



INT-1X4B-1H Quick Install Guide



This guide is for quick installation only.
For complete owners manual go to www.libav.com or use a QR reader to access the manual via QR code below.



Scan QR Code with your Smart-phone or Tablet

Product Overview

The Intelix INT-1X4B-1H 1:4 HDBaseT distribution amplifier accepts a single HDMI input and splits into four HDBaseT outputs. The INT-1X4B-1H is designed with an HDMI loop out which is intended to cascade to additional INT-1X4B-1H units to distribute to multiple displays via HDBaseT. It supports video resolutions up to 4K@60Hz / 4:2:0 / 8bit deep color and all HDMI audio formats. It can extend 1080p signals on each output up to 229 feet (70 meters) and 4K signals up to 131 feet (40 meters) over a single CAT6 Ethernet cable. It supports Power over HDBaseT (PoH), which allows the compatible receivers to be powered from the splitter over the Ethernet cables. It supports bidirectional IR and RS232 pass-through and loop output.

The Intelix INT-HD70-RX and INT-HDX100-RX are compatible Intelix receivers with the INT-1X4B-1H distribution amplifier.

Package Contents

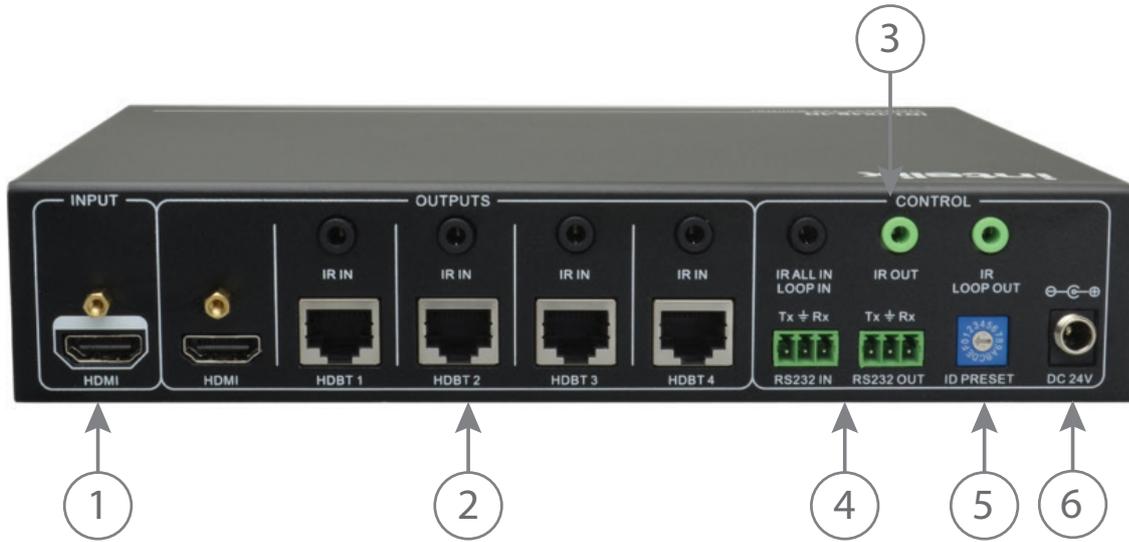
- INT-1X4B-1H 1:4 HDBaset Distribution Amplifier
- Quick Install Guide
- (1) 3-pin to 3-pin RS232 Cable (for RS232 cascading)
- (1) 3-pin to DB9 RS232 Breakout Cable
- (1) 3.5mm Audio Cable (for IR cascading)
- (1) IR Emitter
- (4) IR Broadband Receivers (30-55KHz)
- (1) DC24V 2.71A power supply with US power plug
- (2) Mounting clips with mounting screws
- (4) Plastic Cushions

Front Panel View



1. **POWER LED** - Illuminates solid RED when power is properly applied
2. **INPUT LED** - Illuminates solid GREEN when there is an ACTIVE HDMI source
3. **OUTPUT LEDS**
 - *HDMI*- Illuminates solid GREEN when there is an HDMI output link
 - *LINK*- Each LINK LED illuminates solid GREEN when there is a valid connection between the distribution amps HDBaseT output and a compatible HDBaseT receiver
 - *HDCP*- Each HDCP LED illuminates solid GREEN when the corresponding receiver supports HDCP and blinks GREEN when the corresponding receiver does not support HDCP. Each LED is off when there is no connected corresponding receiver
4. **EDID** - Dip switch setting for EDID management
 - *L.RES* - The INT-1X4B-1H reads EDID from all connected displays, and then the source device will automatically obtain the EDID which contain the lowest resolution
 - *DEFAULT*- Reset to the default EDID to distribute 4K@30Hz video
 - *H.RES*- The INT-1X4B-1H reads EDID from all connected displays, and then the source device will automatically obtain the EDID which contain the highest resolution
5. **FIRMWARE** - USB port for firmware upgrade procedure

Back Panel View



- 1. HDMI IN** - HDMI input port for connecting HDMI source
- 2. OUTPUTS**
 - *HDMI*- HDMI loop output for connecting to a local display or cascading the same HDMI source to another INT-1X4B-H
 - *HDBT 1-4* - Four HDBaseT RJ45 jacks with PoH support for connecting four compatible HDBaseT receivers
 - *IR IN*- Four 3.5mm IR input jacks for connecting up to four IR receivers
- 3. IR CONTROL** - 3.5mm IR input port for connection to IR receiver or 3rd party IR system
 - *IR ALL IN/LOOP IN* - 3.5mm IR IN jack for connecting an IR receiver or cascading to a previous INT-1X4B-1H in a cascading topology
 - *IR OUT* - 3.5mm IR OUT jack for connecting an IR emitter
 - *IR LOOP OUT* - A 3.5mm IR LOOP output jack for cascading to another INT-1X4B-H
- 4. RS232 CONTROL** - 3.5mm IR output port for connection to IR emitter
 - *RS232 IN*- 3-pin RS232 connector for 3rd party control
 - *RS232 OUT* - If cascading multiple units, use the supplied 3-pin to 3-pin cable to connect the output to the RS232 IN on the next INT-1X4B-1H in a cascading topology
- 5. ID PRESET**- Assigns a single digit ID to the INT-1X4B-1H when cascading multiple INT-1X4B-1H units and using RS232 control, therefore each splitter must have a unique ID. Use a small, flathead screwdriver to set the ID. There are sixteen positions, with 0 at the fully counterclockwise position and F at the fully clockwise position. After setting the ID, the device must be restarted for the new ID to take effect.
- 6. DC 24V** - Locking power supply port

Connectivity Instructions

1. Verify all components included with the INT-1X4B-1H set are present before installation.
2. If the INT-1X4B-1H is going to be permanently mounted to a surface, attach the included mounting brackets with the supplied screws.
3. Turn off power and disconnect the audio/video equipment by following the manufacturer's instructions.
4. Connect Category 6 F/UTP cabling or greater twisted pair cable with RJ45 connectors between the HDBaseT transmitter outputs of the INT-1X4B-1H and the compatible receivers (sold separately). TIA/EIA-568B straight-through wiring connections must be used with all HDBaseT receivers.
5. Connect an HDMI cable that is less to or equal to 5 meters in length between the displays and the connected compatible receivers HDMI outputs
6. Connect the source device to the HDMI input using HDMI cables that are less than or equal to 5 meters in length. For source devices that are further away, an HDMI extension device will be required to complete the connection.
7. Connect a display device or second INT-1X4B-1H to the HDMI output using an HDMI cable that is less than or equal to 5 meters in length. For a display that further away, it is highly recommended to utilize the HDBaseT outputs.
8. Connect IR or RS232 control accessories between the display and the connected compatible receivers (optional)
NOTE: A list of RS232 commands for this unit is available in the owners manual online at www.libav.com under the *DOCUMENTATION* tab of the INT-1X4B-1H product page
9. Set EDID mode on front panel of unit
10. Connect the included power supply to the INT-1X4B-1H and lock the power supply to the power connector by twisting the locking collar clockwise.
11. Power on attached audio/video devices.

Passing IR Signals:

The INT-1X4B-1H is capable of passing IR signals between 33 and 55 KHz. To prevent damage to any of the electronics, the INT-1X4B-1H should be powered off while inserting or removing any IR components. Inserting an IR transmitter into the IR IN port may damage the IR circuit for that extender.

To pass 3rd party IR system signals through the INT-1X4B-H, such as a control system, use the IR-AC IR coupling cable (sold separately).

Cabling Wiring Requirements

HDBaseT Cabling

To ensure proper performance of the INT-1X4B-H, it is recommended that you use solid core, shielded Category 6 F/UTP cabling at a minimum. Category 5e F/UTP may perform well but may not support power over HDBaseT reliably over longer distances.



When using shielded category cabling *ALWAYS*...

-use shielded connectors
-properly ground the category cable

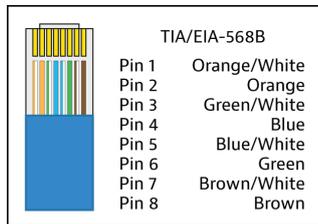
For optimized HDBaseT performance use the following Liberty Wire and Cable branded cabling;

Category 6 plenum; **24-4P-P-L6SH**

Category 6A plenum; **24-4P-P-L6ASH**

Category 6 NON-plenum; **24-4P-L6SH**

Category 6A NON-plenum; **24-4P-L6ASH**

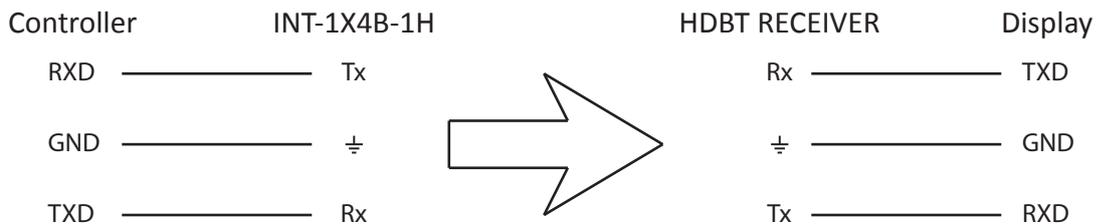


Twisted Pair Wiring

Use TIA/EIA-568B wiring for Category 6 connection between send and receive units.

RS232 Wiring

Some controllers may not have a DB9 port available for RS232 communication, but may have removable terminal block connections. Consult the manual of the control device(s) to determine which pins the TX/RX signals are carried on. Be sure to always connect TX to RX and RX to TX.



Technical Specifications

Input/Output Connections	
HDMI Input	One (1) HDMI Type A Receptacle Connector
HDBaseT Outputs	Four (4) Shielded RJ45 Female
HDMI Output	One (1) HDMI Type A Receptacle Connector
RS232 In	One (1) 3-Pole/3.5mm Euroblock
RS232 Out	One (1) 3-Pole/3.5mm Euroblock
IR ALL IN Input	One (1) 3.5mm TRS
IR Loop Out	One (1) 3.5mm TRS
IR Out	One (1) 3.5mm TRS
24V DC Power	One (1) Locking Barrel (5.5 mm OD, 2.1 mm ID)
Supported Audio, Video, and Control	
Maximum Video Compatibility at 70 m	up to 1080p
Maximum Video Compatibility at 40 m	up to 4K@60Hz / 4:2:0 / 8 bit deep color
Maximum Passive HDMI Cable Distance	5 m (16.4 ft)
Video Compliance	HDMI 2.0 and HDCP 2.2
Embedded Audio	Up to PCM 8 channel, Dolby Digital TrueHD, and DTS-HD Master Audio
Input DDC Signal	5.0 volts p-p (TTL)
Input Video Signal	0.5 to 1.0 volts p-p
RS232 Baud Rate	2400, 4800, 9600, 19200, 38400, 57600, or 115200
IR Carrier Frequency Range	33-55kHz at 5 volts
HDBaseT Signal Characteristics	
Maximum Distance	70 m (up to 1080p) , 40 m (up to 4K@60Hz / 4:2:0 / 8 bit deep color)
Cable Requirements	Solid core shielded Category 6 F/UTP cable or greater with TIA/EIA-568B crimp pattern
Bandwidth	10.2 Gbps
Chassis and Environmental	
Enclosure	Painted Aluminum
Dimensions	44 mm x 220 mm x 148 mm (1.73 in x 8.66 in x 5.83 in) – 1RU
Shipping Weight	725g (1.48 lbs.)
Operating Temperature	0° to +55° C (+32° to +131° F)
Operating Humidity	10% to 90%, Non-condensing
Storage Temperature	-20° to +70° C (+14° to +158° F)
Storage Humidity	10% to 90%, Non-condensing
Power, ESD, and Regulatory	
Power Supply Input	100V-240VAC / 50-60 Hz
Power Supply Output	24VDC / 2.71A
Power Consumption	45 watts (max)
ESD Protection	15kV
Product Regulatory	FCC, CE, RoHS
Power Supply Regulatory	CE, RoHS
Other	
Standard Warranty	5 years
Diagnostic Indicators	Power LED, HDMI Input LED, HDMI Output LED, HDBaseT Link LEDs, HDBaseT HDCP LEDs
Included Accessories	Quick Install Guide, Power Supply with US power plug, (1) 3-pin to 3-pin RS232 Cable, (1) 3-pin to DB9 RS232 Breakout Cable,(1) 3.5mm IR Cascade Cable, (1) IR Emitter, (4) IR Receivers, Shelf Feet with Screws, Mounting Rails with Screws
Optional Accessories	DIGIB-EMT (IR Emitter), DIGIB-EYE (IR Receiver) and IR-AC IR Coupling cable
Compatible Receivers (AV and PoE)	INT-HD70-RX, INT-HDX100-RX

Distances and picture quality may be affected by cable grade, cable quality, source and destination equipment, RF and electrical interference, and cable patches.

Thank you for your purchase.

For Technical Support please call our toll free number at
800-530-8998 or email us at supportlibav@libav.com

www.libav.com

Intelix is a brand of:



11675 Ridgeline Drive
Colorado Springs, Colorado
80921 USA
Phone: 719-260-0061
Fax: 719-260-0075
Toll-Free: 800-530-8998