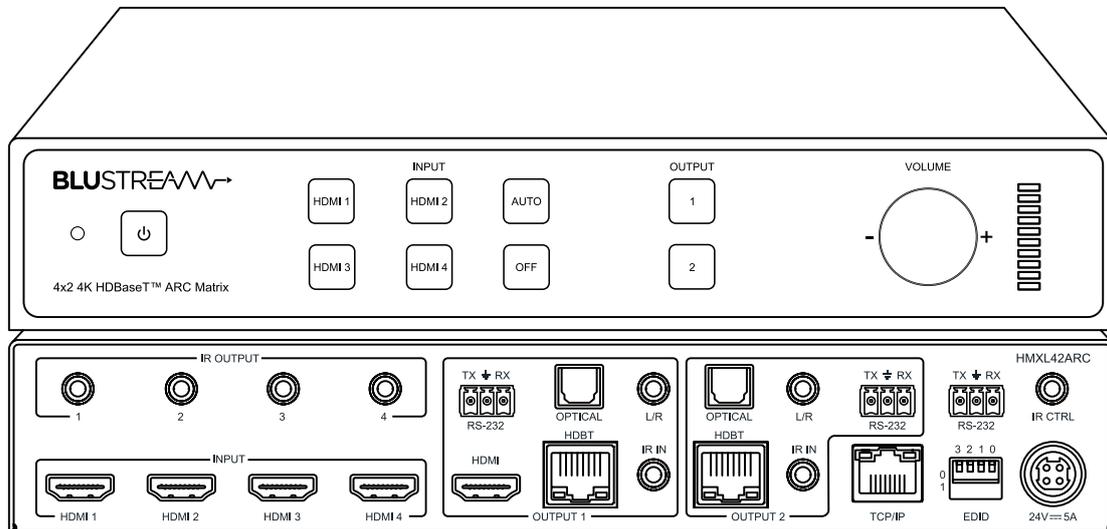


HMXL42ARC-KIT

Quick Reference Guide



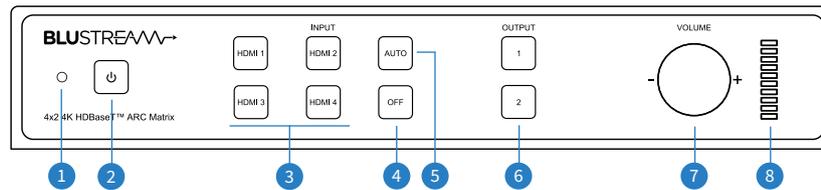
Introduction

Our Essential 4x2 HDBase™ Matrix offers unprecedented performance and value for the custom installation market. The HMXL42ARC-KIT is a HDMI 2.0 4K 60Hz 4:4:4 HDCP 2.2 Matrix package utilising CSC technology to deliver HDMI, Bi-directional IR and PoC (Power over Cable) up to lengths of 70m over a single CAT cable. The Matrix also provides advanced features including simultaneous HDBase™ / HDMI on output 1, video Smart Scaling on HDBase™ outputs, manual or auto source selection, audio breakout, and a web browser interface module for control and configuration of the Matrix. The HMXL42ARC-KIT is supplied with 2 x HDBase™ receivers.

FEATURES:

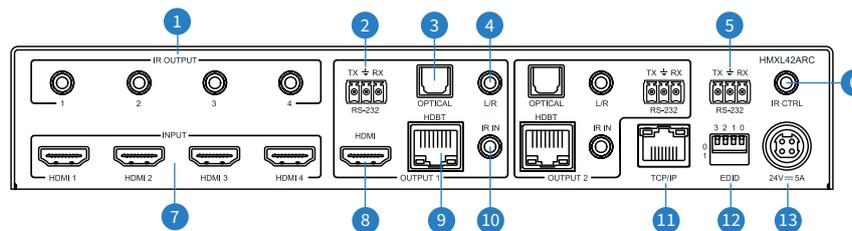
- Advanced HDBase™ technology offering distribution of video and audio over a single CAT cable
- Advanced Colour Space Conversion (CSC) supports HDMI 2.0 18Gbps specification including HDR
- Features 4 x HDMI inputs which can be independently routed to 2 x HDBase™ outputs
- Output 1 features a simultaneous HDMI and HDBase™ output
- Video Smart Scaling on HDBase™ outputs allowing a display only capable of supporting lower video resolutions (4K 60Hz 4:2:0, or 1080p) to receive 4K 60Hz 4:4:4 video content while still showing maximum original 4K UHD resolution on remaining video outputs
- Supports 4K 60Hz 4:4:4 UHD video up to 40m
- Extends HDMI 1080p video up to 70m
- Supports all industry standard video resolutions including VGA-WUXGA and 480i-4K
- Supports all known digital HDMI audio formats including Dolby TrueHD, Atmos, DTS-HD Master Audio and DTS:X transmissions
- Audio breakout to analogue L/R audio and Optical digital (S/PDIF) outputs concurrently with line level volume control on analogue outputs
- Audio breakout features selectable source from zone audio breakout or ARC from zone outputs via HDMI ARC or Optical ARC
- Web interface module for control and configuration of Matrix
- Supports bi-directional IR on all HDBase™ outputs
- Supports PoC (Power over Cable) to power compatible HDBase™ receivers
- 3rd party drivers available for major control brands
- HDCP 2.2 compliant with advanced EDID management
- Supplied with 2 x RX70CS HDBase™ receivers

Front Panel Description



- 1 IR Receiver - Built in IR sensor for control of Matrix
- 2 Power Button - Press and hold to turn the Matrix on or off
- 3 HDMI Input Selection Buttons - Select HDMI Input 1-4 to change source of selected output zone
- 4 Off Button - Press to turn video of selected output zone on or off
- 5 Auto Button - Press to enable or disable auto switching mode for selected output zone
- 6 HDMI Output Selection Buttons - Select Output 1-2 to then allow changing of input source selection or volume
- 7 Volume Rotary Dial - Rotate dial to adjust volume of selected output zone
- 8 Volume LED Display - Shows the volume level of currently selected output zone

Rear Panel Description



- 1 IR Emitter Output - 3.5mm mono connector to connect to Blustream IR emitter. Used for local source control
- 2 RS-232 - 3-pin Phoenix connector for RS-232 pass-through to the RX70CS HDBaseT™ receiver
- 3 Optical (Toslink) Audio Output - independent audio Matrix output for extraction of ARC, source audio, or corresponding video output. For connection to 3rd party audio devices.
- 4 Analogue Audio Output - independent audio Matrix output for extraction of ARC, source audio, or corresponding video output. For connection to 3rd party audio devices.
Please Note: input signal must be PCM 2ch audio as Matrix does not downmix multi-channel audio signals
- 5 RS-232 - 3-pin Phoenix connector for RS-232 control of the Matrix
- 6 IR Control Input - 3.5mm stereo connector to connect to Blustream IR receiver for IR control of the Matrix
- 7 HDMI Inputs - Connect to source devices
- 8 HDMI Output - Connect to local display device or AVR
- 9 HDBaseT™ Outputs - RJ45 HDBaseT™ port to connect to the HDBaseT™ input port of RX70CS HDBaseT™ receiver
- 10 IR Receiver Input - 3.5mm stereo jack to connect to Blustream IR receiver or Control Processor. Used to extend IR from Matrix to HDBaseT™ Outputs 1-2 for display control.
- 11 TCP/IP - RJ45 connector for TCP/IP and Web GUI control of the Matrix
- 12 EDID DIP Switch – Used for global EDID settings
- 13 DC Power Socket – Use included 24V/5A DC adaptor to power the Matrix switcher and HDBaseT™ receivers

Web GUI Control

The HMXL42ARC-KIT features an in-built Web GUI which can be used for control and configuration of the Matrix. By default the Matrix is set to DHCP, however if a DHCP server (eg: network router) is not installed the Matrix IP address will revert to below details:

Default **Username** is: [blustream](#)

Default **Password** is: [1234](#)

Default **IP Address** is: [192.168.0.200](#)

For further information please see the HMXL42ARC User Manual - available to download from the Blustream website.

RS-232 Configuration

The main RS-232 port can be used for configuration and control of the Matrix from a 3rd party control platform.

The default RS-232 communication settings are:

Baud Rate: 57600

Data Bit: 8

Stop Bit: 1

Parity Bit: none

For a complete RS-232 command list, please see the HMXL42ARC-KIT User Manual - available to download from the Blustream website. For extended RS-232 control of display equipment located near to the RX70CS receivers, use the 3-pin Phoenix connectors for each zone for serial pass-through between the Matrix and RX70CS receiver/s.

EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display. By pre-determining the video resolution and audio format of the source and display device you can reduce the time needed for EDID hand shaking thus making switching quicker and more reliable.

Configuration of EDID settings for each input can be achieved using the web-GUI, or by using the following RS-232 / IP commands to specify the required EDID:

EDIDxxDFzz

Where xx = Input: 00 refers to ALL inputs; 01, 02, 03, 04 = specific input

zz = EDID as shown below

- zz = 00: HDMI 1080p@60Hz, Audio 2ch PCM (Default)
- 01: HDMI 1080p@60Hz, Audio 5.1ch DTS/DOLBY
- 02: HDMI 1080p@60Hz, Audio 7.1ch DTS/DOLBY/HD
- 03: HDMI 1080i@60Hz, Audio 2ch PCM
- 04: HDMI 1080i@60Hz, Audio 5.1ch DTS/DOLBY
- 05: HDMI 1080i@60Hz, Audio 7.1ch DTS/DOLBY/HD
- 06: HDMI 1080p@60Hz/3D, Audio 2ch PCM
- 07: HDMI 1080p@60Hz/3D, Audio 5.1ch DTS/DOLBY
- 08: HDMI 1080p@60Hz/3D, Audio 7.1ch DTS/DOLBY/HD
- 09: HDMI 4K@30Hz 4:4:4, Audio 2ch PCM
- 10: HDMI 4K@30Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 11: HDMI 4K@30Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 12: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 2ch PCM
- 13: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 14: HDMI 4K@60Hz 4:2:0/4K@30Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 15: HDMI 4K@60Hz 4:4:4, Audio 2ch PCM
- 16: HDMI 4K@60Hz 4:4:4, Audio 5.1ch DTS/DOLBY
- 17: HDMI 4K@60Hz 4:4:4, Audio 7.1ch DTS/DOLBY/HD
- 18: DVI 1280x1024@60Hz, Audio None
- 19: DVI 1920x1080@60Hz, Audio None
- 20: DVI 1920x1200@60Hz, Audio None
- 21: HDMI 1920x1200@60Hz, Audio 2ch PCM/6ch PCM
- 22: User EDID 1
- 23: User EDID 2

Specifications

HMXL42ARC-KIT

- **Video Input Connectors:** 4 x HDMI Type A, 19-pin, female
- **Video Output Connectors:** 1 x HDMI Type A, 19-pin, female, 2 x HDBaseT™ RJ45 connectors
- **Audio Output Connectors:** 2 x Analogue L/R 3.5mm stereo jack, 2 x Optical Toslink (S/PDIF)
- **RS-232 Serial Port:** 3 x 3-pin Phoenix connector
- **TCP/IP Control:** 1 x RJ45, female
- **IR Input Ports:** 3 x 3.5mm stereo jack
- **IR Output Ports:** 4 x 3.5mm mono jack
- **Rack Mountable:** 1U rack height, rack ears included
- **Casing Dimensions (W x H x D):** 220mm x 44mm x 235mm
- **Dimensions Including Connections (W x H x D):** 220mm x 50mm x 245mm
- **Shipping Weight:** 4.5kg
- **Operating Temperature:** 32°F to 104°F (-5°C to +55°C)
- **Storage Temperature:** -4°F to 140°F (-25°C to +70°C)
- **Power Supply:** 1 x 24V/5A DC

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

Package Contents

HMXL42ARC-KIT

- 1 x HMXL42ARC
- 2 x RX70CS
- 1 x 19" Rack mounting kit for HMXL42ARC
- 1 x Surface mount kit for HMXL42ARC
- 2 x Mounting kit for RX70CS
- 1 x Remote control
- 4 x IR emitters
- 3 x IR receivers
- 1 x Serial Cable - DB9 to 3-pin phoenix connector
- 1 x IR Control Cable - 3.5mm-3.5mm Cable
- 1 x 24V/5A power supply
- 1 x Quick Reference Guide

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.