

► HMXL44-KIT V2

User Manual

Thank you for purchasing this product.

For optimum performance and safety, please read these instructions carefully before connecting, operating or adjusting this product. Please keep this manual for future reference.



Surge protection device recommended

This product contains sensitive electrical components that may be damaged by electrical spikes, surges, electric shock, lightning strikes, etc. Use of surge protection systems is highly recommended in order to protect and extend the life of your equipment.

Safety And Performance Notice

The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6

EIA/TIA-568-B termination (T568B) of cables is recommended for optimal performance.

To minimise interference of the unshielded twisted pairs in the CAT5e/6 cable do not run the HDBaseT / Cat5e/6/6a cabling with or in close parallel proximity to mains power cables.

Do not substitute or use any other power supply other than the enclosed unit, or a Blustream approved replacement.

Do not disassemble either the Transmission or Receiver units for any reason. Doing so will void the manufacturer's warranty.

Contents

Introduction	03
Features	03
Panel Descriptions	04
Control Ports	05
HDBaseT Receiver Options	06
Matrix Front Panel Controls	07
Audio Breakout	08
Terminating HDBaseT CAT Cables	09
Understanding Matrix/RX Status Lights	09
Infrared Distribution	10
Infrared Remote Control	11
EDID Control	12
Application Diagram	13
Specifications	14
Package Contents	14
Maintenance	14
RS-232 and Telnet Commands	15-16
Infrared Commands	17-18
Web Browser Interface	19
PC Configuration Software	18

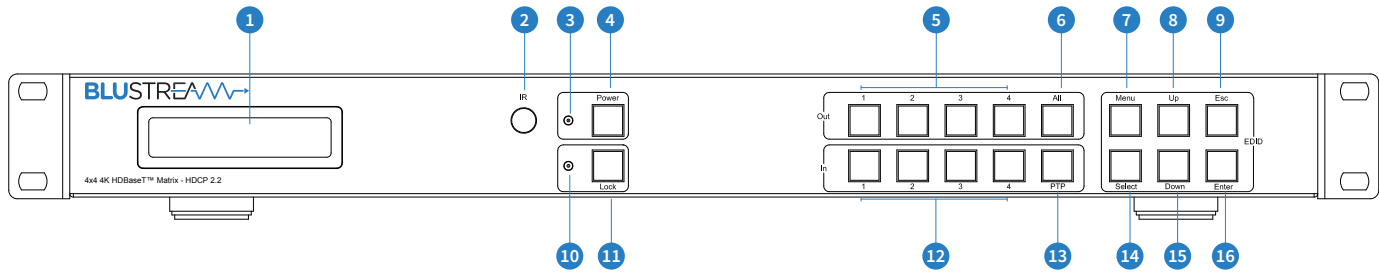
Introduction

Our Essential 4x4 HDBaseT™ matrix offers unprecedented performance and value for the custom installation market. The HMXL44-KIT V2 is a 4K 4x4 HDCP 2.2 matrix package, delivering HDMI, bi-directional IR and PoH (PoE) up to lengths of 70m over a single CAT cable. The matrix also provides advanced features including audio breakout with pre-amp variable line-level control, simultaneous HDBaseT™/HDMI outputs, RS-232 pass through to enable 3rd party control of displays and a web browser interface module for control and configuration of the matrix. The HMXL44-KIT V2 is supplied with 4 x HEX70ED Receivers.

FEATURES:

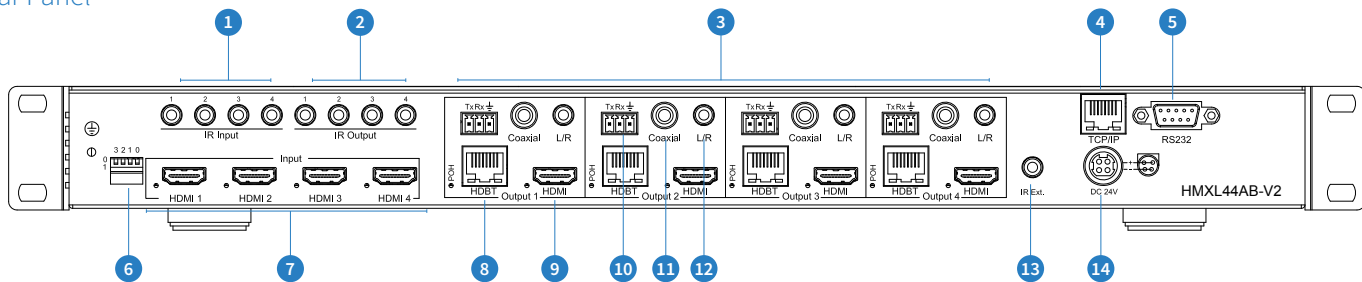
- Features 4x HDMI inputs which can be independently routed to 4x HDBaseT™/HDMI outputs
- Simultaneous HDBaseT™ and HDMI outputs to allow connection to dual displays per zone
- HDMI audio breakout to associated analogue L/R audio outputs with pre-amp line level control
- Extends up to distance of 70m 1080p over single CAT cable
- Supports 4K UHD video up to 40m (3840 x 2160 @30Hz 4:4:4, 4096 x 2160 @24Hz 4:4:4, and 4K @60Hz 4:2:0)
- Web browser interface for control and configuration of Matrix
- Supports 3D signal display
- Supports industry standard video resolutions including VGA-WUXGA and 480i-4K
- Supports all known HDMI audio formats including Dolby TrueHD, Dolby Atmos, Dolby Digital Plus and DTS-HD Master Audio transmission
- Supports bi-directional IR and RS-232 from all input and HDBaseT output locations
- Supplied with Blustream IR receivers and emitters
- Control via front panel, IR, RS-232 and TCP/IP
- HDCP 2.2 compliant
- Supports PoH (Power over HDBaseT™) to power compatible HDBaseT™ receivers
- 3rd Party drivers available for all major home control brands
- Advanced EDID management
- Matrix kit is supplied with 4 x HEX70ED-RX HDBaseT™ receivers
- 1U Design for 19" rack mount integration - mounting kit included
- Matrix can be configured using front panel, supplied IR remote, Matrix web browser interface or Matrix PC configuration software.

Front Panel



- 1 LCD display – Shows the status of input/output selection, EDID etc.
- 2 IR receiver window.
- 3 Power LED indicator.
- 4 Power button – Press to power on/off the Matrix.
- 5 HDMI output selection button 1 to 4 - To select the output from 1 to 4.
- 6 All button for HDMI outputs – All outputs will work as one (Selects all outputs).
- 7 Menu button – Press to enter EDID set mode (see page 5).
- 8 Up selection button - Press to change segment's value.
- 9 ESC – Press to quit EDID set mode.
- 10 Lock indicator.
- 11 Lock button – Press to lock the buttons of the front panel.
- 12 HDMI input selection button 1 to 4 – Press to select the input from 1 to 4.
- 13 PTP button – Press to mirror all inputs and outputs (e.g. output 1 to input 1, output 2 to input 2).
- 14 Selection button – Press to select current setting.
- 15 Down selection button – Press to change segment's value.
- 16 Enter button – Press to set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

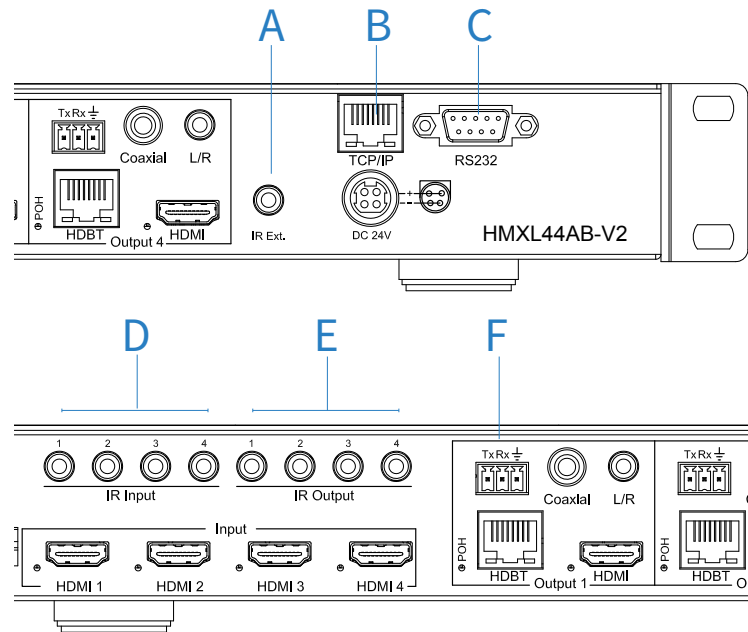
Rear Panel



- 1 IR inputs – 3.5mm stereo jack. Transmits IR to the zone HDBaseT receiver (displays). When using the IRCAB cable (supplied) ensure cable direction is correct.
- 2 IR outputs – 3.5mm mono jack – Routed IR from HDBaseT extender (zone output). Use supplied Blustream 5V IR emitters.
- 3 Zone outputs 1-4 (please see descriptions 8-12 for further details).
- 4 TCP/IP (RJ45) – Connect to LAN for TCP/IP & web browser interface control of HMXL44 V2 Matrix.
- 5 RS-232 port – For control of the Matrix switcher from PC or control processor.
- 6 EDID DIP switch – Used for global EDID settings.
- 7 HDMI inputs – Connect to HDMI sources.
- 8 HDBT output – Connect to HDBaseT receivers.
- 9 HDMI output – Connect to HDMI display. Works simultaneously with HDBaseT output.
- 10 Zone specific bi-directional RS-232 ports – Connect to third party control device to extend RS-232 commands to HDBaseT receivers RS-232 port.
- 11 Coaxial digital audio output – Extracted audio will be concurrent with the corresponding HDMI video output.
- 12 L/R pre-amp variable line level analogue audio output – 3.5mm stereo jack. Extracted audio will be concurrent with the corresponding HDMI video output. Please note: input must be PCM 2ch audio as Matrix does not down-mix 5.1ch audio signals.
- 13 IR input for matrix control – For hard wired IR connection. Use 5V mono cable only. Connect to control processor or Blustream 5v IR receiver.
- 14 Power port – Use supplied 24V 3.5A DC adaptor to power Matrix.

HMXL44 V2 Control Ports

The HMXL44 V2 main communication ports are located on the rear panel and includes the following connections:-



Connections:

- A. Global IR Input 3.5mm stereo jack - For control of the Matrix Switcher*
- B. TCP/IP – For control of the Matrix (RJ45 Connector)
- C. RS-232 – For control of the Matrix (9 pin serial connection)
- D. IR Input (3.5mm stereo jack) for IR pass-through to the associated output HDBaseT Receiver*
- E. IR Output (3.5mm mono jack) for routed IR control of source equipment*
- F. RS-232 (3-pin Phoenix connector) for 2-way RS-232 pass-through to the associated output HDBaseT Receiver

*Note - Blustream products use 5V IR hardware. For further details please see page 9 'Infrared Distribution'

Blustream HMXL44 V2 Matrix is supplied with all required 5V IR emitters, Receivers and IRCAB cables

TCP/IP

The Blustream HMXL44 V2 Matrix can be controlled via TCP/IP.

For the full list of protocols please see 'HMXL44 V2 Control Protocols' located at the rear of this manual.

The HMXL44 V2 Matrix features a built-in web browser user interface allowing control and configuration of the matrix. For further details please see page 18 'Web Browser User Interface'.

A 'Straight-through' RJ45 patch lead should be used

RS-232 2-Way

The Blustream Matrix can be controlled via a 9-pin serial cable.

For the full list of protocols please see 'HMXL44 V2 Control Protocols' located at the rear of this manual.

Details of RS232 pin assignment and communication are adjacent. Please note that depending on your control device serial port pin configuration you may require either a 'Straight' RS-232 cable or 'Null-modem' type.

BLUSTREAM RS-232		REMOTE CONTROL CONSOLE	
PIN	Assignment	PIN	Assignment
1	NC	1	NC
2	Tx	2	Rx
3	Rx	3	Tx
4	NC	4	NC
5	GND	5	GND
6	NC	6	NC
7	NC	7	NC
8	NC	8	NC
9	NC	9	NC

Baud Rate: 57600 bps

Data Bit: 8-bit

Parity: None

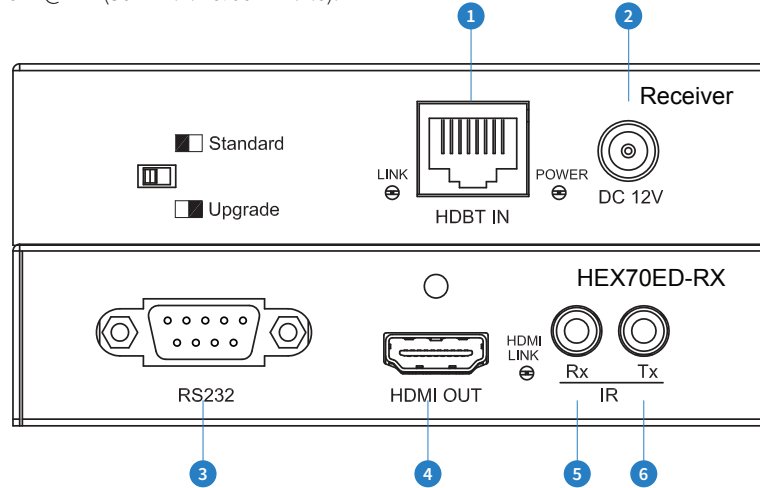
Stop Bit: 1-bit

Flow Control: None

HMXL44 V2 HDBaseT Receivers

The HMXL44 V2 Matrix is supplied with 4x HEX70ED-RX HDBaseT receivers

The HEX70ED Receiver is a Class B HDBaseT Receiver with 2-way IR and bi-directional RS-232 pass-through. The Receiver supports display distances up to 70m @ 1080p and 40m @ 4K (30Hz 4:4:4 & 60Hz 4:2:0).



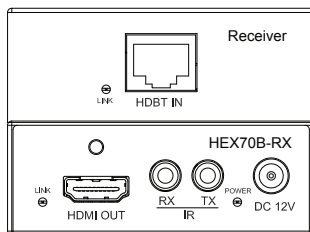
- 1 HDBaseT input
- 2 12V DC power (not required)
- 3 2-way RS232 (9-pin serial)
- 4 HDMI output
- 5 IR Input 3.5mm stereo jack
- 6 IR Output 3.5mm mono jack

There are two HDBaseT receiver options that are also compatible with the HDBaseT output on the HMXL44 V2 but do not support the bi-directional RS-232 feature of the HMXL44 V2:-

HEX70B-RX

Basic HDBaseT Receiver with 2-way IR pass-through. Supports display distances up to 70m @ 1080p and 40m @ 4K (30Hz 4:4:4 & 60Hz 4:2:0).

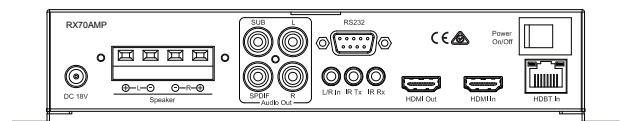
Compatible with all Blustream Matrix products.



- HDBaseT input/HDMI output
- IR Output 3.5mm Mono jack
- IR Input 3.5mm Stereo jack

RX70AMP

The RX70AMP is a combination of HDBaseT receiver and Class D digital audio amplifier (30W per channel). The unit has local HDMI and Analogue audio inputs as well as supporting HDMI ARC (Audio Return Channel) with compatible products. Should you wish to use alternate power amplification the unit has variable analogue outputs. Control of the unit is possible via front panel or by bi-directional RS-232 or IR control. Supports display distances up to 70m @ 1080p and 40m @ 4K (30Hz 4:4:4 & 60Hz 4:2:0).



- HDBaseT input/HDMI output
- HDMI Local input for connection of local source
- 2.1 Stereo audio output @ 30W per channel (capable of driving 4, 6 & 8 Ohm speakers) & analogue Subwoofer output (RCA)
- Variable analogue line level outputs (RCA)
- Digital Coaxial S/PDIF output
- Local analogue L/R audio input 3.5mm Stereo Jack
- 2-way RS-232 (9-pin serial)
- IR Output 3.5mm Mono Jack
- IR Input 3.5mm Stereo Jack
- Built-in IR receiver on front panel of unit

Note - RX70AMP must be powered locally

Matrix Front Panel Control

Front Panel Display - Input/Output selection

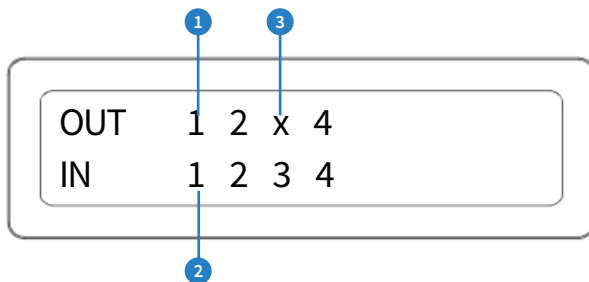
The following display shows current source input selection per zone output.

1. To change input selection first press 'OUTPUT' button (1-4)
2. Press desired 'INPUT' button (1-4)
3. An 'X' indicates that the zone output has been turned off.

Zones can be turned on/off using RS-232/TCP/IP commands.

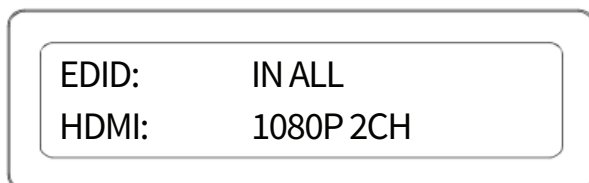
Zone outputs can be forced back on by powering OFF/ON the matrix. All outputs will be turned on when powered up.

Zone outputs can be forced back on by pressing and holding 'OUTPUT 1' button on the front panel for 10 seconds. The matrix will reset and all outputs will be turned back on.

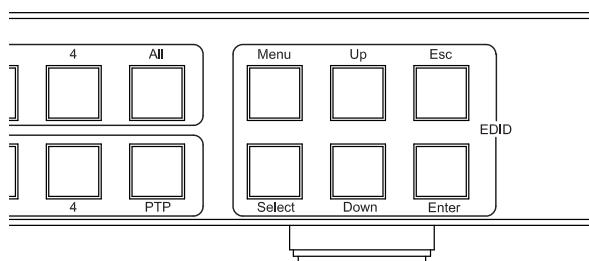


EDID Management - Global or individual input settings

The following characters show adjusting the EDID for 'All' inputs (Global). Current EDID value is set to 1080p & 2ch audio.



To change the input signal type using the Matrix front panel buttons press the following:-



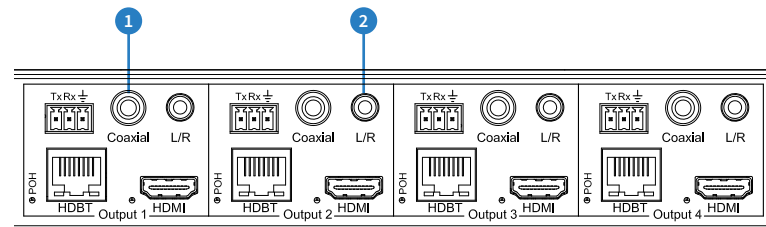
Using Matrix Front Panel Buttons

- a. Press **MENU** button
- b. Panel will display 'EDID settings'. Press **SELECT** button
- c. Select the input you wish to fix the EDID on (1-8) or select 'All'. Use **UP/DOWN** buttons to toggle selection and **SELECT** button to confirm
- d. Select video resolution required (4K, 1080p, 3D etc). Use **UP/DOWN** buttons to toggle selection and **SELECT** button to confirm
- e. Select audio resolution required (2ch, 5.1ch or 7.1ch). Use **UP/DOWN** buttons to toggle selection and **SELECT** button to confirm
- f. Press the **ESC** button to exit

Audio Breakout

The HMXL44 V2 Matrix includes audio breakout from the selected HDMI input to associated analogue L/R audio and coaxial digital outputs. Extracted audio will be concurrent with the corresponding HDMI video output.

The HMXL44 V2 analogue outputs include pre-amp line level control allowing you to connect the Blustream matrix directly into a power amplifier for all your multi-room audio needs.



1. Coaxial digital output - Output 1
2. Analogue pre-amp line level output 3.5mm stereo jack - Output 2

Control of the pre-amp line level outputs is via the matrix front panel, RS-232, TCP/IP or using the in-built web browser interface. Please see 'RS-232 & Telnet Commands' on page 15 for further details.

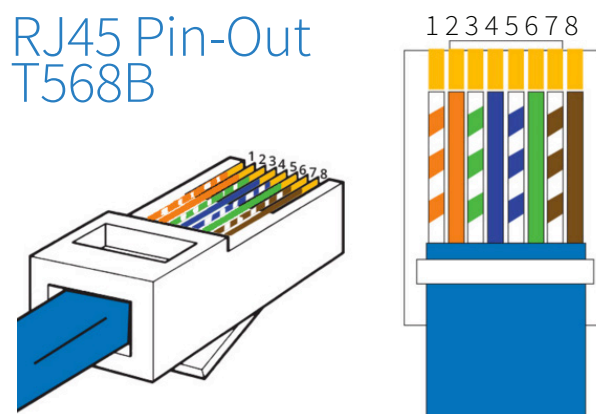
Note: Volume control is only available on the analogue audio outputs. Source input must be PCM 2ch audio for analogue audio outputs to work. The HMXL44 V2 Matrix does not down-mix multi-channel audio signals.

Note: Volume control of audio outputs is not possible via InfraRed control.

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 cable for your installations, especially when running over longer distances, in areas of high EMI, or with 4K signal distribution.



Understanding the RX/HMXL44 V2 HDBaseT status lights

The Blustream HMXL44 V2 Matrix and HDBaseT extender solutions include status LED indicators on both the Matrix and Receiver products to show all connections are active and to help diagnose possible problems.

Understanding the status lights:-

Blustream HMXL44 V2 Matrix:

- The Yellow HDBaseT status link light will be off when the zone output has been turned off or there is a problem with the specific Matrix output.
- The Yellow HDBaseT status link light will blink when the zone output is on and working
- The Green HDBaseT link light will blink if there is an unstable connection between the Blustream Matrix and HDBaseT Receiver
- The Green HDBaseT link light will be lit when there is an active HDBaseT Receiver connected to the Matrix
- The Green HDBaseT link light will be off when there is no connection with a HDBaseT receiver

Blustream HDBaseT Receiver:

- The HDMI link light will be off when there is no connection with a display
- The HDMI link light will be on when there is an active connection with a display (NOTE - Not all HDBaseT RX feature a HDMI status LED)
- 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 Blustream Matrix and HDBaseT receiver
- The HDBaseT link light will be lit when a CAT cable is connected to the HDBaseT RJ45 output on the Matrix and an active connection is achieved with the Blustream HDBaseT Receiver.

Blustream Support department are on hand to assist with signal distribution issues should they arise - please email us at one of the email addresses below.

InfraRed (IR) Distribution

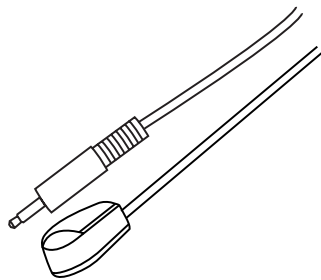
The Blustream range of matrix products include multiple options for control and routing of IR.

IMPORTANT: Blustream InfraRed products are all 5V and NOT compatible with alternative manufacturers InfraRed solutions. When using third party 12V IR control solutions please use supplied Blustream IRCAB cable for IR conversion.

Each Blustream Matrix and HDBaseT receiver is supplied with all necessary IR hardware required and includes:

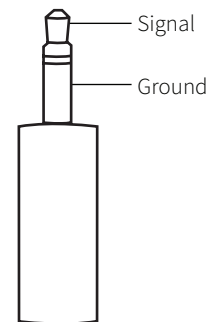
IR Emitter - IR1 & IR2 (IR2 sold separately)

Blustream 5V IR Emitter designed for discrete IR control of hardware



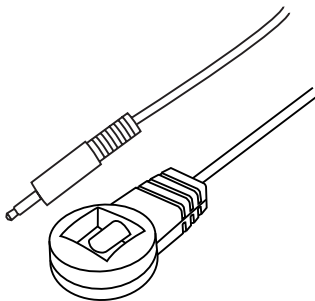
Infrared 3.5mm Pin-Out

IR Emitter - Mono 3.5mm

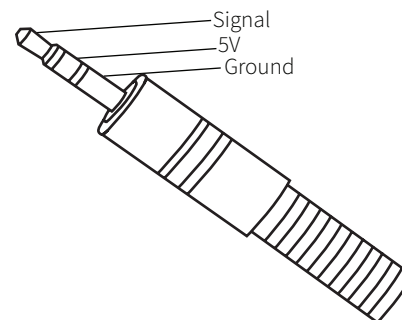


IR Receiver - IRR

Blustream 5V IR receiver to receive IR signal and distribute through Blustream products



IR Receiver - Stereo 3.5mm

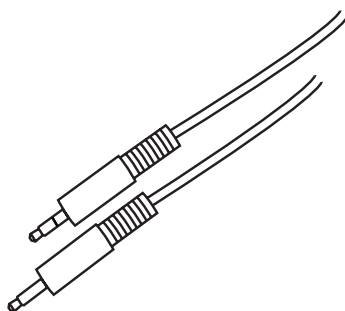


IR Control Cable - IRCAB

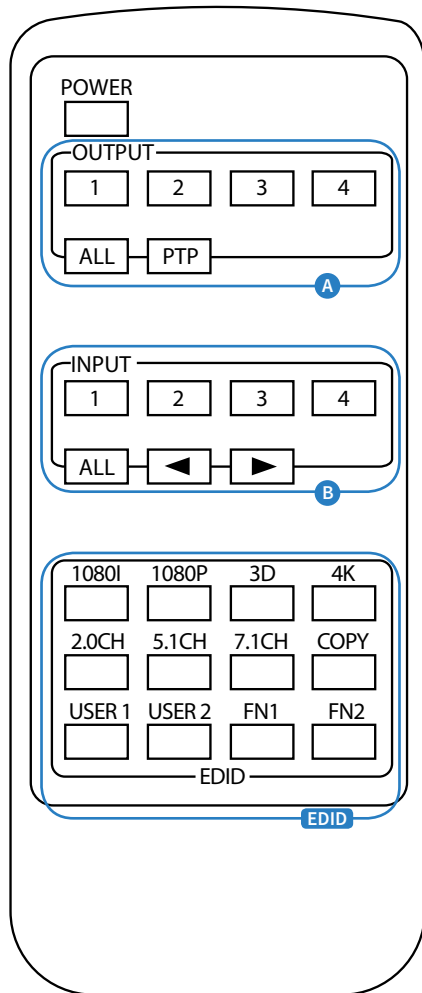
Blustream IR Control cable 3.5mm Mono to 3.5mm Stereo for linking third party control solutions to Blustream products.

Compatible with 12V IR third party products.

Note: Cable is directional as indicated



Remote Control Description



OUTPUT AND INPUT SELECTION

- A** Selects the zone OUTPUT you wish to change the source on (Numbers 1 - 4 correspond to the zone outputs 1 - 4)
- B** Selects the source INPUT you wish to change on the selected zone (Numbers 1 - 4 correspond to the source inputs 1 - 4)

EXAMPLE

To switch source 2 to zone 4 you would press 4 in the output section (A) followed by pressing 2 in the Input section (B).

ALL button: The all button selects all the inputs or outputs in its corresponding box. Example: (The “All” button in the Output box selects all the zones so all zones will change to what source input is selected next)

PTP: This button will align all the zone outputs with the like numbered source inputs. Example: Input 1 to output 1, input 2 to output 2, etc

EDID SET UP

The HMXL44 V2 provides a comprehensive range of EDID settings. Below are three examples of how to deploy the desired EDID setting when using the supplied remote.

- A. Fix EDID to an Input or ALL inputs:** Press the desired video resolution button (1080i / 1080p / 3D / 4K), then select the desired audio format (2.0ch / 5.1ch / 7.1ch), then select the source input you want this EDID information allocated to by pressing the INPUT 1 – 4 or the ALL button
- B. Copy EDID of Output-X to an Input or ALL:** Press the COPY button then select the OUTPUT you wish to copy the EDID information from, then select the source input you want to copy this EDID to by selecting the INPUT 1-4 or the ALL button.
- C. User defined EDID to an Input or ALL inputs:** Press USER1 / USER2 button then select the source you wish to assign this EDID to by selecting INPUT 1-4 or the ALL button

NOTE: THE BUTTON PRESS SEQUENCE SHOULD BE FINISHED IN 5 SECONDS, OTHERWISE THE OPERATION IS DISCARDED

EDID Control

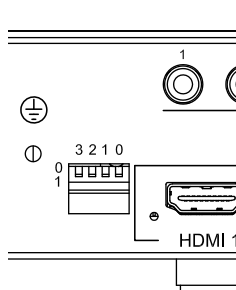
EDID (Extended Display Identification Data) is a data structure that is used between a display and a source. This data is used by the source to find out what audio and video resolutions are supported by the display then from this information the source will discover what the best audio and video resolutions need to be outputted.

While the objective of EDID is to make connecting a digital display to a source a simple plug and play procedure issues do arise when multiple displays or video matrix switching is introduced because of the increased number of variables.

By pre-determining the video resolution and audio format of the source and display device you can reduce the time need for EDID hand shaking thus making switching quicker and more reliable.

Configuration of Matrix EDID settings can be achieved in one of five ways:-

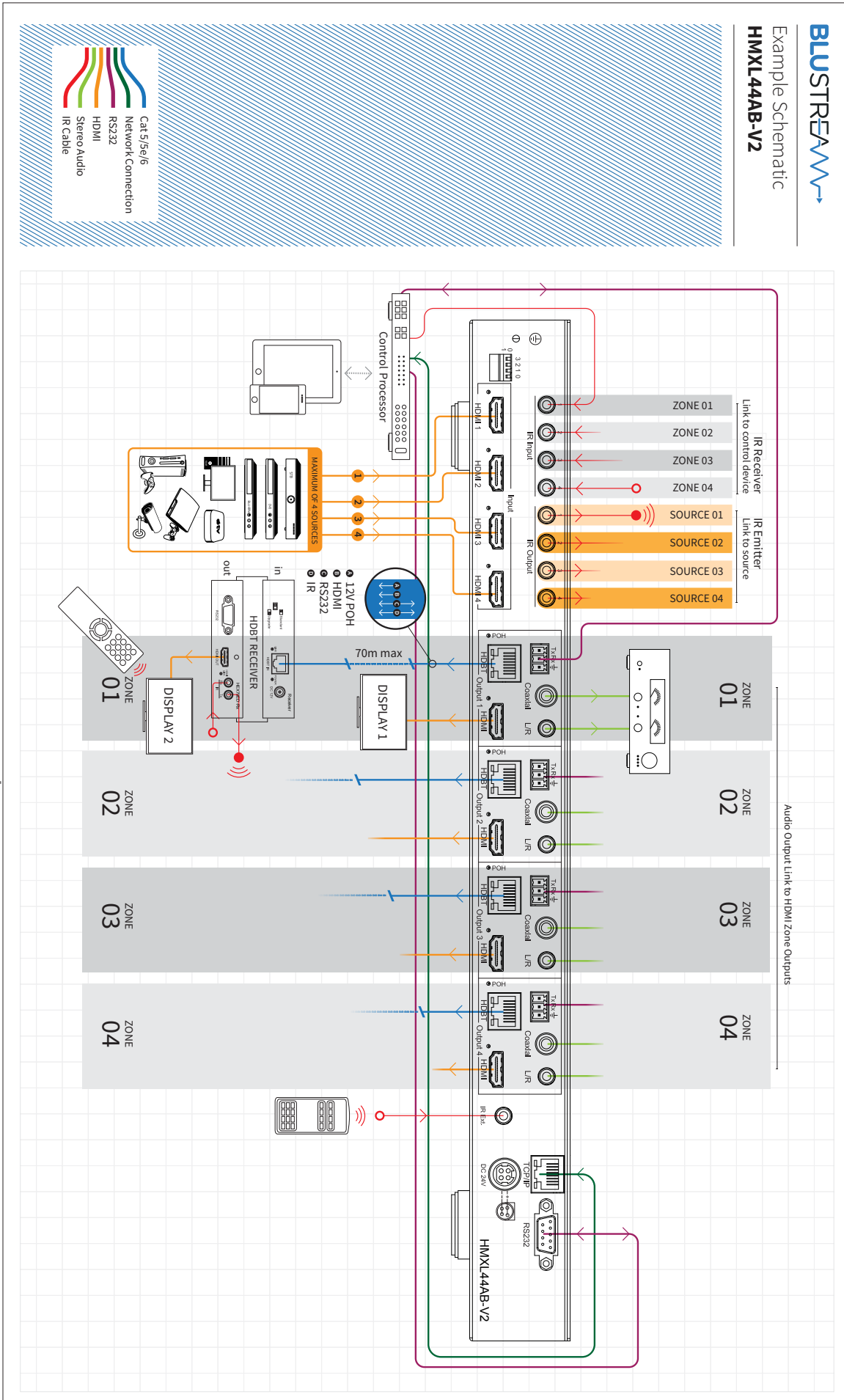
- 1 Using Matrix PC Software (See 'Blustream Matrix Software Guide' for further details available at www.blustream.co.uk)
- 2 Using Matrix web browser interface (See 'Blustream Web Browser Interface Guide' for further details available at www.blustream.co.uk)
- 3 Using Matrix Front Panel Buttons (For further details see page 7)
- 4 Using Supplied Blustream Matrix IR Remote Control (For further details see page 10)
- 5 Using dip-switches on the rear panel of the HMXL44 V2 Matrix. Please see below table for global EDID settings.
*Note - Once dip-switch settings have been made the HMXL44 V2 should be power cycled for settings to be applied.



Global EDID settings

Dip-switch position '0' = Off
Dip-switch position '1' = On

DIP ON ▼/OFF▲ SWITCHING POSITIONS					EDID TYPE
3	2	1	0		
OFF	OFF	OFF	OFF	OFF	1080p/2.0ch
OFF	OFF	OFF	ON	OFF	1080p/5.1ch
OFF	OFF	ON	OFF	OFF	1080p/7.1ch
OFF	OFF	ON	ON	OFF	1080i/2.0ch
OFF	ON	OFF	OFF	OFF	1080i/5.1ch
OFF	ON	OFF	ON	OFF	1080i/7.1ch
OFF	ON	ON	OFF	OFF	1080p 3D/2.0ch
OFF	ON	ON	ON	OFF	1080p 3D/5.1ch
ON	OFF	OFF	OFF	OFF	1080p 3D/7.1ch
ON	OFF	OFF	ON	OFF	4K/2.0ch
ON	OFF	ON	OFF	OFF	4K/5.1ch
ON	OFF	ON	ON	OFF	4K/7.1ch
ON	ON	OFF	OFF	OFF	DVI 1280x1024
ON	ON	OFF	ON	OFF	DVI 1920x1080
ON	ON	ON	OFF	OFF	DVI 1920x1200
ON	ON	ON	ON	OFF	Copy Display EDID



Specifications

- Video Input Connectors: 4x HDMI Type A, 19-pin, female
- Video Output Connectors: 4x HDMI Type A, 19-pin, female, 4x HDBaseT™ RJ45 connector
- Audio Output Connectors: 4x 3.5mm Analogue audio stereo jack
- RS-232 serial port: 1x DB-9, female & 4x 3-pin Phoenix connectors for RS-232 pass-through
- TCP/IP Control: 1x RJ45, female
- IR Input Ports: 5x 3.5mm stereo jack
- IR Output Ports: 4x 3.5mm mono jack
- Rack-Mountable: 1U rack height, rack ears included
- Dimensions (WxDxH): 438 x 235 x 43mm, without feet
- Shipping Weight: 2.7kg
- Operating Temperature: 32°F to 104°F (0°C to 40°C)
- Storage Temperature: -4°F to 140°F (-20°C to 60°C)
- Power Supply: 1x 24V 3.5A DC

Package Contents:

- 1 x HMXL44AB V2
- 4 x HEX70ED-RX
- 1x Rack mounting kit for HMXL44AB V2
- 4 x Mounting kit for HEX70ED-RX
- 1 x 24V/3.5A power supply
- 1 x REM44 Remote control (additional remotes can be purchased separately)
- 4 x IRCAB IR control cable - 3.5mm-3.5mm cable
- 4 x IR emitters
- 5 x IR receivers
- 1 x User manual

Maintenance

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

RS232 and Telnet Commands

The Blustream HMXL44 V2 can be controlled via serial and TCP/IP. The following pages list all available serial commands for the HMXL44 V2 Matrix. Details of RS232 pin assignment can be found on page 5.

Commonly used Serial commands:

There are several commands that are commonly used for control and testing:-

STATUS	Status will give feedback on Matrix such as zones on, type of connection etc
PON	Power on
POFF	Power off
OUTxxON	(xx is the zone number you wish to turn on)
Example:-	OUT01ON (This would turn output one back on)
OUTxxFRyy	(xx is the zone out, yy is the input)
Example:-	OUT01FR04 (This would switch output 1 to source input 4)

Common Mistakes

- Carriage return – Some programs do not require the carriage return where as other will not work unless sent directly after the string. In the case of some Terminal software the token <CR> is used to execute a carriage return. Depending on the program you are using this token maybe different. Some other examples that other control systems deploy include \r or 0D (in hex)
- Spaces – Blustream commands do not require space between commands unless specified. There may be some programs that require spacing in order to work.
 - How the string should look is as follows OUT01ON
 - How the string may look if spaces are required: OUT{Space}01{Space}ON
- Baud rate or other serial protocol settings not correct - please see Page 5 for Matrix settings

RS232 Command	Description
?	Print Help Information
HELP	Print Help Information
STATUS	Print System Status And Port Status
PON	Power On, System Run On Normal State
POFF	Power Off, System Run On Power Save State
IRON/OFF	Set System IR Control On Or Off
KEYON/OFF	Set System KEY Control On Or Off
DBG ON/OFF	Set Debug Mode On Or Off
BEEPON/OFF	Set Onboard Beep On Or Off
RESET	Reset System To Default Setting (Should Type “Yes” To Confirm, “No” To Discard)
OUTxxON/OFF	Set OUTPUT:xx On Or Off
POHxxON/OFF	Set POH OUTPUT:xx On Or Off (xx = 01 to 04 or 'ALL' for all outputs)

RS232 and Telnet Commands (Continued)

RS232 Command	Description
OUTxxFRyy	Set OUTPUT:xx From INPUT:yy
EDIDxxCPyy	Copy EDID from output (yy) to input (xx) Both yy & xx can be set individually (01-08) or as ALL (00) Set Input:xx EDID To Default EDID:zz xx=00: Select All INPUT Port xx=[01...04]: Select One INPUT Port yy=[01...02]: Select One OUTPUT Port zz=00: HDMI 1080p@60Hz, Audio 2CH PCM zz=01: HDMI 1080p@60Hz, Audio 5.1CH PCM/DTS/DOLBY zz=02: HDMI 1080p@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD zz=03: HDMI 1080i@60Hz, Audio 2CH PCM zz=04: HDMI 1080i@60Hz, Audio 5.1CH PCM/DTS/DOLBY zz=05: HDMI 1080i@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD zz=06: HDMI 1080p@60Hz/3D, Audio 2CH PCM zz=07: HDMI 1080p@60Hz/3D, Audio 5.1CH PCM/DTS/DOLBY zz=08: HDMI 1080p@60Hz/3D, Audio 7.1CH PCM/DTS/DOLBY/HD zz=09: HDMI 4K2K, Audio 2CH PCM zz=10: HDMI 4K2K, Audio 5.1CH PCM/DTS/DOLBY zz=11: HDMI 4K2K, Audio 7.1CH PCM/DTS/DOLBY/HD zz=12: DVI 1280x1024@60Hz, Audio None zz=13: DVI 1920x1080@60Hz, Audio None zz=14: DVI 1920x1200@60Hz, Audio None
EDIDxxDFzz	
MUTEmmTXyy	Turn MUTE (mm = ON or OFF) on OUTPUT (yy = 01 to 04 or 00 for all outputs)
VOLxxTXyy	Set VOLUME level:xx on OUTPUT:yy xx = 00...30: Set volume levels xx = +: Volume level increases xx = -: Volume level decreases yy = 00: Select ALL output ports xx = 01 to 04: Select single output port
RESETDEF	Restore factory settings

Blustream Web Browser Interface

The Blustream HMXL44 V2 matrix unit can be both controlled and configured using the in-built web-server.

The HMXL44 V2 Matrix must be connected to an active network router/switch and it is advised that the Matrix is given a static IP address. You can configure the network settings of the Matrix using either the Web Browser Interface (Blustream Matrix products are shipped with the network set to DHCP) or using the Blustream PC Configuration Software (downloadable from the Blustream Drivers & Protocols link on the product web page).

For detailed instructions on using the Blustream Web Browser Interface please download the specific software manual at the following link:

<http://www.blustream.co.uk/HMXL44V2>

Blustream PC Configuration Software

The Blustream HMXL44 V2 matrix unit can be configured using the Blustream matrix PC configuration software.

Please download the specific software and PC software manual at the following link:

<http://www.blustream.co.uk/HMXL44V2>



www.blustream.co.uk
www.blustream.com.au