RX70CS

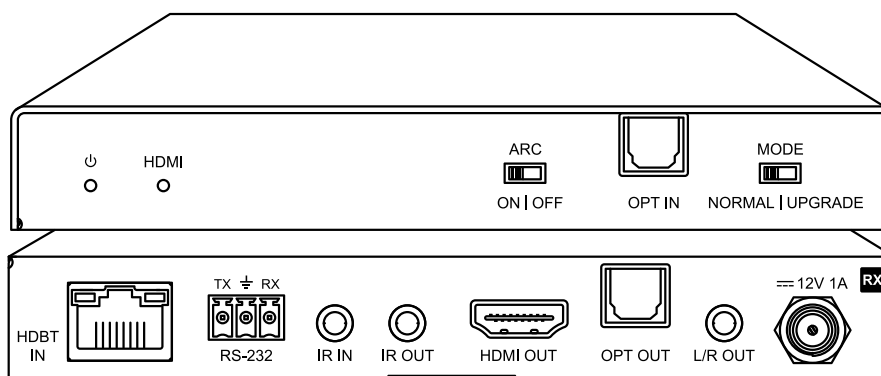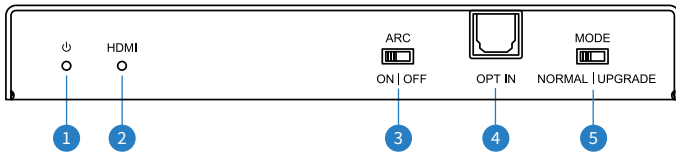## Quick Reference Guide

Introduction

Our RX70CS HDMI 2.0 4K 60Hz 4:4:4 (18Gbps) HDCP 2.2 HDBaseT™ ARC Receiver offers market leading features and outstanding value utilising CSC technology. The product extends HDMI, Bi-directional IR & RS-232 and and is powered by the matrix up to lengths of 70m (4K 40m). The Receiver features ARC support when used with compatible Blustream hardware and simultaneous analogue stereo and Optical Toslink audio breakout.
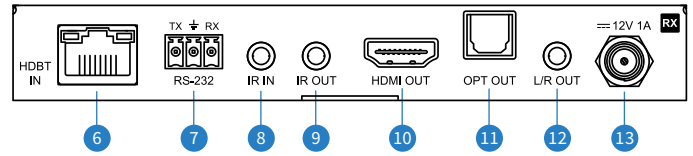
FEATURES:

- Advanced HDBaseT™ technology offering distribution of video and audio over a single CAT cable
- Advanced Colour Space Conversion (CSC) supports HDMI 2.0 18Gbps specification including HDR
- Extends HDMI 1080p up to a distance of 70m over a single CAT cable
- Supports 4K 60Hz 4:4:4 UHD video up to 40m
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K
- Automatic downscaling of up to 4K 60Hz 4:4:4 video input to 1080p
- Supports ARC (Audio Return Channel) from connected display via HDMI or Optical digital inputs (when used with compatible Blustream transmitter / matrix)
- Supports all known HDMI audio formats including Dolby TrueHD, Atmos and DTS-HD Master Audio transmission
- Bi-directional RS-232 pass-through
- Supports bi-directional IR pass-through to compatible HDBaseT™ device
- Supports PoC (Power over Cable) from Blustream matrix or transmitter products
- HDCP 2.2 support

Panel Descriptions

Front

Rear

❶ Power status indicator

❷ HDMI signal link indicator

❸ ARC Mode selection switch. Alters PoC mode when used with compatible ARC enabled Matrix products - see below

❹ Optical audio input - Toslink audio input. Connects to the Optical output of the local display device for Audio Return Channel feature

❺ RS-232 Port Mode selection switch. Firmware upgrade mode or normal operating mode.

❻ HDBaseT™ input

❼ RS-232 3-pin Phoenix connector

❽ IR IN (to Blustream 5V 3.5mm IR receiver)

❾ IR OUT (to Blustream 5V 3.5mm IR emitter)

❿ HDMI Output - connect to HDMI on display

⓫ Optical Toslink audio output. Connects to local AV amplifier and allows local HDMI audio breakout

⓬ Analogue audio Left / Right output - 3.5mm stereo jack de-embedded audio from HDMI input.
 Supports stereo 2ch PCM audio only

⓬ 12V/1A DC power input screw type connector

Advanced Functions

The RX70CS has been designed to partner with all Blustream HDBaseT™ matrix products and will receive audio and video from these devices, as well as bi-directional IR and RS-232 control. Advanced functions such as ARC and CSC will only function with a compatible Matrix or Transmitter product.

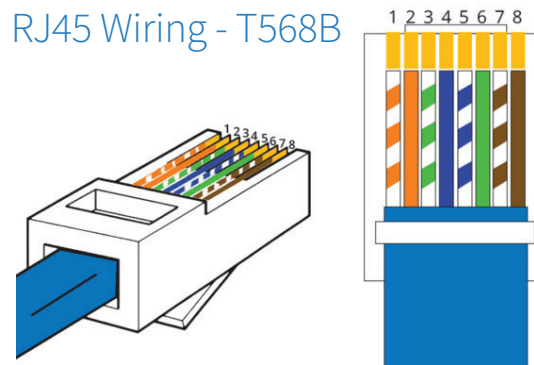The below chart outlines the matrix products that support these advanced functions:

MATRIX / TRANSMITTER	CSC	ARC
HMXL88ARC	Yes	Yes
HMXL66ARC	Yes	Yes
HMXL42ARC	Yes	Yes
AMF42AU	Yes	Yes
C88CS	Yes	No
C66CS	Yes	No

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. HDMI distribution products will only work if used with CAT5e standard cable or above. Blustream recommends using a CAT6 (or better) cable for your installations, especially when running over longer distances, in areas of high EMI, or for 4K signal distribution.

RJ45 Wiring - T568B

Understanding the HDBaseT™ Signal Status Lights

The Blustream HDBaseT extender solutions include status LED indicators on both the Matrix/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 HDBaseT link light will be off when there is no CAT cable/active HDBaseT connection on the RJ45 HDBaseT input
- The HDBaseT link light will blink if there is an unstable connection between the Transmitter/Matrix and Receiver
- The HDBaseT link light will be lit when a CAT cable is connected to the HDBaseT RJ45 output on the Transmitter/Matrix and an active connection is achieved with the Receiver
- 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 HDBaseT link light will be off when there is no CAT cable/active HDBaseT connection on the RJ45 HDBaseT output
- The HDBaseT link light will blink if there is an unstable connection between the Transmitter and Receiver/Matrix
- The 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 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

RX70CS

- **Video Input Connectors:** 1 x HDBaseT™ RJ45 connector
- **Video Output Connectors:** 1 x HDMI Type A, female
- **RS232 Input Port:** 1 x 3-pin Phoenix connector
- **IR Input Port:** 1 x 3.5mm stereo jack
- **IR Output Port:** 1 x 3.5mm mono jack
- **Mounting Kit included**
- **Casing Dimensions (W x H x D):** 140 x 84 x 18mm
- **Dimensions Including Connections (W x H x D):** 140 x 98 x 18mm
- **Power Supply:** 12V/1A DC, screw type connector (not included)
- **Shipping Weight:** 0.5Kg
- **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

RX70CS

- 1 x RX70CS
- 1 x Mounting Bracket Set
- 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.

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.

Contact: support@blustream.com.au | support@blustream-us.com | support@blustream.co.uk