Ka-98H/Jup

iNetVu®
by C-COM Satellite Systems Inc.

TECHNICAL SPECIFICATIONS

The iNetVu® Ka-98H/Jup Drive-Away Antenna is a 98 cm auto-acquire satellite antenna system which can be mounted on the roof of a vehicle for Broadband Internet Access over any configured satellite. The system works seamlessly with the iNetVu® 7710 Controller providing fast satellite acquisition within minutes, anytime anywhere.

"Approved for operation on Hughes JUPITER System"

Features

- One-Piece high surface accuracy, offset feed, SMC reflector
- Heavy duty feed arm capable of supporting up to 5kg (10 lbs) RF Electronics (LNB & BUC) or transceiver
- Designed to work with the iNetVu® 7710 Controller
- Adapted to operate on HNS Jupiter based Network Technology
- 2 or 3 Axis motorization
- Supports manual control when required
- One button, auto-pointing controller acquires any Ka-band satellite within 2 minutes
- Field upgradable to Ku-band
- Locates satellites using the most advanced satellite acquisition methods
- Supports GD/HNS 98cm Ka antenna
- Works with HNS Jupiter (NA)(1), YAHSAT (MENA)(1) and Avanti(1)
- Standard 2 year warranty

HUGHES

Application Versatility

If you operate in Ka-band, the Ka-98H/Jup 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 Oil & Gas Exploration, Military Communications, Disaster Management, SNG, Emergency Communications Backup, Cellular Backhaul and many others.

HOUSTON MEDIA SYSTEMS

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Ka-98H/Jup

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TECHNICAL SPECIFICATIONS

Mechanical

Reflector	98 cm Elliptical Antenna, Offset feed
Platform Geometry	Elevation over Azimuth
Deployment Sensors	GPS antenna
	Compass ± 2º
	Tilt sensor ± 0.1
Azimuth	Full 360º in overlapping 200º sectors
Elevation	0 - 90º
Elevation Deploy Speed	Variable, 10º/sec typ.
Azimuth Deploy Speed	Variable, 10º/sec typ.
Peaking Speed	0.1º/sec

Environmental

Survival	
Wind Deployed	160 km/h (100 mph)
Wind Stowed	225 km/h (140 mph)
Temperature	-40ºC to 65ºC (-40°F to 150°F)
Operational	
Wind	72 km/h (45 mph)
Temperature	-30ºC to 55ºC (-22°F to 130°F)

Thermal Test per MIL-STD-810F, Method 501.4, High/Low Temperatures
Vibration Test per MIL-STD-810F, Annex A, Category 4, Truck/Trailer/Tracked
Shock Test per IEC 60068-2-27, Water Ingress per IP-66

Electrical

IFL Cable	1 RG6 cable - 10 m (33 ft)
Control Cables	
Standard	10 m (33 ft) Ext. Cable
Optional	up to 60 m (200 ft) available

	Receive	Transmit
Frequency (GHz)	19.20 - 20.20	29.50 - 30.00
Feed Interface (Circular)	RG6	RG6
Midband Gain (± 0.2 dBi)	43.50 @19.75 GHz	46.60 @29.75GHz
Antenna Noise Temp. (K)	30º EL= 62 Max.	
Sidelobe Envelope, Co-Pol (dBi)		
100λ / D < Ø < 20º	29 - 25 Log Ø	
20º < Ø < 26.3º	-3.5	
26.3º < Ø < 48º	32-25 Log Ø	
48º < Ø < 180º	-10 (typical)	
Cross-Polarization	> -24 dB	> -22 dB
VSWR	1.3:1	

RF Interface

Radio Mounting	Feed Arm (1)
Coaxial	RG6U from Transceiver to Base
	Connector

Physical

Mounting Plate	L: 151 cm (59.5")	W: 45 cm (17.7")
Stowed Reflector Ext. Dims	L: 173 cm (68.1")	W: 100 cm (39.5")
	H: 30 cm (11.8")	
Deployed Height	151 cm (59.5")	
Platform Weight	54 kg (119 lbs)	

Motors

Electrical Interface	24VDC	8 Amp (Max.)

Shipping Weights & Dimensions*

Crate: 183 cm x 109 cm x 66 cm (72" x 43" x 26"), 52 kg (115 lbs)
Platform: 54 kg (119 lbs)
7710 Controller: 6 kg (13 lbs)
Cables: 5 kg (11 lbs)

Total weight: 117 kg (258 lbs)

Transportable Case Option:
Base Case: 183 cm x 109 cm x 47 cm (72" x 43" x 18.5"), 133.5 kg (294 lbs)

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

Notes:
(1) Supported Radios: Jupiter Radios motorized with Rotary Joint

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7710 Controller

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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
- 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.

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

Comtech/ Radyne*
CDM-600L/570L/625/840
DMD 20/DMD 20 LBST
SkyWire MDX420

Viasat
Surfbeam II/PRO
Tooway/PRO

Gilat
Skyedge II/IP
Skyedge II/Pro/Access
Skyedge IIc (Standalone)

Ipstar*
IPX-5100/9200
IPX-3200

Novelsat
NS3000

iDirect
Evolution X5/X7

Newtec
MDM-3100 (standalone)
MDM 3X00/MDM2500/MDM6000

Romantis/UHP/Eastar*
UHP-1000/200

STM
SatLink 1000/1910/2000/2910

DATUM
M7

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

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, 20V, 21V @ 500 mA (Max.)
Universal AC Input	100 - 240VAC, 4.0 - 2.0A, 50/60 Hz
DC Input	24VDC @ 15A (Max.)
Idle Power Consumption	24VDC @ 1A

Physical

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

Environmental

Operating Temperature	-20°C to +60°C (-4°F - 140°F)
Storage Temperature	-40°C to +65°C (-40°F - 149°F)

Certification

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

Shipping dimensions

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

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7710 Controller

TECHNICAL SPECIFICATIONS

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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.
- 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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