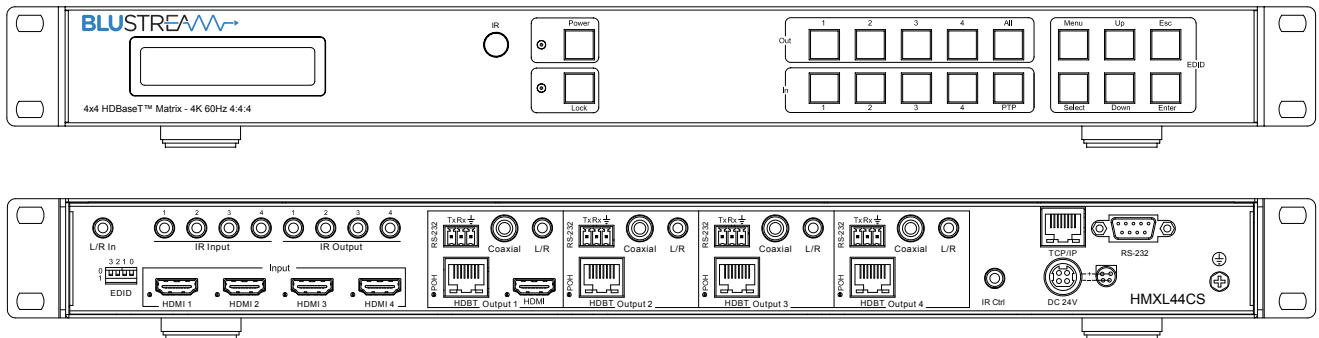


# HMXL44CS-KIT

## Quick Reference Guide



## Introduction

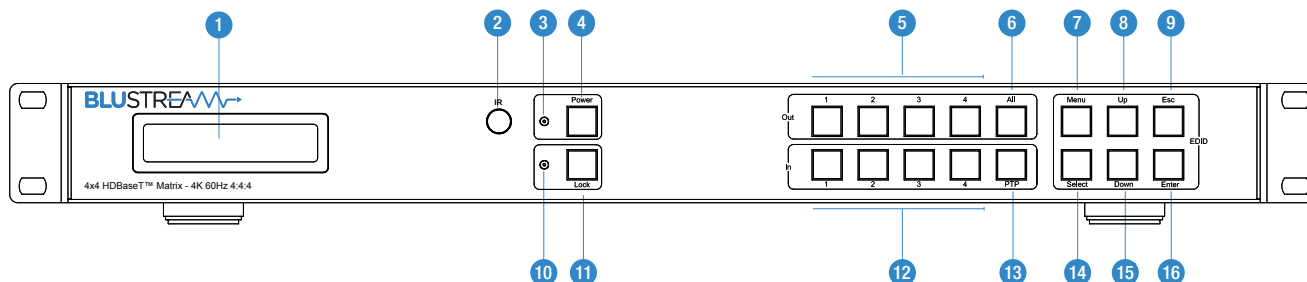
Our Essential 4x4 HDBaseT™ Matrix offers unprecedented performance and value for the custom installation market. The HMXL44CS-KIT is a HDMI2.0 4K 60Hz 4:4:4 HDCP2.2 Matrix package utilising CSC technology to deliver HDMI, Bi-directional IR, RS-232 and PoH (PoE) up to lengths of 70m over a single CAT cable. The Matrix also provides advanced features including simultaneous HDBaseT™/HDMI on output 1, audio breakout with pre-amp variable line-level control and a web browser interface module for control and configuration of the matrix. The HMXL44CS-KIT is supplied with 4x HEX70CS-RX receivers.

## Key Features

- Advanced HDBaseT™ technology offering uncompressed video and audio with zero latency
- Advanced Colour Space Conversion (CSC) supports HDMI 2.0 18Gbps specification including HDR
- Features 4x HDMI inputs which can be independently routed to 4x HDBaseT™ outputs
- Output 1 features simultaneous HDMI and HDBaseT™ output
- Supports 4K 60Hz 4:4:4 UHD video up to 40m
- Extends HDMI 1080p video up to 70m
- HDMI re-clocking on the HEX70CS-RX HDBaseT™ Receiver to help solve HDMI HDCP, compatibility and handshaking issues
- Supports all 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
- HDMI audio breakout to associated analogue L/R audio outputs with pre-amp line level control
- Analogue audio input can be embedded onto any HDMI input
- Web interface module for control and configuration of Matrix
- Supports bi-directional IR and RS-232 on all HDBaseT™ outputs
- Supplied with Blustream IR receivers and emitters
- Control via front panel, IR, RS-232, and TCP/IP
- Supports PoH (Power over HDBaseT™) to power compatible HDBaseT™ receivers
- 3rd party drivers available for all major home control brands
- 1U design for 19" rack mount integration - mounting kit included
- Advanced EDID management
- HDCP 2.2 compliant

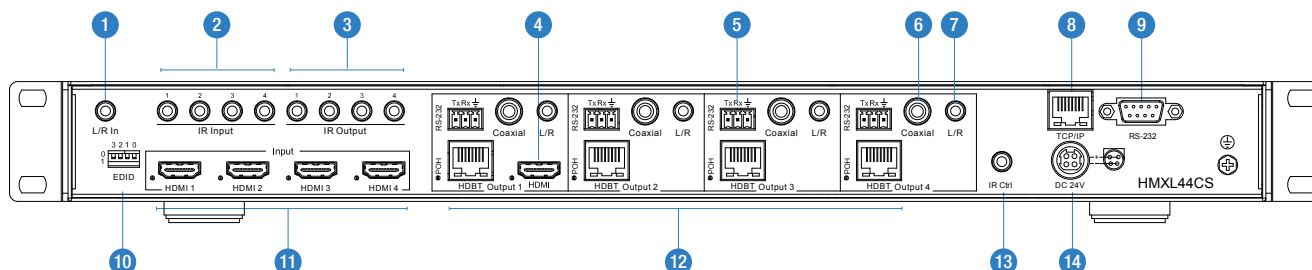
# Panel Descriptions

## 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.
- 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 for 2 seconds 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 Select 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 L/R In - 3.5mm Analogue audio input for embedding audio onto HDMI outputs.
- 2 IR inputs 1 to 4 – 3.5mm stereo jack. Sends 5V IR out to corresponding HDBaseT™ zones.
- 3 IR outputs 1 to 4 – 3.5mm mono jack. Routed IR 5V emitter outputs for discrete source control.
- 4 HDMI output 1 – Output for HDMI display (linked to HDBaseT™ Output 1).
- 5 RS-232 pass-through port (x4) - Sends RS-232 out to corresponding HDBaseT™ zones.
- 6 Coaxial digital audio output (x4) – Extracted audio will be concurrent with the corresponding HDMI video output.
- 7 Variable L/R line level analog audio outputs (3.5mm stereo jack) (x4) – 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.
- 8 TCP/IP (RJ45) – Connect to LAN for TCP/IP control of Matrix and Web GUI.
- 9 RS-232 port – For control of the Matrix from PC or third party control processor.
- 10 EDID DIP switch – Used for global EDID settings.
- 11 HDMI inputs 1 to 4 – Connect HDMI sources.
- 12 HDBT outputs 1 to 4 – Output for displays. Connect to HDBaseT™ receiver
- 13 IR CTRL receiver input – 3.5mm stereo jack. 5V input for connection of a remote IR sensor or control processor for remote IR control of the matrix.
- 14 Power port – Use included 24V/3.5A DC adaptor to power the matrix switcher and HDBaseT™ receivers.

## Understanding the Matrix / Receiver status lights

The Blustream 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 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 a there is an active HDBaseT™ Receiver connected to the Matrix
- The Green HDBaseT™ link light will be off when a 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.

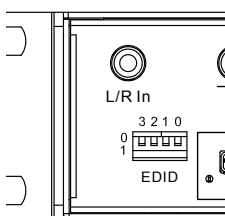
## EDID Control

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 need for EDID hand shaking thus making switching quicker and more reliable.

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

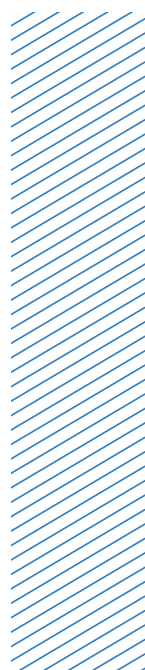
- 1 Using Matrix Front Panel Buttons (For further details see 'HMXL44CS-KIT User Manual')
- 2 Using EDID dip-switches located on the rear of the Matrix - See below
- 3 Using Supplied Blustream Matrix IR Remote Control (For further details see 'HMXL44CS-KIT User Manual')
- 4 Using HMXL44CS Web browser interface (For further details see 'HMXL44CS-KIT User Manual')

Global EDID settings



Dip-switch position '0' = Off

Dip-switch position '1' = On



DIP ON ▼/OFF▲ SWITCHING POSITIONS				
3	2	1	0	EDID TYPE
OFF	OFF	OFF	OFF	1080p/2.0
OFF	OFF	OFF	ON	1080p/5.1
OFF	OFF	ON	OFF	1080p/7.1
OFF	OFF	ON	ON	1080i/2.0
OFF	ON	OFF	OFF	1080i/5.1
OFF	ON	OFF	ON	1080i/7.1
OFF	ON	ON	OFF	4K60Hz 4:2:0/4K30Hz 4:4:4/2.0
OFF	ON	ON	ON	4K60Hz 4:2:0/4K30Hz 4:4:4/5.1
ON	OFF	OFF	OFF	4K60Hz 4:2:0/4K30Hz 4:4:4/7.1
ON	OFF	OFF	ON	4K60Hz 4:4:4/2.0
ON	OFF	ON	OFF	4K60Hz 4:4:4/5.1
ON	OFF	ON	ON	4K60Hz 4:4:4/7.1
ON	ON	OFF	OFF	DVI 1280x1024
ON	ON	OFF	ON	DVI 1920x1080
ON	ON	ON	OFF	DVI 1920x1200
ON	ON	ON	ON	Copy Display EDID

## Specifications

Video Input Connectors: 4x HDMI Type A, 19-pin, female, locking

Video Output Connectors: 1x HDMI Type A, 4x HDBaseT™ RJ45 connector

Audio Input Connectors: 1x 3.5mm stereo jack (L/R)

Audio Output Connectors: 4x RCA (SPDIF), 4x 3.5mm stereo jack (L/R)

RS-232 Serial Port: 1x DB 9 connector (control), 4x 3 pin Phoenix (pass-through)

TCP/IP Control: 1x RJ45, female

IR Input Ports: 5x 3.5mm stereo jack

IR Output Ports: 4x 3.5mm mono jack

Dimensions (W x H x D): 440mm x 245mm x 52mm

Case Dimensions (W x H x D): 440mm x 235mm x 44mm

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 DC/3.5A

**NOTE:** Specifications are subject to change without notice.

---

## Package Contents:

- 1x HMXL44CS Matrix
- 4x HEX70CS-RX Receivers
- 1x 19" Rack mounting kit for HMXL44CS Matrix
- 4x Mounting kits for HEX70CS-RX
- 1x 24V/3.5A power supply
- 1x Remote control
- 5x IRR Blustream 5V IR receivers
- 4x IRE1 Blustream 5V IR emitters
- 1x Quick Reference Guide

---

## Maintenance

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

For the full Blustream HMXL44CS-KIT User Manual please visit the download area of our website [www.blustream.co.uk](http://www.blustream.co.uk)