

# MODEL 828 & 1028 Avion

## 80 cm & 1 M Manual Flyaway Antenna



The Sat-Lite Technologies Model 828 and 1028 Avion manual flyaway antennas are highly portable and designed to meet IATA weight and dimension requirements for checked baggage. The antennas feature a 6 or 8 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 antennas are designed to meet international performance specifications for multiple applications. X, Ku, and Ka Band feed and packaging configurations are available.



<b>Mechanical / Environmental Specifications</b>	
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°
Packaging (Pelican Air 1637)	26.6"x 20.6"x 14.9" (67.6 x 52.5 x 37.8 cm)
Weight (less BUC and Satfinder)	
Model 828 - 80 cm	36 lbs (16.4 kg)
Model 1028 - 1 m	38 lbs (17.3 kg)
Backpack option	available
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

<b>Electrical Specifications</b>	<b>2 Port X Band Circular</b>		<b>2 Port Cross Pol Ku Band Linear</b>		<b>2 Port Cross Pol Ka Band Circular Polarization</b>	
	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>	<b>Rx</b>	<b>Tx</b>
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