BLUSTREAM

Output 1   Output 2   Output 3   Output 4   Output 5   Output 6   Output 7   Output 8

▶ MX88ED
User Manual

BLUSTREAM

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.

Contents

Introduction

The MX88ED 8×8 HDMI Matrix routes eight Hi-Definition sources to any eight HDTV displays, supporting 1080p Full HD up to 4K 30Hz plus all 3D formats, along with multichannel digital audio formats such as Dolby® True HD and DTS-HD® Master Audio™. Each source can be routed to any display using the front-panel push buttons, IR remote control, RS-232 interface or via TCP/IP.

FEATURES:

- Supports resolutions up to 1080p@60HZ,48-bit deep color, 4k@30HZ
- Allows any source to be displayed on multiple displays at the same time
- Allows any HDMI display to view any HDMI source at any time

- Dolby TrueHD and DTS-HD master audio pass through HDMI output
- Advanced EDID management for rapid integration of sources and displays
- Multiple switching mode, push-in button, IR remote control, RS-232 control, and TCP/IP control

- Easy installation with rack-mounting ears
- Full 3D pass through.
- HDCP compliant

Front Panel
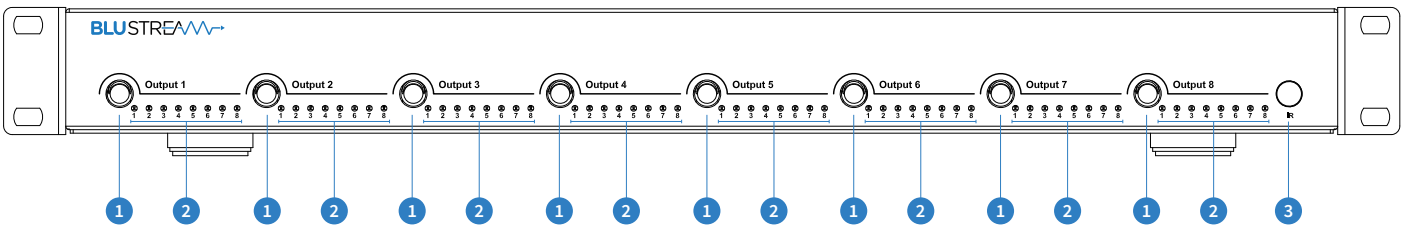
❶ HDMI output selection button 1 to 8 – Press to toggle between the source inputs 1 to 8 for that specific zone output.

❷ Source LED indicator – Show what source is currently selected in this zone

❸ IR receiver window – IR receiver enabling remote control of the MX88ED.

Rear Panel
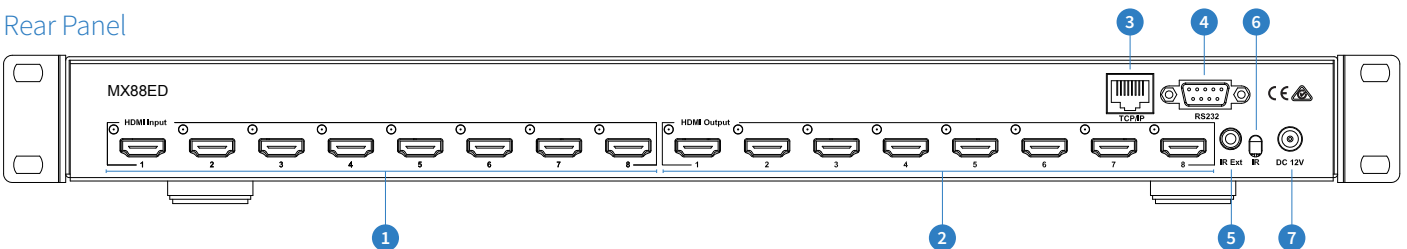
❶ HDMI inputs 1 to 8 – HDMI sources inputs

❷ HDMI outputs 1 to 8 – Zone outputs for displays, AVR etc.

❸ RJ45 – Ethernet connection enabling TCP/IP control of the matrix

❹ RS232 port – This RS232 port provides external control from third part control systems or a PC

❺ IR extension receiver input – 3.5mm stereo plug input for connection of a remote IR sensor or control processor for remote IR control over the matrix.

❻ IR receiver window – Receive the IR from the remote control of MX88ED.

❼ Power port –Use included DC adaptor to power the matrix switcher.

Remote Control Description
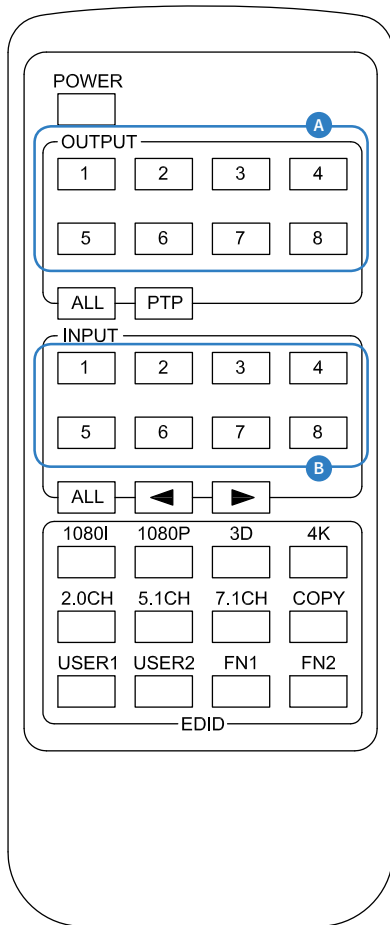
OUTPUT AND INPUT SELECTION

A   Select the zone OUTPUT you wish to change the source on (Numbers 1-8 correspond to the zone outputs 1-8)

B   Select the source INPUT you wish to change on the selected zone to (Numbers 1-8 correspond to the source inputs 1-8)

EXAMPLE

To switch source 2 to zone 8 you would press 8 in the Output box (A) followed by 2 in the input box (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 when a source is selected)

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

EDID SET UP

The MX88ED provides a comprehensive range of EDID settings. Below are three ex- amples of how to deploy the desired EDID setting when using the supplied remote.

A.   **Fix EDID to an INPUT or ALL in- puts:** Press the desired video resolu- tion 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 – 8 or the ALL button

B.   **Copy EDID of OUTPUT-X to an INPUT or ALL:** Press the COPY but- ton 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 select- ing INPUT 1-8 or the ALL button

NOTE: Press button sequence should be finished in 5 seconds, otherwise the opera- tion is discarded.

EDID Control

EDID (Extended Display Identification Data) is a data structure that is used between a display and 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 determine what the best audio and video resolutions are to be outputted.
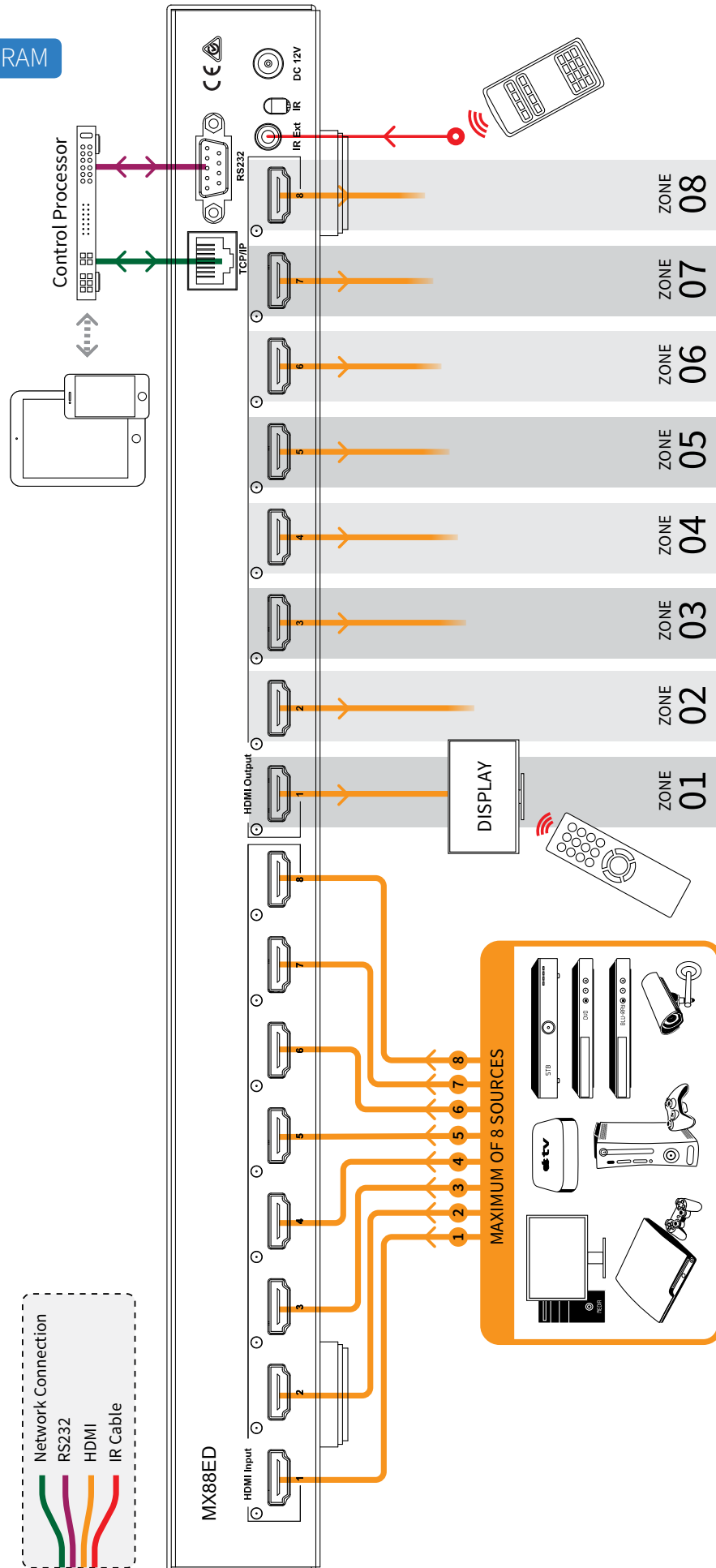
While the objective of EDID is to make connecting a digital display to a source a simple plug and play procedure issues do arise when multiple displays or video matrix switching is introduced because of the increased number of variables.

By pre-determining the video resolu- tion and audio format of the source and display device we can remove some of the EDID hand shaking process thus mak- ing switching quicker and more reliable. Instructions on these setting can be found on the right

[DIP]=0000: HDMI 1080p@60Hz, Audio 2CH PCM

[DIP]=0001: HDMI 1080p@60Hz, Audio 5.1CH PCM/DTS/DOLBY

[DIP]=0010: HDMI 1080p@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD

[DIP]=0011: HDMI 1080i@60Hz, Audio 2CH PCM

[DIP]=0100: HDMI 1080i@60Hz, Audio 5.1CH PCM/DTS/DOLBY

[DIP]=0101: HDMI 1080i@60Hz, Audio 7.1CH PCM/DTS/DOLBY/HD

[DIP]=0110: HDMI 1080p@60Hz/3D, Audio 2CH PCM

[DIP]=0111: HDMI 1080p@60Hz/3D, Audio 5.1CH PCM/DTS/DOLBY

[DIP]=1000: HDMI 1080p@60Hz/3D, Audio 7.1CH PCM/DTS/DOLBY/HD

[DIP]=1001: HDMI 4K2K, Audio 2CH PCM

[DIP]=1010: HDMI 4K2K, Audio 5.1CH PCM/DTS/DOLBY

[DIP]=1011: HDMI 4K2K, Audio 7.1CH PCM/DTS/DOLBY/HD

[DIP]=1100: DVI 1280x1024@60Hz, Audio None

[DIP]=1101: DVI 1920x1080@60Hz, Audio None

[DIP]=1110: DVI 1920x1200@60Hz, Audio None

BLUSTREAM

CONNECTION DIAGRAM

MX88ED

Control Processor

RS232

TCP/IP

DC 12V

IR Ext   IR

HDMI Output

HDMI Input

ZONE 08
ZONE 07
ZONE 06
ZONE 05
ZONE 04
ZONE 03
ZONE 02
ZONE 01

DISPLAY

MAXIMUM OF 8 SOURCES

Network Connection
RS232
HDMI
IR Cable

Specifications

Video Input Connectors: 8x HDMI Type A, 19-pin, female, locking

Video Output Connectors: 8x HDMI Type A, 19-pin, female, locking

RS-232 serial port: DB-9, female

TCP/IP Control: RJ-45, female

IR Input ports: 1x 3.5mm stereo jack

Rack-Mountable: 1 U rack height, rack ears included

Dimensions (W x D x H): 428mm x 245mm 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: 12V/5A DC

RS232 Pin Assignment

MT0404-A40		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

Package Contents:

- 1 x MX88ED
- 1 x 12V/5A DC power supply
- 1 x Remote control
- 1 x IR Receiver
- 1 x mounting kit
- 1 x manual

Maintenance

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