

1.8 Meter Motorized Flyaway Antenna





Features

- Intelsat Compliant
- Multi-Band C, X, Ku Band Frequencies
- Multiple Integration Options
- Compact Packaging
- Superior Stability in Wind
- Excellent Reliability
- Minimal Maintenance
- Less than 15 min Assembly Time
- Captive Hardware
- Autolocate Controller Options
- Integrated Feed Boom Options

Overview

The 1.8 Meter Motorized Flyaway Antenna from Advantech Wireless offers high performance in a lightweight, high value package. This antenna is specifically designed to provide a lower cost alternative for autolocate system requirements. The manual antenna configuration can be supplied with autolocate assistance through the use of a customer furnished web browser. This option allows the untrained user to easily position and peak the antenna on the satellite without the requirement of a fully motorized system. Alternatively, a fully motorized system can be provided to offer the same result at the push of a button. A ruggedized outdoor mounted controller, motorized azimuth hub assembly, and motorized elevation jack assembly are used in the fully motorized configuration. Both manual and motorized systems are designed specifically for lower power VSAT applications using a BUC and a modem. Other options are available as well. The system is also offered with integrated feed boom assemblies that can pack in a case. Each assembly can include the feed, BUC, LNB and interfacing waveguide. The antenna meets international performance specifications for commercial or military applications and is readily available in C, X, and Ku band frequencies.

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PRODUCT FEATURES & SPECIFICATIONS

Technical Specifications

Electrical Speci	fications							
	2 Port Cross-Pol C Band Linear Feed		2 Port Cross-Pol C Band Circular Feed		2 Port X Band Circular		2 Port Cross Pol Ku Band Linear	
	Rx	Tx	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	3.40 - 4.20	5.85 - 6.725	3.625 - 4.20	5.85 - 6.425	7.25 - 7.75	7.9 - 8.4	10.70 - 12.75	13.75 - 14.5
Gain (Midband, dBi)	35.4	39.3	35.4	39.5	41.3	42.0	45.3	46.6
Noise Temperature	e (°K)							
10 deg El	41		41		60		55	
20 deg El	36		36		56		50	
Axial Ratio			3.0 dB	2.3 dB	1.5 dB	1.5 dB		
Cross Pol								
On Axis	-30 dB	-30 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-30 dB	-30 dB
in 1 dB BW	-23 dB	-23 dB	-15.3 dB	-17.5 dB	-21.3 dB	-21.3 dB	-23 dB	-23 dB
Sidelobe Compliances	IESS 207		IESS 207		Meets DSCS		Meets ITU 580	
VSWR	1.50:1	1.30:1	1.50:1	1.30:1	1.30:1	1.30:1	1.50:1	1.30:1
Isolation								
Tx/Rx	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-110 dB	0 dBm input
Rx/Tx	0 dBm input	-60 dB	0 dBm input	-60 dB	0 dBm input	-110 dB	0 dBm input	-35 dB

Mechanical / Environmental Sp	ecifications				
Reflector	1.8 meters (70.87in) - Glass Fiber Reinforced Polyester				
Reflector Configuration	Parabolic Single Offset, 0.6 F/D (4 piece or 7 piece option)				
Antenna Travel	Talabolic Giligle Gilbel, 6.6 175 (4 piece of T piece option)				
Azimuth	± 180° continuous				
Elevation	5 - 90° of reflector bore sight				
Polarization	± 90°				
Antenna Packaging					
Case 1– Pedestal Legs/ Backbeam	1 @ 44.9" x 25.3" x 16.5" / 100 lbs				
Case 2- Az Hub / Foot Pads / El Actuator /CTLR	1 @ 37.5" x 27.5" x 14.5" / 120 lbs				
Cases 3 & 4 - (4 piece reflector)	2 @ 42" x 13" x 34.5" / 76 lbs ea				
Total Weight (less feed options)	420 lbs (191 kg) – 4 pc reflector or 372 lbs (169 kg) – 7 piece carbon fibre				
Temperature					
Operational	-20 to 60°C (-4 to 140°F)				
Survival	-40 to 70°C (-48 – 158°F)				
Pointing Loss (operational winds)**	3dB peak (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 (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/ft² (1000 Kcal/h/m²)				
Radial Ice (survival)	1/2 in (12.7 mm)				
Corrosive Atmosphere * Feed packaged separately dependent on options ordered	As encountered in coastal and/or industrial areas				

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^{*} Feed packaged separately dependent on options ordered
*** Performance dependent on proper installation and ballast/anchors
*** Dependent on position of weight. Consult Engineering for details