FLY-98H

TECHNICAL SPECIFICATIONS

The iNetVu® FLY-98H Flyaway Antenna is a 98 cm satellite antenna system which is a highly portable, self-pointing, auto-acquire unit that is configurable with the iNetVu® 7710 Controller providing fast satellite acquisition within minutes, anytime anywhere. It can be assembled in 10 minutes by one person.



Compliant for use on Avanti & Yahsat Satellite Services

ciNetVu°

by C-COM Satellite Systems Inc.

Features

- One-Piece, high surface accuracy, offset feed, steel reflector
- Heavy duty feed arm capable of supporting up to 5kg (10lbs) Ka transceiver
- Designed to work with the iNetVu® 7710 Controller
- Works seamlessly with the world's emerging commercial Ka modems and services
- 2 or 3 Axis motorization
- · Supports manual control when required
- One button, auto-pointing controller acquires Ka-band satellite within 2 minutes
- Captive hardware / Fasteners
- 10 minute assembly by one person, no tools required
- Compact packaging; 3 ruggedized cases
- Supports Skyware Global 98 cm Ka antenna
- Works with Yahsat (MENA)⁽¹⁾ and Avanti (Europe)⁽¹⁾
- Standard 2 year warranty

Application Versatility

If you operate in Ka-band, the FLY-98H 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. This next generation Flyaway Ka terminal delivers affordable broadband Internet services (High-speed access, Video & Voice over IP, file transfer, e-mail or web browsing). Ideally suited for industries such as Oil & Gas Exploration, Military Communications, Disaster Management, SNG, Emergency Communications Backup, Cellular Backhaul and many others.

⁽¹⁾ Uses JUPITER Radio



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Specifications are subject to change

Feb 2018

FLY-98H

TECHNICAL SPECIFICATIONS

Mechanical

Reflector Platform Geometry Deployment Sensors

Azimuth Elevation Polarization Elevation Deploy Speed Azimuth Deploy Speed Peaking Speed

Environmental

Wind loading Operational (no ballast) Operational (with ballast) Temperature Operational Survival Water Ingress Rating

Electrical

Rx & Tx Cables Control Cables Standard Optional 50 km/h (30 mph) 72 km/h (45 mph)

-30° to 60° C (-22° to 140° F) -40° to 65° C (-40° to 149° F) IP-66

98 cm Elliptical Antenna, offset feed

Elevation over Azimuth

± 45°, Circular Manual

Variable, 3% sec typ.

Variable 3º/sec typ.

GPS antenna Compass $\pm 2^{\circ}$ Tilt sensor $\pm 0.1^{\circ}$

±175°

0 - 90°

0.1º/sec

2 RG6 cables -10 m (33 ft) each

10 m (33 ft) Ext. Cable up to 60 m (200 ft) available

Receive

> -24 dB

1.3:1

Frequency (GHz)		
Feed Interface (Circular)		
Midband Gain (+-0.2 dBi)		
Antenna Noise Temp. (K)		
Sidelobe Envelope Co-Pol (dBi)		
100λ / D < Ø < 20°		
20° < Ø < 26.3°		
26.3° < Ø < 48°		
48° < Ø < 180°		
Cross-Polarization		
VSWR		

19.20 - 20.20 29.50 - 30.0 RG6 RG6 43.50 @19.75 GHz 46.60 @29.75 GHz 30° EL= 62 Max. 29 - 25 Log Ø -3.5 32-25 Log Ø -10 (typical)

Transmit

> -22 dB

RF Interface

Radio Mounting Coaxial

RG6U F Type to tripod base

 Physical

 Case 1: Reflector
 L: 109 cm (43")
 W: 109 cm (43")

 H: 29 cm (11.5")
 28.6 Kg (63 lbs)

 Case 2: Tripod/Feed arm
 L: 122 cm (48")
 W: 58 cm (23")

 H: 28cm (11")
 27.7 Kg (61 lbs)

 Case 3: Controller/AZ/EL
 L: 44.5 cm (17.5")
 W: 80 cm (31.5")

24VDC

H: 38 cm (15.5")

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Feed Arm

Motors

Electrical Interface

8 Amp (Max.)

34 Kg (75 lbs)

Shipping Weights & Dimensions*

Skid: 132 cm x 137 cm x 121.9 cm (52" x 54" x48") 23.1 Kg (51lbs) Total weight of system in cases: 90.3 Kg (199 lbs) Total weight of system in cases on skid: 113.4 Kg (250 lbs)

* The shipping weights/dims can vary for particular shipments depending on actual system configuration, quantity, packaging materials and special requirements

HOUSTON MEDIA SYSTEMS

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7710 Controller

TECHNICAL SPECIFICATIONS



Online with the touch of a button

- Simple stand-alone one touch operation to find satellite & stow antenna
- Typical satellite acquisition time in less than 2 minutes
- Ideal for applications that require a quick, simple setup and reliable connection
- Internal DVB receiver provides modem independence
- · Based on an embedded software solution

Features

- Simultaneous multi-axis movements
- Easy to configure and operate; one touch stand-alone solution
- · Single control cable connection to iNetVu® platform
- Front Panel Configurable
- · Only works with iNetVu® mobile platforms which are equipped with 7720 on-board module
- Supports DVB-S and DVB-S2/ACM frequencies
- Optimal, high-precision antenna pointing
- Remote access and operation via Network, Web and other Interfaces
- Supports inclined orbit satellites
- Integrated with multiple modems
- Works with GPS and GLONASS Satellite Navigation Systems
- Global Position Information available for external devices

Viasat

Surfbeam II/PRO

Tooway/PRO Gilat

- Interoperable with Uplogix's remote management appliances
- Supported languages by GUI interface: English, Arabic, Russian, Swedish Chinese (Mandarin, Traditional) and Spanish
- Standard 2 year warranty

Modem Compatibility*

The DVB-S2/ACM Tuner is an integrated part of all iNetVu® 7710 Controllers. It allows the iNetVu® system the option to find the satellite with and without the use of a satellite modem. Compact and adaptable, this high performance tuner is programmable to any DVB-S or DVB-S2/ACM frequency and allows the user to pre-configure specific satellite options.

iDirect

Newtec

Evolution X5/X7

UHP-1000/200

STM

M7

DATUM

MDM-3100 (standalone)

MDM 3X00/MDM2500/MDM6000

Romantis/UHP/Eastar*

SatLink 1000/1910/2000/2910

HughesNet HN 7000/7000S HN 9200/9260 HN 9400/9460 HN 9600/9800 HX 50/90/100/200/250/260 HT 1100/1200/1300/2000

SkyWire MDX420

Skyedge II/IP lpstar* Comtech/ Radyne* CDM-6001 /5701 /625/840 DMD 20/DMD 20 LBST

Skyedge II/Pro/Access Skyedge IIc (Standalone) IPX-5100/9200 IPX-3200

Novelsat NS3000

* Modem Integration underway. Please contact C-COM if you need more information about modem compatibility as these may change without further notice.

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Optional Beacon Receiver

An optional 19" rack mount iNetVu® Beacon Receiver (BR300L) is available and has been integrated to work with the iNetVu® Controllers. This external self contained compact unit detects the power density of the satellite beacon (930MHz - 2300MHz) and is connected to the controller via an RS232 serial port interface.

Optional GPS/GLONASS Compass

An optional GPS/Glonass based compass is available and has been integrated with the iNetVu Controllers. This external compact device can be fitted on roof of vehicle beside the iNetVu platform to provide accurate vehicle heading within 1 degree irrespective of the surrounding magnetic field. The precise heading of the antenna translates to a smaller search window and hence faster satellite acquisitions. Interfaces to the controller via RS-232 serial port.

Interfaces

RF Rx In	Type F Connector
RF Rx Out	Type F Connector
7720 Port	Circular Metal Connector
Network Interface	RJ45 Connector
USB 2.0 (Full Speed)	USB Type B Receptacle
Serial Port	DB9 Female Connector
DC In	Circular Amp Connector
GPS	SMA Connector
Electrical	
LNB Power	Disable 13V 14V 18V 19V 2
Universal AC Input	100 - 240VAC, 4.0 - 2.0A,
DC Input	24VDC @ 15A (Max.)
Idle Power Consumption	24VDC @ 1A

V. 18V. 19V. 20V. 21V @ 500 mA (Max.) 4.0 - 2.0A, 50/60 Hz (Max.)

Physical

Dimensions	
Standard	
Weight	

19"1U Rack Mountable Unit H: 4.5cm (1.75") W: 43cm (17.1") D: 28cm (11.0") 2.7kg (6.0lbs)

Environmental

Operating Temperature Storage Temperature

Certification

FCC Part 15 Class B, CE for Emission & Immunity Standards

Shipping dimensions

Shipping box: 54 cm \times 44 cm \times 20 cm (21" \times 17" \times 8"); 7kg (15 lbs) Optional Cases - See Transportable Cases datasheet

-20°C to +60°C (-4°F - 140°F)

-40°C to +65°C (-40°F - 149°F)



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7710 Controller

TECHNICAL SPECIFICATIONS

SEVEN methods of finding satellite with the iNetVu[®] 7710 Controller

- DVB Search Searches directly for any DVB-S or DVB-S2 (ACM) carrier on the target satellite and peaks on it.
- DVB Search, Opposite Polarity Searches for DVB-S or DVB-S2 carrier in the opposite polarity on target satellite, then rotates polarization axes and enables transmitter if modem signal attained.

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- DVB Search, Reference Satellite with modem Searches for a DVB-S or DVB-S2 carrier on ANY configured reference satellite then moves to the target satellite and peaks on modem signal.
- DVB Search, Reference Satellite without modem Peaks on a reference satellite then uses precise pointing mechanism to locate the target satellite, even when no modem RF or beacon signal is available to peak on.
- RF Automatic Search The system will stop and search for modem signal when it senses an increase in RF energy received through the DVB tuner as it passes by the target satellite. If the modem signal is found, the system will begin the peak process.
- RF Override Search The user specifies an RF Threshold such that the system stops when it reaches an area above the threshold and looks for modem signal to peak on.
- Beacon Receiver The iNetVu[®] Controller works seamlessly with the optional iNetVu[®] Beacon Receiver by searching for a specified beacon frequency and then peaks on it (search gain level can be adjusted).

The iNetVu[®] 7710 Controller

- Can be operated from a PC application using the USB port or network port
- · Has built in web interface that can be operated remotely or locally over a network connection
- Can be completely configured from the front panel with a password protected configuration menu
- Protects the platform and its components from damage, using current levels and sensor readings. It includes motion and movement protection as well
- Provides automatic re-peaking if signal degradation occurs
- Works correctly even when deployed while on an incline (in any direction) of up to 15°
- Can search for both DVB-S and DVB-S2/ACM carriers
- · Supports full automatic and manual control of the iNetVu® Platform
- · Allows the users to select from multiple speed levels for both azimuth and elevation movements
- Allows the system to operate unattended in remote locations
- It is able to upload the recorded log information (Maximum of 12 hours) from the controller to the PC for troubleshooting
- Supports full tracking of Inclined Orbit satellites by both signal strength and timed function
- Is capable of powering the LNB with 13-21 Volts, selectable in software
- Provides the option of saving the settings to a configuration file that can be used to configure additional controllers with the same configuration parameters
- Works seamlessly with Uplogix Remote Management Appliances
- Supports both GPS and GLONASS Satellite Navigation Systems
- Supports Electronic Flux Gate Compass for increased speed of acquisition
- Designed and manufactured to the highest standards of quality and reliability by C-COM
- Only works with iNetVu® Mobile antenna platforms which are equipped with 7720 on board module



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