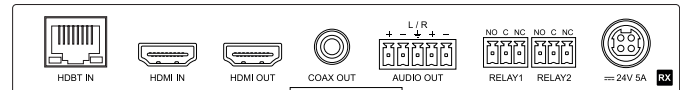
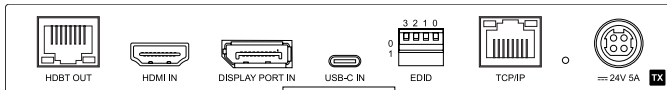


# HEX70HDU-KIT

## 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.

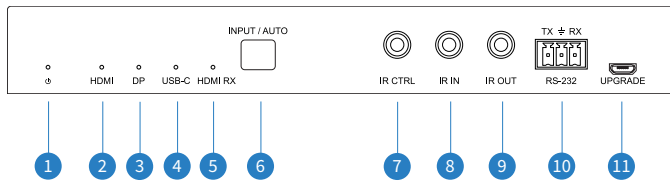
### FEATURES:

- 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 all known HDMI audio formats including Dolby TrueHD, Atmos, and DTS-HD Master Audio transmission
- 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

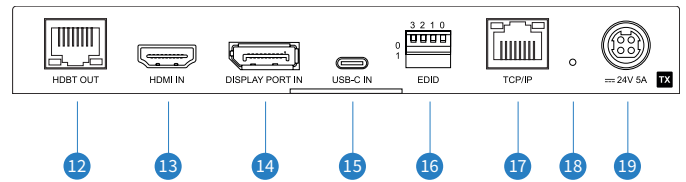
\*USB-C video support is limited to 4K 60Hz 4:2:0 when charging feature is activated by the source device

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

# TX Panel Description

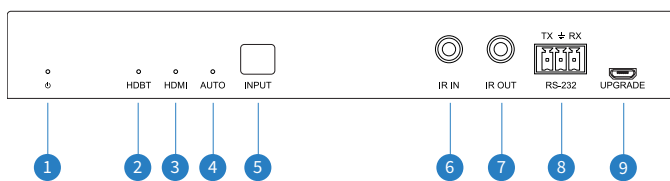


- 1 Power status indicator
- 2 Local HDMI input signal link indicator
- 3 DisplayPort™ input signal link indicator
- 4 USB-C input signal link indicator
- 5 Remote (RX) HDMI input signal link indicator
- 6 Input / Auto select button - press to change source, hold for 3 seconds to enable / disable auto 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

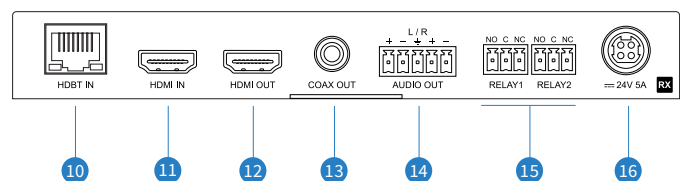


- 11 USB Upgrade port
- 12 HDBaseT™ output
- 13 HDMI input - connect to source equipment
- 14 DisplayPort™ input - connect to source equipment
- 15 USB-C input - connect to source equipment
- 16 EDID DIP switch (UP=0, DOWN=1)
- 17 TCP/IP (RJ45) – connect to LAN for TCP/IP control  
Default IP of the 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 Description



- 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 RS232 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 – extract 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.

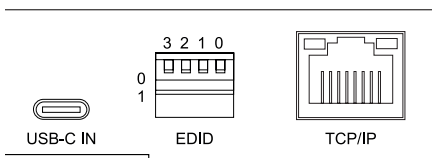
## EDID Control

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 HDBase™ 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 Transmitter

- **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

## HEX70HDU-RX Receiver

- **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
  
- **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

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

# Package Contents

- 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

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