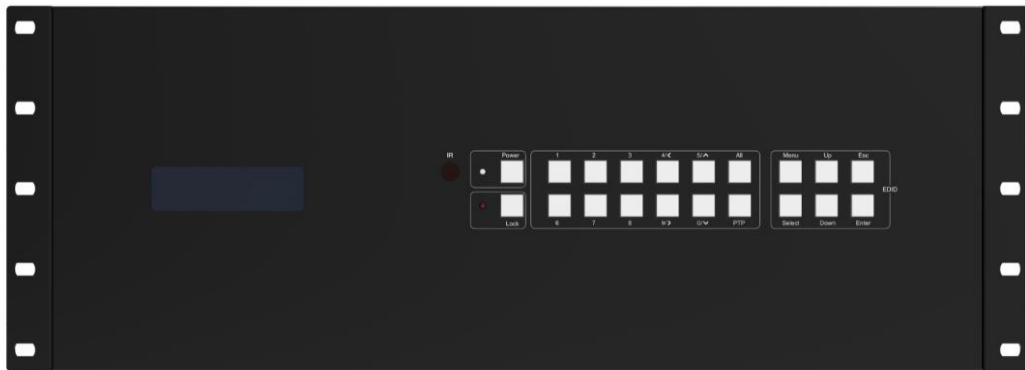


# 18Gbps 4K@60hz HDMI 2.0 HDbaset matrix modular version



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.

## **SAFTY NOTICE**

1. The transmission distances of HDMI over UTP cables are measured using TE CONNECTIVITY 1427071-6
2. EIA/TIA-568-B termination (T568B) for CAT cables is recommended for better performance.
3. DO NOT use 568A/568B standard mixed CAT cable (cross-over cable) because there are 2 pairs swapped, this will make POE OVER-CURRENT and damage POE components. Please use straight-through CAT cable (both RJ45 headers are 568A or 568B standard).
4. It is recommended that power up the device after connections of source, sink and CAT cable.
5. To reduce the interference among the unshielded twisted pairs of wires in CAT cable, do not run HDBaseT / Zone Cat5e/6/6a cabling with or in close parallel proximity to mains power cables. Shielded CAT cables can be used to improve EMI problems, which is worsen in long transmission.
6. Because the quality of the CAT cables has the major effect on how long the transmission limit can achieve and how good is the received picture quality, the actual transmission range is subject to one's choice of CAT cables.
7. Do not substitute or use any other Power Supply other than the enclosed unit, or a Factor Electronics approved Replacement Part. Doing so will void the warranty and potentially expose the user to dangerous voltages resulting in an electrical shock.
8. Do not disassemble the device for any reason. Doing so will void the manufacturer's warranty. Also, our unique case is an integral part of the design of this unit and is responsible for cooling and circuitry shielding. Any modifications to this case will potentially cause malfunction and product failure.
9. Do not expose the device to water, moisture, or liquid. Possible electric shock may result as well as failure of the unit to operate.

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## Table of Contents

Introduction.....	4
Features.....	4
Panel Descriptions.....	5
Front Panel.....	5
Back Panel.....	7
Remote Control Description.....	8
Application Diagram.....	9
Specifications.....	10
Package Contents.....	10
RS-232 Pin Assignment.....	11
RS232 and Telnet Commands.....	11
GUI Control.....	14
Web GUI.....	26
Maintenance.....	
Warranty Policy.....	
Limitations of Warranty.....	
Exclusive Remedies.....	
RMA Policy.....	
Standard Replacement.....	
Once you have obtained an RMA number.....	
Please note.....	

## Introduction

The 16x16 HDbaset matrix is a Pro Matrix Switcher featured with 16x HDMI Inputs and 16x HDMI Outputs & 16x HDBaseT Outputs. This unit supports 4K/UHD video @ 60Hz with 4:4:4 chroma sampling, as well as HDMI data rates up to 18Gbps. It is also compatible with high dynamic range (HDR10) formats and all 3D formats. It supports audio embedding and de-embedding, along with multichannel digital audio formats such as Dolby® True HD and DTS-HD® Master Audio™. Based on smart HDBaseT technology, the output distance can reach up to 100m/330ft for 1080p and 70m/230ft for 4K via Cat5e/Cat6. Each source can be routed to any display using the front-panel push buttons, IR remote control, RS-232 interface, TCP/IP or Web GUI.

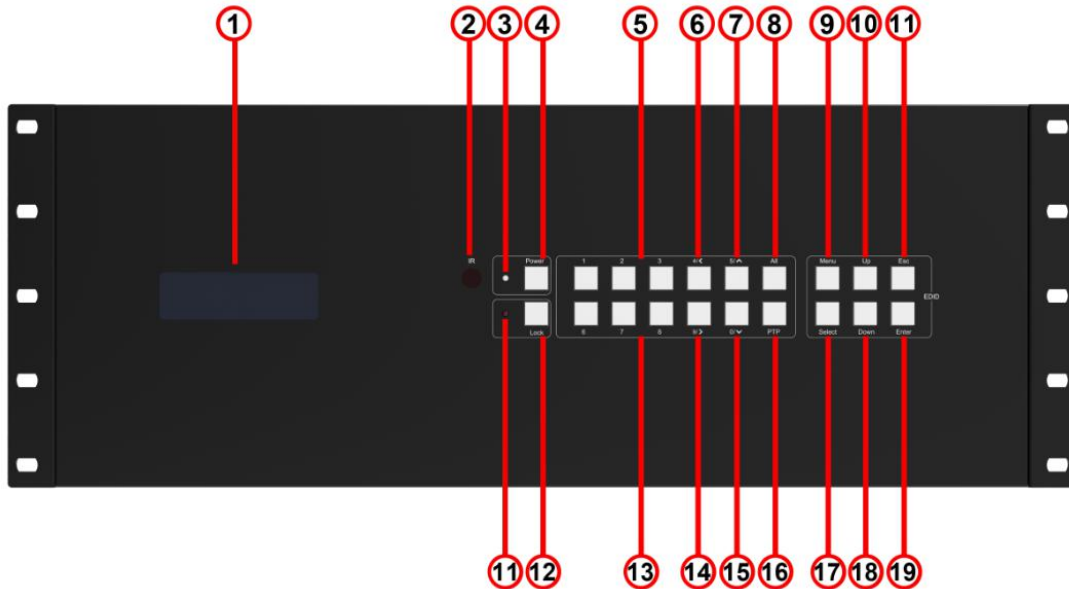
This pro matrix series provides the most flexible and cost effective solution in the Audio/Video market. It has been specifically designed to operate in challenging AV environment.

## Features

- ◆ 19inch 4U modular design, flexible horizontal I/O cards
- ◆ 16x HDMI inputs, 16x HDBaseT outputs & 8 mirrored HDMI outputs
- ◆ Supports 4K@60Hz 4:4:4, HDR, HLG and full 3D
- ◆ 16x HDBaseT output support transmitting 1080p up to 100m/330ft, 4K up to 70m/230ft
- ◆ Supports audio de-embedding on outputs as Coaxial and L/R audio output
- ◆ Volume control on L/R audio output
- ◆ IR/RS232 signal can pass through to the corresponding receiver (1 to 1, 2 to 2 ... 16 to 16) via HDBaseT
- ◆ Multi-channel audio pass through up to Dolby Digital Plus, Dolby TrueHD, DTS-HD Master Audio, and Dolby Atmos
- ◆ LCD panel, IR, RS232, TCP/IP and Web GUI for control
- ◆ Support PoC (Power over cable) to power compatible HDBaseT receivers
- ◆ Advanced EDID management
- ◆ HDCP 2.2 compliant

## Panel Descriptions

### Front Panel



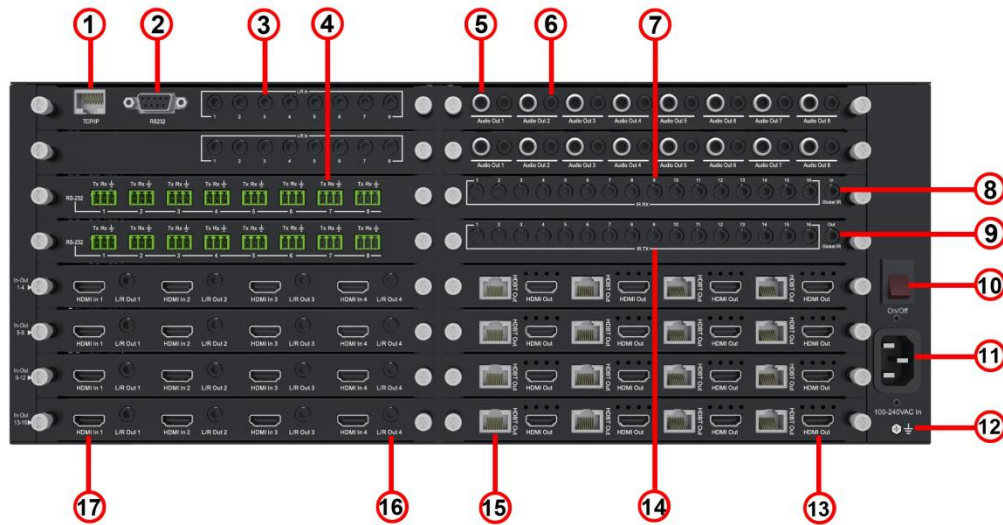
1. LCD Display -- Show the status of input-output selection, EDID info and so on.
2. IR Receiver Window -- Receive the IR from the remote control of matrix.
3. Power LED Indicator -- Indicate the status of the power for the matrix.
4. Power Button -- Press to power on/off the matrix.
5. HDMI Input/ Output composite button 1 to 3-- Press to select Input 1 to 3 or Output 1 to 3. Or combine with other button to select Input/ Output channel when Input/ Output is high than 9.
6. HDMI Input/ Output multiple button 4 -- Press to select Input 4 or Output 4. Or combine with other button to select Input/ Output channel when Input/ Output is high than 9. This button also can be used to control cursor to Left under "MENU" editable status.
7. HDMI Input/ Output multiple button 5 -- Press to select Input 5 or Output 5. Or combine with other button to select Input/ Output channel when Input/ Output is high than 9. This button also can be used to control cursor to Up under "MENU" editable status.
8. All Button for HDMI Outputs – Press to select all of the outputs from 1 to 16
9. Menu Button –Press to enter EDID set mode. Three EDID segments will display on the LCD panel formatted as: INPUT VIDEO AUDIO, for example: IN1 1080P 2.0CH, means to set 1080P 2.0CH EDID to INPUT1. The blinking segment is the one can be changed currently. Segment content items as below:

INPUT	VIDEO	AUDIO	Note
IN1	1080I	2.0CH.	
IN2	1080P	5.1CH	

IN3	3D	7.1CH	
IN4	4K2K	NONE	
IN5	D1024		D1024=DVI 1024 x 768
IN6	D1080		D1080=DVI 1920 x 1080
IN7	D1200		D1200=DVI 1920 x 1200
IN8	OUT1		OUT1=Copy OUTPUT1 EDID to INPUTx
ALL	OUT2		ALL=Set EDID to ALL INPUTs OUT2=Copy OUTPUT2 EDID to INPUTx
	OUT3		OUT3=Copy OUTPUT3 EDID to INPUTx
	OUT4		OUT4=Copy OUTPUT4 EDID to INPUTx
	OUT5		OUT5=Copy OUTPUT5 EDID to INPUTx
	OUT6		OUT6=Copy OUTPUT6 EDID to INPUTx
	OUT7		OUT7=Copy OUTPUT7 EDID to INPUTx
	OUT8		OUT8=Copy OUTPUT8 EDID to INPUTx

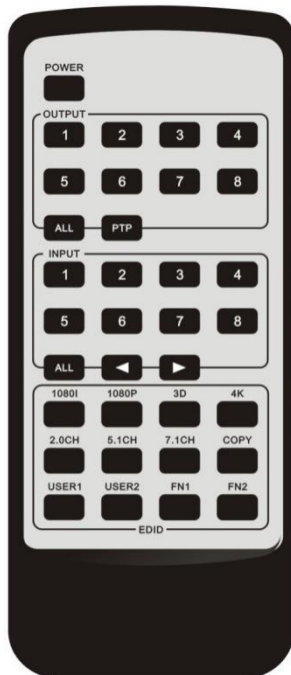
10. Up Selection Button – Press to change segment’s value
11. ESC – Press to quit EDID set mode
12. Lock LED Indicator -- Indicate the status of Lock.
13. Lock Button -- Press to lock the buttons of the front panel
14. HDMI Input/ Output composite button 6 to 8– Press to select Input 6 to 8 or Output 6 to 8. Or combine with other button to select Input/ Output channel when Input/ Output is high than 9.
15. HDMI Input/ Output multiple button 9 -- Press to select Input 9 or Output 9. Or combine with other button to select Input/ Output channel when Input/ Output is high than 9. This button also can be used to control cursor to Right under “MENU” editable status.
16. HDMI Input/ Output multiple button 0 -- Combine with other button to select Input/ Output channel when Input/ Output is high than 9. This button also can be used to control cursor to Down under “MENU” editable status.
17. PTP Button -- Press to mirror all inputs and outputs (e.g. output 1 to input1, output 2 to input2 and so on).
18. Selection Button -- Press to select segment to change setting. Selected segment will be blinking.
19. Down Selection Button -- Press to change segment’s value.
20. Enter Button -- Press to set EDID to specified INPUT or copy EDID from specified OUTPUT to specified INPUT.

## Back Panel



1. RJ45 – TCP control
1. Master RS232 Port –DB9, female
2. L/R Input 1 to 16 – 3.5mm stereo earphone jack, to embed 2CH audio into the corresponding HDMI Inputs
3. RS232 Port 1 to 16 -- 3-pin phoenix terminal connector
4. Coaxial Output -- RCA connector. Multichannel digital audio loop outs for use with a sound system or multi-channel zone amplifier - Audio outputs follow the corresponding HDBaseT outputs e.g. Audio out 1 follows HDBaseT output 1.
5. L/R Output -- 3.5mm stereo earphone jack. Analog audio loop outs for use with a sound system or multi-channel zone amplifier - Audio outputs follow the corresponding HDBaseT outputs e.g. Audio out 1 follows HDBaseT output 1.
6. IR Output 1 to 16 –3.5mm mono phone-jack, connect to IR emitter cable.
7. Global IR Output -- 3.5mm mono phone-jack.
8. Global IR Input -- 3.5mm mono phone-jack.
9. Power Switch – Power on/off the matrix
10. DC Power Input – Connect to DC power supply included in package
11. GND – Connect to ground
12. HDMI Output – Connect to HDMI sink
13. IR Input 1 to 16 – 3.5mm stereo phone-jack, connect to IR sensor cable
14. HDBaseT output – Connect to HDBT Receiver
15. L/R Output – 3.5mm stereo earphone jack. Extract analog audio from corresponding HDMI input.
16. HDMI Input – Connect to HDMI source

## Remote Control Description



### Output and Input select

- A. OUTPUT-X select INPUT-Y:
  1. Press OUTPUT-X (X means 1 to 8 of outputs) → Press INPUT-Y ( Y means 1 to 8 of inputs )
  2. Press OUTPUT-X (X means 1 to 8 of outputs) → press the left and right arrow buttons to select the input.
- B. All outputs select INPUT-Y: Press ALL button in zone OUTPUT → Press INPUT-Y button ( Y means 1 to 8 of inputs ), then INPUT-Y switched to ALL OUTPUTS
- C. Mirror all inputs and outputs (Ex. Input 1 to output 1, input 2 to output 2, etc): Press PTP button in Zone OUTPUT

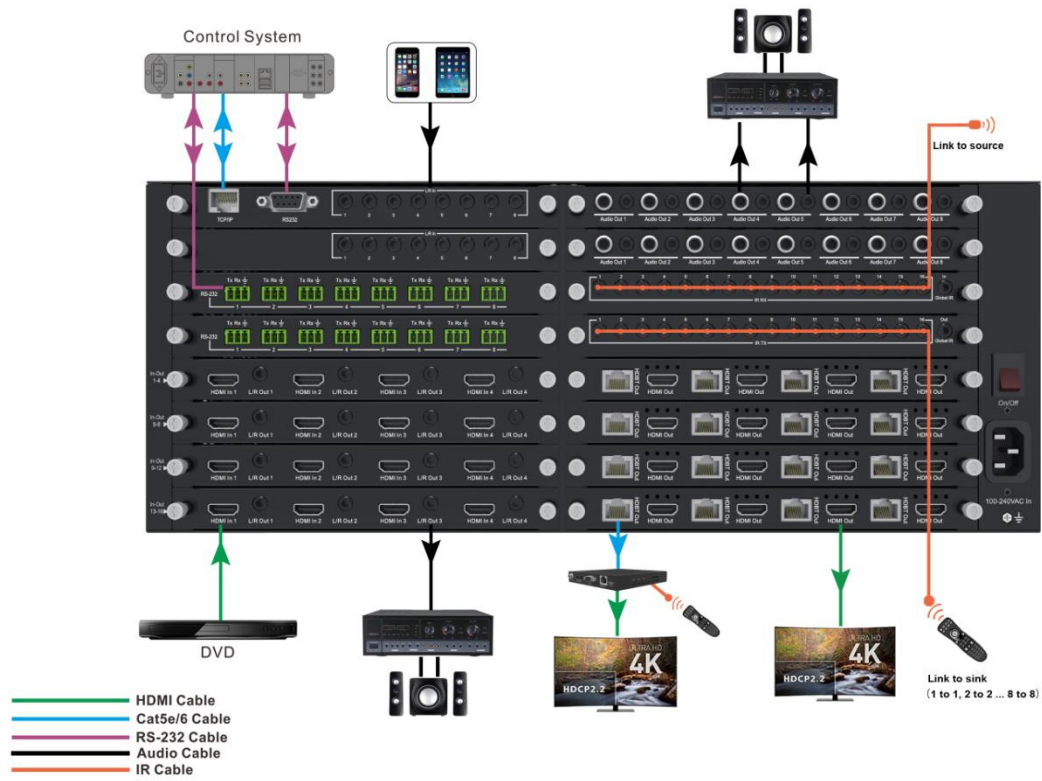
### EDID Set Up

- A. Fixed EDID to INPUT-Y/ALL  
Press 1080I/1080P/3D/4K → Press 2.0CH/5.1CH/7.1CH → INPUT-Y/ALL button in Zone INPUT
- B. Copy EDID of OUTPUT-X to INPUT-Y/ALL  
Press COPY button → Press OUTPUT-X button → Press INPUT-Y/ALL button
- C. User defined EDID to INPUT-Y/ALL  
Press USER1/USER2 button → Press INPUT-Y/ALL

**NOTE:** Pressing button sequence should be finished in 5 seconds, otherwise, operation discarded.



## Application Diagram



## Specifications

Bandwidth	18Gbps
Video Input Connectors	16x HDMI Type A, 19-pin, female
Audio Input Connectors	16x 3.5mm stereo earphone jack (L/R)
Video Output Connectors	16x HDMI Type A, 19-pin, female 16x HDBaseT RJ45 connector
Audio Output Connectors	16x 3.5mm stereo earphone jack (L/R), 16x RCA (SPDIF)
TCP/IP Control	1x RJ45 connector, female
IR Input ports	17x 3.5mm stereo jack
IR Output ports	17x 3.5mm stereo jack
RS232 series port	1x DB9 connector, female 16x3-pin phoenix terminal connector
Dimensions(W x D x H)	440mm x 420mm x 180mm, without feet
Shipping Weight	14.6KG
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	100V-240V

## Package Contents

- 1) 1x 8x8 HDbaset matrix
- 2) 1x Power Supply
- 3) 1x Power Cord
- 4) 1x Master Remote Control
- 5) 17x IR Transmitter cable
- 6) 17x IR Receiver cable
- 7) 2x Rack-mount ears (19" Rack-Mountable)
- 8) 1x Serial Cable (9-pin RS232 to 3-pin phoenix connector)

## RS-232 Pin Assignment

16x16 Matrix		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

**NOTE:** Use **Straight Through DB9 Cable** to connect the matrix with computer, **DO NOT** use Crossover Cable (Null Modem Cable).

## RS232 and Telnet Commands

No.	Command	Action
1	?	Print Help Information
2	HELP	Print Help Information
3	STATUS	Print System Status And Port Status
4	PON	Power On, System Run On Normal State
5	POFF	Power Off, System Run On Power Save State
6	IR ON/OFF	Set System IR Control On Or Off
7	KEY ON/OFF	Set System KEY Control On Or Off
8	BEEP ON/OFF	Set Onboard Beep On Or Off
9	LCD ON/OFF	Set LCD Always On Or Auto Turn Off In Power On State
10	RSB x	Set RS232 Baud Rate to X bps x=[0:115200 1:57600, 2:38400, 3:19200, 4:9600]
11	RESET	Reset System To Default Setting (Should Type "Yes" To Confirm, "No" To Discard)
12	RESET ALL	Reset System And Network To Default Setting (Should Type "Yes" To Confirm, "No" To Discard)

13	OUT xx ON/OFF	Set OUTPUT:xx On Or Off
14	OUT xx FR yy	Set OUTPUT:xx From INPUT:yy
15	OUT xx EH/ET	Set OUTPUT:xx Use HDMI/HDBT EDID xx=[00]: All OUTPUT Port, [01...08]: OUTPUT Port yy=[01...08]: INPUT Port
16	POH TX yy ON/OFF	Set OUTPUT:yy POH On Or Off yy=[00]: All OUTPUT Port, [01...08]: OUTPUT Port
17	VLC TX yy ON/OFF	Set OUTPUT:yy Valens Long Cable Mode On Or Off yy=[00]: All OUTPUT Port, [01...08]: OUTPUT Port
18	PRESET STATUS	Print Preset Config Status
19	PRESET pp SET aa,bb,cc,dd,ee,ff,gg,hh :	Set Preset:pp Config
20	PRESET pp SAVE	Save Current Output Connection To Preset:pp Config
21	PRESET pp APPLY	Apply Preset:pp Config To Output Connection pp=[01..08]: Select Preset Index aa=[01..08]: Output 01 From aa, [00]: Not Set bb: Output 02 ... hh: Output 08
22	EDID xx CP yy	Set Input:xx EDID Copy From Output:yy
23	EDID xx DF zz	Set Input:xx EDID To Default EDID:zz xx=[00]: All INPUT Port, [01...08]: INPUT Port yy=[01...08]: OUTPUT Port zz=00: HDMI 1080p@60Hz, Audio 2CH PCM zz=01: HDMI 1080p@60Hz, Audio 5.1CH DTS/DOLBY zz=02: HDMI 1080p@60Hz, Audio 7.1CH DTS/DOLBY/HD zz=03: HDMI 1080i@60Hz, Audio 2CH PCM zz=04: HDMI 1080i@60Hz, Audio 5.1CH DTS/DOLBY zz=05: HDMI 1080i@60Hz, Audio 7.1CH DTS/DOLBY/HD zz=06: HDMI 1080p@60Hz/3D, Audio 2CH PCM zz=07: HDMI 1080p@60Hz/3D, Audio 5.1CH DTS/DOLBY zz=08: HDMI 1080p@60Hz/3D, Audio 7.1CH DTS/DOLBY/HD zz=09: HDMI 4K@30Hz 4:4:4, Audio 2CH PCM zz=10: HDMI 4K@30Hz 4:4:4, Audio 5.1CH DTS/DOLBY zz=11: HDMI 4K@30Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD zz=12: DVI 1280x1024@60Hz, Audio None zz=13: DVI 1920x1080@60Hz, Audio None zz=14: DVI 1920x1200@60Hz, Audio None zz=15: User EDID 1 zz=16: User EDID 2 zz=17: GUI Download EDID zz=18: HDMI 4K@60Hz 4:2:0, Audio 2CH PCM

		zz=19: HDMI 4K@60Hz 4:2:0, Audio 5.1CH DTS/DOLBY zz=20: HDMI 4K@60Hz 4:2:0, Audio 7.1CH DTS/DOLBY/HD zz=21: HDMI 4K@60Hz 4:4:4, Audio 2CH PCM zz=22: HDMI 4K@60Hz 4:4:4, Audio 5.1CH DTS/DOLBY zz=23: HDMI 4K@60Hz 4:4:4, Audio 7.1CH DTS/DOLBY/HD
24	MXIR xx FR yy	Remote RX:xx IR Output From Local IR in:yy xx=[00]: All Remote Rx IR Output, [01...08]: Remote Rx IR Output yy=[01...08] Local IR In
25	MXIR GI (+-)xx	Global All Ir In Signal Goes To Which IR Output:xx xx=[09...16]: Local IR Output xx=[17...24]: Remote HDBT Receiver IR Output +: Add xx To Current Setting -: Remove xx From Current Setting
26	MXIR GO (+-)xx	Global All Ir Out Signal From Which IR Input:xx xx=[09...16]: Local IR Input xx=[17...24]: Remote HDBT Receiver IR Input xx=[25]: Global All Ir In +: Add xx To Current Setting -: Remove xx From Current Setting
27	MXRS xx TO yy	Local RS-232:xx Route To Remote HDBT:yy xx=[09]: Global RS-232 yy=[00]: Not Connect To Any RS-232 yy=[09...16]:Remote HDBT Receiveryy=[09...16]: Remote HDBT Receiver
28	MXSTA	Print Matrix IR And RS-232 Connect State
29	AUD RX xx ORG	Input Port:xx Use Original Received HDMI/DVI Signal
30	AUD RX xx ANA	Input Port:xx Embed Analog L/R To HDMI/DVI Signal
31	AUD RX xx AUTO	Input Port:xx Embed Analog L/R When DVI Signal xx=[00]: All Input Port, [01...08]: Input Port
32	MUTE ON/OFF TX yy	Set Output Audio:yy Mute On or Off yy=[00]: All Output Audio, [01...08]: Output Audio
33	AUD STA	Print Input/Output Port Audio Setting State
34	NET DHCP ON/OFF	Set Auto IP(DHCP) ON Or OFF
35	NET IP xxx.xxx.xxx.xxx	Set IP Address
36	NET GW xxx.xxx.xxx.xxx	Set Gateway Address

37	NET SM xxx.xxx.xxx.xxx	Set Subnet Mask Address
38	NET RB	Set Network Reboot and Apply New Config!!!
39	NET TN xxxx	Set Telnet Port

## GUI Control

### PC System:

Microsoft Windows Operation System

### Installation

16x16 HDMI Matrix controller is a green software. You just need to copy “16x16 HDMI Matrix Controller vx.x.exe” to the PC which is used to control the Matrix by RS232 COM or TCP to complete installation.

### Preparation

1. Connect PC and Matrix by RS232 cable or UTP cable
2. Power up Matrix (It will take about 5 seconds to be ready with “Di” beep sound )
3. Double click “8x8 HDMI Matrix Controller vx.x.exe” icon to run it

### Common information



Click to select tab page



- ① COM port or TCP connect status
- ② Control command process status
- ③ Prompt message display area
- ④ Date and Time display

## “General” page

The screenshot shows the 'General' page of the software interface. It is divided into several sections:

- Control mode select:** Contains two radio buttons: 'COM control mode' (1) and 'TCP control mode' (3).
- COM control mode:** A dropdown menu labeled 'Port' (2) currently showing 'COM2'.
- TCP control mode:** A search bar (3) containing '[#1] - [Auto IP] - [192.168.1.121] - [18-98-66-85-2A-98]' (4). Below it are 'Search' and 'Config ...' buttons (5).
- Connection:** A red indicator light and a 'Connect' button (6).
- Refresh device status:** A 'Device status' button (7).
- Display tags setting:** A checkbox (8) labeled 'Display Input, Output tags when focus setting buttons'.
- Device information (9):** A panel on the right showing 'Device: HDMI Matrix, 8x8' and 'Version: 3.22'. Below this is a table of input/output connection status:
 

Input1: Not connected	Output1: Not connected
Input2: Not connected	Output2: Not connected
<b>Input3: Connected</b>	Output3: Not connected
Input4: Not connected	Output4: Not connected
Input5: Not connected	Output5: Not connected
Input6: Not connected	Output6: Not connected
Input7: Not connected	Output7: Not connected
<b>Input8: Connected</b>	<b>Output8: Connected</b> (10)

- ① Select control mode: RS232 COM mode (Auto COM ports detected) or TCP mode
- ② List detected COM ports
- ③ List all Matrix devices after search operation
- ④ Click to search all Matrix devices that connected in same subnet
- ⑤ Click to configuration the selected Matrix's TCP control configurations
- ⑥ Click to connect or disconnect PC and Matrix ( Connection will be established automatically before control commands sending )
- ⑦ Click to refresh device status: include device information displayed in ⑨ area and Input/output port connection status in ⑩ area.

**NOTE:** Tab pages cannot be changed during control command is processing.

- ⑧ To enable or disable Input/output tags displaying when setting buttons on “Setting” page focused
- ⑨ Device information display area
- ⑩ Input/output port connection status

## Set TCP control configuration

Click Config button to show TCP configuration window.

- ① Set tag to identify Matrix device
- ② Set IP mode: Subnet should support DHCP protocol when set Auto IP mode, then Matrix device will obtain IP automatically. Otherwise, set Static IP mode and designate a useable IP for Matrix device
- ③ Set IP address, not editable when Auto IP mode selected. Note: The last IP BYTE's range is 2-252.
- ④ Matrix device MAC address
- ⑤ Click OK to set configuration. If configuration is set OK, Matrix devices will be searched out again
- ⑥ Click to Close the window and configuration cancelled

## “Port Tag” page

Input port tags		Output port tags	
Tag of Input1	Tag of Input5	Tag of Output1	Tag of Output5
Blue-ray DVD	Device5	Meeting room	Display5
Tag of Input2	Tag of Input6	Tag of Output2	Tag of Output6
Game player	Device6	Entertainment room	Display6
Tag of Input3	Tag of Input7	Tag of Output3	Tag of Output7
Set-top Box	Device7	VIP	Display7
Tag of Input4	Tag of Input8	Tag of Output4	Tag of Output8
PC	Device8	Office	Display8



- ① Input port tags
- ② Click to edit Input port tags
- ③ Output port tags
- ④ Click to edit Output port tags

**NOTE:**

- 1) Edit boxes are read only, click “Edit” button to pop up window to edit the tags.
- 2) One set of Input/output port tags can be set for Matrix device when COM control mode selected.
- 3) Input/output port tags can be set for respective Matrix device according to device’s MAC address.

**Edit Input port tags**

After action of ②, edit form will pop-up as below:

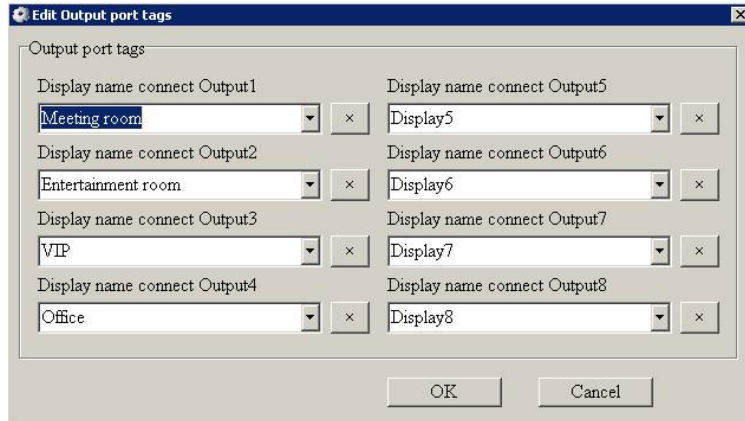
Device name connect Input	Device name connect Input
Blue-ray DVD	Device5
Game player	Device6
Set-top Box	Device7
PC	Device8

Define tags for respective Input port, then devices connect the Input ports can be easily remembered.

Click buttons with “x” caption to delete tag which is no use any more, if tag is still used by any other Input port, delete action will be discarded.

## Edit Output port tags

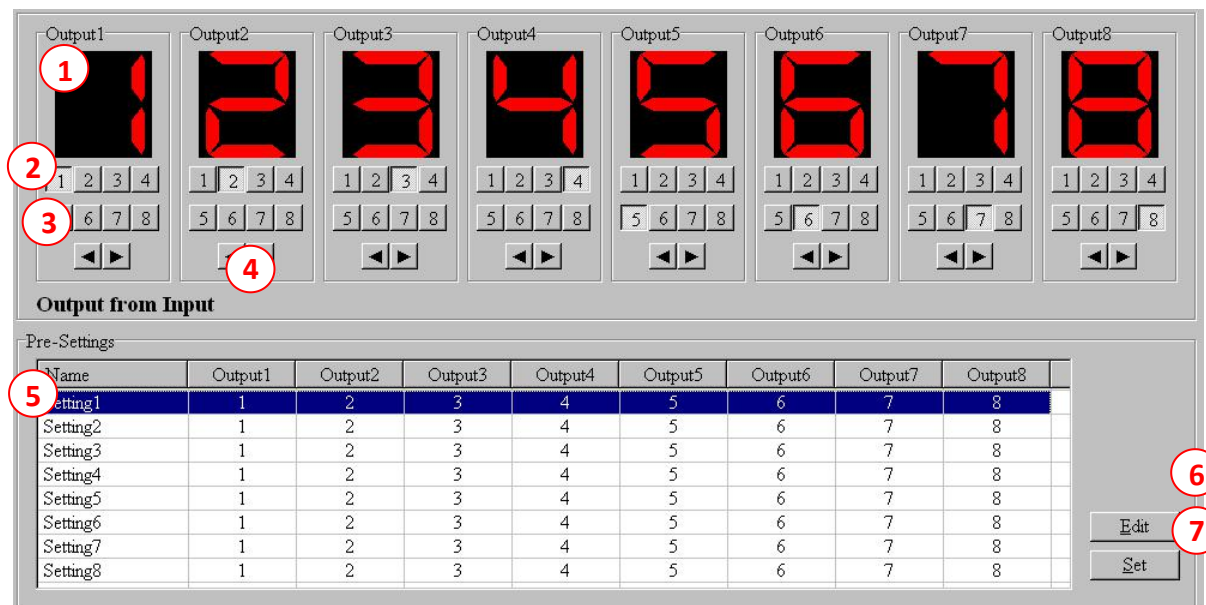
After action of ④, edit form will pop-up as below:



Define tags for respective Output port, then displays connect the Output ports can be easily remembered.

Click buttons with “x” caption to delete tag which is no use any more, if tag is still used by any other Output port, delete action will be discarded.

## “Setting” page



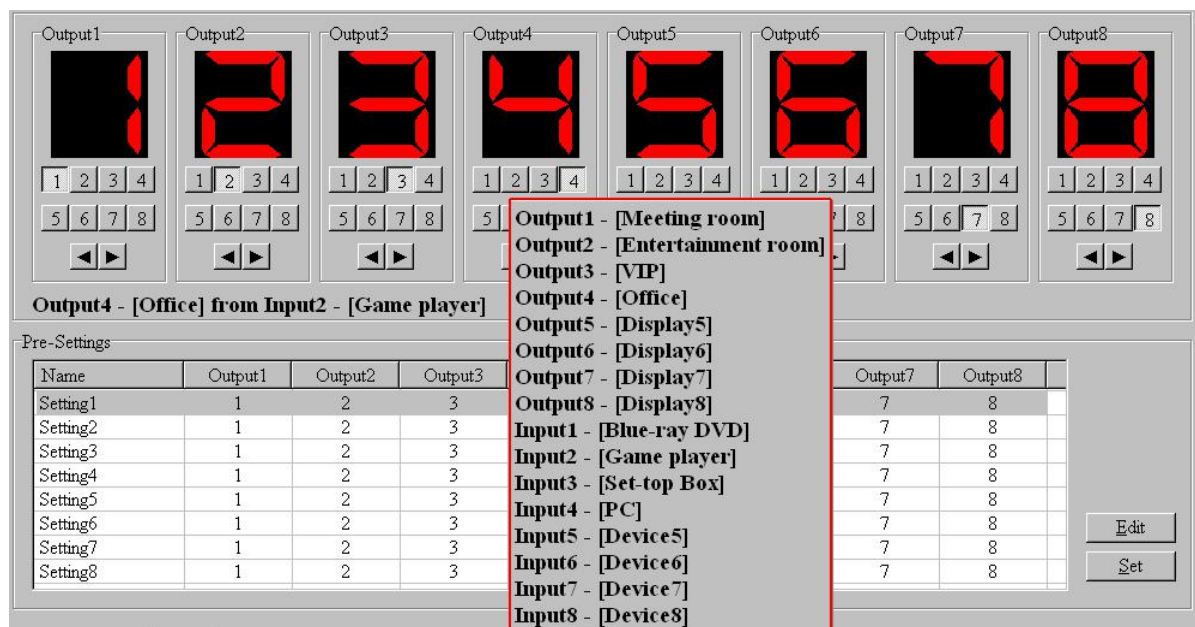
- ① LED which displays Input number for respective Output port
- ② Click to select Input port for respective Output port
- ③ Click to select previous or next Input port for respective Output port

- ④ Display Output from Input with tag information when mouse moves over ② buttons
- ⑤ Pre-Setting items: Default is Port to Port
- ⑥ Click to edit selected pre-setting item
- ⑦ Set selected pre-setting item to Matrix

**NOTE:** When Change to this “Setting” page, software will try to refresh source selection status of Output port.

### Pop-up tag messages

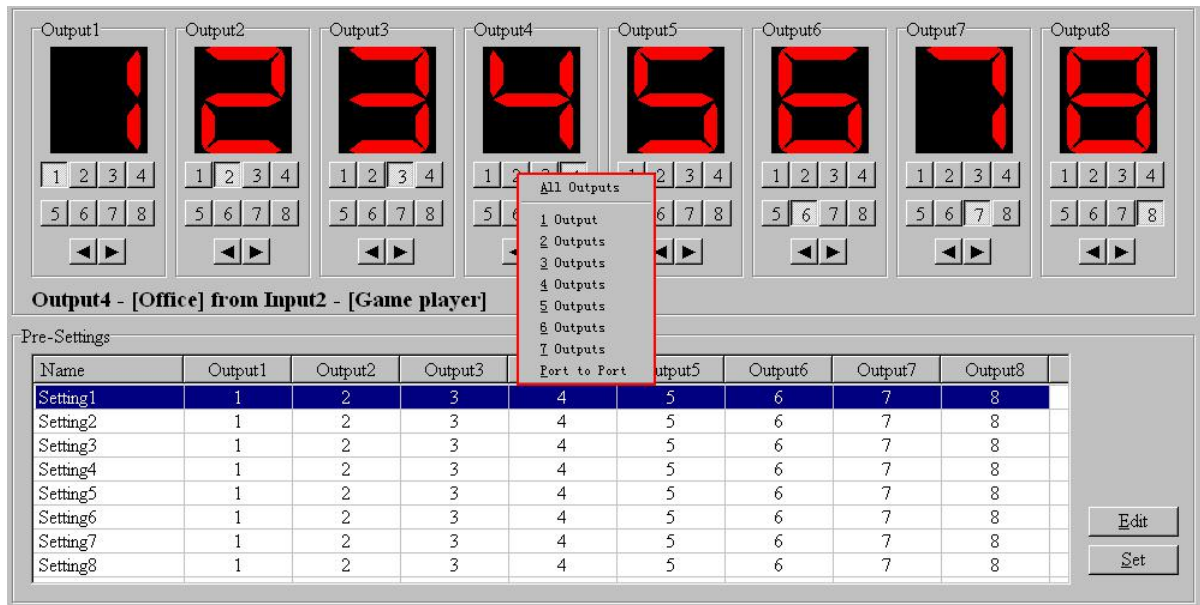
When “Display Input, Output tags when focus setting buttons” checkbox on “General” page is checked and Input/output port tag has been defined, tag messages will pop up like as:



## Pop-up Menu

When mouse moves over ② setting buttons, and click mouse right button, menu will pop up

like as:



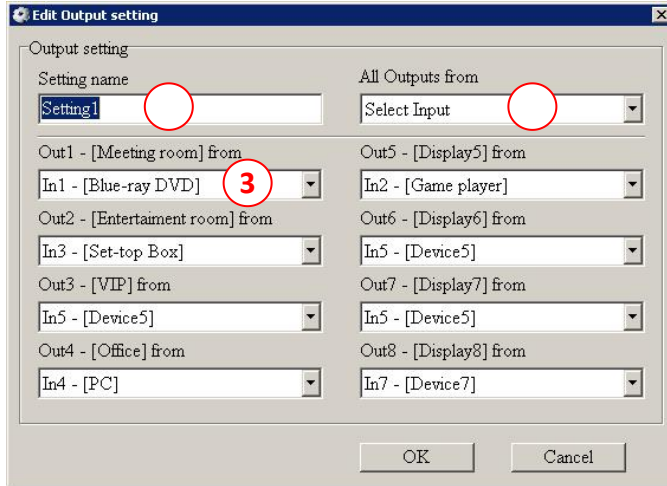
All Outputs: All Outputs from same Input

“1 Output” to “7 Outputs”: Set current Output (where mouse right clicked) and the next x-1 ( x range is from 1 to 7, set total x Outputs at the same time ) Output(s) from same Input

Port to Port: Output1 from Input1, Output2 from Input2, Output3 from Input3, etc.

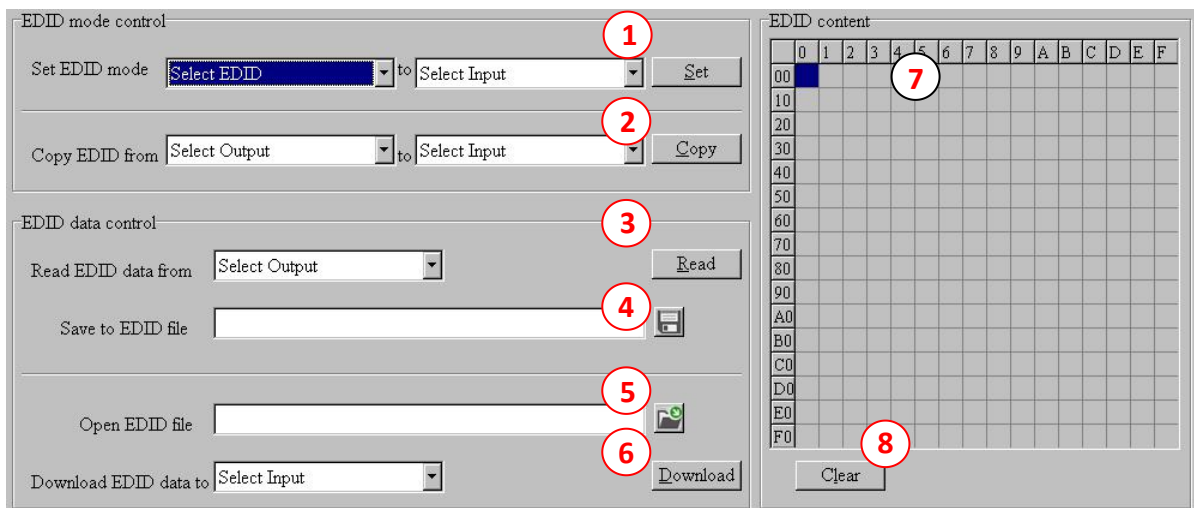
### Edit selected pre-setting item

After action of ⑥, edit form will pop-up as below:



- ① Pre-Setting name
- ② Set all Output ports from same Input
- ③ Select Input for respective Output

### “EDID control” page



- ① Set EDID mode for selected Input port or All Input ports, click “Set” button to complete action.

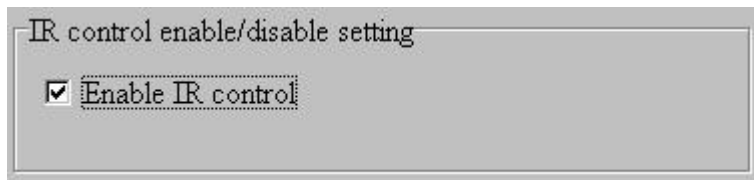
**NOTE:** When set User1/User2 EDID mode, should Download EDID content to User1 Memory/User2 Memory first. User1/User2 default EDID content is 1080p, Stereo Audio 2.0.

- ② Copy EDID from Output port to selected Input port or All Input ports, click “Copy” button to complete action.
- ③ Read EDID content from Output port and display in grid, click “Read” button to complete action.
- ④ Save EDID content which displayed in grid to binary file (file extension is “.bin”)
- ⑤ Open EDID binary file and display in grid
- ⑥ Download EDID content which displayed in grid to selected Input port or All Input ports, click “Download” button to complete action. When User1 Memory/User2 Memory selected, download EDID content to respective memory then User1/User2 EDID mode can be set.
- ⑦ EDID content displaying grid

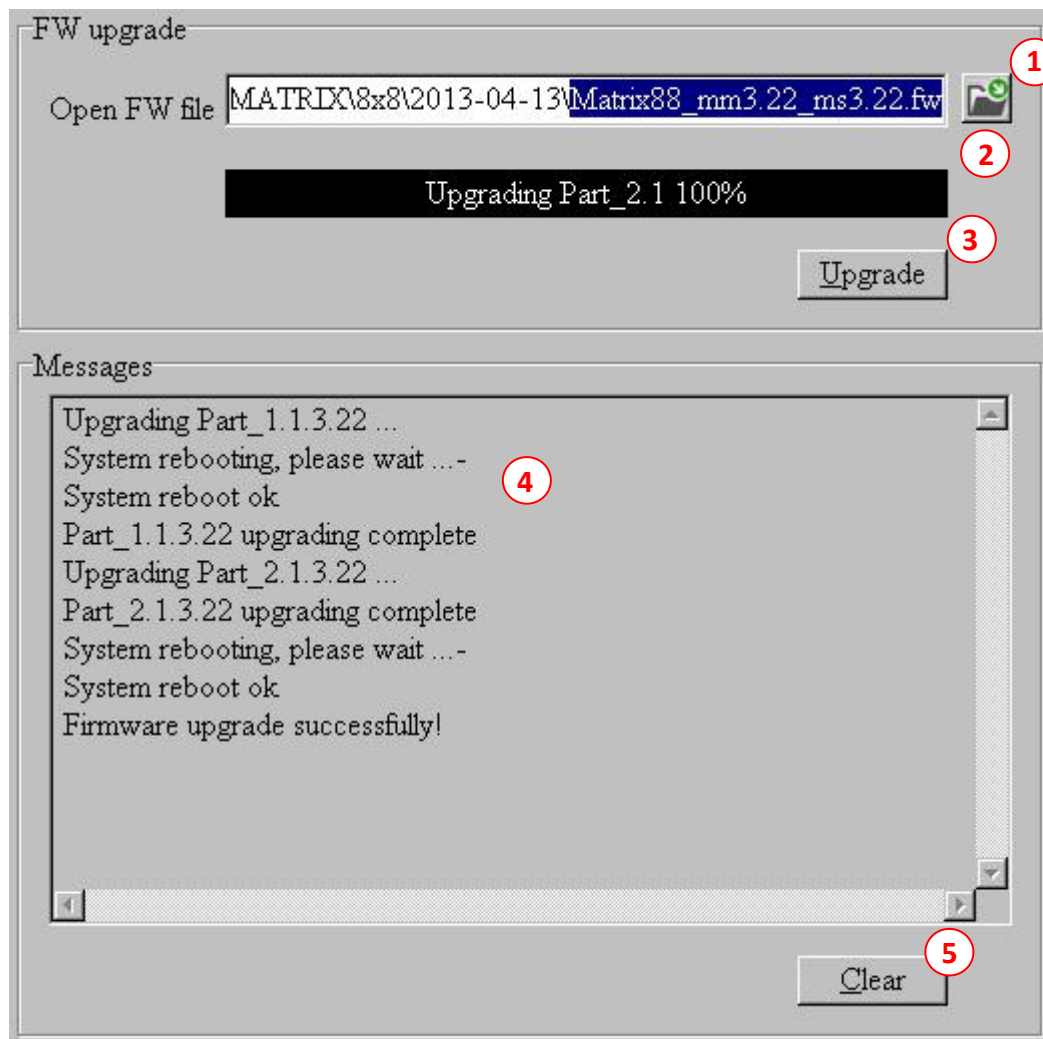
**NOTE:** EDID content displayed in grid is read only.

- ⑧ Click to clear EDID content displayed in grid

### “IR Configuration” page



To enable or disable IR control function. When box checked, IR control function enabled, otherwise, IR control function disabled. This setting is not memorized. IR control function is always enabled after power up.

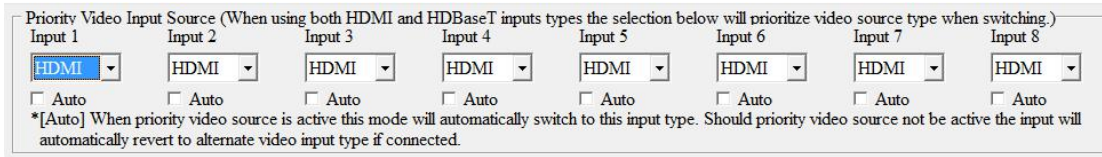
**“FW upgrade” page**

- ① Click to open firmware file (file extension is “.fw”).
- ② Firmware upgrade progress bar
- ③ Click the button to upgrade firmware.
- ④ Firmware upgrading messages display
- ⑤ Click to clear the messages displayed in the memo box.

**NOTE:** If failure occurs during upgrading firmware process, the following steps SHOULD be done sequentially to establish next upgrading procedure:

- 1) Power down the Matrix
- 2) Close the 8x8 HDMI Matrix Controller
- 3) Re-power up the Matrix, then wait for 10 seconds to ensure the Matrix is ready
- 4) Run 8x8 HDMI Matrix Controller, open firmware file and upgrade again

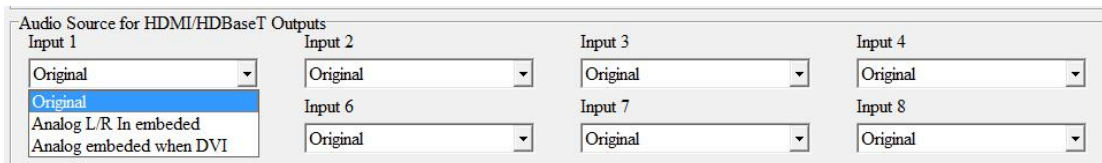
### Set Video Input Source



Each input can be from HDMI or HDBaseT chosen via the pop-up menu under each Input port.

- 1) Choose HDMI, then the HDMI input will be enabled; the HDBT input will be disabled.
- 2) Choose HDBT, then the HDBT input will be enabled; the HDMI input will be disabled.
- 3) Choose Auto, the input will auto-scan the inputs between HDMI and HDBT. For example, if Input 1 chooses HDBT and Auto, the input 1 will auto-scan from HDBT to HDMI, if the HDBT input has signal detected, input will stay to HDBT input, if not, it will scan the HDMI input and stay there when signal detected.

### Set Audio Source for Input

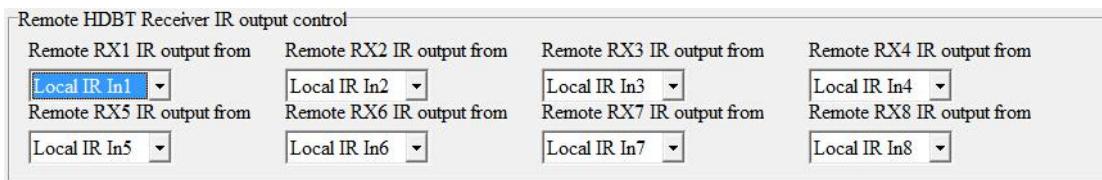


Each input audio source can be from the original HDMI/HDBT input, analog L/R embedded or Analog embedded when DVI.

- 1) Choose original, the audio will be from the HDMI/HDBT input.
- 2) Choose Analog L/R In embedded, the local L/R In will remove the original audio from the HDMI/HDBT input and be embedded.
- 3) Choose Analog embedded when DVI, when DVI signal is detected, it will embed the L/R In.

**Note:** Only PCM audio can be converted to analog audio output.

### Remote HDBT Receiver IR Output Control



It provides the flexibility to the IR path from local IR in to the IR output of each Remote HDBT receiver. The default setting will be each local IR in to the IR output of corresponding remote



HDBT receiver. For example: Local IR in 1 to IR output of remote HDBT receiver 1 and local IR in 8 to IR output of remote HDBT receiver 8.

### Global All IR In

Global All IR In goes to

Remote HDBT Transmitter(x) IR output  
 1  2  3  4  5  6  7  8  All

Local IR Out(x)  
 1  2  3  4  5  6  7  8  All

Remote HDBT Receiver(x) IR output  
 1  2  3  4  5  6  7  8  All

Global All IR In can be set flexibly to any specific IR output or all of the IR outputs.

### Global All IR Out

Global All IR Out comes from

Remote HDBT Transmitter(x) IR input  
 1  2  3  4  5  6  7  8  All

Local IR In(x)  
 1  2  3  4  5  6  7  8  All

Remote HDBT Receiver(x) IR input  
 1  2  3  4  5  6  7  8  All

Global All IR Out can be set flexibly from any specific IR output or all of the IR inputs.

Global All IR In loop to Global All IR Out

Loop

Global All IR In can be set to loop to Global All IR Out.

### Global RS-232 Route

Global RS-232(Tx,Rx,Gnd) route

Matrix only

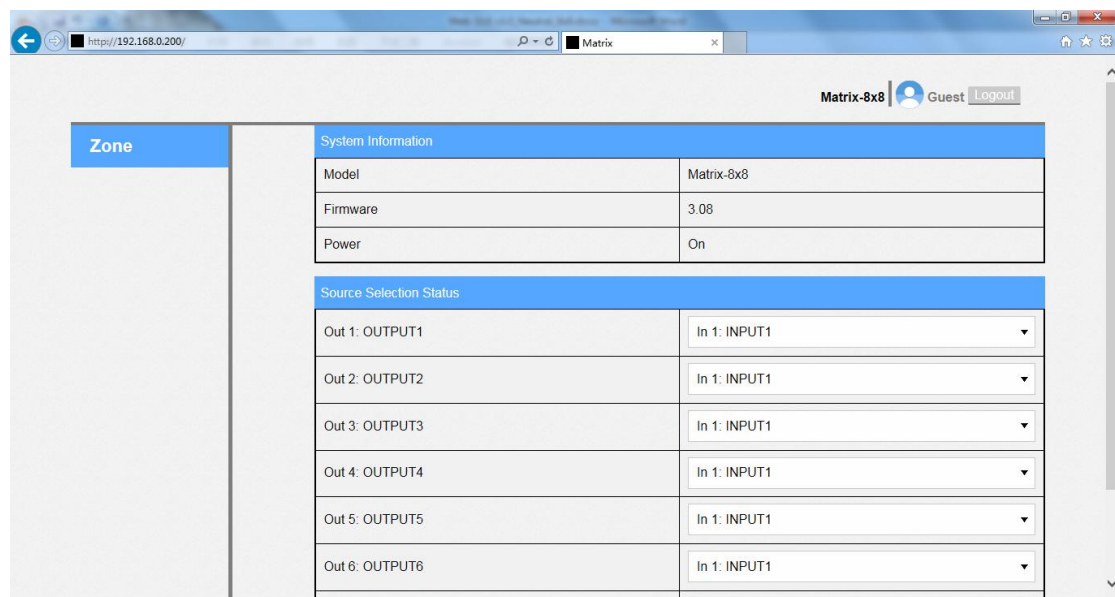
- Matrix only
- Remote HDBT Receiver 1
- Remote HDBT Receiver 2
- Remote HDBT Receiver 3
- Remote HDBT Receiver 4
- Remote HDBT Receiver 5
- Remote HDBT Receiver 6
- Remote HDBT Receiver 7
- Remote HDBT Receiver 8

Global RS232 can be flexibly set to any of the RS232 port, whether remote receiver side or the local side.

## Web GUI

### How to enter Web GUI

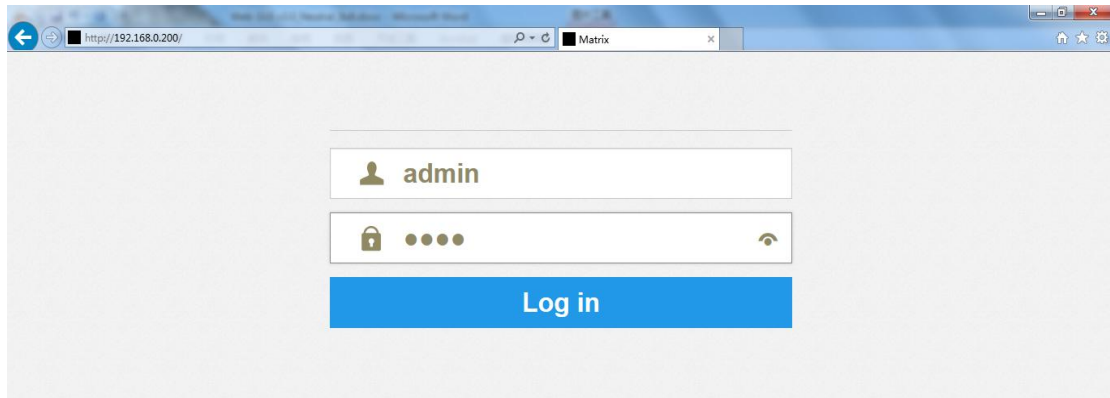
Type in IP address "192.168.0.200" in web browser to enter the Web GUI. First login will enter the default Guest account, in which you can only check limited system info and perform simple source switching.



### Admin account

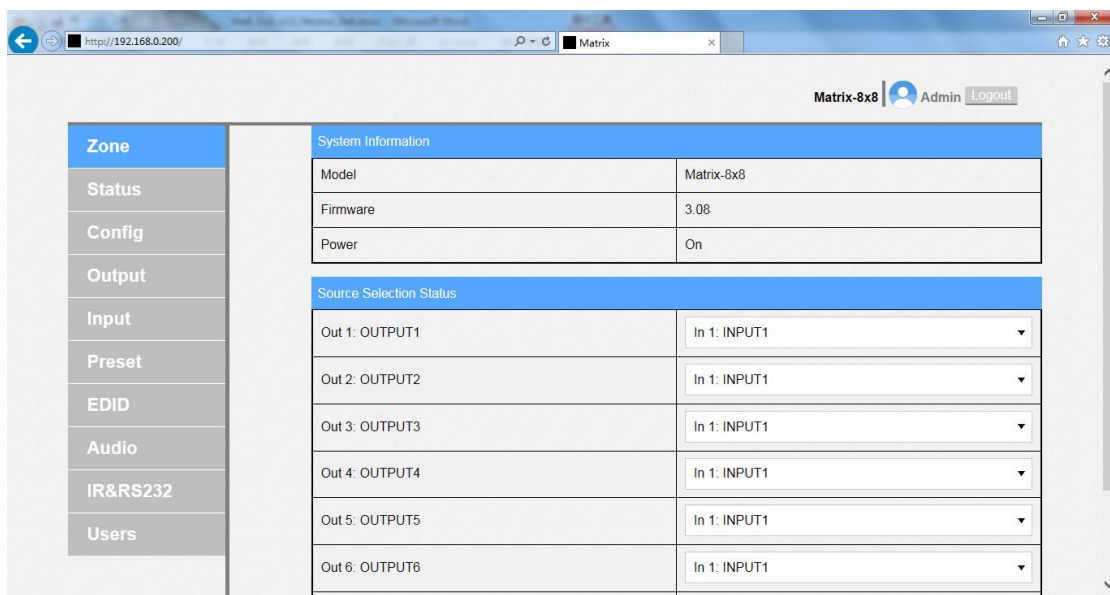
Logout the guest account and login admin account for full access.

Account Name: admin Password: 1234



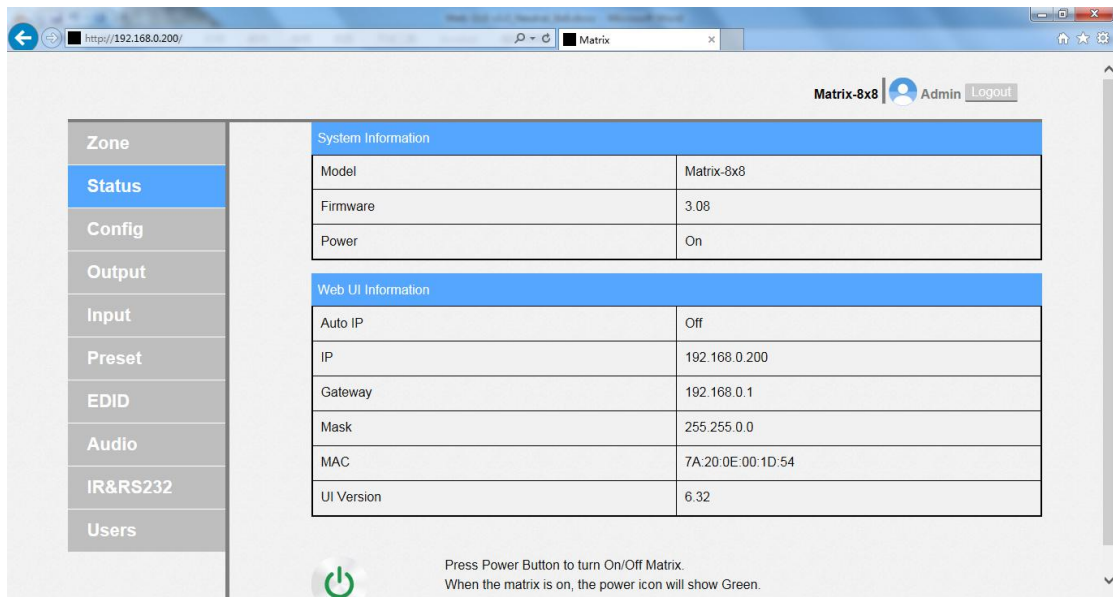
## Zone Page

Same as Guest account interface



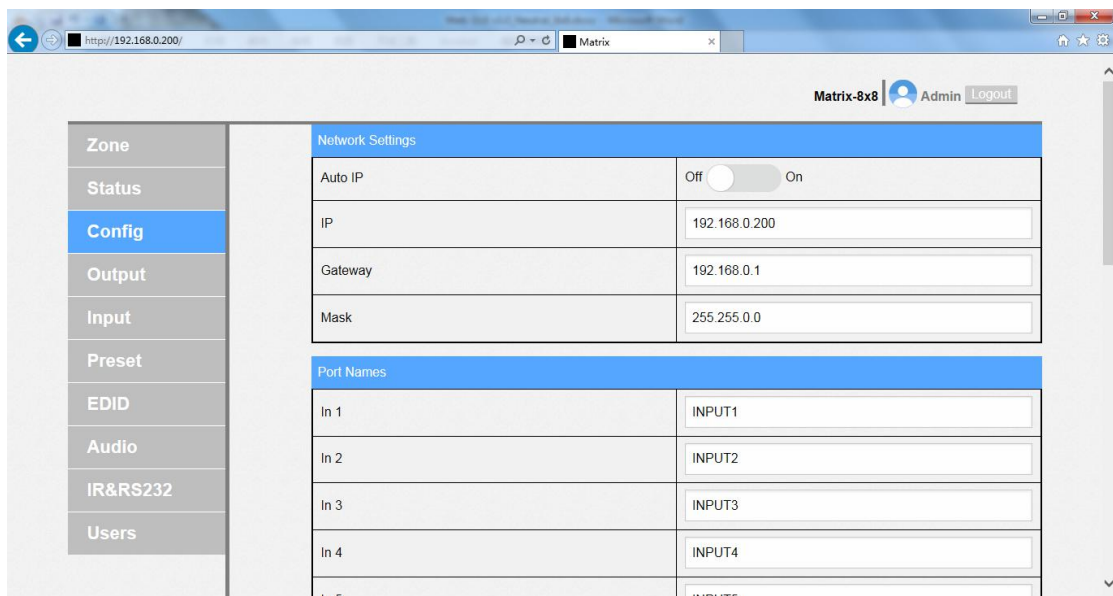
## Status Page

System info and Web UI info including Model Number, Firmware Version, Power Status, IP status, IP address, Gateway, Subnet Mask, MAC Address and UI Version. You can turn ON/OFF the matrix thru click the power icon on the bottom.



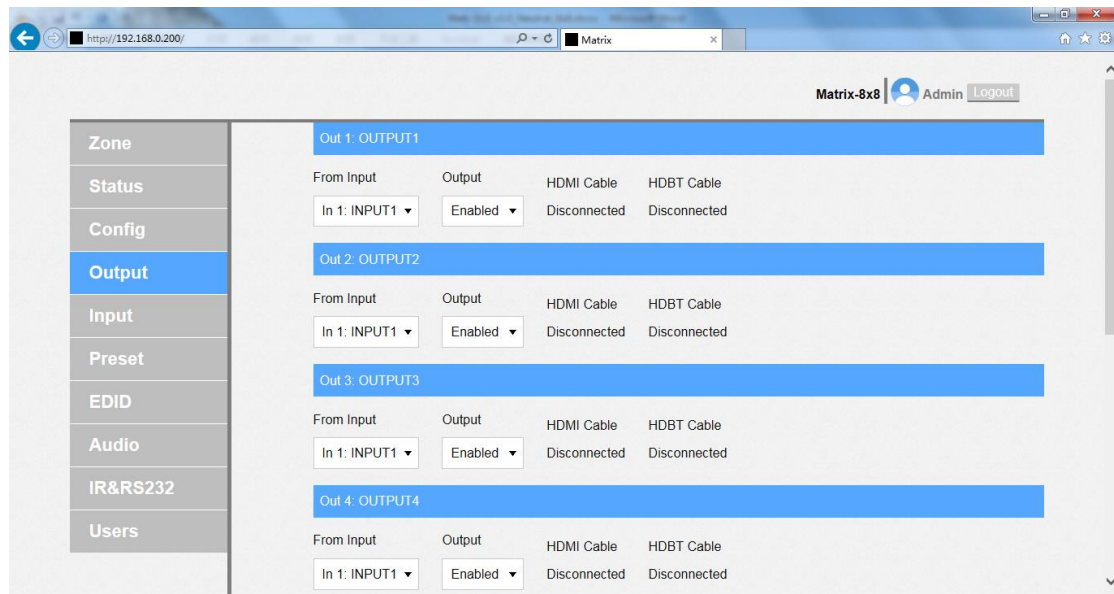
### Config Page

You can set DHCP, IP Address, Gateway and Subnet Mask, you can also custom name for the Inputs (such as Sky STB, SONY DVD, SAMSUNG DVD, etc) and Outputs (such Room 1, Room 2, Room 3, etc.)



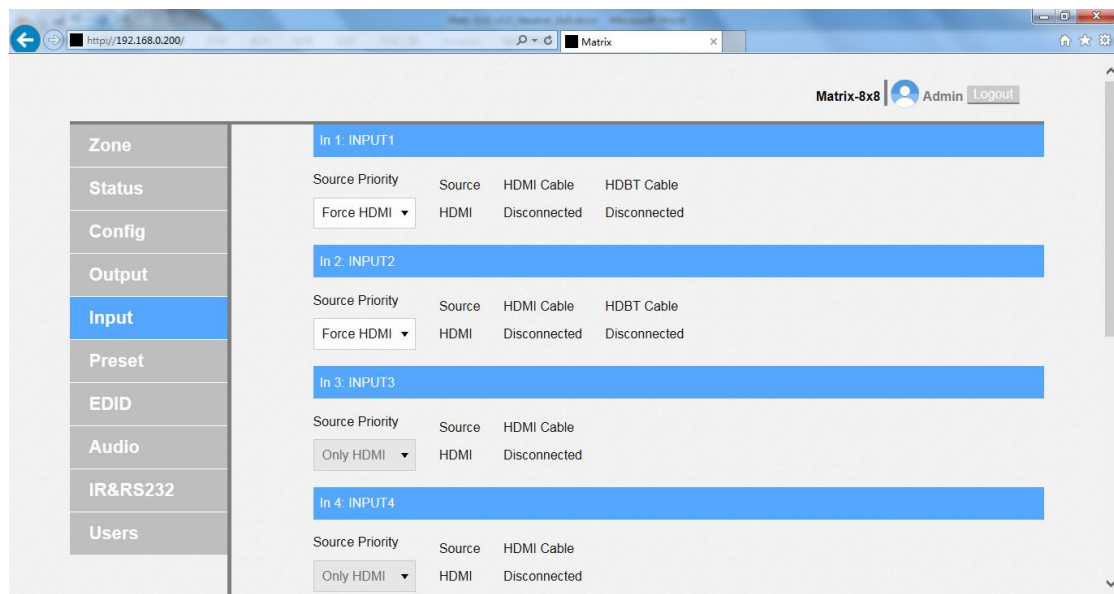
### Output Page

You can select Input for each Output, enable/disable each Output and set priority for HDMI/HDBaseT. This page also shows the connect status for HDMI/HDBaseT ports.



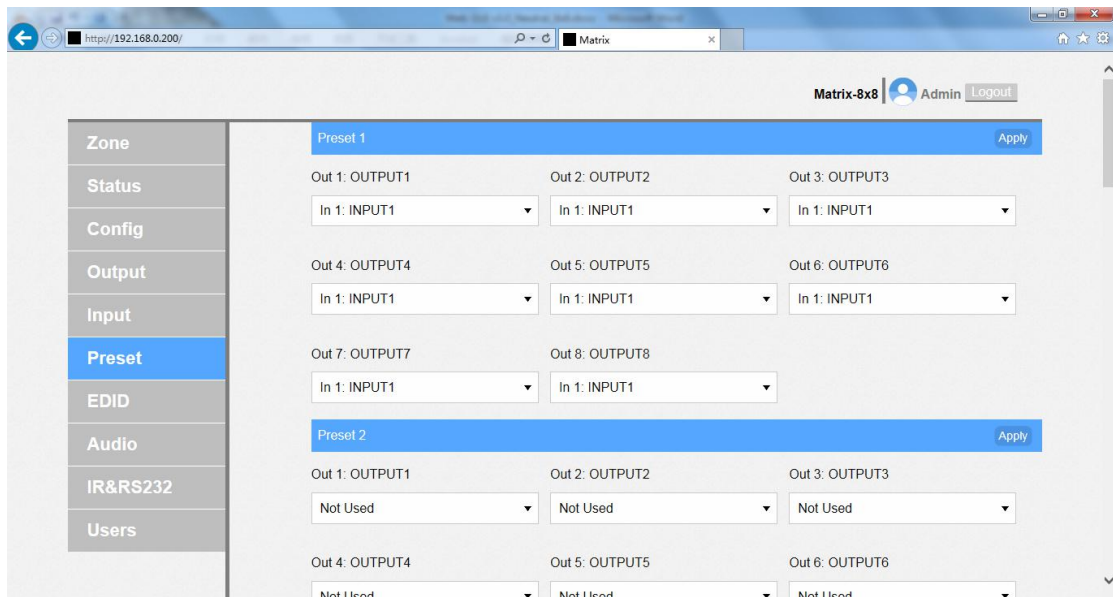
### Input Page

You can set the Input Source priority (Force HDMI, Force HDBT, Auto HDMI or Auto HDBT), check the current input source and check the HDMI/HDBT connect status.



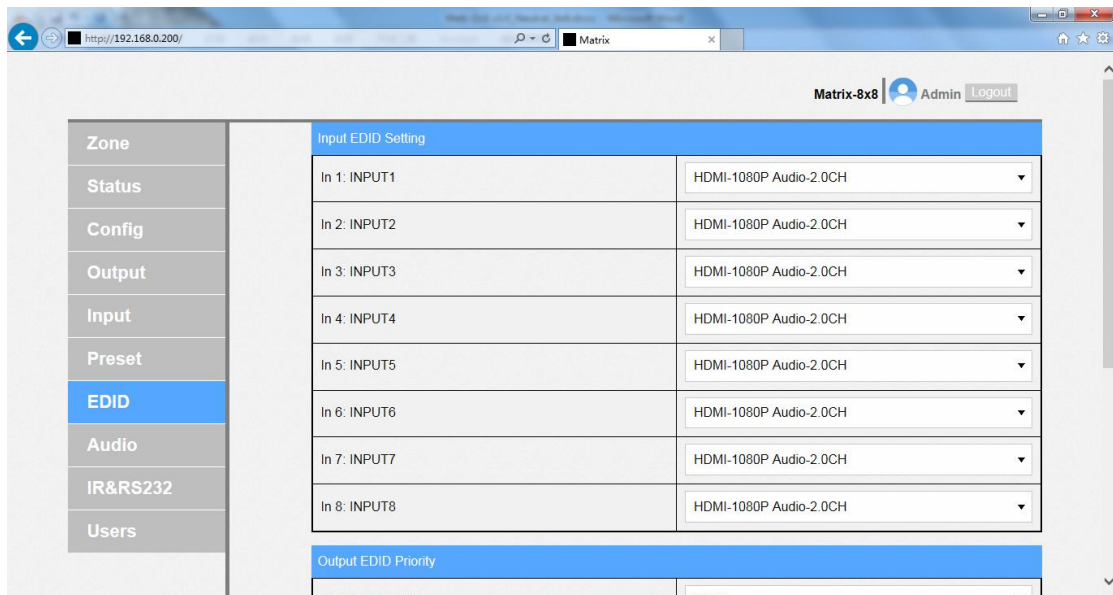
### Preset Page

There're several preset input/output settings for you to choose.



## EDID Page

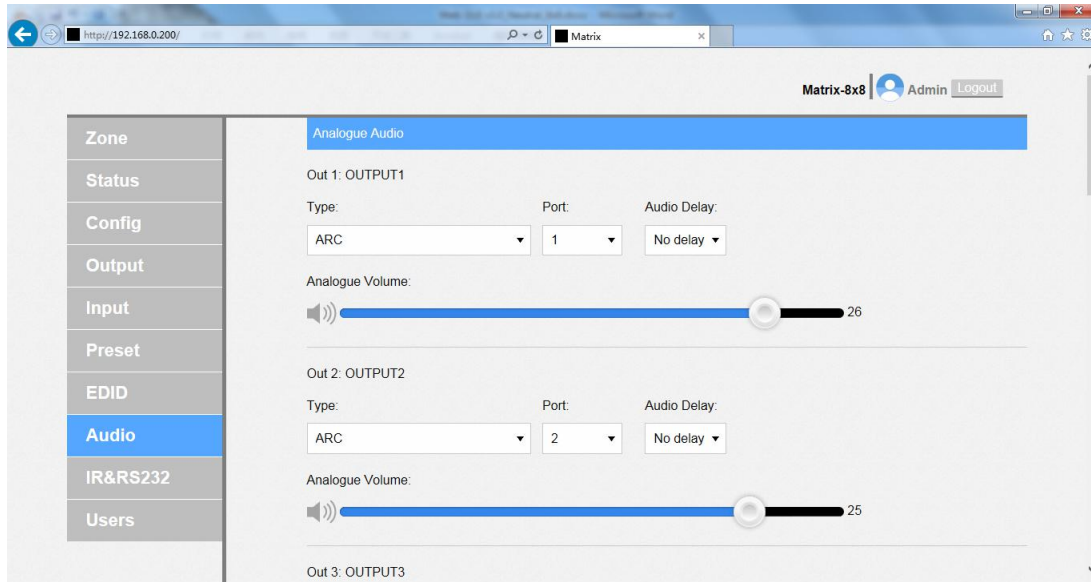
You can select build-in EDID patterns for each input, and select EDID priority for HDMI/HDBT.





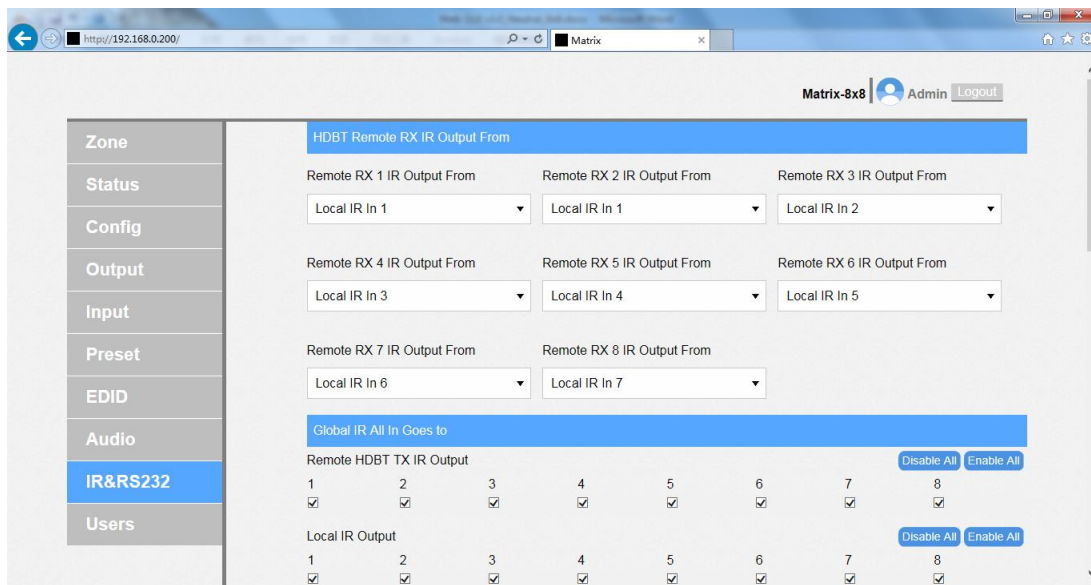
## Audio Page

You can select audio source for each output, set audio delay values, and control audio volume.



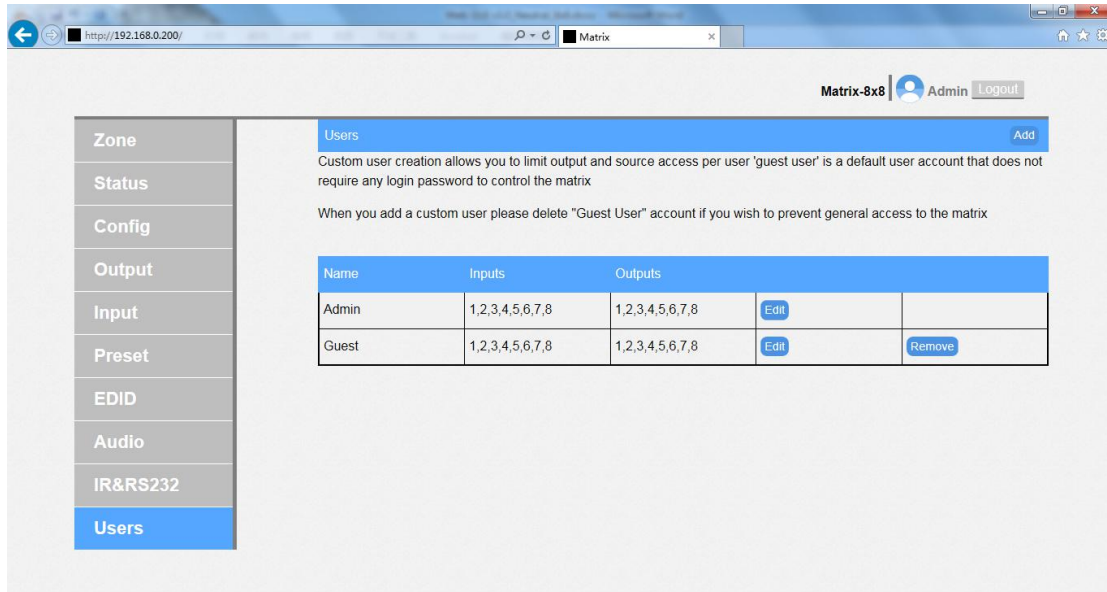
## IR&RS232 Page

You can set routing path for IR & RS232.



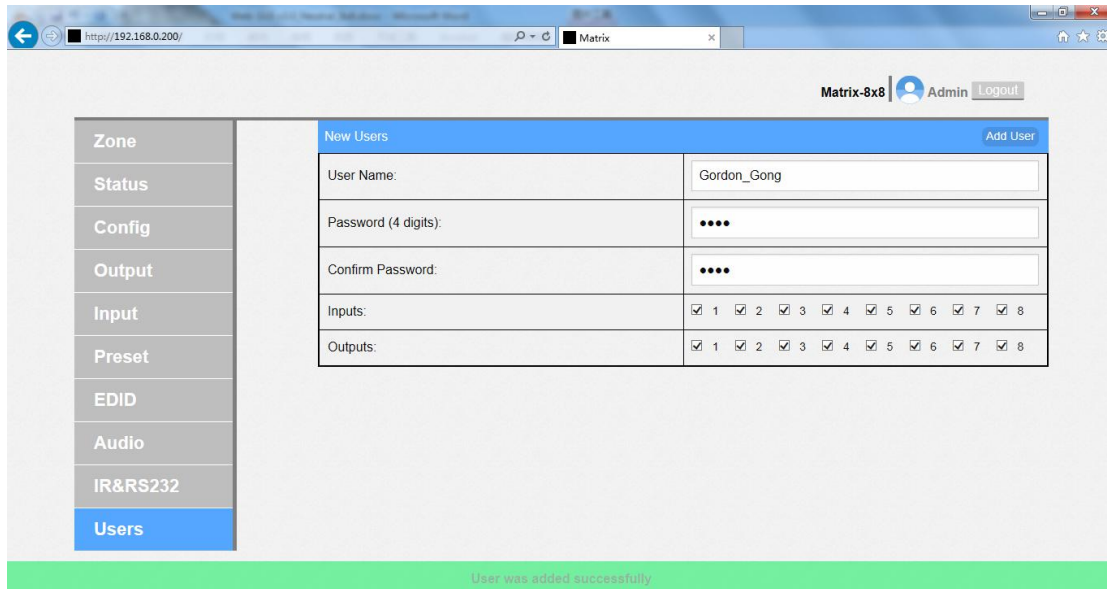
## Users Page

You can creat, edit and remove account. PS: Admin account can't be deleted.



## Custom Account

Example for create Custom Account – Gordon\_Gong





The screenshot shows a web browser window with the URL `http://192.168.0.200/`. The page title is "Matrix-8x8" and the user is logged in as "Admin". The "Users" menu item in the sidebar is highlighted. The main content area has a blue header "Users" with an "Add" button. Below the header, there is explanatory text: "Custom user creation allows you to limit output and source access per user 'guest user' is a default user account that does not require any login password to control the matrix" and "When you add a custom user please delete 'Guest User' account if you wish to prevent general access to the matrix". A table lists the current users:

Name	Inputs	Outputs		
Admin	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	Edit	
Guest	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	Edit	Remove
Gordon_Gong	1,2,3,4,5,6,7,8	1,2,3,4,5,6,7,8	Edit	Remove