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, 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 is 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

TECHNICAL SPECIFICATIONS

Electrical Specifications	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 El	77		69		66		155	
20 deg El	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

Mechanical / Environmental Specifications	
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

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