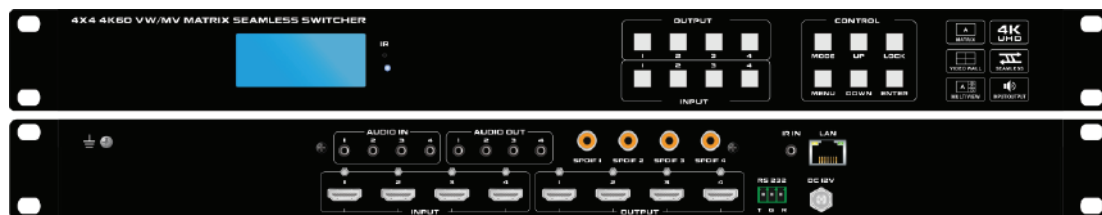


## USER MANUAL

MA404MVM

4K60 18Gbps 4X4 Seamless HDMI Matrix with Video Wall & Multiviewer&Scaling and APP&IR&IP&RS-232



## Safety Reminder

To protect the device and operating personnel from electrostatic discharge, you need to check and ensure that the device is grounding well before the device is powered on. Please observe the following when you install, use, maintain this equipment.



Make sure the device ground connection.

### Disposal Instruction (US)

For better protection of our earth, please don't throw this electronic device into municipal trash bin when discarding.

To minimize pollution and ensure utmost protection of the global environment, please recycle the product. For more

information about the collection and recycling of Waste Electrical and Electronic Equipment (WEEE), please contact your local dealers.

### Safety Instructions

1. Please read these safety instructions carefully.
2. Please keep this User Manual for later reference.
3. Please disconnect this equipment from connector before cleaning. Don't use liquid or prayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
4. Make sure the equipment is connected to the power source with the correct voltage, frequency, and ampere.
5. All cautions and warnings on the equipment should be noted.
6. Never pour any liquid into opening, this could cause fire or electrical shock.
7. Never open the equipment. For safety reason, the equipment should only be opened by qualified service personnel.
8. If one of the following situations arises, get the equipment checked by a service personnel :
  - a. Liquid has penetrated into the equipment.
  - b. The equipment has been exposed to moisture.
  - c. The equipment has not work well or you can not get it work according to user's manual.
  - d. The equipment has dropped and damaged.
  - e. If the equipment has obvious sign of breakage.
9. Ambient operation temperature: 0 ~ 45 degrees.
10. Risk of overheating! Don't put operating/installing equipment inside too closed space, be sure the installation space at least 1 to 2 inches or 2 to 5 cm of space for ventilation. To ensure that other objects do not cover the equipment.

### Notice: Peripheral devices

Only peripherals (input/output devices, terminals,player, etc.) certified to comply with Class B limits may be attached to this equipment. Operation with non-certified peripherals is likely to result in interference to radio and TV reception.

### Caution

Changes or modifications not expressly approved by the manufacturer could void the user's authority, which is granted by the Federal Communications Commission, to operate this equipment.

# Contents

|                                             |           |
|---------------------------------------------|-----------|
| <b>1. Product Introduction</b>              | <b>4</b>  |
| <b>2. Product Features</b>                  | <b>4</b>  |
| <b>3. Technical Datasheet</b>               | <b>4</b>  |
| <b>4. Packing Datials</b>                   | <b>5</b>  |
| <b>5. Panel diagram</b>                     | <b>5</b>  |
| <b>6. Product Connection Diagram</b>        | <b>5</b>  |
| <b>7. Product Operation and Instruction</b> | <b>6</b>  |
| 7.1 Front Panel Switching Operation         | 6         |
| 7.2 WEB Control                             | 24        |
| 7.3 APP Control                             | 26        |
| 7.4 IR Remote Control.....                  | 28        |
| 7.5 COM Control Commands .....              | 28        |
| <b>8. Trouble Shooting and Attention</b>    | <b>32</b> |
| <b>9. After Sales</b>                       | <b>32</b> |
| 9.1 Warranty .....                          | 32        |
| 9.2 limitation and Exception                | 32        |

## 1. Product Introduction

This is advanced and powerful 4K60 18Gbps HDMI2.0 Matrix Switcher with 4 HDMI inputs and 4\*HDMI Outputs. This unit can support seamless switching, video wall, multi-viewer and Scaler functions. It can be controlled by the front push-button, IR remote, TCP/IP WEB GUI or APP control, also support the RS232 control. It also support 4\*3.5MM audio inputs and 4\*3.5mm audio outs or 4\*SPIF audio outs, it's capable of producing high-quality imagery with pristine detailing and rich color, all HDMI ports on this unit are HDCP 2.2 compliant. This device also supports analog audio extraction, and audio channels can be switched independently.

## 2. Product Features

- 4\*HDMI2.0 with 4\*3.5mm audio Inputs
- 4\*HDMI2.0 with 4\*3.5mm audio and 4\*SPDIF Outputs.
- Seamless switching
- Supports Matrix switching, Video Wall and multiview function
- Supports audio independently switching
- Compliant HDCP 2.2 with EDID management
- Control by front-panel push buttons, IR Remote, RS232, TCP/IP and APP
- Resolution up to 4K@60Hz 4:4:4

## 3. Technical Datasheet

|                       |                                                            |
|-----------------------|------------------------------------------------------------|
| Name                  | 4K60 18Gbps 4X4 Seamless HDMI Matrix with Video            |
| Resolution            | 4K@60Hz,YUV4:4:4 8 bit, 4K@30Hz/1080P/1080i/720P           |
| Input ports           | 4*HDMI2.0 with 4*3.5mm                                     |
| Output ports          | 4*HDMI2.0 with 4*3.5mm audio and 4*SPDIF                   |
| Transmission distance | 10m/30ft for 4K60, 15m/45ft for 1080P@60Hz(by qualified    |
| Bandwidth             | 18Gbps                                                     |
| HDCP Compliant        | HDCP 2.2 and HDCP 1.4                                      |
| Controlling           | Front-panel push buttons, IR Remote, RS232, TCP/IP and APP |
| Power Consumption     | 22W(Max.)                                                  |
| Dimension(mm)         | 486 * 279 * 44( mm)                                        |
| Weight                | 6Kg                                                        |
| Operating             | -5 to +40°C(23 to +104 °F)                                 |
| Storage Temperature   | -10 to +60°C(-14 to +140 °F)                               |

## 4. Packing Details

|                     |        |
|---------------------|--------|
| Matrix switch ..... | 1 unit |
| Power cord .....    | 1 pcs  |
| User manual .....   | 1 pcs  |
| Rack ears .....     | 1 pair |

## 5. Panels

### Front Panel



| Name              | Description                                                |                                           |
|-------------------|------------------------------------------------------------|-------------------------------------------|
| <b>LCD Screen</b> | Operation information real-time Display                    |                                           |
| <b>POWER</b>      | light up after power on, it will light off after power off |                                           |
| <b>IR</b>         | IR remote control                                          |                                           |
| <b>OUTPUT</b>     | 4 output buttons                                           |                                           |
| <b>INPUT</b>      | 4 input buttons                                            |                                           |
| <b>CONTROL</b>    | <b>MODE</b>                                                | For the pre-built presets recall          |
|                   | <b>MENU</b>                                                | For the main settings                     |
|                   | <b>UP</b>                                                  | Up selection button                       |
|                   | <b>DOWN</b>                                                | Down selection button                     |
|                   | <b>LOCK</b>                                                | Long-press to lock or unlock push buttons |
|                   | <b>ENTER</b>                                               | Enter button                              |

### Rear Panel:



| Name             | Description                            |
|------------------|----------------------------------------|
| <b>AUDIO IN</b>  | 4* 3.5mm Analog audio inputs           |
| <b>INPUT</b>     | 4* HDMI inputs                         |
| <b>AUDIO OUT</b> | 4* 3.5mm Analog audio outputs          |
| <b>OUTPUT</b>    | 4* HDMI Outputs                        |
| <b>SPDIF</b>     | 4* SPDIF outputs                       |
| <b>RS232</b>     | 3-PIN RS232 control port               |
| <b>IR IN</b>     | For IR extension                       |
| <b>LAN</b>       | For the WEB GUI, RS232, TCP/IP control |
| <b>DC 12V</b>    | DC 12V power supply                    |

## 6. Equipment Connection Diagram



## 7. Equipment Operation and Instruction

The LCD display screen will light up after power and turned on. It shows the current operation status, press MENU button, it will keep recycling between VIEW, SWITCH, SCENE, SETUP four different interface. The default interface is VIEW.

### 7.1 Front push-button control

#### 7.1.1 MENU>OUTPUT

| Main >   |            |
|----------|------------|
| 1 / 5    | 1 / 5      |
| Output > | Output 1 > |
| Input >  | Output 2 > |
| Setup >  | Output 3 > |
| Preset > | Output 4 > |
| Info >   | All >      |

#### MENU>OUTPUT>Output 1

| Main > Output > |         |
|-----------------|---------|
| 1 / 5           | 1 / 4   |
| Output1 >       | Video > |
| Output2 >       | Audio > |
| Output3 >       | Power > |
| Output4 >       | HDCP >  |
| All >           |         |

## MENU>OUTPUT>Output 1>Control>Video

to setup the output video, including video ON/OFF, switch, test pattern

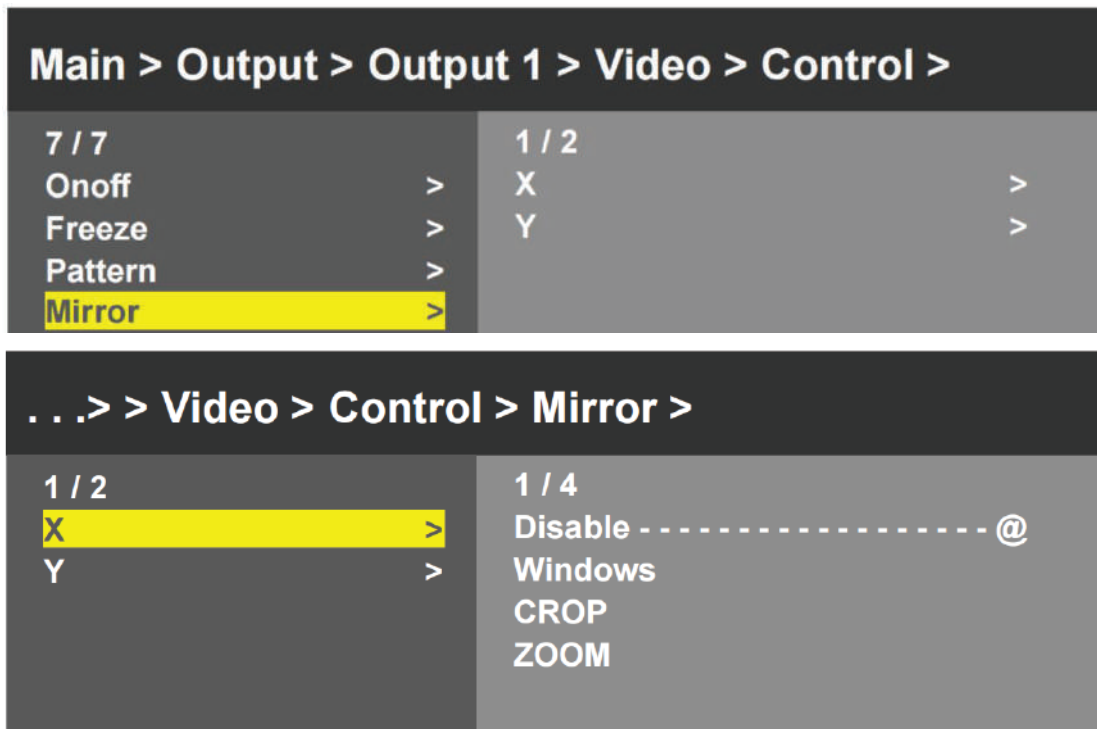
| Main > Output > Output 1 > |   |         |   |
|----------------------------|---|---------|---|
| 1 / 4                      |   | 1 / 7   |   |
| Video                      | > | Control | > |
| Audio                      | > | Format  | > |
| Power                      | > | Coord   | > |
| HDCP                       | > | PIP     | > |
|                            |   | Wall    | > |

| Main > Output > Output 1 > Video > Control > |   |                   |   |
|----------------------------------------------|---|-------------------|---|
| 1 / 7                                        |   | 1 / 4             |   |
| Source                                       | > | Input 1 - - - - - | @ |
| Onoff                                        | > | Input 2           |   |
| Freeze                                       | > | Input 3           |   |
| Pattern                                      | > | Input 4           |   |

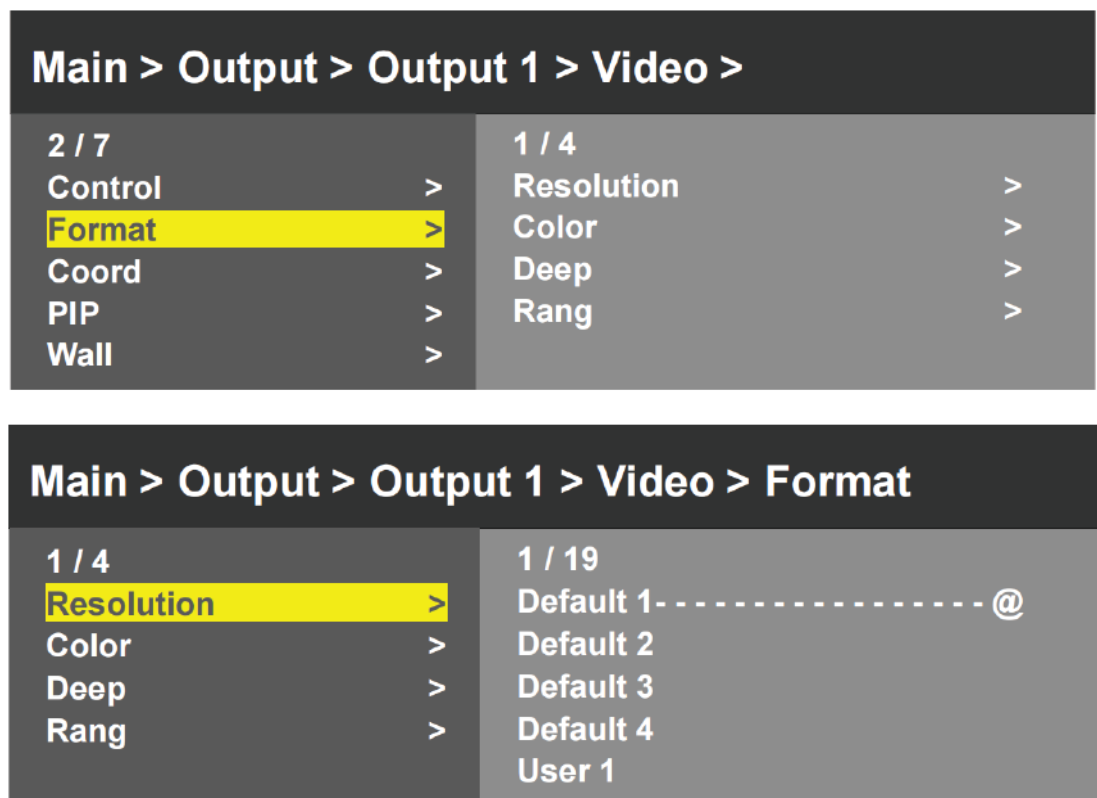
| Main > Output > Output 1 > Video > Control > |   |              |   |
|----------------------------------------------|---|--------------|---|
| 2 / 7                                        |   | 2 / 2        |   |
| Source                                       | > | Off          |   |
| Onoff                                        | > | On - - - - - | @ |
| Freeze                                       | > |              |   |
| Pattern                                      | > |              |   |

| Main > Output > Output 1 > Video > Control > |   |               |   |
|----------------------------------------------|---|---------------|---|
| 3 / 7                                        |   | 1 / 2         |   |
| Source                                       | > | Off - - - - - | @ |
| Onoff                                        | > | On            |   |
| Freeze                                       | > |               |   |
| Pattern                                      | > |               |   |

| Main > Output > Output 1 > Video > Control > |   |                   |   |
|----------------------------------------------|---|-------------------|---|
| 4 / 7                                        |   | 1 / 16            |   |
| Source                                       | > | Disable - - - - - | @ |
| Onoff                                        | > | White             |   |
| Freeze                                       | > | Cross             |   |
| Pattern                                      | > | Cross Hatch       |   |



Format: to setup the output video format, resolution, color space



Default 1: 4K@60

Default 2: 4K@30

Default 3: 1080P@60hz

Default 4: 720P@60hz

| Main > Output > Output 1 > Video > Format |   |             |  |
|-------------------------------------------|---|-------------|--|
| 2 / 4                                     |   | 1 / 4       |  |
| Resolution                                | > | RGB ----- @ |  |
| Color                                     | > | YCbCr444    |  |
| Deep                                      | > | YCbCr422    |  |
| Rang                                      | > | YCbCr420    |  |

| Main > Output > Output 1 > Video > Format |   |                |  |
|-------------------------------------------|---|----------------|--|
| 3 / 4                                     |   | 1 / 3          |  |
| Resolution                                | > | 08 Bit ----- @ |  |
| Color                                     | > | 10 Bit         |  |
| Deep                                      | > | 12Bit          |  |
| Rang                                      | > |                |  |

| Main > Output > Output 1 > Video > Format |   |               |  |
|-------------------------------------------|---|---------------|--|
| 4 / 4                                     |   | 1 / 2         |  |
| Resolution                                | > | Limit ----- @ |  |
| Color                                     | > | Full          |  |
| Deep                                      | > |               |  |
| Rang                                      | > |               |  |

Coord: to crop the output image

| Main > Output > Output 1 > Video > |   |         |   |
|------------------------------------|---|---------|---|
| 3 / 7                              |   | 1 / 14  |   |
| Control                            | > | Crop X0 | > |
| Format                             | > | Crop Y0 | > |
| Coord                              | > | Crop X1 | > |
| PIP                                | > | Crop Y1 | > |
| Wall                               | > | ZOOM X0 | > |

It will including Crop, Zoom, Offset and Gap.

Crop and Zoom image cropping or zooming

Crop start from: CropX0=0, CropY0=0; Crop ends with: CropY1=6000, CropX1=6000.

Zoom start from: ZoomX0=0, ZoomY0=0; Zoom ends with: ZoomX1=6000, ZoomY1=6000

Offset and Gap are for the video wall bezel corrections

Offset: Offeset U=0, Offeset D=0, Offeset L=0, Offeset R=0

Gap: GapX=0, GapY=0

PIP: when output is multiview to adjust the layer

| Main > Output > Output 1 > Video > |   |                  |   |
|------------------------------------|---|------------------|---|
| 4 / 7                              |   | 1 / 5            |   |
| Control                            | > | Status           | > |
| Format                             | > | Layer 1 : Top    | > |
| Coord                              | > | Layer 2          | > |
| PIP                                | > | Layer 3          | > |
| Wall                               | > | Layer 4 : Bottom | > |

Wall: to set up video wall mode

| Main > Output > Output 1 > Video > |   |         |   |
|------------------------------------|---|---------|---|
| 5 / 7/                             |   | 1 / 4   |   |
| Control                            | > | Coord X | > |
| Format                             | > | Coord Y | > |
| Coord                              | > | Width   | > |
| PIP                                | > | Height  | > |
| Wall                               | > |         |   |

| Main > Output > Output 1 > Video > |   |             |  |
|------------------------------------|---|-------------|--|
| 1 / 4                              |   | 1 / 9       |  |
| Coord X                            | > | No.1 -----@ |  |
| Coord Y                            | > | No.2        |  |
| Width                              | > | No.3        |  |
| Height                             | > | No.4        |  |
|                                    |   | No.5        |  |

| Main > Output > Output 1 > Video > |   |   |              |
|------------------------------------|---|---|--------------|
| 3 / 4                              |   |   | 1 / 10       |
| Coord                              | X | > | Auto ----- @ |
| Coord                              | Y | > | 1 Unit       |
| Width                              |   | > | 2 Unit       |
| Height                             |   | > | 3 Unit       |
|                                    |   |   | 4 Unit       |

Rotate: only for OUTPUT1 with any degrees rotation

| Main > Output > Output 1 > Video > Control > |  |   |           |
|----------------------------------------------|--|---|-----------|
| 6 / 7                                        |  |   | 1 / 10    |
| Format                                       |  | > | Degree >  |
| Coord                                        |  | > | Target >  |
| PIP                                          |  | > | CROP X0 > |
| Wall                                         |  | > | CROP Y0 > |
| Rotate                                       |  | > | CROP X0 > |

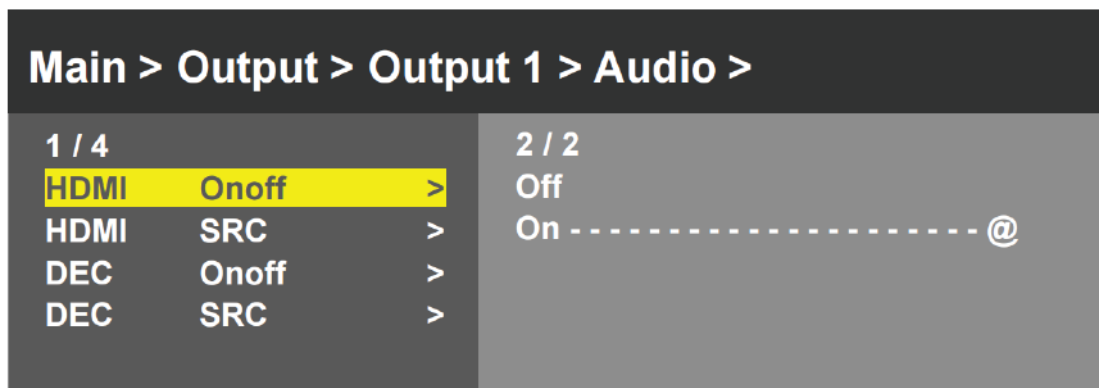
Image: for output image hue, brightness settings

| Main > Output > Output 1 > Video > |  |   |              |
|------------------------------------|--|---|--------------|
| 7 / 7                              |  |   | 1 / 4        |
| Format                             |  | > | Hue >        |
| Coord                              |  | > | Saturation > |
| PIP                                |  | > | Brightness > |
| Wall                               |  | > | Contrast >   |
| Image                              |  | > |              |

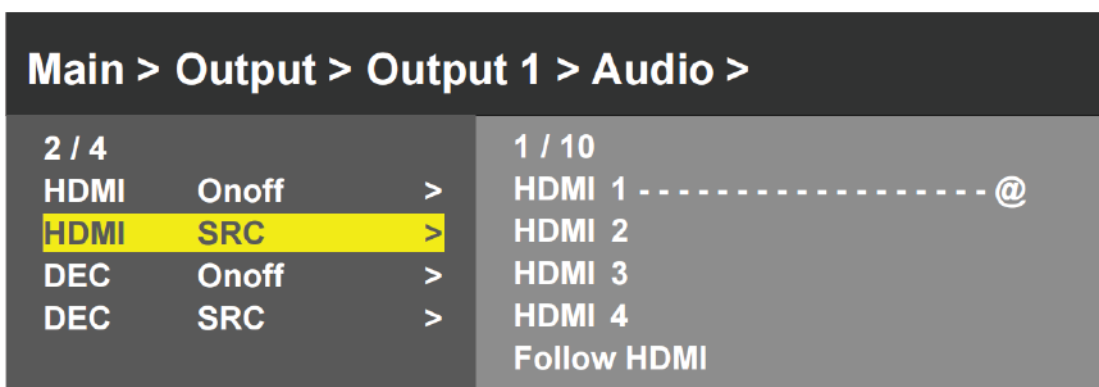
MENU>OUTPUT>Output 1>Audio

| Main > Output > Output 1 > Audio > |  |   |              |
|------------------------------------|--|---|--------------|
| 2 / 4                              |  |   | 1 / 4        |
| Video                              |  | > | HDMI Onoff > |
| Audio                              |  | > | HDMI SRC >   |
| Power                              |  | > | DEC Onoff >  |
| HDCP                               |  | > | DEC SRC >    |

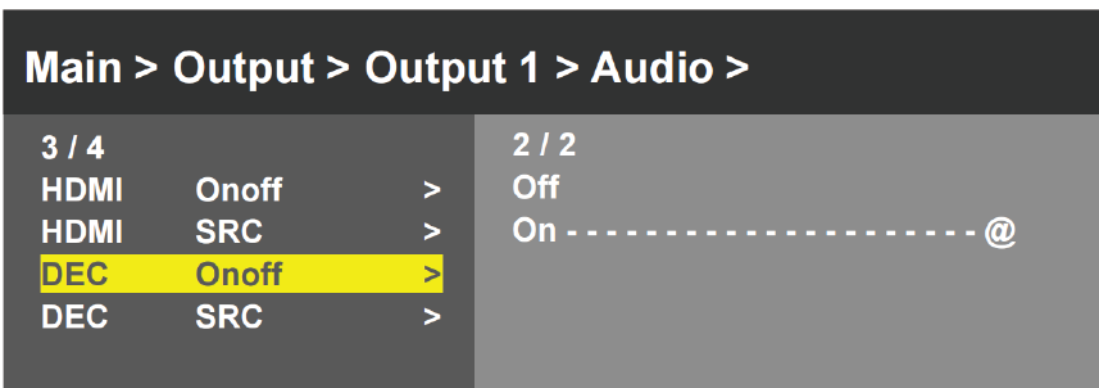
HDMI Onoff: HDMI Audio ON/OFF



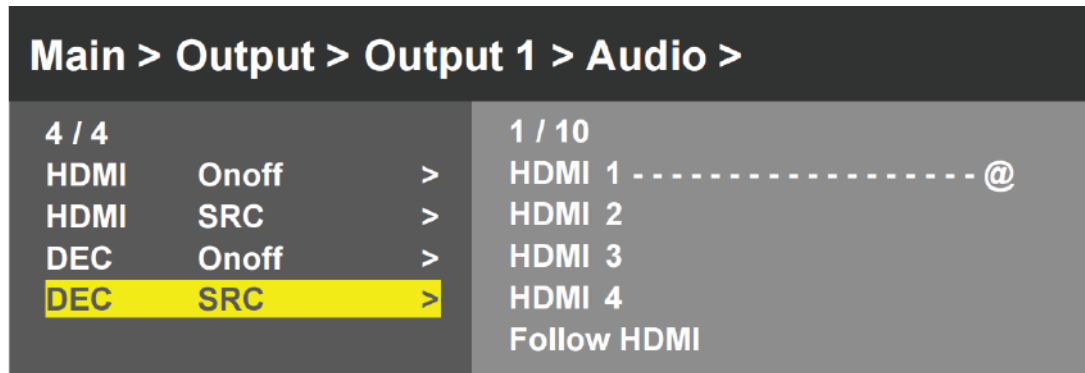
HDMI SRC: switch to different audio inputs



DEC Onoff: De-embedded audio ON/OFF

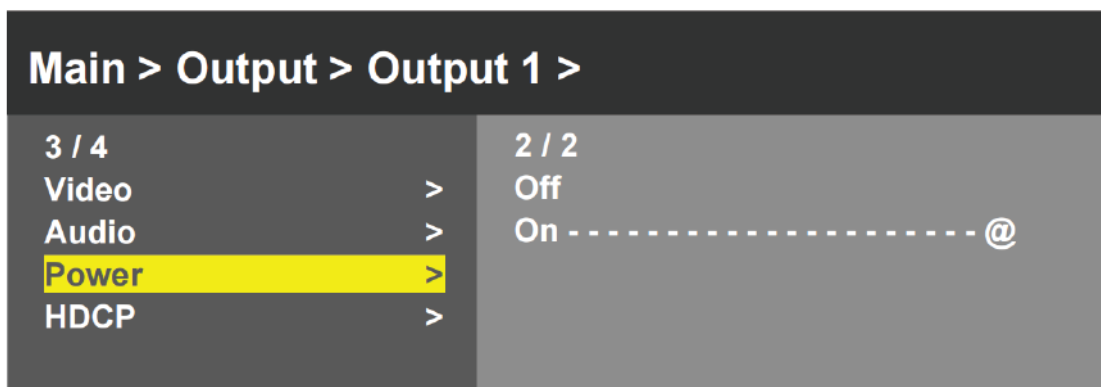


DEC SRC: De-embedded audio switching



MENU>OUTPUT>Output 1>Power

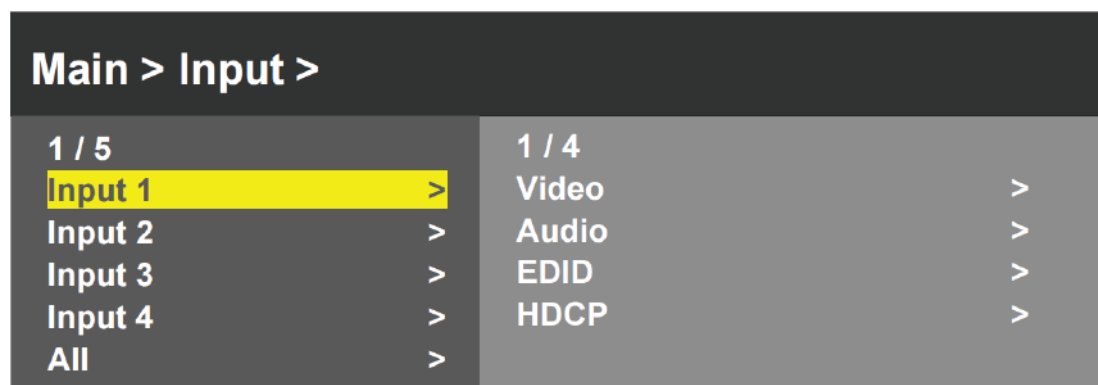
For the HDMI 5V ON/OFF



## 7.1.1 MENU>INPUT



MENU>INPUT>Input



Main > Input > Input 1 >

1 / 4

Video >

Audio >

EDID >

HDCP >

1 / 2

Onoff >

Pattern >

Main > Input > Input 1 > Video

2 / 2

Onoff >

Pattern >

1 / 10

Disable-----@

Window

HRamp

VRamp

HGray

MENU>INPUT>EDID

Main > Input > Input 1 >

3 / 4

Video >

Audio >

EDID >

HDCP >

1 / 2

Copy >

Modify >

Main > Input > Input 1 > EDID

1 / 2

Copy >

Modify >

1 / 17

Default 1-----@

Default 2

Default 3

Default 4

User 1

Main > Input > Input 1 > EDID > Copy

1 / 17

Default 1 @

Default 2

Default 3

Default 4

User 1

Name : XXX-1234

FMT. : 10962160P60

Color : 444 HLG

Audio : LPCM-2 192KHz

7.1.3 MENU>SETUP

Main >

3 / 5

Output >

Input >

Setup >

Preset >

Info >

1 / 8

Network >

RS-232 >

LCD >

OSD >

Menu >

MENU>SETUP>Network

Main > Setup >

1 / 8

Network >

RS-232 >

LCD >

OSD >

Menu >

1 / 7

DHCP >

IP >

MASK >

Gateway >

Port >

Main > Setup > Network

1 / 7

DHCP >

IP >

MASK >

Gateway >

Port >

1 / 2

No----- @

Yes

15

| Main > Setup > Network |   |        |   |
|------------------------|---|--------|---|
| 2 / 7                  |   | 1 / 4  |   |
| DHCP                   | > | Part 0 | > |
| IP                     | > | Part 1 | > |
| MASK                   | > | Part 2 | > |
| Gateway                | > | Part 3 | > |
| Port                   | > |        |   |

| Main > Setup > Network |   |        |   |
|------------------------|---|--------|---|
| 5 / 7                  |   | 1 / 3  |   |
| DHCP                   | > | TCP    | > |
| IP                     | > | UDP    | > |
| MASK                   | > | Telnet | > |
| Gateway                | > |        |   |
| Port                   | > |        |   |

MENU>SETUP>RS232

| Main > Setup > |   |        |   |
|----------------|---|--------|---|
| 2 / 8          |   | 1 / 4  |   |
| Network        | > | Baud   | > |
| RS-232         | > | Data   | > |
| LCD            | > | Stop   | > |
| OSD            | > | Parity | > |
| Menu           | > |        |   |

| Main > Setup > RS-232 |   |                   |  |
|-----------------------|---|-------------------|--|
| 1 / 4                 |   | 6 / 6             |  |
| Baud                  | > | 9600              |  |
| Data                  | > | 19200             |  |
| Stop                  | > | 38400             |  |
| Parity                | > | 57600             |  |
|                       |   | 115200- - - - - @ |  |

MENU>SETUP>LCD

| Main > Setup > |   |        |   |
|----------------|---|--------|---|
| 3 / 8          |   | 1 / 2  |   |
| Network        | > | Bright | > |
| RS-232         | > | Timer  | > |
| LCD            | > |        |   |
| OSD            | > |        |   |
| Menu           | > |        |   |

MENU>SETUP>OSD

| Main > Setup > |   |            |   |
|----------------|---|------------|---|
| 4 / 8          |   | 1 / 4      |   |
| Network        | > | Time       | > |
| RS-232         | > | Menu       | > |
| LCD            | > | Info       | > |
| OSD            | > | Background | > |
| Menu           | > |            |   |

MENU>SETUP>Menu

| Main > Setup > |   |           |   |
|----------------|---|-----------|---|
| 5 / 8          |   | 1 / 2     |   |
| Network        | > | Timer     | > |
| RS-232         | > | SelectRun | > |
| LCD            | > |           |   |
| OSD            | > |           |   |
| Menu           | > |           |   |

| Main > Setup > Menu > |   |               |  |
|-----------------------|---|---------------|--|
| 1 / 2                 |   | 5 / 24        |  |
| Timer                 | > | 3S            |  |
| SelectRun             | > | 5S            |  |
|                       |   | 10S           |  |
|                       |   | 20S           |  |
|                       |   | 30S- - - - -@ |  |

Timer for Menu to back the channel time

| Main > Setup > Menu > |                    |
|-----------------------|--------------------|
| 2 / 2                 | 1 / 2              |
| Timer >               | Disable- - - - - @ |
| SelectRun >           | Enable             |

Disable means need to press Enter or OK to take action  
Enable means need need to press Enter or OK to run

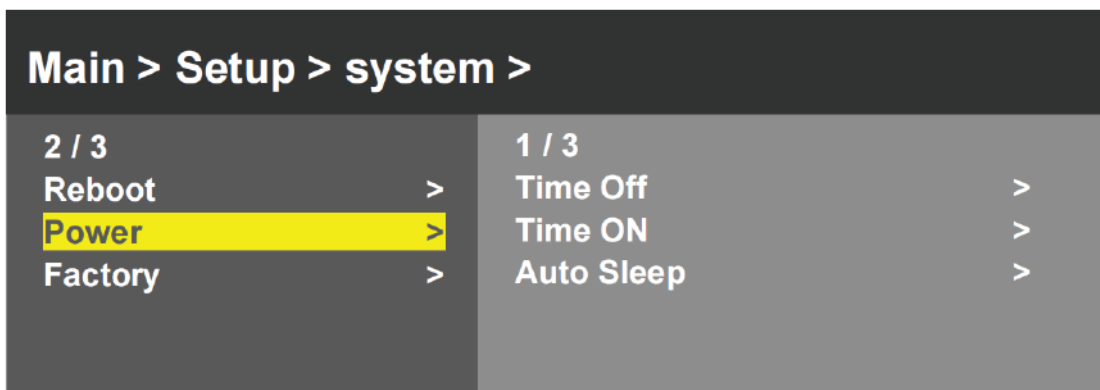
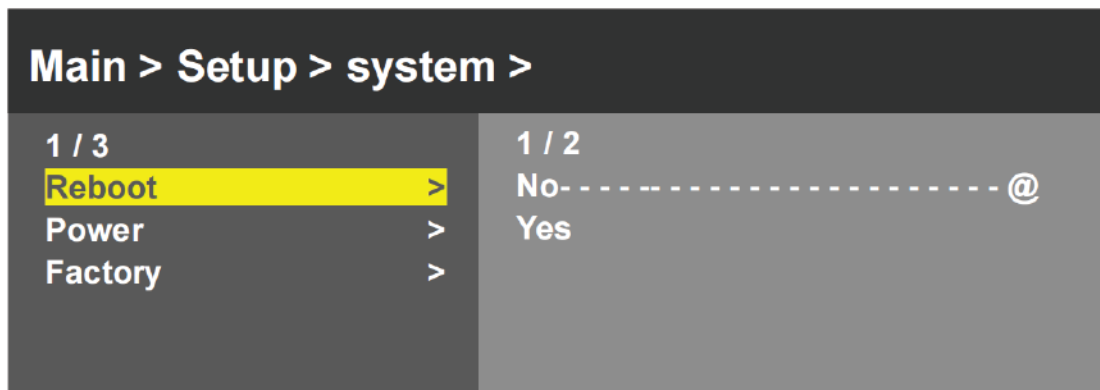
MENU>SETUP>User EDID

| Main > Setup > |              |
|----------------|--------------|
| 6 / 8          | 1 / 5        |
| OSD >          | User EDID1 > |
| Menu >         | User EDID2 > |
| User EDID >    | User EDID3 > |
| Auth >         | User EDID4 > |
| System >       | All >        |

| Main > Setup >UserEDID |                      |
|------------------------|----------------------|
| 1 / 5                  | 1 / 17               |
| User EDID1 >           | Default 1- - - - - @ |
| User EDID2 >           | Default 2            |
| User EDID3 >           | Default 3            |
| User EDID4 >           | Default 4            |
| All >                  | User 1               |

MENU>SETUP>System

| Main > Setup > |           |
|----------------|-----------|
| 8 / 8          | 1 / 3     |
| OSD >          | Reboot >  |
| Menu >         | Power >   |
| User EDID >    | Factory > |
| Auth >         |           |
| System >       |           |

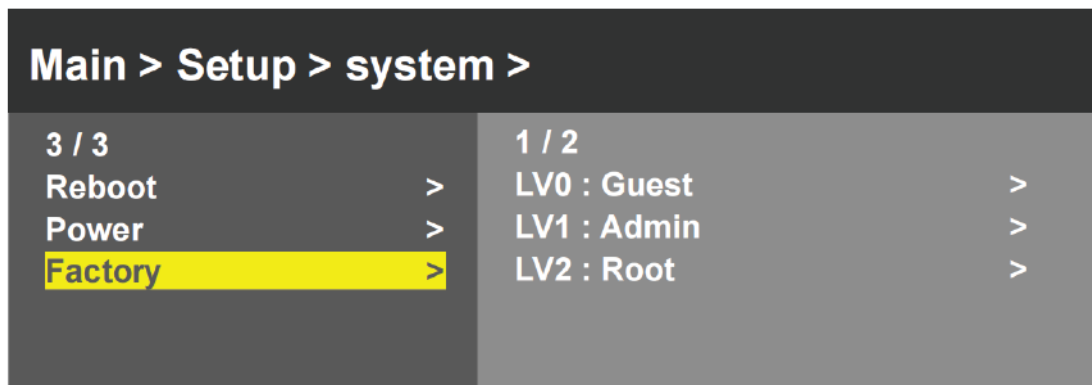


Timed off for set a time to off the matrix, default with endlessness

Timed on for set a time to start the matrix, default with endlessness

Auto sleep means for auto sleep

MENU>SETUP>System



7.1.4 MENU>Preset

Main >

4 / 5

Output >

Input >

Setup >

Preset >

Info >

1 / 4

Clear >

Save >

Call >

Demo >

Main > Preset >

1 / 4

Clear >

Save >

Call >

Demo >

1 / 23

S : P2P ----- @

W: 2x2

W: 1x2

W: 1x2 1x2

W: 1x3

Main > Preset >

2 / 4

Clear >

Save >

Call >

Demo >

1 / 23

S : P2P ----- @

W: 2x2

W: 1x2

W: 1x2 1x2

W: 1x3

Main > Preset >

3 / 4

Clear >

Save >

Call >

Demo >

1 / 23

S : P2P ----- @

W: 2x2

W: 1x2

W: 1x2 1x2

W: 1x3

Main > Preset >

4 / 4

Clear >

Save >

Call >

Demo >

1 / 3

Timer >

Select >

Random >

\*Demo for the saved presets to cycling

Main > Preset > Demo >

1 / 3

Timer >

Select >

Random >

1 / 26

1 S

2 S

3 S

5 S

10S

Main > Preset > Demo >

2 / 3

Timer >

Select >

Random >

1 / 23

S : P2P

W: 2×2

W: 1×2

W: 1×2 1×2

W: 1×3

Main > Preset > Demo >

3 / 3

Timer >

Select >

Random >

1 / 2

No-----@

Yes

7.1.5 MENU>Info

## Main >

5 / 5

Output >

Input >

Setup >

Preset >

Info >

1 / 3

Input >

Output >

System >

MENU>Info>input

## Main > Info >

1 / 3

Input >

Output >

System >

1 / 4

Input 1 >

Input 2 >

Input 3 >

Input 4 >

## Main > Info > Input

1 / 4

Input 1 >

Input 2 >

Input 3 >

Input 4 >

### Source Info :

Link : Connect

FMT. : 3840×2160P60

Color : 420 10B SDR

Audio : PCM-2 48K 24B

HDCP : HDCP2.2

MENU>Info>output

## Main > Info >

2 / 3

Input >

Output >

System >

1 / 4

Output 1 >

Output 2 >

Output 3 >

Output 4 >

Main > Info >

1 / 4

Output 1 >

Output 2 >

Output 3 >

Output 4 >

Sink Info :

Link : TCL-0963

FMT. : 4096×2160P60

Color : 444 HLG

Audio : DTSHD-8 192KHz

HDCP : HDCP2.2

Main > Info >

1 / 4

Output 1 >

Output 2 >

Output 3 >

Output 4 >

Sink Info :

Link : Unconnect

MENU>Info>System

Main > Info >

3 / 3

Input >

Output >

System >

Log >

1 / 3

Device >

Version >

Network >

Main > Info > System

1 / 3

Device >

Versions >

Network >

Device Info :

Co. : XXX

Type : XXX

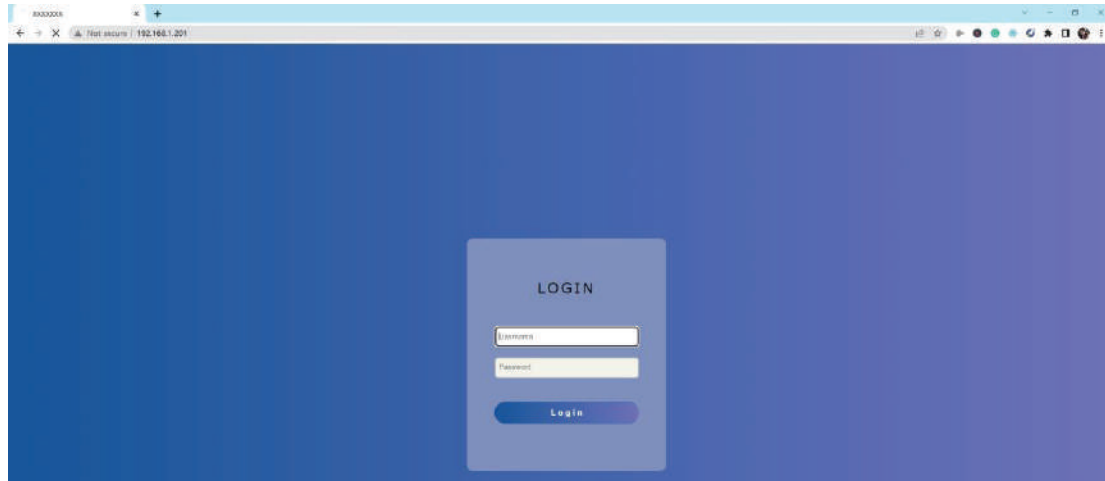
Web : www.xxxxxx.com

UID : 73D88C37

## 7.2 WEB Control

The default IP address are 192.168.1.200,

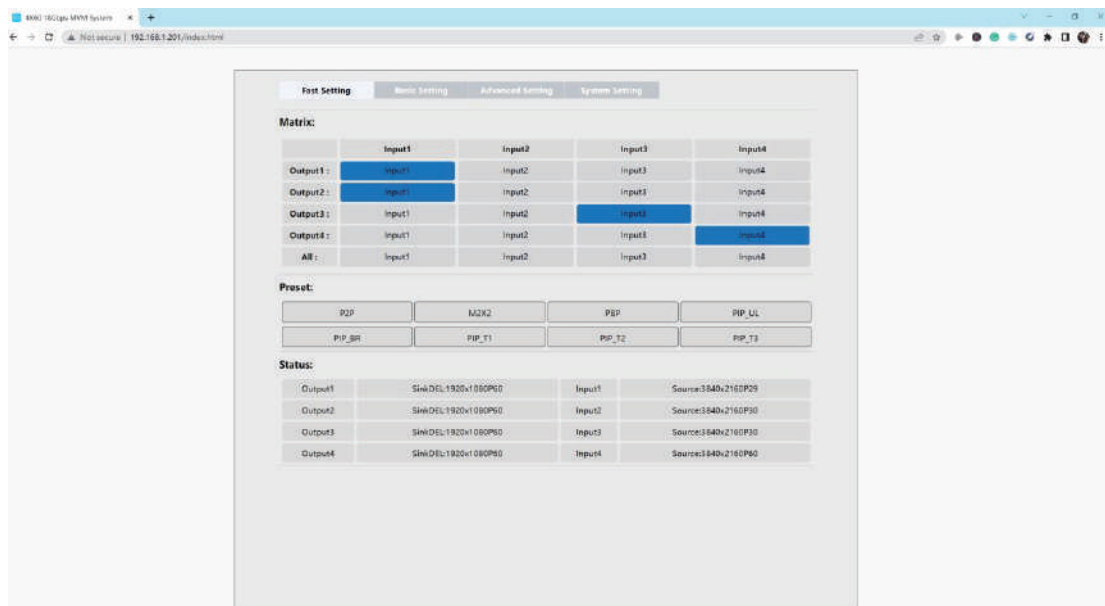
Accordingly to connected LAN port, enter the corresponding IP address, (Recommend with Google Chrome) as below:



Note: The default user name and password is the same: admin, click login after entering. Please make sure the control PC is at the same IP segment.

### 7.2.1 Fast setting

Mainly for the Matrix Switcher



**Preset:**

For the 8 multiviewer presets recalling



## Status:

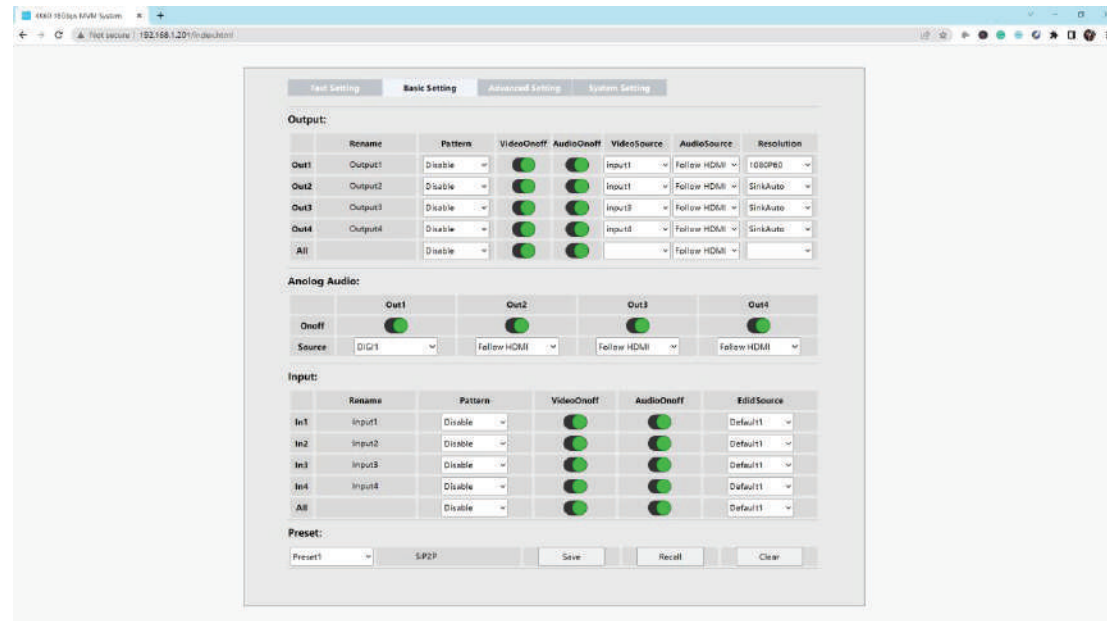
To show the current input and output info

### Status:

|         |                      |        |                     |
|---------|----------------------|--------|---------------------|
| Output1 | SinkDEL:1920x1080P60 | Input1 | Source:3840x2160P29 |
| Output2 | SinkDEL:1920x1080P60 | Input2 | Source:3840x2160P30 |
| Output3 | SinkDEL:1920x1080P60 | Input3 | Source:3840x2160P30 |
| Output4 | SinkDEL:1920x1080P60 | Input4 | Source:3840x2160P60 |

## 7.2.2 Basic setting

Output rename pattern, video, audio, inputs, audio source and output resolution settings



Analog Audio switching:

**Analog Audio:**

|               | Out1                                | Out2                                | Out3                                | Out4                                |
|---------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| <b>Onoff</b>  | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> |
| <b>Source</b> | DIG1                                | Follow HDMI                         | Follow HDMI                         | Follow HDMI                         |

Input rename, parent, video and audio ON/OFF, EDID

**Input:**

|     | Rename | Pattern | VideoOnoff                          | AudioOnoff                          | EdidSource |
|-----|--------|---------|-------------------------------------|-------------------------------------|------------|
| In1 | Input1 | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In2 | Input2 | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In3 | Input3 | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In4 | Input4 | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| All |        | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |

Double click the Rename Rows to rename

**Input:**

|     | Rename  | Pattern | VideoOnoff                          | AudioOnoff                          | EdidSource |
|-----|---------|---------|-------------------------------------|-------------------------------------|------------|
| In1 | IAPTOP  | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In2 | AppleTV | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In3 | Desktop | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| In4 | Input4  | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |
| All |         | Disable | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Default1   |

Preset selection, rename, save, recall and clear, up to 23 presets

**Preset:**

Preset1

### 7.2.3 Advanced setting

4K60 18Gbps MVM System

192.168.1.201/index.html

Basic Setting Basic Setting **Advanced Setting** System Setting

**EDID:**

Copy EDID From: Default1 to: User1 Apply

EDID File Path:  Browse to: User1 Apply

Export:  Default1 Apply

**Coord:**

| Output-Coord | PIP                                 | Crop-X0 | Crop-Y0 | Crop-X1 | Crop-Y1 | Zoom-X0 | Zoom-Y0 | Zoom-X1 | Zoom-Y1 | Confirm |
|--------------|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Out1         | <input checked="" type="checkbox"/> | 0       | 0       | 6000    | 6000    | 0       | 0       | 3000    | 3000    | Apply   |
| Out2         | <input checked="" type="checkbox"/> | 0       | 0       | 6000    | 6000    | 3000    | 0       | 6000    | 3000    | Apply   |
| Out3         | <input checked="" type="checkbox"/> | 0       | 0       | 6000    | 6000    | 0       | 3000    | 3000    | 6000    | Apply   |
| Out4         | <input checked="" type="checkbox"/> | 0       | 0       | 6000    | 6000    | 3000    | 3000    | 6000    | 6000    | Apply   |
| All          | <input checked="" type="checkbox"/> | 0       | 0       | 6000    | 6000    | 0       | 0       | 6000    | 6000    | Apply   |

### 7.2.4 System setting

4K60 18Gbps MVM System

192.168.1.201/index.html

Basic Setting Basic Setting Basic Setting **System Setting**

**Network:**

DHCP: ☒ Off

IP Address: 192.168.1.201

Net Mask Address: 255.255.255.0

Gate Way Address: 192.168.1.1

Mac Address: 00:0E:D0:96:DF:8C

Host Name: XXX-DFBC

**Account:**

User Name:

New Password:

Confirm The Password:

**System-info:**

|             |        |
|-------------|--------|
| Company:    | XXX    |
| Type:       | XXX    |
| ModVersion: | V1.0.3 |
| WebVersion: | V1.0.0 |

**System-Config:**

|               |              |
|---------------|--------------|
| Standby:      | Standby      |
| Reboot:       | Reboot       |
| Factory Run:  | Factory Run  |
| Factory User: | Factory User |

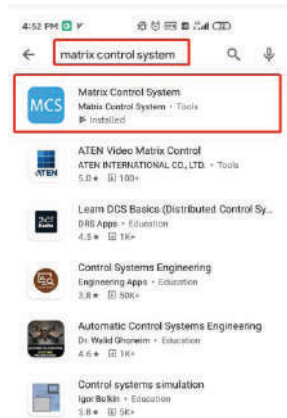
**Import:**

Import:  Browse CA

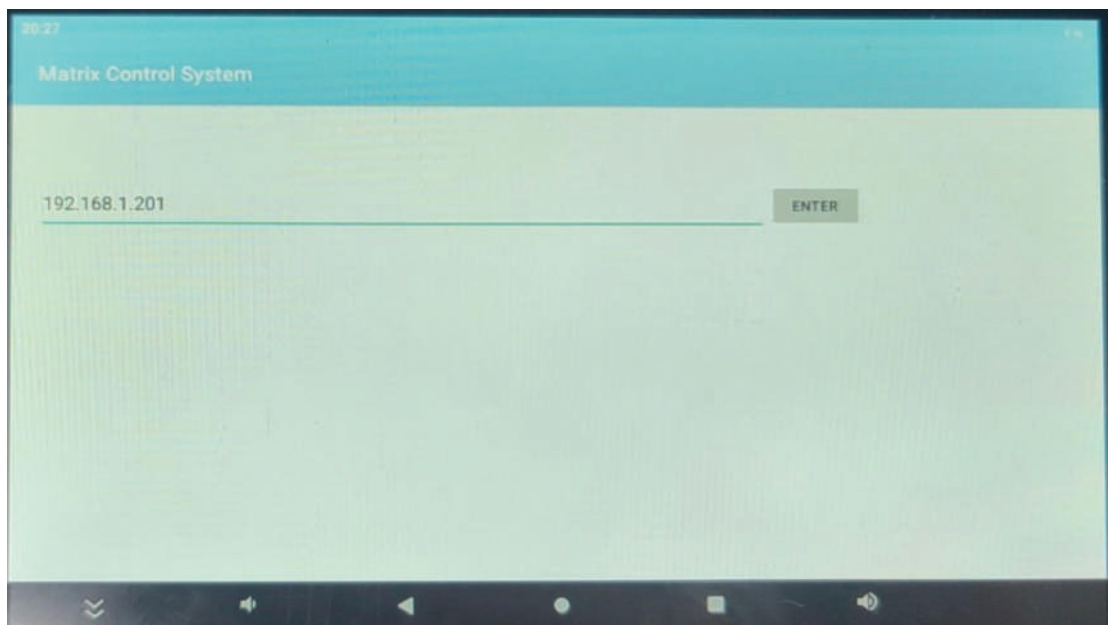
Export:  CA

### 7.3 APP Control

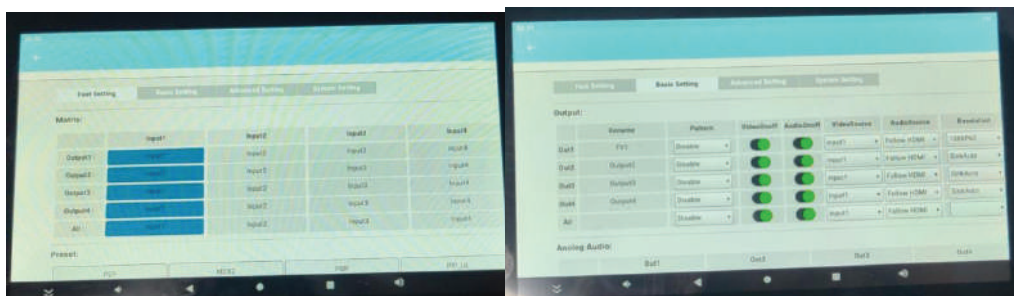
The matrix switchers also can support the iOS and Android APP control, users can search the keyword “Matrix Control System” in Apple store or the Google Play Store.



Step 1: Make sure the matrix well connected with the WIFI router, and the iPad/Android devices are connected to this same WIFI. Then open on the MCS(matrix control system) APP and Enter the IP address of the matrix switcher(the default IP addresses 192.168.1.200):



Step 2: After Enter the IP address, it will need to login, the default user name and password both are the admin, After log in successfully, users can do the same functions as the WEB GUI operation:



## 7.4 IR Remote Control

|                                                                                    |                                       |                                                                                    |                                                                                 |
|------------------------------------------------------------------------------------|---------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
|   | Standby or power on                   |   | Menu                                                                            |
|   | Mute button                           |   | OK                                                                              |
|   | Return to upper level                 |   | Enter                                                                           |
|   | Move to next level                    |   | Down                                                                            |
|   | Picture off                           |   | Return or exit                                                                  |
|   | Page turn by 100 of the last sub-menu |   | Menu                                                                            |
|   | Page turn by 10 of the last sub-menu  |   | When selecting Output, means Out1--out4<br>When selecting Input, means In1--In4 |
|   | Menu                                  |   | Preset                                                                          |
|   | All output                            |   | (N/A)                                                                           |
|  | Up                                    |  | Point to Point                                                                  |



## 7.5 COM and TCP/IP Control Commands

RS232 cable with straight-through connection(USB-RS232 can be used directly to control)

Communication protocol:

Baud rate: 115200

Data bit: 8

Stop bit: 1

Check bit: None

The TCP port is 5000 and UDP is 4000

| Commands | Explanation                                                          | Function description                                                                                       |
|----------|----------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| YAll.    | Y=1,2,3,4.....                                                       | Switch Input Y to all the outputs<br>Eg. "1 <b>All</b> ." means switch input 1 to all outputs              |
| All1.    | One to one                                                           | Switch all the channels to be one to one. Eg.1->1, 2->2, 3->3.....                                         |
| YXZ.     | Y=1,2,3,4.....<br>Z=1,2,3,4.....                                     | Switch Input Y to Output Z<br>Eg. "1 <b>X2</b> ." means switch Input 1 to output 2                         |
| YXZ&Q&W. | Y=1,2,3,4.....<br>Z=1,2,3,4.....<br>Q=1,2,3,4.....<br>W=1,2,3,4..... | Switch Input Y to Output Z, Q, W<br>Eg. "1 <b>X2&amp;3&amp;4</b> ." means switch Input 1 to Output 2, 3, 4 |
| SaveY.   | Y=1,2,3,4.....                                                       | Save current status to scene Y<br>Eg. "Save <b>2</b> ." means saving current status to Scene 2             |
| RecallY. | Y=1,2,3,4.....                                                       | Recall the saved scene Y<br>Eg. "Recall <b>2</b> ." means recall the saved Scene 2                         |

|     |                |                                                                                                    |
|-----|----------------|----------------------------------------------------------------------------------------------------|
| Y?. | Y=1,2,3,4..... | Check the Input Y to outputs switching status<br>Eg. "1?." means to check Input 1 switching status |
|-----|----------------|----------------------------------------------------------------------------------------------------|

Note:

- Every command ends with a period "." and it can't be missing.
- The letter can be capital or small letter.
- Switch success will return as "OK", and failed will return as "ERR".

Multiview modes:

M-2x2

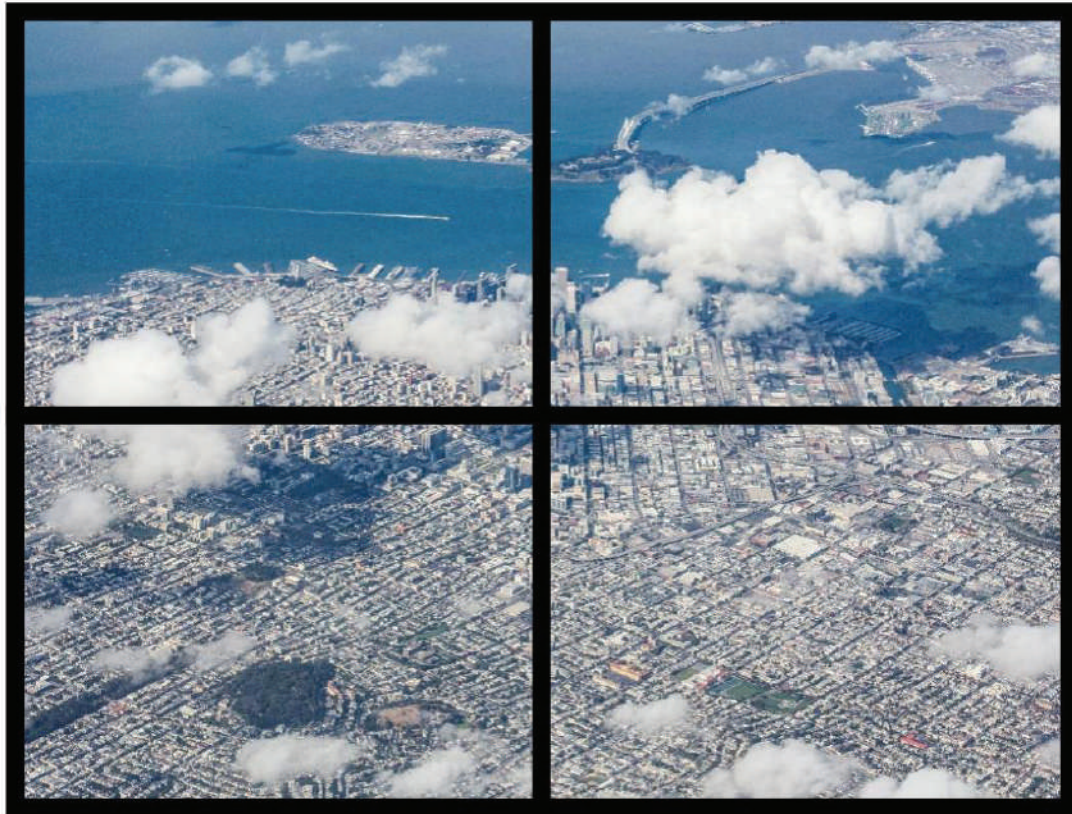


M-3x1 L



Video Wall

W-2x2



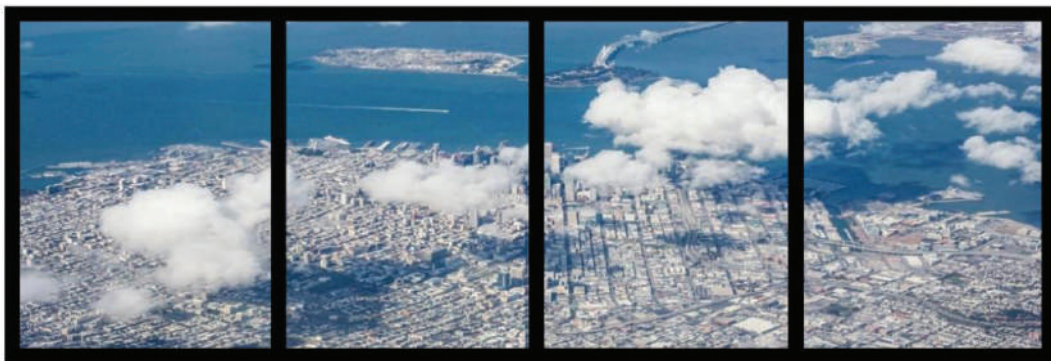
W-1x2 1x2



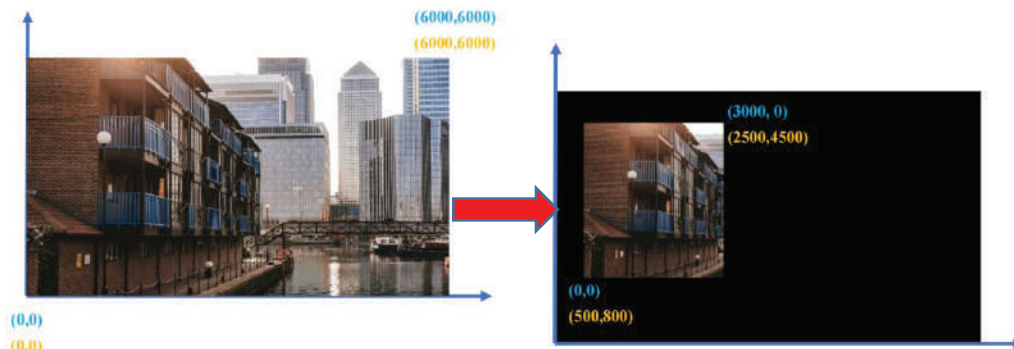
W-1x3



W-1x4



How to crop and zoom:



**Way 1:** By the front push button/IR remote with the OSD:

- ① 【MAIN】->【Output】->【Output 1】->【Video】->【Coord】
- ② Adjust Crop and Zoom
  - 【Crop X0】->【0】
  - 【Crop Y0】->【0】
  - 【Crop X1】->【3000】
  - 【Crop Y1】->【0】
  - 【Zoom X0】->【500】
  - 【Zoom Y0】->【800】
  - 【Zoom X1】->【2500】
  - 【Zoom Y1】->【4500】

## Way2: By the WEB GUI control

Coord:

| Output-Coord | PIP                   | Crop-X0                        | Crop-Y0                        | Crop-X1                           | Crop-Y1                           | Zoom-X0                          | Zoom-Y0                          | Zoom-X1                           | Zoom-Y1                           | Confirm                              |
|--------------|-----------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|--------------------------------------|
| Out1         | <input type="radio"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="3000"/> | <input type="text" value="6000"/> | <input type="text" value="500"/> | <input type="text" value="800"/> | <input type="text" value="2500"/> | <input type="text" value="4500"/> | <input type="button" value="Apply"/> |
| Out2         | <input type="radio"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="text" value="0"/>   | <input type="text" value="0"/>   | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="button" value="Apply"/> |
| Out3         | <input type="radio"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="text" value="0"/>   | <input type="text" value="0"/>   | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="button" value="Apply"/> |
| Out4         | <input type="radio"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="text" value="0"/>   | <input type="text" value="0"/>   | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="button" value="Apply"/> |
| All          | <input type="radio"/> | <input type="text" value="0"/> | <input type="text" value="0"/> | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="text" value="0"/>   | <input type="text" value="0"/>   | <input type="text" value="6000"/> | <input type="text" value="6000"/> | <input type="button" value="Apply"/> |

## 8. Trouble Shooting and Attention

No signal on the display?

- Make sure all the power code well connected
- Check the display switcher and make sure it's in good condition
- Make sure the cables between the device and display are short than 10 meters for 4K
- Reconnect the cables and restart the system
- Make sure the signal sources are on
- Check the cables between the devices and displays are connected correctly.
- Make sure the display can support the output resolution.

## 9. After Sales

### 9.1 Warranty Information

The Company warrants that the process and materials of the product are not defective under normal use and service for 2 (2) year following the date of purchase from the Company or its authorized distributors.

If the product does not work within the guaranteed warranty period, the company will choose and pay for the repair of the defective product or component, the delivery of the equivalent product or component to the user for replacement of the defective item, or refund the payment which users have made.

The replaced product will become the property of the Company.

The replacement product could be new or repaired.

Whichever is longer, any replacement or repaired of the product or component is for a period of ninety (90) days or the remaining period of the initial warranty. The Company shall not be responsible for any software, firmware, information, or memory data contained in, stored in, or integrated with the product repaired by the customer's return, whether or not during the warranty period.

### 9.2 Warranty limitations and exceptions

Except above limited warranty, if the product is damaged by over usage, incorrectly use, ignore, accident, unusual physical pressure or voltage, unauthorized modification, alteration or services rendered by someone other than the Company or its authorized agent, the company will not have to bear additional obligations. Except using the product properly in the proper application or normal usage