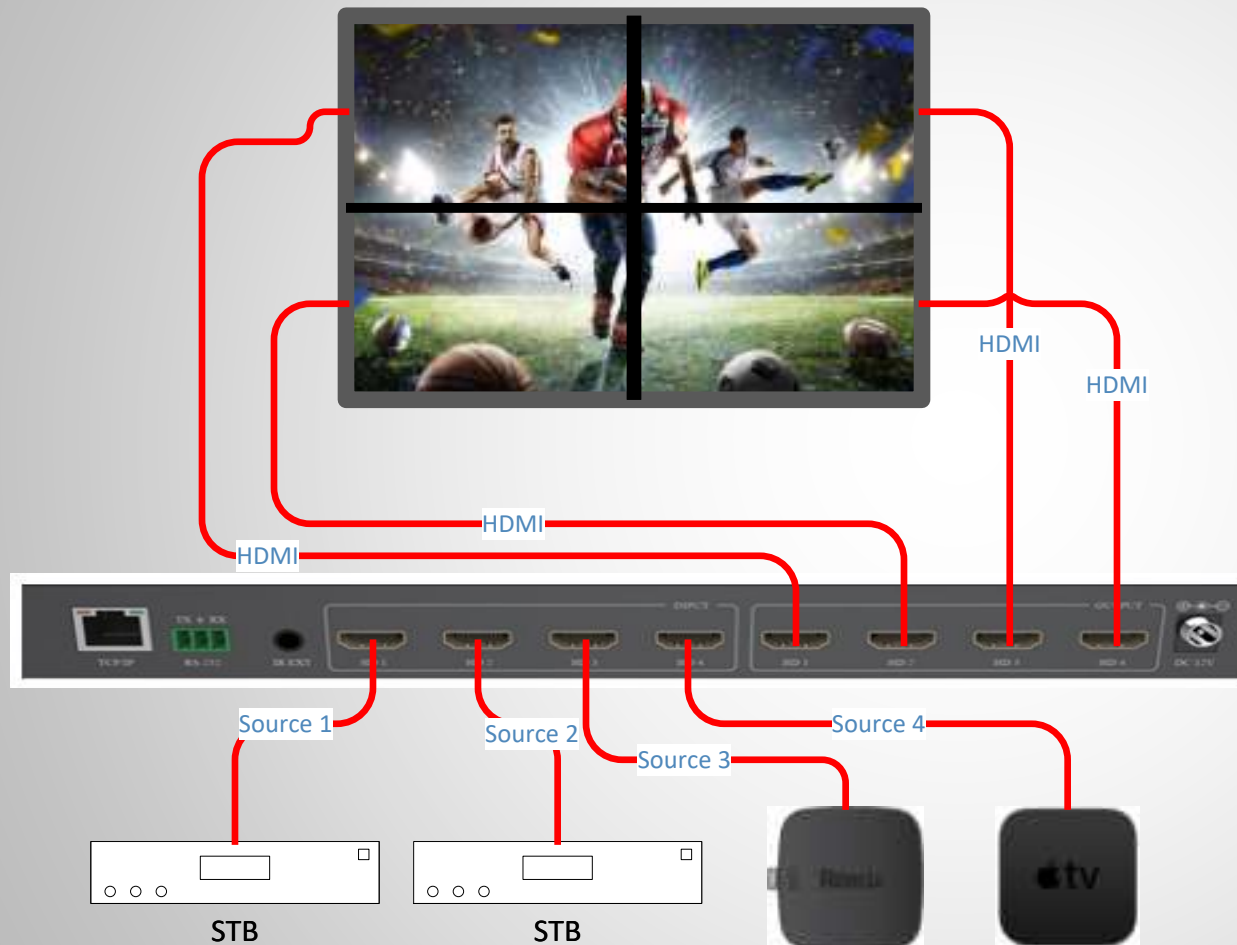


## VW2 Quick Start Guide



The VW2 is a fast switching video matrix that will allow any one of the four sources to be displayed across all four displays if arranged in a 2x2 video wall format. The VW2 can also create 1x4 vertically or many other combinations.

- The VW2 is a 4x4 fast switch 4K 18Gbps YUV 4:4:4 @60Hz. video matrix switch
- In Video wall mode, any one of four inputs can be shown in 4K across all four displays
- Compact size makes it easy to place behind a video wall installation
- There are 10 different modes that will allow different configurations and combinations of sources and how they are displayed



# **VW2**

## **4K/UHD 4x4 Matrix with Video Wall Processor**



User Manual

VER 1.1

# Thank you for purchasing the VW2

The Simplified Manufacturing VW2 is designed to provide years of reliable service. At Simplified MFG, we want the experience with this device to be the best possible and are committed to helping achieve that experience. 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, lighting strikes, etc. Use of surge protection systems is highly recommended to protect and extend the life of your equipment. Cable and satellite boxes can send surges through the HDMI port as will the Simplified MFG HDSURGE can help prevent damage from these occurrences.

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## 1. Introduction

The VW2 is a Video Wall processor with a high-speed 4x4 matrix switch. The VW2's primary use is a 4K/UHD video wall processor with the ability to also place four individual images on the 4 displays. Because of the fast switch, it is also good for live performance or boardroom applications. Control of the VW2 can be accomplished via the Innovative web GUI, the included IR remote, or by RS-232 or TCP/IP via third party control.

## 2. Features

- HDMI 2.0b Compliant
- HDCP 2.2 and HDCP 1.4
- 4x4 instant switch (1/60 second)
- Video wall processor
- Thin for mounting behind displays
- Video inputs support all industry standard video resolutions including VGA-WUXGA (up to 1920×1200 @60Hz) and 480i-4K (3840 x 2160 @60Hz 4:4:4, 4096 x 2160 @60Hz 4:4:4)
- Output resolution supports 50Hz. and 60Hz. in nearly any resolution up to 4096 x 2160p
- Audio formats supported; LPCM, DD, DD+, DTS, Dolby TrueHD, DTS HD-master pass-through
- Advanced EDID management
- Innovative web GUI for set up and control of device
- Additional control via front panel buttons, supplied IR remote, RS-232, or TCP/IP

## 3. Package Contents

- 1 x VW2 18Gbps 4x4 Matrix with Video Wall processing
- 1 x IR Remote
- 1 x 3 pin-3.81mm Phoenix Connector (male)
- 1 x 20-60KHz IR Wideband Receiver Cable (1.5 meters)
- 2 x Mounting Ears w/screws
- 1 x 12V/2.5A Locking Power Supply
- 1x User Manual

## 4. Specifications

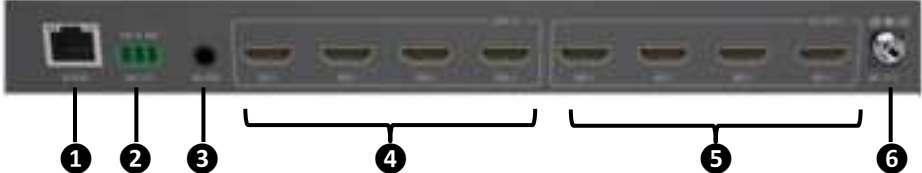
| Technical             |                                                                                                                                                                                                                             |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HDMI Compliance       | HDMI 2.0b                                                                                                                                                                                                                   |
| HDCP Compliance       | HDCP 2.2/1.4                                                                                                                                                                                                                |
| Video Bandwidth       | 594MHz/18Gbps                                                                                                                                                                                                               |
| Video Resolution      | Input: VGA-WUXGA (up to 1920×1200@60Hz), 480i-4K (3840x2160@60Hz 4:4:4, 4096x2160@60Hz 4:4:4)                                                                                                                               |
|                       | Output: 4096x2160p60, 4096x2160p50, 3840x2160p60, 3840x2160p50, 3840x2160p30, 1920x1080p60, 1920x1080p50, 1920x1080i60, 1920x1080i50, 1920x1200p60rb, 1360x768p60, 1280x800p60, 1280x720p60, 1280x720p50, 1024x768p60, auto |
| Color Space           | RGB, YCbCr 4:4:4/4:2:2, YUV 4:2:0                                                                                                                                                                                           |
| Color Depth           | 8/10/12-bit                                                                                                                                                                                                                 |
| IR Level              | 12Vp-p                                                                                                                                                                                                                      |
| IR Frequency          | 38KHz                                                                                                                                                                                                                       |
| HDMI Audio Formats    | LPCM, Dolby Digital/Plus/EX, Dolby True HD, DTS, DTS-EX, DTS-96/24, DTS High Res, DTS-HD Master Audio                                                                                                                       |
| Connection            |                                                                                                                                                                                                                             |
| Inputs                | 4 x HDMI Type A [19-pin female]                                                                                                                                                                                             |
| Outputs               | 4 x HDMI Type A [19-pin female]                                                                                                                                                                                             |
| Control               | 1 x RS-232 [3pin-3.81mm phoenix connector]<br>1 x TCP/IP [RJ45]<br>1 x IR EXT [3.5mm Stereo Mini-jack]                                                                                                                      |
| Mechanical            |                                                                                                                                                                                                                             |
| Housing               | Metal Enclosure                                                                                                                                                                                                             |
| Color                 | Black                                                                                                                                                                                                                       |
| Dimensions            | 270mm/10.63" (W) × 166mm/6.53" (D) × 30mm/1.18" (H)                                                                                                                                                                         |
| Weight                | 1165g/ 3lb, 9.1oz.                                                                                                                                                                                                          |
| Power Supply          | Input: AC 100 - 240V 50/60Hz<br>Output: DC 12V/2.5A (US/EU standard, CE/FCC/UL certified)                                                                                                                                   |
| Power Consumption     | 19.56W (Max)                                                                                                                                                                                                                |
| Operating Temperature | 0°C ~ 40°C / 32°F ~ 104°F                                                                                                                                                                                                   |
| Storage Temperature   | -20°C ~ 60°C / -4°F ~ 140°F                                                                                                                                                                                                 |
| Relative Humidity     | 20~90% RH (non-condensing)                                                                                                                                                                                                  |

# 5. Operation Controls and Functions

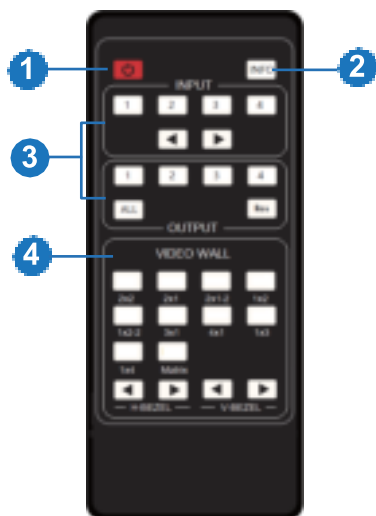
## 5.1 Front Panel

|  |                               |                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No.                                                                               | Name                          | Function Description                                                                                                                                                 |
| 1                                                                                 | Power button                  | <ul style="list-style-type: none"><li>▪ Short press this button to power on the device.</li><li>▪ Hold this button for 1 second to enter the standby mode.</li></ul> |
| 2                                                                                 | Power LED                     | The LED will illuminate in green when the VW2 is operational, and red when the VW2 is in standby mode.                                                               |
| 3                                                                                 | IR Window                     | IR receiver window for control of VW2                                                                                                                                |
| 4                                                                                 | Signal source LED             | Signal source indicator for the OUT 1 - OUT 4 port.                                                                                                                  |
| 5                                                                                 | Input source switching button | Input source switching button for the OUT 1- OUT 4 port.                                                                                                             |

## 5.2 Rear Panel

|  |              |                                                                                                                                                                                        |
|------------------------------------------------------------------------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| No.                                                                                | Name         | Function Description                                                                                                                                                                   |
| 1                                                                                  | TCP/IP       | Link port for TCP/IP control. Connects to an active Ethernet connection via RJ45 cable to control VW2 via web GUI or TCP/IP                                                            |
| 2                                                                                  | RS-232       | RS-232 serial command control port, connects to a PC or control system to control/setup the VW2.                                                                                       |
| 3                                                                                  | IR EXT       | Direct connection to front IR port for control of VW2. Use instead of applying IR blaster to front of VW2 or when the IR port on front of VW2 is blocked from IR signals via IR remote |
| 4                                                                                  | HDMI INPUTS  | HDMI signal input ports, connects to signal source.                                                                                                                                    |
| 5                                                                                  | HDMI OUTPUTS | HDMI signal output ports, connects to displays.                                                                                                                                        |
| 6                                                                                  | DC 12V       | DC 12V/2.5A power input port.                                                                                                                                                          |

## 6. IR Remote



- ❶ **Power on or Standby:** Enables power to VW2, press again for standby mode.
- ❷ **INFO:** Press this button to display the serial port baud rate and IP address in the upper right corner of the screen. (The information will disappear after 5 seconds.)

### ❸ INPUT/OUTPUT

**INPUT 1/2/3/4:** Select the signal input channel.

◀ ▶: Select the last or next signal input channel.

**OUTPUT 1/2/3/4:** Select the signal output channel.

**ALL:** Select all output channels simultaneously. For example, when you press the “ALL” button and then press INPUT “1” button, at this time the input “1” source will be output to all display devices.

**Res:** Press this button to switch output channel resolution.

Matrix mode: Press **OUTPUT 1/2/3/4** or **ALL**, then press **Res** to switch the output resolution circularly.

Video wall mode: Press **Res** directly to switch the output resolution for four output channels simultaneously.

**Operation Instruction:** You need to press the OUTPUT button first, and then press the INPUT button to select the corresponding input source. For example, Press OUTPUT-X (X means output button from 1 to 4, including “ALL” button), then press INPUT-Y (Y means input button from 1 to 4).

### ❹ VIDEO WALL:

**Video wall mode selection:**

Press the video wall mode button directly to enter corresponding mode.

**Source selection for the video wall group:**

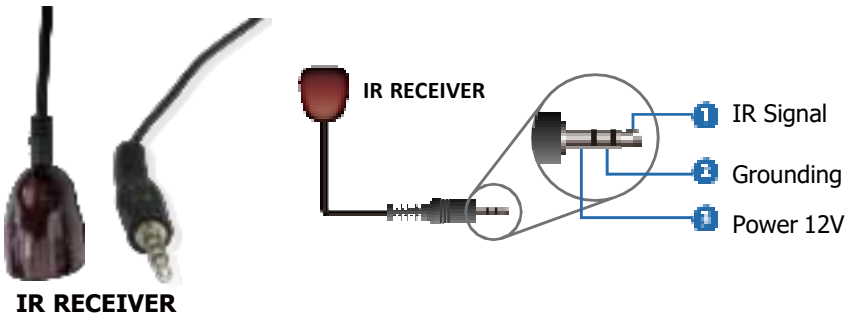
Press **OUTPUT 1/2/3/4** or ◀/▶ to select the video wall group first, then press

**INPUT 1/2/3/4** or ◀/▶ to select the input source.

**Bezel Adjustment:** Press ◀/▶ of H-BEZEL / V-BEZEL to adjust the bezel.

## 7. IR Pin Definition

IR Receiver pin's definition is as below:



*Note: When the angle between the IR receiver and the remote control is  $\pm 45^\circ$ , the transmission distance is 0-5 meters; when the angle between the IR receiver and the remote control is  $\pm 90^\circ$ , the transmission distance is 0-8 meters.*

## 8. EDID Management

This Matrix has 12 factory defined EDID settings, 2 user-defined EDID modes and 4 copy EDID modes. You can select defined EDID mode or copy EDID mode to input port through RS-232 control or Web GUI.

**RS-232 control operation:** Connect the Matrix to PC with a serial cable, then open a Serial Command tool on PC to send ASCII command "s edid in x from z!" to set EDID. For details, please refer to "EDID Setting" in the ASCII command list of "11. RS-232 Control Command".

**Web GUI Operation:** Please check the EDID management in the "Input page" of "10. WebGUI User Guide".

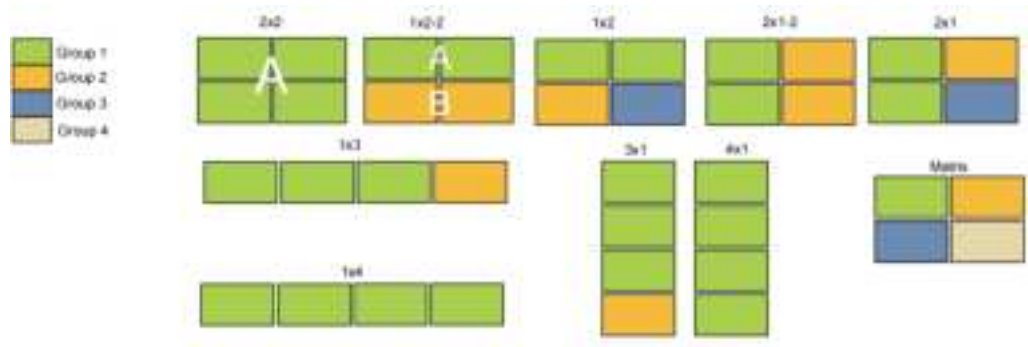


The defined EDID setting list of the product is shown as below:

| EDID Mode | EDID Description             |
|-----------|------------------------------|
| 1         | 4k2k60_444, stereo audio 2.0 |
| 2         | 4k2k60_444, dolby/dts 5.1    |
| 3         | 4k2k60_444, hd audio 7.1     |
| 4         | 4k2k30_444, stereo audio 2.0 |
| 5         | 4k2k30_444, dolby/dts 5.1    |
| 6         | 4k2k30_444, hd audio 7.1     |
| 7         | 1080p, stereo audio 2.0      |
| 8         | 1080p, dolby/dts 5.1         |
| 9         | 1080p, hd audio 7.1          |
| 10        | 1920x1200, stereo audio 2.0  |
| 11        | 1360x768, stereo audio 2.0   |
| 12        | 1024x768, stereo audio 2.0   |
| 13        | user define1                 |
| 14        | user define2                 |
| 15        | copy from hdmi output 1      |
| 16        | copy from hdmi output 2      |
| 17        | copy from hdmi output 3      |
| 18        | copy from hdmi output 4      |

## 9. Video Wall

The VW2 supports 10 categories of display modes shown below:



These modes can be selected via IR remote, Web GUI or RS-232 commands.

## 10. Web GUI User Guide

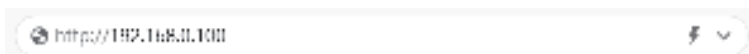
The VW2 can be set up and controlled via the web GUI. The process is shown as below:

**Step 1:** Get the current IP Address.

The default IP address is set to DHCP. You can view the current IP address quickly by pressing the "INFO" button on the supplied IR Remote. Another way is to use the Hercules set up utility (freeware available on the web page of the VW2). This is done by connecting a windows pc to the VW2 via RS-232 to USB cable. Once connected, open Hercules, click the serial tab (make sure to set baud rate to 115200 shown on page 14) and then type the command "r ip addr!" in the first send line and press send. The VW2 will respond in the communication window with the current IP address. This can also be done with many third-party control systems via TCP/IP or with a network scan utility like Fing.



**Step 2:** Input the current IP address of VW2 into your browser on the PC to enter Web GUI page.



After entering the IP address, you will be taken to a Login page, as shown below:



Select the Username from the drop-down list and enter the password. The default passwords are:

|          |             |              |
|----------|-------------|--------------|
| Username | <b>User</b> | <b>Admin</b> |
| Password | <b>user</b> | <b>admin</b> |

After entering the password, click the “LOGIN” button and the following Status page will appear.

■ **Status Page**

The Status page provides basic information about the product model, installed firmware version and the network settings of the device.



■ **Input Page**



The following shows information and operations available on the Input page:

- ❶ **Inputs:** Indicates Input channel of the device.
- ❷ **Active:** It indicates that the channel is connected to a signal source. When the input port is connected to the signal, it shows green, otherwise, it shows gray.
- ❸ **Name:** The input channel's name. You can modify it by entering the corresponding name in the input box (up to 31 characters)
- ❹ **EDID:** You can set the current channel's EDID. Click drop-down list to select.
- ❺ **Loads EDID to user memory:** Set EDID for the User.

Click the "Browse" button, then select the bin file. If you select the wrong EDID file, there will be a prompt, as shown in the following figure:



Make sure to select the correct file, then you can check the name of the selected file. Select "User 1" or "User 2", then click "Upload". After successful setting, it will prompt as follows:



❻ **Download EDID to your computer:**

Click the drop-down box of "Select EDID File" to select the corresponding input channel. Then click "Download" to download the corresponding EDID file.

■ **Output Page**



The following shows the available operations on the Output page:

- ❶ **Outputs:** Output channel of the device.
- ❷ **Cable:** It indicates the connection status of output ports. When the output port is connected to the display, it shows green, otherwise, it shows gray.
- ❸ **Name:** The current output channel's name. You can modify it by entering the corresponding name (max length: 31 characters) in the input box.
- ❹ **Output Resolution:** Set the current output resolution mode. Click the drop-down list to select other resolutions.
- ❺ **Color Space:** Set the color space of the output signal.
- ❻ **HDCP:** Set the HDCP version that the current output port supports.
- ❼ **H mirror:** Flips the image on the display horizontally
- ❽ **V mirror:** Flips the image on the display vertically (use when flipping display upside down)
- ❾ **Stream:** Turn on/off the signal output stream of the output port.

Note: User cannot set each output resolution separately in video wall mode.

### ■ Video Mode Page



You can do the following operations on the Video mode page:

- ❶ **Matrix:** Click to go to Matrix mode.
- ❷ **Video Wall:** Click to select any multiview display mode.
- ❸ **Matrix/Video Wall Adjustment:** Displays the input & output information.
- ❹ **Input Source:** Can be changed by dragging the pattern to any of the matrix or video wall windows or clicking on window and using the ◀ ▶ to select the input source.
- ❺ **Bezel Adjustment:** Click +/- to adjust the corresponding Horizontal/Vertical Bezel (Up to 10 adjustments).
- ❻ **Output Resolution:** Set the resolution of all current output ports. Click the drop-down list to select.

■ Network Page



You can do the following operations on the Network page:

**Modify Network Setting**

Modify the IP Mode Address/Gateway/Subnet Mask/Telnet Port as required, click “Save” to save the settings, then it will come into effect.  
After modification, if the Mode is “Static”, it will switch to the corresponding IP Address; if the Mode is “DHCP”, it will automatically search and switch to the IP Address assigned by the router.



**Modify User Password**

Click the “User” button, enter the correct Old Password, New Password, and Confirm Password, then click “Save”. After successful modification, there will be a prompt, as shown in the following figure:



- Note:** Input rules for changing passwords:
- (1) The password can't be empty.
  - (2) New Password can't be the same as Old Password.
  - (3) New Password and Confirm Password must be the same.

**Set the Default Network**

Click "Set Network Defaults" button, there will be a prompt, as shown in the following figure:



Click "OK" to search the IP Address again, as shown in the following figure:



After searching is completed, it will switch to the login page, the default network setting is completed.

**■ System Page**



You can do the following operations on the System page:

- ➊ **Panel Lock:** Click to lock/unlock panel buttons. "ON" indicates that panel buttons are unavailable; "OFF" indicates panel buttons are available.
- ➋ **Beep:** Click to turn on/off the beep.
- ➌ **Pattern:** Click to select 6 test patterns.
- ➍ **Serial Baud Rate:** Click the value to set the Serial Baud Rate.
- ➎ **Firmware Update:** Click "Browse" to select the update file, then click "Update" to complete firmware update.
- ➏ **Factory Reset:** You can reset the VW2 to factory defaults by clicking "Reset".
- ➐ **Reboot:** You can reboot the machine by clicking "Reboot".

**Note:** After reset/reboot, it will switch to the login page.

## 11. RS-232 Control Command

The VW2 also supports RS-232 command control. Connect the RS-232 port of the VW2 to a PC with a 3-pin phoenix connector cable and an RS-232 to USB cable. The connection method is as follows.



Then open a Serial Command tool such as Hercules (available on webpage of VW2) on a PC to send ASCII commands to control/set up the VW2. List shown below:

| ASCII Command                                                                                    |                           |           |                                                                                                                                    |                 |
|--------------------------------------------------------------------------------------------------|---------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| Serial port protocol: Baud rate: 115200(default)    Data bits: 8    Stop bits: 1    Check bit: 0 |                           |           |                                                                                                                                    |                 |
| x - Parameter 1<br>y - Parameter 2<br>! - Delimiter                                              |                           |           |                                                                                                                                    |                 |
| Command Code                                                                                     | Function Description      | Example   | Feedback                                                                                                                           | Default Setting |
| System setting                                                                                   |                           |           |                                                                                                                                    |                 |
| help!                                                                                            | Lists all commands        | help!     |                                                                                                                                    |                 |
| r status!                                                                                        | Get device current status | r status! | get the unit all status:<br>power, beep, lock, in /<br>out connection, video/<br>audio crosspoint, edid,<br>scaler, network status |                 |
| r type!                                                                                          | Get device model          | r type!   | 4x4 hdmi seamless<br>matrix                                                                                                        |                 |

| Command Code          | Function Description                                                                                                                                                                                                                                                                                                                                                                                                                                   | Example           | Feedback                                                                                                      | Default Setting          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------|--------------------------|
| r fw version!         | Get firmware version                                                                                                                                                                                                                                                                                                                                                                                                                                   | r fw version!     | mcu fw version x.xx.xx                                                                                        |                          |
| s power z!            | Power on/off the device,z=0~1<br>(z=0 power off, z=1 power on)                                                                                                                                                                                                                                                                                                                                                                                         | s power 1!        | power on<br><br>system initializing...<br>initialization finished!<br>mcu fw version x.xx.xx                  |                          |
| r power!              | Get current power state                                                                                                                                                                                                                                                                                                                                                                                                                                | r power!          | power on /power off                                                                                           |                          |
| s beep z!             | Enable/disable buzzer function,<br>z=0~1(z=0 beep off, z=1 beep on)                                                                                                                                                                                                                                                                                                                                                                                    | s beep 1!         | beep on<br>beep off                                                                                           | beep on                  |
| r beep!               | Get buzzer state                                                                                                                                                                                                                                                                                                                                                                                                                                       | r beep!           | beep on / beep off                                                                                            | beep on                  |
| s lock z!             | Lock/unlock front panel button,<br>z=0~1(z=0 lock off,z=1 lock on)                                                                                                                                                                                                                                                                                                                                                                                     | s lock 1!         | panel button lock on<br>panel button lock off                                                                 | panel button<br>lock off |
| r lock!               | Get panel button lock state                                                                                                                                                                                                                                                                                                                                                                                                                            | r lock!           | panel button lock on/off                                                                                      |                          |
| s reboot!             | Reboot the device                                                                                                                                                                                                                                                                                                                                                                                                                                      | s reboot!         | reboot...<br><br>system initializing...<br>initialization finished!<br>mcu fw version x.xx.xx                 |                          |
| s reset!              | Reset to factory defaults                                                                                                                                                                                                                                                                                                                                                                                                                              | s reset!          | reset to factory defaults<br><br>system initializing...<br>initialization finished!<br>mcu fw version x.xx.xx |                          |
| <b>Output setting</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                   |                                                                                                               |                          |
| s in x av out y!      | Set input x to output y, x=1~4,<br>y=0~4(0=all)                                                                                                                                                                                                                                                                                                                                                                                                        | s in 1 av out 2!  | input 1 -> output 2                                                                                           | ptp                      |
| r av out y!           | Get output y signal status<br>y=0~4(0=all)                                                                                                                                                                                                                                                                                                                                                                                                             | r av out 0!       | input 1 -> output 1<br>input 2 -> output 2<br>.....<br>input 4 -> output 4                                    |                          |
| s output y res x!     | Set output y resolution<br>(y=0~4, x=1~16)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4<br>1. 4096x2160p60,<br>2. 4096x2160p50,<br>3. 3840x2160p60,<br>4. 3840x2160p50,<br>5. 3840x2160p30,<br>6. 1920x1080p60,<br>7. 1920x1080p50,<br>8. 1920x1080i60,<br>9.1920x1080i50,<br>10. 1920x1200p60rb,<br>11.1360x768p60,<br>12.1280x800p60,<br>13.1280x720p60,<br>14.1280x720p50,<br>15.1024x768p60,<br>16. auto | s output 1 res 3! | output 1 resolution:<br>3840x2160p60                                                                          | 3840x2160p60             |

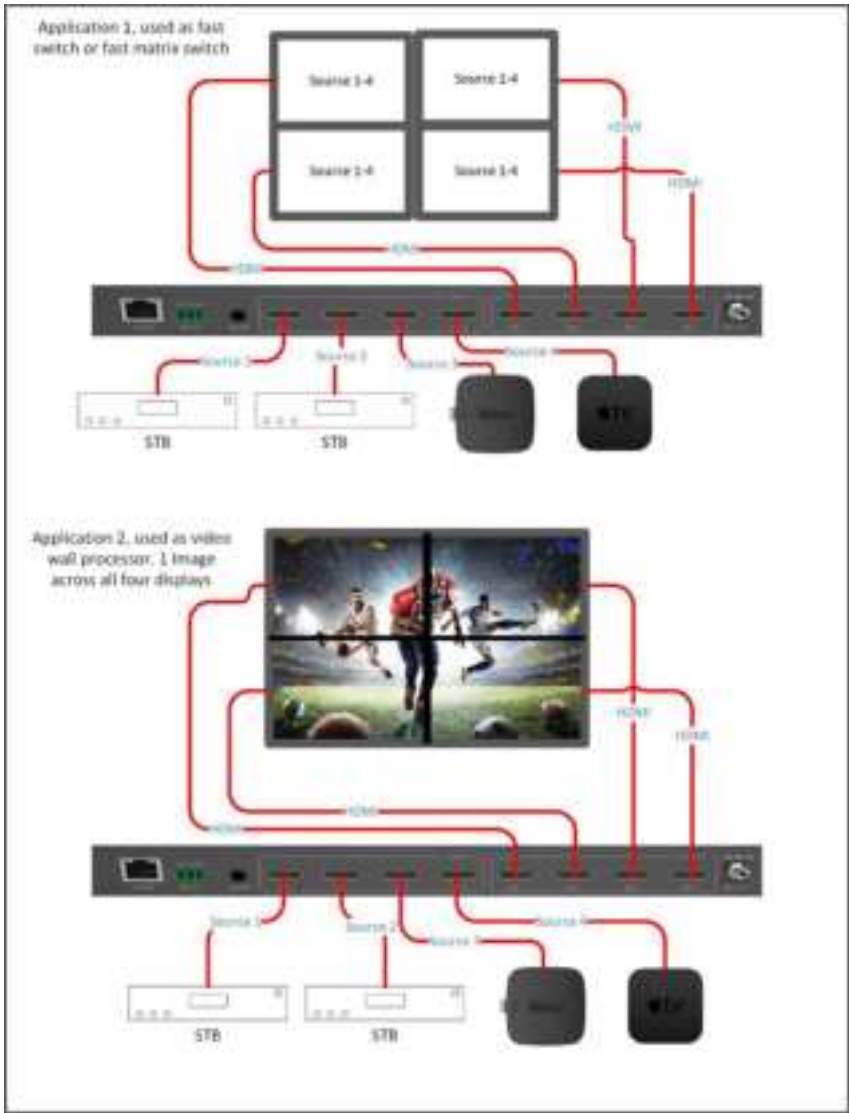
| Command Code          | Function Description                                                                                                                                                                                | Example               | Feedback                                                                                                                                                         | Default Setting                                                                                              |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| r output y res!       | Get output y resolution(y=0~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4                                                                               | s output 1 csc 1!     | output 1 resolution:<br>3840x2160p60                                                                                                                             |                                                                                                              |
| s output y csc x!     | Set output y color space<br>(y=0~4, x=1~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4<br>x=1. rgb444<br>x=2. ycbcr444<br>x=3. ycbcr422<br>x=4. ycbcr420 | s output 1 csc 1!     | output 1 csc: rgb444                                                                                                                                             | rgb444                                                                                                       |
| r output y csc!       | Get output y color space status.<br>(y=0~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4                                                                  | r output 1 csc!       | output 1 csc: rgb444                                                                                                                                             |                                                                                                              |
| s output y hdcp x!    | Set output hdcp(y=0~4, x=1~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4<br>x=1. hdcp 1.4<br>x=2. hdcp 2.2<br>x=3. follow sink<br>x=4. follow source    | s output 1 hdcp 1!    | output 1 hdcp:<br>hdcp 1.4                                                                                                                                       | hdcp1.4                                                                                                      |
| r output y hdcp!      | Get output y hdcp status.(y=0~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4                                                                             | r output 1 hdcp!      | output 1 hdcp:<br>hdcp 1.4                                                                                                                                       |                                                                                                              |
| s output y hmirror x! | Set output y h mirror(y=0~4,x=0,1)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4<br>x=0. h mirror off<br>x=1. h mirror on                                  | s output 1 hmirror 1! | output1 h mirror on                                                                                                                                              | output 1 h mirror<br>off<br>output 2 h mirror<br>off<br>output 3 h mirror<br>off<br>output 4 h mirror<br>off |
| s output y vmirror x! | set output y v mirror(y=0~4,x=0,1)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4<br>x=0. v mirror off<br>x=1. v mirror on                                  | s output 1 vmirror 0! | output1 v mirror off                                                                                                                                             | output 1 v mirror<br>off<br>output 2 v mirror<br>off<br>output 3 v mirror<br>off<br>output 4 v mirror<br>off |
| r output y mirror!    | Get output y mirror status(y=0~4)<br>y=0. output all<br>y=1. output 1<br>y=2. output 2<br>y=3. output 3<br>y=4. output 4                                                                            | r output 0 mirror!    | output 1 h mirror on,<br>v mirror off<br>output 2 h mirror on,<br>v mirror off<br>output 3 h mirror on,<br>v mirror off<br>output 4 h mirror on,<br>v mirror off |                                                                                                              |



| Command Code              | Function Description                                                                                                                                                                                                                                                                                                                     | Example               | Feedback                                                                                                                                                 | Default Setting                     |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| <b>Video wall setting</b> |                                                                                                                                                                                                                                                                                                                                          |                       |                                                                                                                                                          |                                     |
| s tw mode x!              | Set tv wall display mode(x=1~10)<br>x=1. 2x2 mode<br>x=2. 2x1 mode<br>x=3. 2x1-2 mode<br>x=4. 1x2 mode<br>x=5. 1x2-2 mode<br>x=6. 3x1 mode<br>x=7. 4x1 mode<br>x=8. 1x3 mode<br>x=9. 1x4 mode<br>x=10. matrix mode                                                                                                                       | s tw mode 1!          | tv wall mode: 2x2                                                                                                                                        | tv wall mode: 2x2                   |
| r tw mode!                | Get tv wall display mode                                                                                                                                                                                                                                                                                                                 | r tw mode!            | tv wall mode: 2x2                                                                                                                                        |                                     |
| s tw h bezel x!           | set tv wall horizontal bezel<br>(x=0~10,+,-)                                                                                                                                                                                                                                                                                             | s tw h bezel 0!       | tv wall horizontal bezel: 0                                                                                                                              | tv wall horizontal bezel: 0         |
| r tw h bezel!             | Get tv wall row bezel                                                                                                                                                                                                                                                                                                                    | r tw h bezel!         | tv wall horizontal bezel: 0                                                                                                                              |                                     |
| s tw v bezel x!           | Set tv wall vertical bezel<br>(x=0~10,+,-)                                                                                                                                                                                                                                                                                               | s tw v bezel 0!       | tv wall vertical bezel: 0                                                                                                                                | tv wall vertical bezel: 0           |
| r tw v bezel!             | Get tv wall vertical bezel                                                                                                                                                                                                                                                                                                               | r tw v bezel!         | tv wall vertical bezel: 0                                                                                                                                |                                     |
| s tw group y input x!     | Set tv wall group y display which source input(y=0~4, x=1~4)<br>y=0. tv wall group all<br>y=1. tv wall group 1<br>y=2. tv wall group 2<br>y=3. tv wall group 3<br>y=4. tv wall group 4<br><br>x=1. hdmi input 1<br>x=2. hdmi input 2<br>x=3. hdmi input 3<br>x=4. hdmi input 4                                                           | s tw group 1 input 1! | tv wall group 1 input: hdmi input 1                                                                                                                      | tv wall group 1 input: hdmi input 1 |
| r tw group y source!      | Get tv wall group y display which source input(y=0~4)<br>y=0. tv wall group all<br>y=1. tv wall group 1<br>y=2. tv wall group 2<br>y=3. tv wall group 3<br>y=4. tv wall group 4                                                                                                                                                          | r tw group 0 source!  | tv wall group 1 input: hdmi input 1<br>tv wall group 2 input: hdmi input 2<br>tv wall group 3 input: hdmi input 3<br>tv wall group 4 input: hdmi input 4 |                                     |
| s tw res x!               | Set tv wall resolution (x=1~15)<br>1. 4096x2160p60,<br>2. 4096x2160p50,<br>3. 3840x2160p60,<br>4. 3840x2160p50,<br>5. 3840x2160p30,<br>6. 1920x1080p60,<br>7. 1920x1080p50,<br>8. 1920x1080i60,<br>9.1920x1080i50,<br>10. 1920x1200p60rb,<br>11.1360x768p60,<br>12.1280x800p60,<br>13.1280x720p60,<br>14.1280x720p50,<br>15.1024x768p60, | s tw res 3!           | tv wall resolution: 3840x2160p60                                                                                                                         | 3840x2160p60                        |
| r tw res!                 | Get tv wall resolution                                                                                                                                                                                                                                                                                                                   | r tw res!             | tv wall resolution: 3840x2160p60                                                                                                                         | 3840x2160p60                        |

| Command Code                  | Function Description                                                  | Example                     | Feedback                                                                                                                                                                                      | Default Setting |
|-------------------------------|-----------------------------------------------------------------------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|
| <b>Network setting</b>        |                                                                       |                             |                                                                                                                                                                                               |                 |
| r ipconfig!                   | Get the current ip configuration                                      | r ipconfig !                | ip mode: static<br>ip: 192.168.0.100<br>subnet mask:<br>255.255.255.0<br>gateway: 192.168.0.1<br>tcp/ip port=8000<br>telnet port=23<br>mac address:<br>00:1c:91:03:80:01                      |                 |
| r mac addr!                   | Get network mac address                                               | r mac addr!                 | mac address:<br>00:1c:91:03:80:01                                                                                                                                                             |                 |
| s ip mode z!                  | Set network ip mode to static ip or dhcp,z=0~1 (z=0 static, z=1 dhcp) | s ip mode 0!                | set ip mode:static.<br>(please use "s net reboot!" command or repower device to apply new config!)                                                                                            |                 |
| r ip mode!                    | Get network ip mode                                                   | r ip mode!                  | ip mode: static                                                                                                                                                                               |                 |
| s ip addr<br>xxx.xxx.xxx.xxx! | Set network ip address                                                | s ip addr<br>192.168.0.100! | set ip address:<br>192.168.0.100<br>(please use "s net reboot!" command or repower device to apply new config!)<br>dhcp on, device can't config static address, set dhcp off first.           |                 |
| r ip addr!                    | Get network ip address                                                | r ip addr!                  | ip address:<br>192.168.0.100                                                                                                                                                                  |                 |
| s subnet<br>xxx.xxx.xxx.xxx!  | Set network subnet mask                                               | s subnet<br>255.255.255.0!  | set subnet mask:<br>255.255.255.0<br>(please use "s net reboot!" command or repower device to apply new config!)<br>dhcp on, device can't config subnet mask, set dhcp off first.             |                 |
| r subnet!                     | Get network subnet mask                                               | r subnet!                   | subnet mask:<br>255.255.255.0                                                                                                                                                                 |                 |
| s gateway<br>xxx.xxx.xxx.xxx! | Set network gateway                                                   | s gateway<br>192.168.0.1!   | set gateway:<br>192.168.0.1<br>(please use "s net reboot!" command or repower device to apply new config!)<br>dhcp on, device can't config gateway, set dhcp off first.                       |                 |
| r gateway!                    | Get network gateway                                                   | r gateway!                  | gateway:192.168.0.1                                                                                                                                                                           |                 |
| s tcp/ip port x!              | Set network tcp/ip port (x=1~65535)                                   | s tcp/ip port 8000!         | set tcp/ip port:8000                                                                                                                                                                          |                 |
| r tcp/ip port!                | Get network tcp/ip port                                               | r tcp/ip port!              | tcp/ip port:8000                                                                                                                                                                              |                 |
| s telnet port x!              | Set network telnet port(x=1~65535)                                    | s telnet port 23!           | set telnet port:23                                                                                                                                                                            |                 |
| r telnet port!                | Get network telnet port                                               | r telnet port!              | telnet port:23                                                                                                                                                                                |                 |
| s net reboot!                 | Reboot network modules                                                | s net reboot!               | network reboot...<br>ip mode: static<br>ip: 192.168.0.100<br>subnet mask:<br>255.255.255.0<br>gateway: 192.168.0.1<br>tcp/ip port=8000<br>telnet port=10<br>mac address:<br>00:1c:91:03:80:01 |                 |

# 12. Application Example



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## 13. Warranty Information

Should you feel that this product does not function adequately due to defects in materials or workmanship, we (referred to as "the warrantor") will, for the length of the period indicated below (starting from the original date of the purchase) either a) repair the product with new or refurbished parts. Or b) Replace the product with new or refurbished product. All Simplified MFG products are covered by a 3-year warranty. During this period there will be no charge for unit repair, replacement of unit components or replacement of the product if deemed necessary. The decision to repair or replace is made by the warrantor. The purchaser must mail in the product during the warranty period. This limited warranty only covers the product purchased as new and is extended to the original purchaser only. It is non-transferrable to subsequent owners, even during the warranty period. A purchase receipt or other proof of purchase date is required for the limited warranty service.

## 14. Contact Information

Sales and Tech Support

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