

# MODEL 821 Avion

## 80cm Manual Flyaway Antenna



The Sat-Lite Technologies Model 821 Avion manual flyaway antenna is highly portable and designed to meet IATA weight and dimension requirements for checked baggage. The antenna features a 6-piece segmented carbon fiber composite reflector. Assembly time is less than 15 minutes. The elevation-over-azimuth pedestal provides excellent stiffness characteristics and convenience for the user when pointing and peaking on a satellite. The antenna is designed to meet international performance specifications for multiple applications. X, Ku, and Ka Band feed and packaging configurations are available.



### Mechanical / Environmental Specifications

Reflector	80 cm Carbon Fiber
Reflector Configuration	6 Piece Symmetrical
Antenna Travel	
Azimuth	+/-180° continuous with fine adjust
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Packaging (Soft / Backpack Optional)	
Case (Compression Molded, Ku Config)	26.5" x 20.5" x 15" (36 lb / 16.4 Kg)
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational (tied down)	30 mph Gusting to 40 mph ( 48 kph G 64 kph)
Survival (tied down, any position)	60 mph

Electrical Specifications	2 Port X Band Circular		2 Port Cross Pol Ku Band Linear		2 Port Cross Pol Ka Band Circular Polarization	
	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	7.25 - 7.75	7.9 - 8.4	10.95 - 12.75	13.75 - 14.5	19.2 - 21.2	29.0 - 31.0
Gain (Midband, dBi)	33.5	34.3	37.7	39.2	42.0	45.2
Typ. Noise Temperature (°K)						
10 deg E1	80		79		150	
20 deg E1	72		70		120	
Axial Ratio	1.21 dB	2.0 dB			1.5 dB	1.0 dB
Cross Pol (std)						
On Axis	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in 1 dB BW	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
Sidelobe Compliances	188-164A		ITU 580-6		188-164A	
VSWR	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1	1.30:1
Isolation						
Tx/Rx	-110 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-110 dB	0 dBm input	-35 dB	0 dBm input	-70 dB