

MODEL 838 & 1038 Avion

80 cm & 1 M Motorized Flyaway Antenna



The Sat-Lite Technologies Model 838 and 1038 Avion motorized flyaway antennas are highly portable and designed to meet IATA weight and dimension requirements for checked baggage. Each antenna features a 6 or 8 piece segmented carbon fiber reflector that packs in 1 case. 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 control system includes a touch screen autolocate controller that interfaces to a modem or uses a DVB for locating and peaking on the satellite. The antennas are 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 & 1 M Carbon Fiber
Reflector Configuration	80 cm - 6 Piece, 1 M - 8 Piece Symmetrical
Antenna Travel	
Azimuth	+/-180° continuous with fine adjust
Elevation	5 - 90° of reflector bore sight
Polarization	± 90° (std manual drive)
Packaging (Pelican Air 1637)	26.6"x 20.6"x 14.9" (67.6 x 52.5 x 37.8 cm)
Weight	
Model 838 - 80 cm (with controller)	47 lbs (21.4 kg)
Model 1038 - 1 m (with controller)	51 lbs (23 kg)
Backpack option	available
Autolocate Controller	24 VDC Input Power (100 W)
	Locates on DVB or interfaces to CFE Modem
	Includes built in GPS and Compass
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational (anchored)	30 mph Gusting to 40 mph (48 kph G 64 kph)
Survival (anchored, petals removed)	75 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) (80 cm)	33.5	34.3	37.7	39.2	42.0	45.2
Gain (Midband, dBi) (1 M)	35.3	36.0	39.5	41.1	43.7	47.1
Typ. Noise Temperature (°K)						
10 deg El	80		79		155	
20 deg El	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

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