

# 2031 Agilis

## 2.0 Meter Motorized Flyaway Antenna



- **Intelsat & Eutelsat Compliant (Using appropriate feed)**
- **Multi-Band C, X, Ku and Ka Band Frequencies**
- **Integrated Feedboom Assembly Option**
- **Compact Packaging**
- **Superior Stability in Wind**
- **Excellent Reliability**
- **Minimal Maintenance**
- **Less than 15 min Assembly Time**
- **Captive Hardware**

The Sat-Lite Technologies Model 2031 Agilis motorized carbon fiber flyaway antenna offers superior performance in a lightweight, portable package. This antenna features a 7 piece carbon fiber segmented reflector designed to provide high gain and low cross pol characteristics. The motorization package includes a ruggedized outdoor mounted controller with preconnectorized cables allowing for quick assembly and disassembly. The custom-designed elevation-over-azimuth tripod pedestal provides high stiffness with minimal weight. The antenna components are modular in design which also reduces assembly time and provides an improved packaging scheme requiring less time and effort to pack or unpack the antenna. The molded cases are included.

The antenna is designed to meet international performance specifications for commercial or off-the-shelf military applications and is readily available in C, X, Ku and Ka band frequencies. Multiple feed and integration configurations are available.



<i>Electrical Specifications</i>	2 Port Cross-Pol C Band Extended Linear Feed		2 Port Cross-Pol C Band Std. Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular Polarization		2 Port Cross-Pol Ku Band Linear / Mode Matched Feed	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
	Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.2	5.85 - 6.425	3.625 - 4.2	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.95 - 12.75
Gain (Midband, dBi)	36.4	40.8	36.6	40.6	36.5	40.6	42.0	42.8	46.2	47.9
Noise Temperature (*K)										
10 deg E	51		45		55		68		53	
20 deg E	45		40		50		64		48	
Cross Pol										
On Axis	-30 dB	-30 dB	-30 dB	-30 dB	-20 dB	-27 dB	-30 dB	-30 dB	-35 dB	-35 dB
in 1 dB BW	-26 dB	-26 dB	-26 dB	-26 dB	-20 dB	-27 dB	-30 dB	-30 dB	-25 dB	-35 dB
Axial Ratio	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		1.6 dB	0.75 dB	0.5 dB	0.5 dB		ITU, FCC
Sidelobe Compliances	Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Meets ITU 580 Beyond Mainbeam		Mil-Std 188-164A			Eutelsat
VSWR	1.40:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1	1.30:1	1.30:1	1.35:1	1.30:1
Isolation										
Tx/Rx	-85 dB	0 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input	-120 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-35 dB	0 dBm input	-120 dB	0 dBm input	-30 dB

<i>Mechanical / Environmental Specifications</i>	
Reflector	2.0 meters (78.75 in) Carbon Fiber
Reflector Configuration	Parabolic Single Offset, 0.8 F/D (7 pieces)
Antenna Travel	
Azimuth	+/- 180° continuous
Elevation	5 - 90° of reflector bore sight
Polarization	± 90°
Motorized Antenna Packaging (Tri-Band Configuration**)	
Case 1 - Pedestal Legs / Backbeam	44.9" x 25.3" x 16.5" , 92 lbs (42 Kg)
Case 2 - Az Hub / Foot Pads / El Actuator / CTRLR	37.5" x 27.5" x 14.5" , 124 lbs (56 Kg)
Case 3 & 4 - (7 piece reflector)	42" x 13" x 34.5" , 72 lbs ea., (33 Kg ea.)
Integrated Feed Case with BUC (Per Band)	(Depending on Feed and BUC)
Total Weight (less feed options)	360 lbs (164 Kg)
Temperature	
Operational	-20 to 60°C (-4 to 140°F)
Survival	-40 to 70°C (-48 to 158°F)
Pointing Loss (operational winds)***	2dB typical (Ku-band Rx)
Winds	
Operational	30 Gusting to 45 mph (40 kph G 72 kph) with ballast or anchors
Survival	60 mph (96 kph) with tie downs / any position
Feedboom Mounted Integration****	60 lbs typical (27.2 kg)
Rain	
Operational	2 in/h (5 cm/h)
Survival	4 in/h (10 cm/h)
Relative Humidity	0 - 100% (condensing)
Solar Radiation	360 btu/h/ft <sup>2</sup> (1000 Kcal/h/m <sup>2</sup> )
Radial Ice (survival)	1/2 in (12.7 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

\* Lower Axial Ratio Feeds Available.

\*\* For Ka Band applications, pedestal configuration and packaging not shown.

\*\*\* Performance dependent on proper installation and ballast/anchors

\*\*\*\* Dependent on position of weight. Consult Engineering for details

Note: Specifications subject to change without notice.