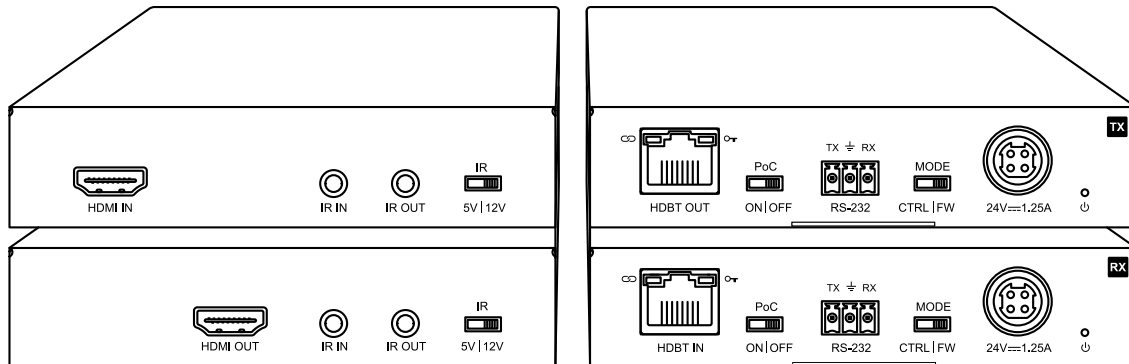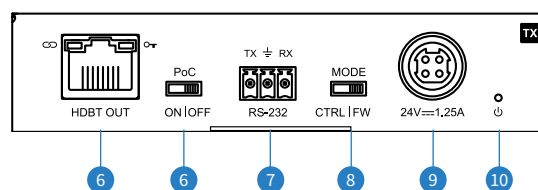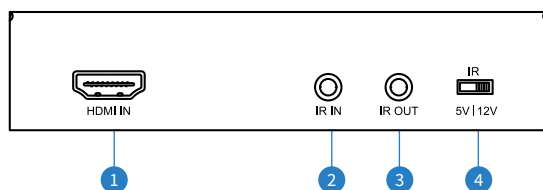# HEX18G-KIT
Quick Reference Guide

Introduction

The HEX18G-KIT extender set is an industry leading uncompressed, unconverted HDMI 2.0 4K 60Hz 4:4:4 HDCP 2.3/2.2 solution utilising the latest in HDBaseT™ technology. The HEX18G-KIT supports uncompressed distribution of the latest HDR resolutions including HDR10/10+ resulting in the ultimate in picture quality for your critical viewing areas. The HEX18G-KIT supports bi-directional IR, RS-232 and PoC up to lengths of 100m over a single CAT6A cable.

FEATURES:

• Advanced uncompressed, unconverted, HDMI over HDBaseT™ technology offering distribution of bit for bit 4K HDMI video and audio over a single CAT6A cable

• Supports HDMI2.0 18Gbps specification including 4K 60Hz 4:4:4 UHD video

• Supports uncompressed distribution of the latest HDR resolutions including HDR10/10+

• Supports HDMI video distribution up to 100m*

• Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K

• HDMI re-clocking on the HDBaseT™ Receiver to help solve HDMI HDCP, compatibility and handshaking issues

• Supports bitstream passthrough of multichannel surround sound including object-based audio formats in line with HDMI specifications

• Bi-directional IR & RS-232 pass through

• Supplied with Blustream IR receiver and emitter

• Bi-directional PoC (Power over Cable) to power extenders from either transmitter or receiver end
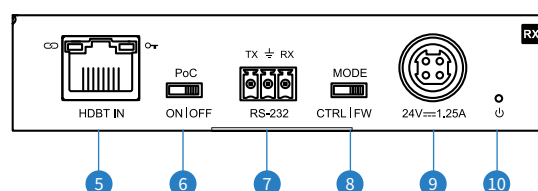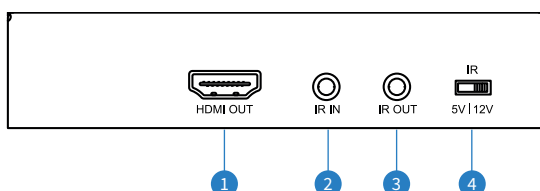
• Support for HDCP 2.3, HDCP 2.2 and HDCP 1.4

*Transmission distance is subject to video format, cable type and installation environment. It is recommended to use a minimum of CAT6A cabling

TX Panel Descriptions

1. HDMI Input - Connect to HDMI source device
2. IR Input - Connect to Blustream 5V 3.5mm IR receiver
3. IR Output - Connect to Blustream 5V 3.5mm IR emitter
4. IR Voltage Switch - Select 5V or 12V IR. Blustream IR accessories require 5V IR equipment as standard
5. HDBaseT™ Output
6. Power over Cable (PoC) Switch (ON / OFF) - To enable / disable PoC being sent from the transmitter
7. RS-232 Port - 3-pin Phoenix connector to pass bi-directional IR to / from the receiver
8. Mode Switch - Switches the RS-232 port between control mode (RS-232 pass-through) or firmware update mode
9. 24V/1.25A DC Power Input 4-pin DIN connector
10. Power Status Indicator

RX Panel Descriptions

1. HDMI Output - Connect to HDMI display
2. IR Input - Connect to Blustream 5V 3.5mm IR receiver
3. IR Output - Connect to Blustream 5V 3.5mm IR emitter
4. IR Voltage Switch - Select 5V or 12V IR. Blustream IR accessories require 5V IR equipment as standard
5. HDBaseT™ Input
6. Power over Cable (PoC) Switch (ON / OFF) - To enable or disable PoC being sent from the receiver
7. RS-232 Port - 3-pin Phoenix connector to pass bi-directional IR to / from the transmitter
8. Mode Switch - Switches the RS-232 port between control mode (RS-232 pass-through) or firmware update mode
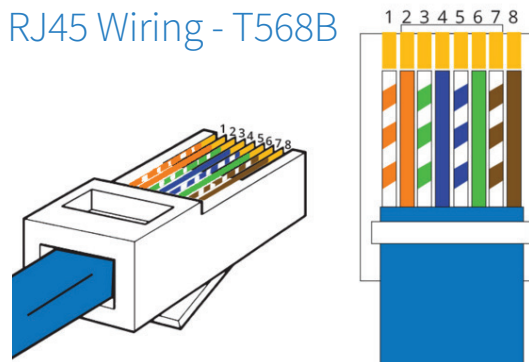9. 24V/1.25A DC Power Input 4-pin DIN connector
10. Power Status Indicator

Terminating the Interconnecting HDBaseT™ CAT Cable

It is important that the interconnecting CAT cable between the Blustream HDBaseT™ products is terminated using the correct RJ45 pin configuration. The link CAT cable **MUST** be a 'straight' (pin-to-pin) CAT cable and it is advised that this is wired to the T568B wiring standard as this format is less prone to EMI (Electro-Magnetic Interference).

When installing CAT cables, it is advised that you use the best possible CAT cable quality possible. HDBaseT™ products using the VS3000 Stello chipset (HDBaseT™ 3.0) require a minimum grade of CAT6A cabling, by specification, to ensure stable distribution of 18Gbps signals over distances up to 100m.

Please note: using a reduced grade of CAT cable that does not feature the same level of immunity to outside interference, insufficient bandwidth, or passing through connections (i.e. patch panels or in-line connectors), will lead to an unstable distributon of the high-bandwidth signal used in HDBaseT™ 3.0 products. Blustream recommend using CAT6A F/UTP, or better, for use with the HEX18G-KIT.

RJ45 Wiring - T568B

Understanding the HDBaseT™ Signal Status Lights

The Blustream HDBaseT™ extender solutions include status LED indicators on both the Transmitter and Receiver products to show all connections are active and to help diagnose possible problems.

Understanding the Status Lights:

Receiver:

- The HDMI signal link light will be off when there is no connection with a display / sink
- The HDMI link light will be on when there is an active connection with a display
- The orange HDBaseT™ link light will be off when there is no CAT cable / active HDBaseT™ connection on the RJ45 HDBaseT™ output
- The orange HDBaseT™ link light will blink if there is an unstable connection between the Transmitter / Matrix and Receiver
- The orange HDBaseT™ link light will be lit when a CAT cable is connected to the HDBaseT™ RJ45 output on the Transmitter and an active connection is achieved with the Receiver / Matrix
- The green HDBaseT™ HDCP light will be off when no video signal is received
- The green HDBaseT™ HDCP light will flash when there is video signal without HDCP being received
- The green HDBaseT™ HDCP light will be on when there is video signal with HDCP being received
- The power link light will be off when no power is connected to the receiver, or to the connected Transmitter unit
- The power link light will be on when power is connected directly to the receiver or is being received from the Transmitter unit

Transmitter:

- The HDMI signal link light will be off when there is no connection with a source device
- The HDMI link light will be on when there is an active connection with a source device
- The orange HDBaseT™ link light will be off when there is no CAT cable / active HDBaseT™ connection on the RJ45 HDBaseT™ output
- The orange HDBaseT™ link light will blink if there is an unstable connection between the Transmitter / Matrix and Receiver
- The orange HDBaseT™ link light will be lit when a CAT cable is connected to the HDBaseT™ RJ45 output on the Transmitter and an active connection is achieved with the Receiver / Matrix
- The green HDBaseT™ HDCP light will be off when no video signal is transmitted
- The green HDBaseT™ HDCP light will flash when there is video signal without HDCP being transmitted
- The green HDBaseT™ HDCP light will be on when there is video signal with HDCP being transmitted
- The power link light will be off when no power is connected to the Transmitter, or to the connected Receiver unit
- The power link light will be on when power is connected directly to the Transmitter or is being received from the Receiver unit

Specifications

HEX18G-TX

- **Video Input Connectors:** 1x HDMI Type A, female
- **Video Output Connectors:** 1x HDBaseT™ RJ45 connector
- **IR Input Port:** 1x 3.5mm stereo jack
- **IR Output Port:** 1x 3.5mm stereo jack
- **RS-232 Port:** 1x 3-pin Phoenix connector
- **Casing Dimensions (W x D x H):** 116 x 95 x 24mm
- **Power Supply:** 24V/1.25A DC, 4-pin DIN connector

HEX18G-RX

- **Video Input Connectors:** 1x HDBaseT™ RJ45 connector
- **Video Output Connectors:** 1x HDMI Type A, female
- **IR Input Port:** 1x 3.5mm stereo jack
- **IR Output Port:** 1x 3.5mm stereo jack
- **RS-232 Port:** 1x 3-pin Phoenix connector
- **Casing Dimensions (W x D x H):** 116 x 95 x 24mm
- **Power Supply:** 24V/1.25A DC, 4-pin DIN connector

HEX18G-KIT

- **Box Dimensions (W x D x H):** 316mm x 171mm x 130mm
- **Shipping Weight:** 1.5kg
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)

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

Package Contents

HEX18G-KIT

- 1 x HEX18G-TX Transmitter
- 1 x HEX18G-RX Receiver
- 1 x 24V/1.25A DC Power Supply
- 1 x IR Emitter
- 1 x IR Receiver
- 2 x Mounting Bracket Sets
- 1 x Quick Reference Guide

Maintenance

Clean this unit with a soft, dry cloth. Never use alcohol, paint thinner or benzene to clean this unit.

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.

CANADA, AVIS D'INDUSTRY CANADA (IC)

Cet appareil numérique de classe B est conforme aux normes canadiennes ICES-003.

Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférence et (2) cet appareil doit accepter toute interférence, notamment les interférences qui peuvent affecter son fonctionnement.

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.

Installer Notes

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BLUSTREAM