1221 AGILIS

1.2 Meter 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 2 or 3 Ruggedized Cases (Optional Packaging)***
- ***High Gain / Low Cross Pol Design***
- ***Superior Stability in Wind***
- ***Multiple Integration Options***
- ***Excellent Reliability***
- ***Minimal Maintenance***

The Sat-Lite Technologies Model 1221 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 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 weatherproof shipping cases (with option for 2 cases using heavier pedestal case).

In addition, the antenna is designed to meet international performance specifications for commercial or military applications and is 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 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	37.3	37.9	41.6	43.4	41.6	43.4	46.1	49.3
Noise Temperature (°K)										
10 deg El	48		77		69		66		155	
20 deg El	42		61		59		58		106	
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 IT U 580		Meets DSCS		Meets IT U 580 FCC		Eutelsat IT U 580		Meets IT U 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 dBm input	-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	-30 dB	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 Carbon Fiber Single Offset
Antenna Travel	
Azimuth	360° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (2 Cases)	
Pedestal Hub / Legs / Backbeam / 2 Port Feed	37.5" x 27.5" x 14.5" (93 lbs)
Reflector Case	30" x 30" x 16" (69 lbs)
Additional Packaging Options Available Including Integrated BUC	
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)
Survival	60 mph (96 kph) with tie downs / any position
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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