SIIG®

4x4 HDMI 4K60Hz Matrix
with Quad-Viewer & Video Wall

P/N: CE-H27Q11-S1
User's Manual
Ver. 04-1415B

THREE YEAR
Manufacturer Warranty

⚠ **Safety and Notice**

The device has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the device should be used with care. Please read and follow the safety instructions to protect yourself from possible injury and to minimize the risk of damage to the unit.

- Follow all instructions and warnings marked on this unit.

- Do not attempt to service this unit yourself, except where explained in this manual.

- Provide proper ventilation and air circulation and do not use near water.

- Keep objects that might damage the device and assure that the placement of this unit is on a stable surface.

- Use only the power adapter and power cords and connection cables designed for this unit.

- Do not use liquid or aerosol cleaners to clean this unit.

- Always unplug the power to the device before cleaning.

ESD CAUTION

Table of Contents

1. Introduction

1.1. Features

- Support Matrix, Multiview, and Video Wall mode, three kinds of function for one unit.
  - Matrix mode can be used as a conventional matrix switch, routing up to 4 different UHD HDMI video sources to any display independently.
  - Multiview mode can route ultra-high definition video source from any of the four UHD HDMI sources to the display at the same time.
  - Video Wall mode can split a chosen image to 4 displays.
- Supports HDMI resolution up to 4K@60Hz 4:4:4 8-bit, 4K@60Hz 4:2:0 10-bit, and HDCP 2.2/1.4
- Supports limited seamless switching for progressive video.
- Supports default HDMI EDID, learns the EDID of displays and user defined EDID.
- Supports uncompressed 7.1ch & digital 7.1ch audio.
- Matrix supports switching every output channels to any HDMI input by push-in button, IR remote control, and software control.
- Multiview supports PIP & quad-view display.
- Video Wall supports adjustable size & position through software control.
- Firmware upgradable through USB drive for support of new features and technology enhancements.
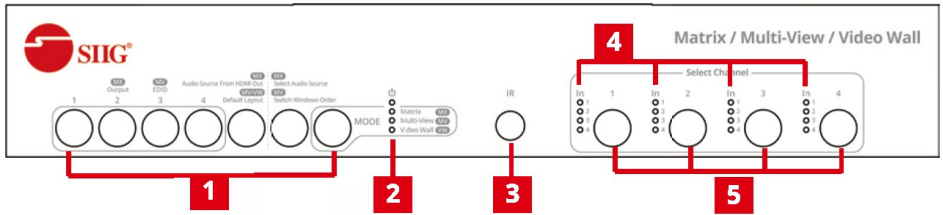
1.2. Package Contents

Check the following items in the package.

Item	Q'ty
☐ CE-H27Q11-S1	1
☐ Power Adapter DC 12V/3.33A	1
☐ Remote Control	1
☐ User Manual	1

1.3. Specifications

Bandwidth	• Single-link 600MHz [18Gbps]
Resolution	• 480p@60Hz • 576p@50Hz • 720p@60Hz • 1080p@24Hz / 50Hz / 60Hz • 3840x2160p 30Hz • 3840x2160p 60Hz 4:2:0 / 4:4:4
Video Connectors	• 4x HDMI Type A 19-pin Input • 4x HDMI Type A 19-pin Output • 1x Coaxial Audio Input • 1x 3.5mm Analog Audio Output • 1x Coaxial Audio Output • 1x 4-pin Micro USB Port • 1x 4-pin USB 2.0 Port • 1x DC Jack
ESD Protection	• Human Body Model ±15kV [air-gap discharge] & ±8kV [contact discharge]
Audio Format	• Supports Bypass / Programed up to 7.1ch
Ethernet Port (IP Control)	• 8P8C RJ45, Female
Operation Temperature	• 32°F to 104°F (0°C to 40°C)
Storage Temperature	• -4°F to 140°F (-20°C to 60°C)
Relative Humidity	• 20% ~ 90% [no condensation]
External Power Supply	• 100V ~ 240V AC, 50/60Hz, 12V/3A
Dimension (W*H*D)	• 11.1″ x 2.9″ x 1.7″ (282 mm x 44 mm x 147 mm)
Net Weight	• 2.40 lbs (1.09 kg)
Power Consumption	• 30W (Max.)

1.4. Front Panel

| #	Control	Function
1	**Push Button A ~ G**	(Refer to "Front Panel Push Button Control" section.)
2	**Mode LED**	Power & mode LED indicator.
3	**IR SENSOR**	IR sensor for receiving the IR commands from IR remote.
4	**LED**	(Refer to "Front Panel Push Button Control" section.)
5	**Push Button H ~ K**	(Refer to "Front Panel Push Button Control" section.)

1.5. Rear Panel
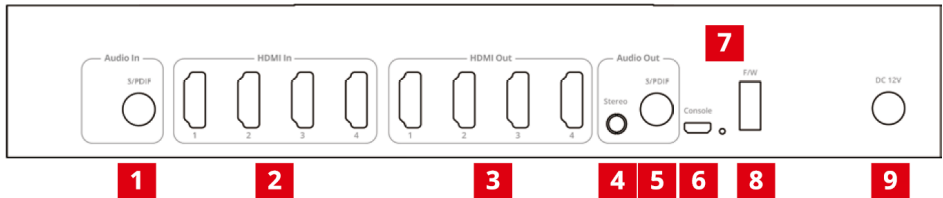
#	Control	Function
1	**S/PDIF Audio In**	(Audio Embedded) Connect to coaxial digital audio source.
2	**HDMI In**	Connect to HDMI video source.
3	**HDMI Out**	Connect to HDMI display.
4	**Stereo Audio Out**	(Audio Extract) Connect to 3.5mm audio output device.
5	**S/PDIF Audio Out**	(Audio Extract) Connect to coaxial digital audio output device.
6	**Console Port**	Connect to PC with USB-A to Micro USB cable for software control.
7	**F/W Update Indicator LED**	Light-up in firmware update process.
8	**F/W USB Port**	For firmware update use.
9	**Power Jack**	Connect to DC 12V/3.33A power supply.

2. Control

2.1. Front Panel Push Button Control
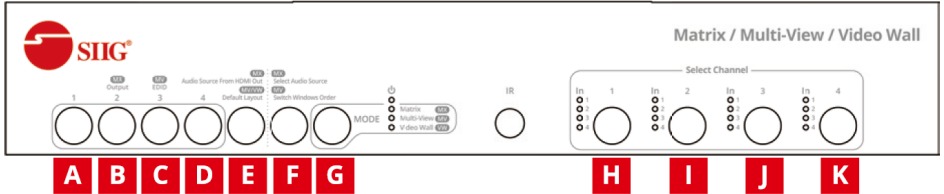
Each button represents a different function in different modules. Please refer to the following detailed instruction.

2.1.1. Matrix Mode

Button	Function
A ~ D	(Reserved)
E	Select audio extract (Stereo & S/PDIF output) source from HDMI output 1~4 (Switch time around 10s).

Audio Source From	Output 1	Output 2	Output 3	Output 4	Reserved
LED Status	●●●● ○○○○ ○○○○ ○○○○	○○○○ ●●●● ○○○○ ○○○○	○○○○ ○○○○ ●●●● ○○○○	○○○○ ○○○○ ○○○○ ●●●●	○○○○ ○○○○ ○○○○ ○○○○

Button	Function
F	Select audio embedded source to HDMI output 1~4. Step 1: Push "Button F" to enter audio routing mode. Step 2: Push "Button H~K" to select audio source to HDMI output 1~4.

Audio Source From	HDMI Input 1	HDMI Input 2	HDMI Input 3	HDMI Input 4	S/PDIF In	No Audio Routing
LED Status	● ○ ○ ○	○ ● ○ ○	○ ○ ● ○	○ ○ ○ ●	○ ○ ● ●	● ● ● ●

* Limitation: When switching the audio source to S/PDIF, stereo 3.5mm will stop output.

Button	Function
G	Select Mode (Matrix/Multiview/Video Wall).
H	Select HDMI output 1~4 channel source.

2.1.2. Multiview Mode

Button	Function
A ~ D	(Reserved)
E	Select default layout.
F	Switch windows location.
G	Select Mode (Matrix/Multiview/Video Wall).
H	Select HDMI output 1~4 channel source.

2.1.3. Video Wall Mode

Button	Function
A ~ D	(Reserved)
E	Select default layout.
F	(Reserved)
G	Select Mode (Matrix/Multiview/Video Wall).
H	Select HDMI input 1.
I	Select HDMI input 2.
J	Select HDMI input 3.
K	Select HDMI input 4.

2.2. IR Remote Control
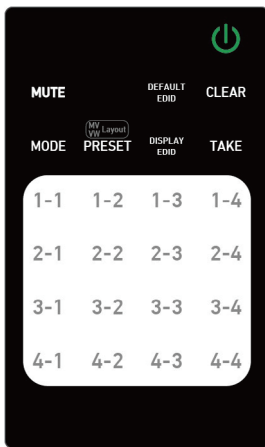
Button	Function
POWER	Power ON/OFF.
MUTE	Turn ON/OFF output's or windows' video & audio.
DEFAULT EDID	Begin DEFAULT EDID selection.
CLEAR	Clear the previous IR operation procedure.
MODE	Select Mode (Matrix/Multiview/Video Wall).
PRESET	Select the layout of Multiview or Video Wall mode.
DISPLAY EDID	Begin EDID learning from one output.
TAKE	Trigger the setting of MUTE, DEFAULT EDID, and DISPLAY EDID.

2.2.1. Mode IN/OUT Switch
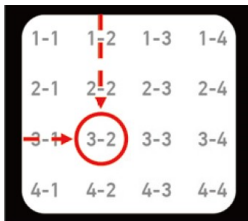
Matrix Mode IN/OUT Switch

Push the button on the checkerboard to select input & output port.

Example: Input 2 To Output 3

Push the (red circle) button to select input 2 to output 3.

Multiview Mode IN/OUT Switch

Push the button on the checkerboard to select input & window.

Example: Input 2 To Window C

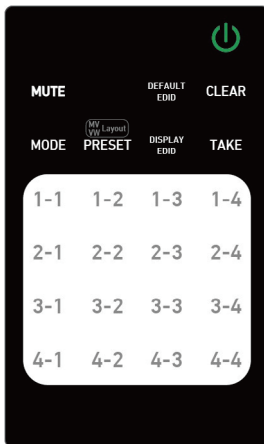Push the (red circle) button to select input 2 to window C.

Video Wall Mode IN/OUT Switch

Push the button on the checkerboard to select input.

Example: Input 2

Push the (red circle) button to select input 2.

2.2.2. Example of Function Key

	Mute Output/Windows Mute ➜ 1-1 ~ 1-4 (Output 1~4 on Matrix/Video Wall mode or windows 1~4 on Multiview mode) ➜ TAKE. **Example: Mute Output 3** 1. Press **MUTE** button. 2. Press number key **1-3** to select Output 3. 3. Press **TAKE** button.

Preset Multiview/Video Wall Layout

Preset ➜ 1-1 ~ 2-2 (6 layouts on Multiview mode) or 1-1 ~ 2-3 (7 layouts on Video Wall mode).

Example: Preset 2nd layout on Multiview mode

1. Press **PRESET** button.
2. Press number key **1-2** to select the 2nd layout.

Select Default EDID

DEFAULT EDID ➜ 1-1 ~ 1-4 (input 1~4) ➜ 2-1 ~ 2-4 (1~4 default EDID) ➜ TAKE.

Example: Default EDID 2 Input 3

1. Press **DEFAULT EDID** button.
2. Press number key **1-3** to select Input 3.
3. Press number key **2-2** to select default EDID 2.
4. Press **TAKE** button.

Learn Display EDID

DISPLAY EDID ➜ 1-1 ~ 1-4 (input 1~4) ➜ 2-1 ~ 2-4 (output 1~4) ➜ TAKE.

Example: Learn Output 4 Input 3

1. Press **DISPLAY EDID** button.
2. Press number key **1-3** to select Input 3.
3. Press number key **2-4** to select Output 4.
4. Press **TAKE** button.

*Default EDID

1. 4k@60 2ch (Device default EDID)

2. 4k@30 7.1ch

3. 1080p60 2ch

4. 1080p60 7.1ch

2.3. Software Control

2.3.1. Software Download

Please go to www.siig.com and search **CE-H27Q11-S1** to find the product page, and then click **Downloads** page, then you can see the control software.
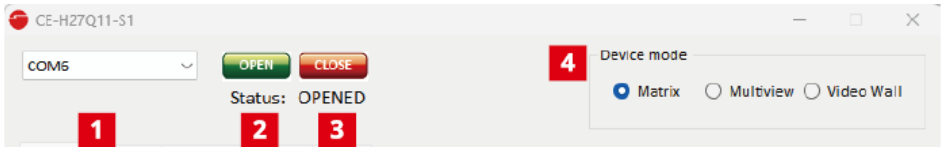
2.3.2. System Requirement

OS Information: MS Win 7/8.1/10/11

Baud Rates: 115200

Software Size: 1 MB

Minimum RAM Requirement: 256 MB

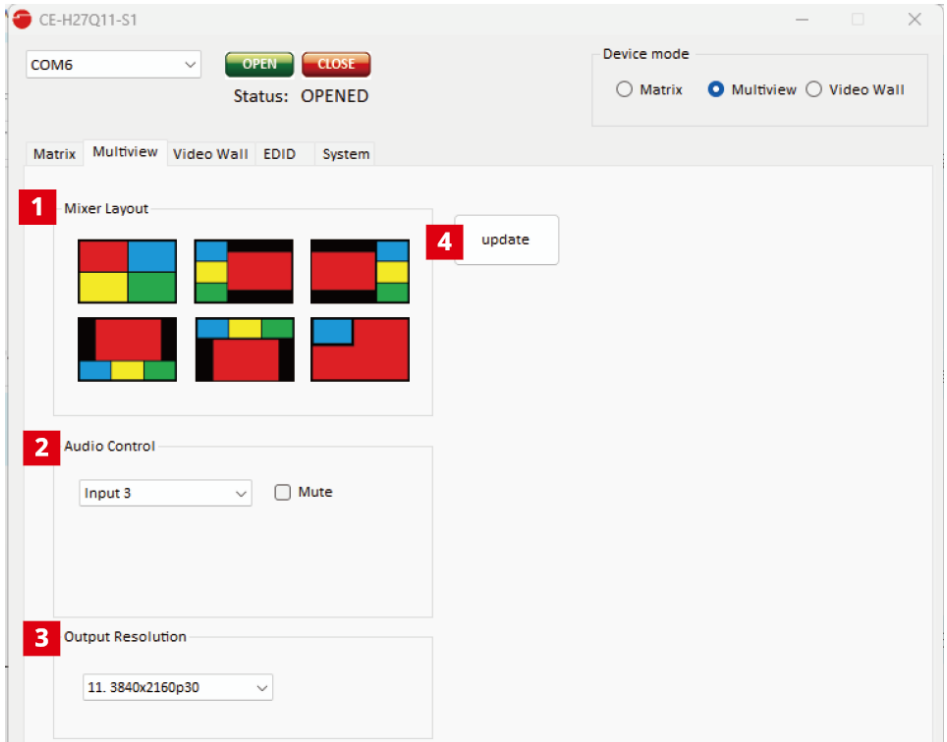Use USB-A to Micro USB cable to connect to PC.

#	Control	Function
1	**COM Port**	COM Port Selection
2	**OPEN**	Connect to Device
3	**CLOSE**	Disconnect to Device
4	**Device Mode**	Select Mode

2.3.3. Matrix Mode
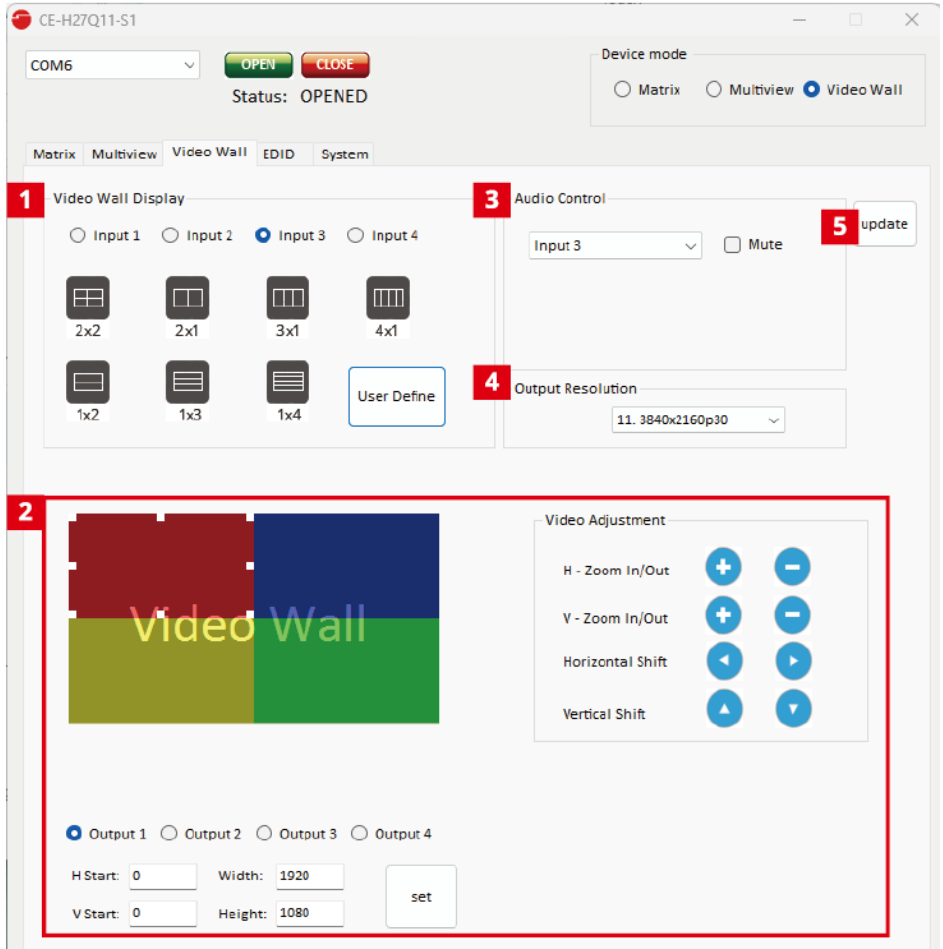
#	Control	Function
1	**I/O Port**	• Switch the input for each output. • Click **Mute** to turn on or off the output 1~4 video.
2	**Audio Control**	• Select audio source by using drop-down list and then click **Fixed** to fix the selected audio source on HDMI output 1~4. • Click **Mute** to turn on or off the output 1~4 audio. ***** Limitation: When switching the audio source to S/PDIF, stereo 3.5mm will stop output.
3	**Output Resolution**	Select output 1~4 resolution by using drop-down list.
4	**Update**	Refresh device status.

2.3.4. Multiview Mode

#	Control	Function
1	**Mixer Layout**	• Select different layout.
2	**Audio Control**	• Select audio source by using drop-down list and then click **Mute** to turn on or off the audio. ***** Limitation: When switching the audio source to S/PDIF, stereo 3.5mm will stop output.
3	**Output Resolution**	Select all outputs resolution by using drop-down list.
4	**Update**	Refresh device status.

2.3.5. Video Wall Mode

#	Control	Function
1	**Video Wall Display**	Select input and layout.
2	**User Define** **(Only support 2x2 layout)**	User can click **Output 1~4** to choose which output window to adjust. Then user can view the screen status and control the position of TV output through the windows. User also can adjust the output position by setting coordinate. Different colors of window representing different output TVs. Besides, user can click the **set** button to save the configuration to user define layout for future usage.
3	**Audio Control**	Select audio source by using drop-down list and then click **Mute** to turn on or off the audio. ***** Limitation: When switching the audio source to S/PDIF, stereo 3.5mm will stop output.
4	**Output Resolution**	Select all outputs resolution by using drop-down list.
5	**Update**	Refresh device status.

2.3.6. EDID
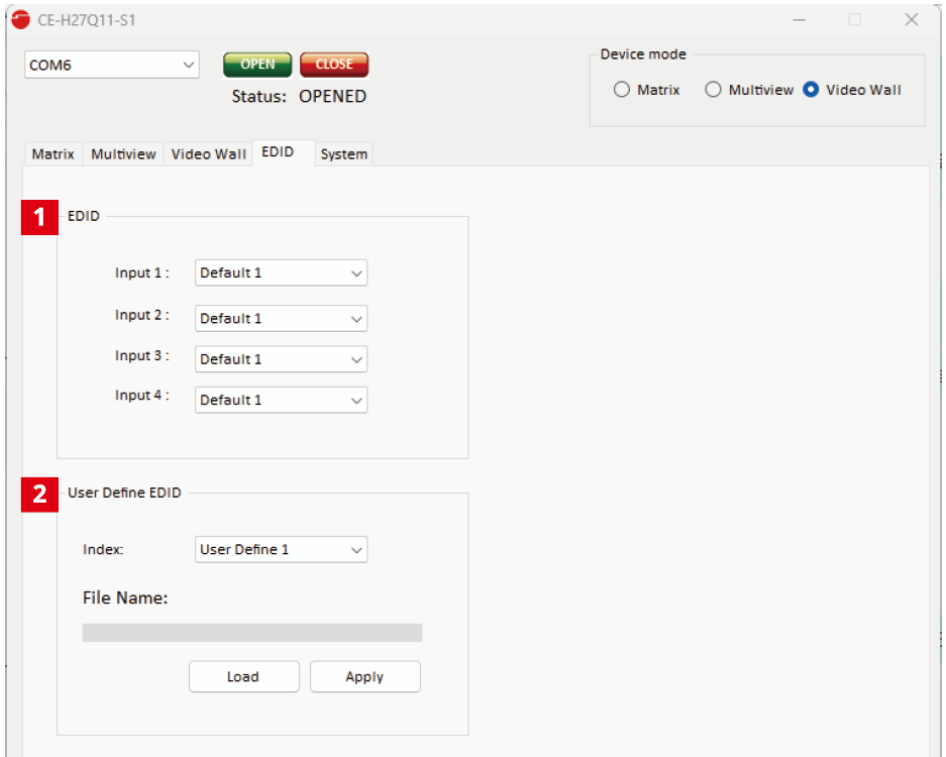
#	Control	Function
1	**EDID**	Select EDID by using drop-down list to HDMI input 1~4.
2	**User Define EDID**	Use drop-down list to select User Define 1~4. • **Load**: Select the EDID file from computer. • **Apply**: Load EDID File to selected User Define 1~4.

2.3.7. System
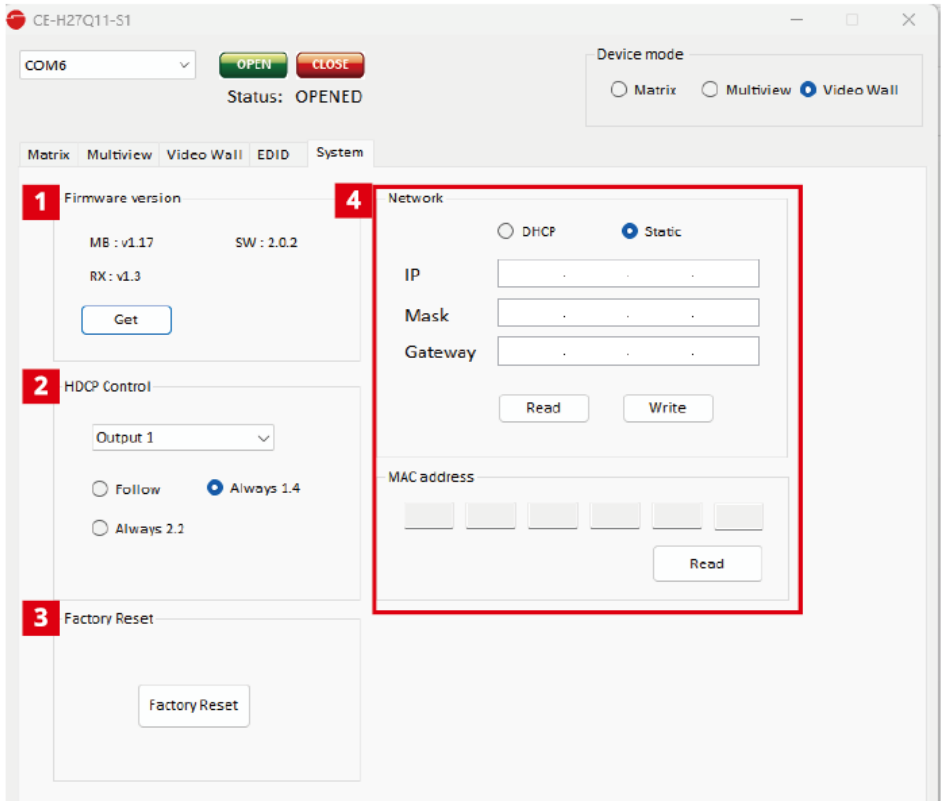
#	Control	Function
1	**Firmware Version**	Get FW & SW version.
2	**HDCP Control**	Select output 1~4 HDCP setting. • **Follow**: HDCP follow the source. • **Always 1.4**: HDCP is always 1.4 • **Always 2.2**: HDCP is always 2.0
3	**Factory Reset**	To do factory default reset.
4	**Network**	(Reserved)

3. EDID Learning

The EDID learning function is only necessary whenever you encounter any display on the HDMI output port that cannot play audio and video properly.

Because the HDMI source devices and displays may have various level of capability in playing audio and video, the general principle is that the source device will output the lowest standards in audio format and video resolutions to be commonly acceptable among all HDMI displays. In this case, a 720p stereo HDMI signal output would be probably the safest choice. Nevertheless, the user can force the matrix to learn the EDID of the lowest capable HDMI display among others to make sure all displays are capable to play the HDMI signals normally.

There are four embedded default EDID:

1. 4k@60 2ch (Device default EDID)

2. 4k@30 7.1ch

3. 1080p60 2ch

4. 1080p60 7.1ch

4. Q & A

Q 1. *When I play the same content upon multi-displays, why only the TV equipped with amplifier can have digital audio, and the others don't have digital audio, even no stereo?*

- Due to the limitation of HDMI, the source only can choose one video and one audio format to play, which can be either 1080p and digital audio or 1080p and stereo audio. It means when the user sets the matrix at 1080p and digital audio, the source will only play the content under this format. Therefore, if the display cannot decode digital audio, there is definitely no audio.

3 Year Warranty

SIIG, Inc. offers a 3-year manufacturer warranty with this product. This warranty covers the original purchaser and guarantees the product to be free of any defects in materials or workmanship for three (3) years from the date of purchase of the product.

SIIG, Inc. will, at our discretion, repair or replace (with an identical product or product having similar features and functionality) the product if defective in materials or workmanship.

You do not have to complete any registration with SIIG, Inc. to obtain warranty service. However, you must provide SIIG, Inc. proof of purchase as the original purchaser in order to be eligible for this warranty.

The customer is responsible for the shipping cost to SIIG, Inc., but SIIG Inc. will pay the return postage.

SIIG, Inc. shall not be liable for any incidental or consequential damages caused by the breach of any express, implied or statutory warranty or condition.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. The above limitations may be inapplicable if in conflict with the laws of a particular jurisdiction.

About SIIG

Since 1985, SIIG Inc. has led the way in creating IT and AV connectivity solutions you can trust. Built on core values of professional integrity with customer satisfaction as the focus point, our company is committed to providing top-notch service, support, and product solutions that elevate your AV and IT user experience. As our 30+ year legacy continues, our team will diligently contribute insights and add unique value to various industry markets on how people can better connect with technology.

To send us a message, go to https://www.siig.com/contact-us

For Technical Support and RMA, go to https://www.siig.com/support to submit your request.

Headquarters

SIIG, Inc.
31038 Huntwood Ave, Hayward, CA 94544, USA
Phone: (510) 657-8688
Business Hours: M-F 8:00AM-5:00PM PT

Sales Support

Tel: (510) 657-8688 & press 1
Email: sales@siig.com

SIIG Support

Tel: (510) 657-8688 & press 3
Email: support@siig.com
Our LIVE phone support hours are listed below in PST Monday-Friday:
- 10am - 12noon
- 2pm - 4pm

RMA Support

Tel: (510) 657-8688 & press 2
Email: rma@siig.com