	-27 dB	-27 dB	-25 dB	-35 dB	-21.3 dB	-24.8 dB
Sidelobe Compliances		Meets ITU 580		Meets DSCS		Meets ITU 580 FCC		Eutelsat ITU 580		Meets ITU 580
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.50:1	1.35:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-70 dB	0 dB input	-110 dB	0 dB input	-85 dB	0 dB input	-85 dB	0 dBm input	-85 dB	0 dB input
Rx/Tx	0 dB input	-30 dB	0 dB input	-110 dB	0 dB input	-30 dB	0 dB input	-30 dB	0 dB input	-30 dB

Mechanical / Environmental Specifications	
Reflector	1.2 meters (47.2 in) Carbon Fiber Reinforced Polymer
Reflector Configuration	4 Piece Segmented Single Offset
Antenna Travel	
Azimuth	+/- 180° 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) 80 lbs (36 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) 68 lbs (31 Kg)
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational (Anchored / Tied Down)	30 mph Gusting to 45 mph (48 kph G 72 kph)
Survival (Anchored / Tied Down)	60 mph any position (96 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

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