

FLY-1801



TECHNICAL SPECIFICATIONS

The iNetVu® FLY-1801 Antenna is a 1.8m highly portable, self-pointing, auto-acquire unit that is configurable with the iNetVu® 7715 Controller and can be assembled in less than 20 minutes. The antenna features a 6-piece carbon fibre reflector with compact pedestal and is designed to be cost-effective while providing exceptional performance in a light weight package.



Features

- 6-Piece Carbon Fibre Reflector
- One button, auto-pointing Controller acquires any Ku, Ka, C or X band satellite within 2 minutes
- 3 Axis motorization
- Supports manual control
- Captive Hardware/Fasteners
- No tools required for assembly
- Set-up time less than 20 minutes
- Designed to work with the iNetVu® 7715 Controller
- Leveling capability for uneven surfaces
- Standard 2 year warranty



Application Versatility

Whether you operate in Ku, Ka, C or X band, the 1.8m Flyaway system is easily configured to provide instant access to satellite communications for any application that requires reliable and/or remote connectivity in a rugged environment. Ideally suited for industries such as Disaster Management, Military, Oil & Gas Exploration, Mining, Construction, Mobile Offices and Emergency Services.



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Mechanical

Reflector	1.8m offset feed, Carbon Fibre
Platform Geometry	Elevation over Azimuth
Deployment Sensors GPS Antenna	Compass $\pm 2^\circ$, Tilt Sensor $\pm 0.2^\circ$
F/D Ratio	0.80
Azimuth	Full 360° in overlapping, 200° sectors
Elevation	0° to 90°
Polarization	$\pm 95^\circ$ deg or manual LH/RH Circular Polarity
Elevation Deploy Speed	Variable 3°/sec, 2°/sec typ. Variable
Azimuth Deploy Speed	5°/sec, 2°/sec typ.
Peaking Speed Peaking	0.2°/sec
Accuracy	$\pm 0.1^\circ$
Motor Voltage	24VDC 15 Amp (Max.)

Environmental

Wind loading	
Operational (no ballast)	40 km/h (25 mph)
Operational (with ballast)	72 km/h (45 mph)
Survival (with ballast)	120 km/h (75 mph)
Temperature	
Operational	-30° to 60° C (-22° to 140° F)
Survival	-40° to 65° C (-40° to 149° F)
Water Ingress Rating	IP-66

Electrical

Rx & Tx Cables	2 RG6 Cables
Control Cables	
Standard	10 m (33 ft) Extension Cable
Optional	Up to 60 m (200 ft) available

RF Interface

Radio Mounting	Feed arm
Coaxial	RG6U
Axis Transition	Rigid/Twist-Flex Waveguide
Electrical Interface	10 m (33 ft) ext. cables w/MIL connectors
VSWR	Rx 1.30:1 Tx 1.30:1

Physical

Transportable Cases:

Case 1: AZ Assembly: 66 x 61 x 86.4cm (26"x24"x34"); 49.4kg (109lbs)
 Case 2: Tripod Assembly: 173 x 66 x 50cm (68"x26"x20"); 36.4kg (80lbs)
 Case 3: EL Assembly & Feedboom Supports: 61 x 155 x 61cm (24"x61"x24"); 39.6kg (87.5lbs)
 Case 4: Feedboom Assembly & Reflector segments: 71.1 x 114.3 x 36.4cm (28"x45"x34"); 39.6kg (87.5lbs)
 Case 5: Controller (Optional): 4-10U Rack Mount: 94 x 83.8 x 53cm (37"x33"x21"); 32kg (70lbs)
 Climate Control case also available

Optional Feeds:

Case 6: Ku-Linear POL & EL Actuator: 69.9 x 77.0 x 35.1cm (27.5"x30.3"x13.8"); 32.5kg (71.5lbs)
 Case 7: C-Linear POL & EL Actuator: 75 x 75 x 48.3cm (29.5"x29.5"x19"); 46.2kg (102lbs)
 Case 8: C-Circular POL & Actuator: 118 x 62 x 50cm (46.5"x24.4"x19.7"); 40.0kg (88lbs)
 Case 9: Ka-Circular POL: TBD

Shipping Weights & Dimensions

TBD

Antenna Bands

Transmit Power ⁽¹⁾	1 to 400 watt						1 to 500 watt	
	Ku-Linear/Circular		C-Linear / Circular		Ka-Circular		X - Circular	
	Receive	Transmit	Receive	Transmit	Receive	Transmit	Receive	Transmit
Frequency (GHz)	10.70 - 12.75 ⁽²⁾	13.75 - 14.80	3.40 - 4.20 ⁽²⁾	5.850 - 6.725/6.425	17.7-21.2 ⁽²⁾	27.5-31.0	7.25 - 7.75	7.90 - 8.40
Feed Interface	WR75	WR75	WR229	WR137 or Type N	WR42	WR28	WR112	WR112
INSAT Frequency Xpol (GHz)			4.50-4.80	6.275-7.025				
INSAT Frequency Copol (GHz)			4.50-4.80	6.724-7.025				
Efficiency	70%	70%						
Midband Gain (± 0.2 dB)	45.30	46.50	35.40	39.30/39.50	48.3	51.9	40.4	41.0
Antenna Noise Temp. (K)	10° EL = 60; 20° EL = 53		10° EL = 43/55; 20° EL = 38/50		10° EL = 131; 20° EL = 108		10° EL = 50; 20° EL = 45; 30° EL = 40	
Sidelobe Envelope, Co-Pol (dBi)								
1.5° < Θ < 20°	29-25 Log Θ		2.5° < Θ < 20°	29-25 Log Θ	2.8° < Θ < 20°	29-25 Log Θ	DSCS Req -14dB (First sidelobe)	
20° < Θ < 26.3°	-3.5		20° < Θ < 26.3°	-3.5	20° < Θ < 26.3°	-3.5		
26.3° < Θ < 48°	32-25 Log Θ		26.3° < Θ < 48°	32-25 Log Θ	26.3° < Θ < 48°	32-25 Log Θ		
48° < Θ < 180°	-10 (Average)		48° < Θ < 180°	-10 (Average)	48° < Θ < 180°	-10 (Average)		
Cross-Polarization on Axis ⁽³⁾	-35 dB	-35 dB	-30 dB	-30 dB			≥ 90 dB	
Within 1dB Beamwidth	-28 dB	-28 dB	-26 dB	-26 dB				
Isolation (Port to Port)	30 dB	85 dB	30 dB	70 dB	30 dB	85 dB		

Notes:

- (1) Depending on size and weight of feed arm mounting limitation
- (2) LNB PLL Type required with stability better than ± 25 KHz
- (3) Ku-Circular Cross-Pol on Axis data not available



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Please note this is a draft.
 Specifications are subject to change

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