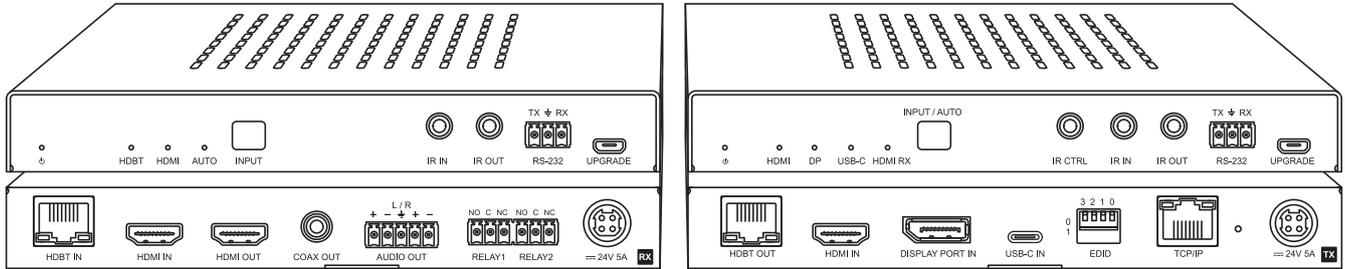


# HEX70HDU-KIT

## Quick Reference Guide



## Introduction

Our HEX70HDU-KIT extender kit is an industry leading 4K HDBaseT™ multi-format solution delivering HDMI, USB-C and DisplayPort™ up to lengths of 70m at 1080p (40m at 4K 60Hz 4:4:4) over a single CAT cable. The HEX70HDU-KIT provides enhanced features including local HDMI input on the HDBaseT™ receiver for additional source input, Web GUI for control and configuration, auto display control, audio breakout, bi-directional IR pass-through and EDID management. The HEX70HDU-KIT has multiple control options including buttons on both TX and RX units, IR, RS-232 and TCP/IP.

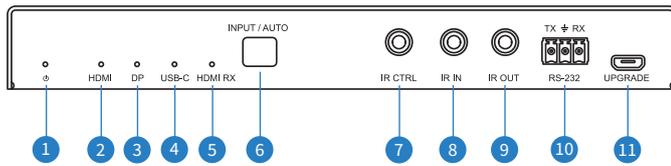
### FEATURES:

- Advanced HDBaseT™ technology offering distribution of video and audio over a single CAT cable
- Features 1 x HDMI, 1 x USB-C and 1 x DisplayPort™ input on the HDBaseT™ transmitter with manual or auto source selection
- Features a local HDMI input on the HDBaseT™ receiver for connection of a source device local to the display
- Supports 4K 60Hz 4:4:4 UHD video up to 40m
- Extends HDMI 1080p up to a distance of 70m over a single CAT cable
- Supports bitstream passthrough of multichannel surround sound including object-based audio formats in line with HDMI specifications.
- Supports USB Type C up to 4K UHD 60Hz 4:4:4\* (DP1.2 with 60W charging capability)
- Supports DisplayPort up to 4K UHD 60Hz 4:4:4, 4K 30Hz 4:4:4 DP1.2
- Audio breakout to analogue L/R audio\*\* and coaxial digital (S/PDIF) outputs concurrently
- Supports Bi-directional PoC to power extenders from either transmitter or receiver end
- Bi-directional IR pass-through
- Auto display on / off feature allowing control of display at the HDBaseT™ receiver via CEC, RS-232, or Relay
- Web interface module for control and configuration of HEX70HDU-KIT
- Control via front panel, IR, RS-232 and TCP/IP
- Advanced EDID and HDCP management

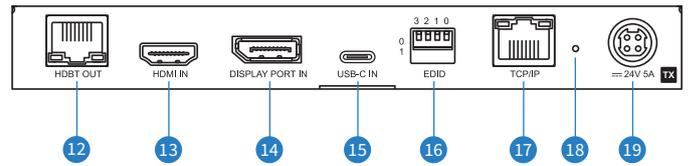
\*USB-C video support is limited to 4K 60Hz 4:2:0 when charging feature is activated by the source device

\*\*Analogue audio breakout supports 2ch PCM only

## TX Panel Descriptions

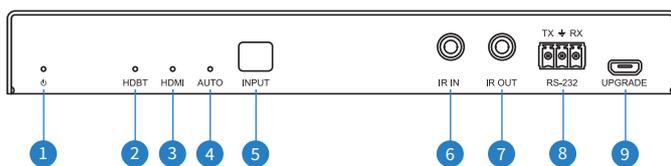


- 1 Power Status Indicator
- 2 Local HDMI Input Signal Link Indicator
- 3 DisplayPort™ Input Signal Link Indicator
- 4 USB-C Input Signal Link Indicator
- 5 Remote (RX) HDMI Input Signal Link Indicator
- 6 Input / Auto Select Button - Press to change source, hold for 3 seconds to enable / disable auto signal sense switching
- 7 IR Control Port (to Blustream 5V 3.5mm IR receiver or IR control device)
- 8 IR IN (to Blustream 5V 3.5mm IR receiver)
- 9 IR OUT (to Blustream 5V 3.5mm IR emitter)
- 10 RS-232 - 3-pin Phoenix connector for RS-232 pass-through, or device control by RS-232 commands

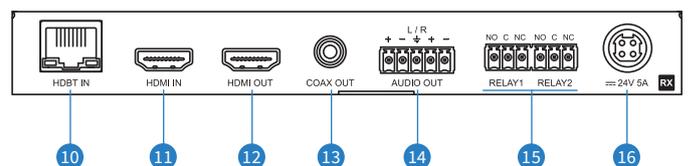


- 11 USB Upgrade Port
- 12 HDBaseT™ Output
- 13 HDMI Input - Connect to source equipment
- 14 DisplayPort™ Input - Connect to source equipment
- 15 USB-C Input - Connect to source equipment
- 16 EDID DIP Switch (UP=0, DOWN=1)
- 17 TCP/IP (RJ45) – Connect to LAN for TCP/IP control  
Default IP of the HEX70HDU-KIT is **192.168.0.200**
- 18 Reset HEX70HDU to Default IP Settings
- 19 Power Port – Use included 24V/5A DC adaptor to power the device

## RX Panel Descriptions



- 1 Power Status Indicator
- 2 Local HDBaseT™ Input Signal Link Indicator
- 3 Local HDMI Input Signal Link Indicator
- 4 Auto Input Signal Link Indicator
- 5 Input / Auto Select Button - Press to change source, hold for 3 seconds to enable / disable auto signal sense switching
- 6 IR IN (to Blustream 5V 3.5mm IR receiver)
- 7 IR OUT (to Blustream 5V 3.5mm IR emitter)
- 8 RS-232 - 3-pin Phoenix connector for RS-232 pass-through, or device control by RS-232 commands
- 9 USB Upgrade Port



- 10 HDBaseT™ Input
- 11 HDMI Input - Connect to local source equipment
- 12 HDMI output - Connect to display equipment
- 13 Coaxial Digital Audio Output – extracted audio from the selected input signal
- 14 L/R Analogue Audio Outputs (5-pin Phoenix) extracted audio from the selected input signal  
**Note:** Input signal must be PCM 2ch audio
- 15 Relay - 3-pin Phoenix connector
- 16 Power Port – Use included 24V/5A DC adaptor to power the device

## RS-232 Configuration & Control

The RS-232 ports can be used for configuration / control of the product, as well as pass through of RS-232 commands between the serial ports of the HEX70HDU-TX and RX. By default, the transmitter unit is allocated for control and feedback of switching, however this can be changed to the receiver if required.

The default RS-232 communication settings are:

**Baud Rate:** 57600

**Data Bit:** 8

**Stop Bit:** 1

**Parity Bit:** none

For the complete RS-232 and TCP/IP command list please see the HEX70HDU-KIT User Manual - available to download from the Blustream website.

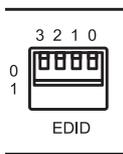
## EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source to negotiate the best audio and video resolutions that are supported in the system. A global EDID of the HEX70HDU-KIT can be configured using a combination of DIP switch settings (see below), or using IP / RS-232 commands. Please refer to the HEX70HDU-KIT User Manual - available to download from the Blustream website.

### Global EDID Settings

DIP switch position '0' = Off / Up

DIP switch position '1' = On / Down



### EDID DIP Switches

[DIP] = 0000: HDMI 1080p @60Hz, Audio 2ch PCM (default)

[DIP] = 0001: HDMI 1080p @60Hz, Audio 5.1ch PCM/DTS/DOLBY

[DIP] = 0010: HDMI 1080p @60Hz, Audio 7.1ch PCM/DTS/DOLBY/HD

[DIP] = 0011: HDMI 1080i @60Hz, Audio 2ch PCM

[DIP] = 0100: HDMI 1080i @60Hz, Audio 5.1ch PCM/DTS/DOLBY

[DIP] = 0101: HDMI 1080i @60Hz, Audio 7.1ch PCM/DTS/DOLBY/HD

[DIP] = 0110: HDMI 4K @60Hz 4:2:0, Audio 2ch PCM

[DIP] = 0111: HDMI 4K @60Hz 4:2:0, Audio 5.1ch PCM/DTS/DOLBY

[DIP] = 1000: HDMI 4K @60Hz 4:2:0, Audio 7.1ch PCM/DTS/DOLBY/HD

[DIP] = 1001: HDMI 4K @60Hz 4:4:4, Audio 2ch PCM

[DIP] = 1010: HDMI 4K @60Hz 4:4:4, Audio 5.1ch PCM/DTS/DOLBY

[DIP] = 1011: HDMI 4K @60Hz 4:4:4, Audio 7.1ch PCM/DTS/DOLBY/HD

[DIP] = 1100: DVI 1920x1080 @60Hz, Audio None

[DIP] = 1101: DVI 1920x1200 @60Hz, Audio None

[DIP] = 1110: EDID Passthrough

[DIP] = 1111: Software Controlled EDID (set EDID via TCP/IP or RS-232)

## Web GUI Control

The HEX70HDU-KIT features an in-built Web GUI which can be used for control and configuration of the product.

Default **Username** is: **blustream**

Default **Password** is: **1234**

Default **IP Address** is: **192.168.0.200**

For further information please see the HEX70HDU-KIT User Manual - available to download from the Blustream website.

## Auto On / Off Display Control

The HEX70HDU-KIT can be programmed to automatically power on / off a display connected to the HDBaseT™ receiver output via CEC, RS-232 or Relay. Please refer to the HEX70HDU-KIT User Manual - available to download from the Blustream website for more details.

## Specifications

### HEX70HDU-TX

- **Video Input Connectors:** 1 x HDMI Type A, 19-pin, female; 1 x USB Type C; 1 x DisplayPort™
- **Video Output Connectors:** 1 x HDBaseT™ RJ45 connector
- **RS-232 Serial Port:** 1 x 3-pin Phoenix connector
- **TCP/IP Control:** 1 x RJ45, female
- **IR Input Ports:** 2 x 3.5mm stereo jack
- **IR Output Port:** 1 x 3.5mm mono jack
- **EDID:** 4-pin DIP switch
- **Product Upgrade:** 1 x Micro USB, female
- **Local Power Input:** 1 x 24V/5A 4-pin DIN connector
- **Casing Dimensions (W x H x D):** 180mm x 23.5mm x 155mm
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)
- **Shipping Weight:** 2.3kg
- **Power Supply:** 24V/5A DC

### HEX70HDU-RX

- **Video Input Connectors:** 1 x HDMI Type A, 19-pin, female; 1 x HDBaseT™ RJ45 connector
- **Video Output Connectors:** 1 x HDMI Type A, 19-pin, female
- **Audio Output Connectors:** 5-pin Phoenix connector (2ch balanced / unbalanced analogue audio); 1 x RCA (S/PDIF)
- **RS-232 Serial Port:** 1 x 3-pin Phoenix connector
- **Relay Control:** 2 x 3-pin Phoenix connectors
- **IR Input Port:** 1 x 3.5mm stereo jack
- **IR Output Port:** 1 x 3.5mm mono jack
- **Product Upgrade:** 1 x Micro USB, female
- **Local Power Input:** 1 x 24V/5A 4-pin DIN connector
- **Casing Dimensions (W x H x D):** 180mm x 23.5mm x 155mm

**NOTE:** Specifications are subject to change without notice. Weights and dimensions are approximate.

## Package Contents

### HEX70HDU-KIT

- 1 x HEX70HDU-TX
- 1 x HEX70HDU-RX
- 1 x 24V/5A DC Power Supply
- 1 x IR Emitter
- 1 x IR Receiver
- 1 x RS-232 Control Cable
- 2 x Mounting Kits
- 1 x Quick Reference Guide

## Acknowledgements

DisplayPort™ and the DisplayPort™ logo are trademarks owned by the Video Electronics Standards Association (VESA®) in the United States and other countries.

## Certifications

### FCC NOTICE

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

**CAUTION** - changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

### CANADA, INDUSTRY CANADA (IC) NOTICES

This Class B digital apparatus complies with Canadian ICES-003. Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

### CORRECT DISPOSAL OF THIS PRODUCT

This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.