



4x1 HDMI Quad-View Video Processor with 4K2K



P/N: AV-GM08X3-S1



Safety and Notice

The **AV-GM08X3-S1 4x1 HDMI Quad-View Video Processor with 4K2K** has been tested for conformance to safety regulations and requirements, and has been certified for international use. However, like all electronic equipment, the **AV-GM08X3-S1** 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.



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INTRODUCTION

The **AV-GM08X3-S1 4x1 HDMI Quad-View Video Processor with 4K2K** provides the most flexible and cost effective solution in the market to route high definition video source from any of the four HDMI sources to the remote display at the same time. This solution is well suited for use in digital signage, conference room presentation systems or other similar settings or applications.

With up to 4K output resolution, users can display the resulted mixed video with improved presentation quality. In the meantime, the unit can be controlled thru the popular serial port, Ethernet port or front panel control to provide the most flexible control way to fit into any applications.

FEATURES

- 4 x HDMI inputs and 1 x HDMI outputs
- Input resolutions support from 640x480 to 1920x1200, interlaced or progressive
- Output resolution supports up to 4K2K/30
- Adjustable size & position through software
- Supports HDCP 1.4
- Firmware upgradable for support of new features and technology enhancements.
- Titles, borders and colored backgrounds
- Resize, position, zoom& pan and blend output video
- Perfect as a video screen splitter, a video converter and a video switcher
- Software control through RS-232 and Ethernet
- Supports IR remote control
- Supports one input rotation

PACKAGE CONTENTS

- 1x AV-GM08X3-S1
- 1x DC 12V 5A

- 1x Installation software CD
- 1x User Manual
- 1x IR Remote control (28 keys)

SPECIFICATIONS

Model Name	AV-GM08X3-S1	
Technical		
Role of usage	Multiplexer / video processor	
Background picture update	Yes	
HDCP compliance	HDCP 1.4	
Video bandwidth	Input: DVI [Single-link 4.95Gbps] HDMI [6.75Gbps] Output: HDMI [10.2Gbps]	
Output Video Support	Up to 1920x1200@60 / 4K2K@30	
Input Video Support	Up to 1920x1200@60	
Video Format Support	DVI/HDMI	
Audio support	Bypass	
Control	RS-232/ IP Control	
Embedded video mixer	Yes	
Input TMDS signal	1.2 Volts [peak to peak]	
ESD protection	Human body model — ±15kV [air-gap discharge] & ±8kV [contact discharge]	
Input	4x DVI/HDMI + 1xRS-232 + 1x RJ-45(Ethernet)	
Output	1x HDMI	
HDMI connector	Type A [19-pin female]	
RS-232 connector	DE-9 [9-pin D-sub female]	
RJ-45 connector	WE/SS 8P8C	
Mechanical		
Housing	Metal enclosure	
Dimensions (L x W x H)	Model	318 x 173 x 42mm [12.5" x 6.8" x 1.7"]
	Package	494 x 225 x 70mm [1'6" x 8.9" x 2.8"]
	Carton	510 x 380 x 252mm [1'7" x 1'2" x 10"]
Weight	Model	1.3 kg [44.7 oz]
	Package	2.2 kg [4.9 lbs]
Power supply	12V 5A DC	
Power Consumption	8.9 Watts [max]	

Operation temperature	0~40°C [32~104°F]
Storage temperature	-20~60°C [-4~140°F]
Relative humidity	20~90% RH [no condensation]

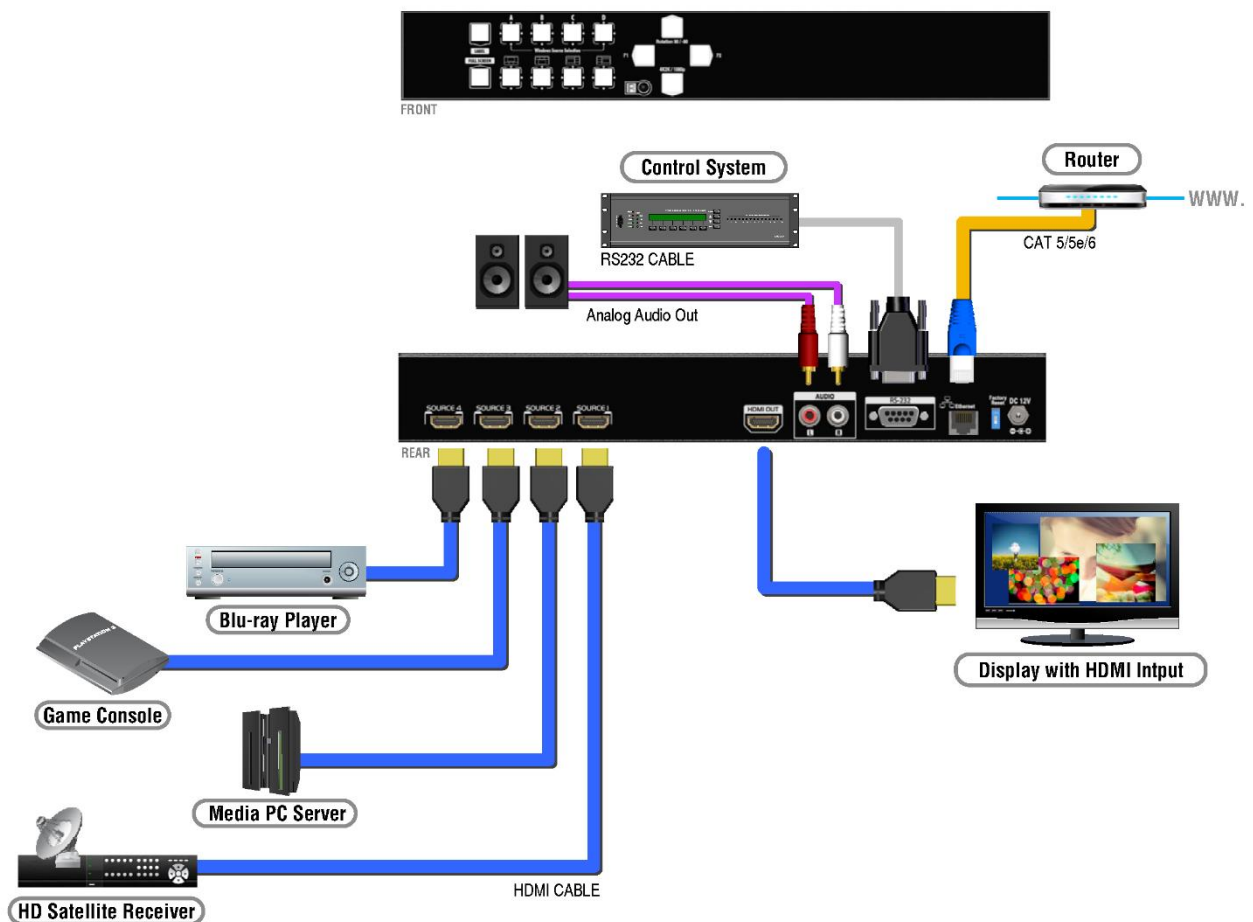
HARDWARE INSTALLATION

AV-GM08X3-S1 as master

1. Connect all sources to DVI/HDMI Inputs on the AV-GM08X3-S1.
2. Connect all display to DVI/HDMI Outputs on the AV-GM08X3-S1.
3. Connect the +12V 5A DC power supply to the AV-GM08X3-S1.

CONNECTION DIAGRAM

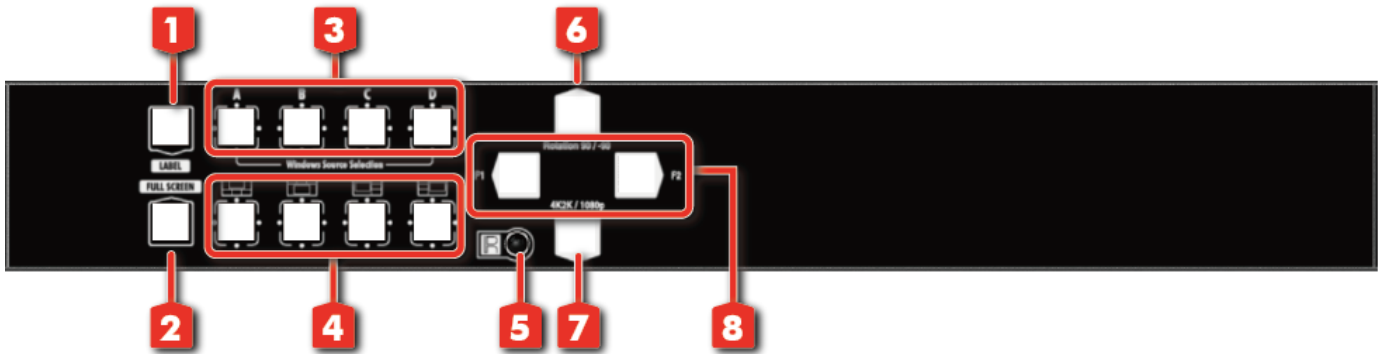
→ CAT5/5e/6
 → HDMI
 → RS-232
 → AUDIO



PANEL DESCRIPTIONS

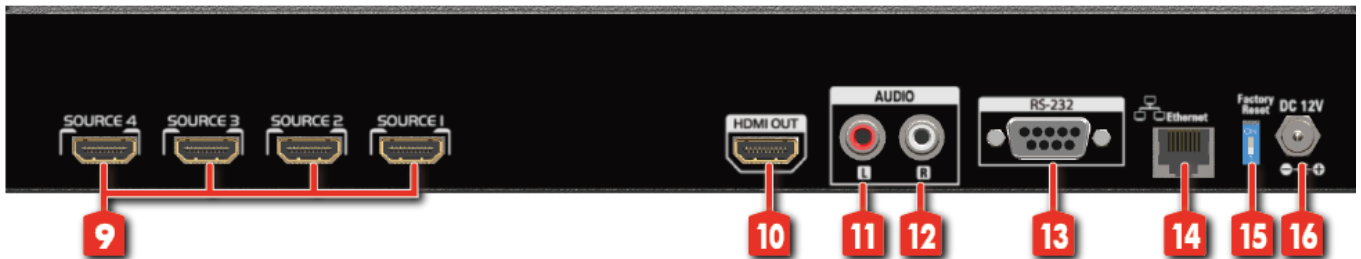
AV-GM08X3-S1

Front Panel



1. **LABEL:** All Windows label on/off
2. **FULL SCREEN:** Switch Window in full screen mode
3. **Windows Source Selection A-D:** Window A-D source selection
4. **Default Layout PAP:** Four different default layout PAP mode
5. **IR SENSOR:** IR sensor for receiving the IR commands from IR remote
6. **Rotation:** Window A rotate 90° or -90°
7. **4K2K / 1080p:** Switch output resolution in 4K2K@30 / 1080p
8. **F1 & F2:** Reserved

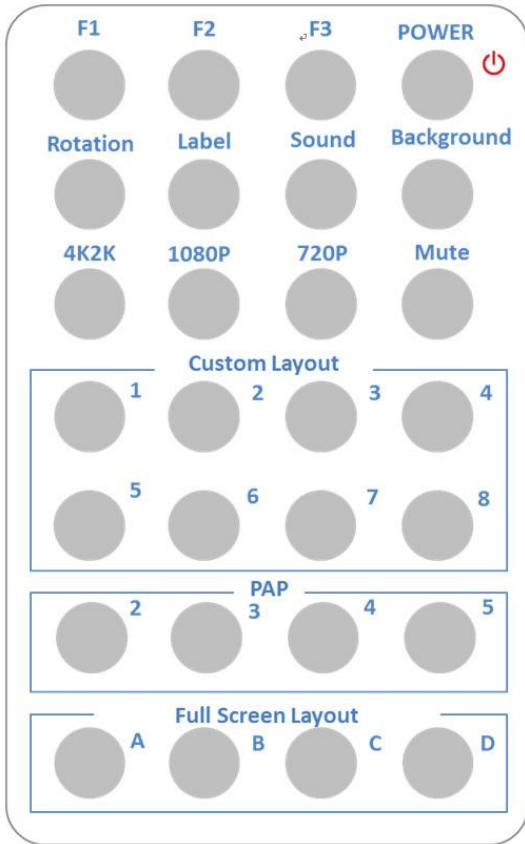
Rear Panel








9. **SOURCE 1-4:** DVI/HDMI inputs
10. **HDMI OUT:** DVI/HDMI output
11. **Stereo audio output - L**
12. **Stereo audio output - R**
13. **RS-232:** RS-232 control port
14. **Ethernet:** Ethernet control port
15. **Factory Reset:** Switch the pin to do factory default reset
16. **+12V DC:** 12V DC power jack

OPERATION APPROACH

Method A: IR Remote Control



Button	Function
F1	HDMI/DVI mode switch
F2	Reserved
F3	Reserved
	Power on/off the device
Rotation	Window A rotate 90° or -90°
Label	Window label on/off
Sound	Fast Switch output's audio channel
Background	To set up the background picture of window
4K2K	Select 4K2K@30 output resolution
1080P	Select 1080P@60 output resolution
720P	Select 720P@60 output resolution
Mute	Mute the audio output
Custom layout 1	Custom layout 1
Custom layout 2	Custom layout 2
Custom layout 3	Custom layout 3
Custom layout 4	Custom layout 4
Custom layout 5	Custom layout 5
Custom layout 6	Custom layout 6
Custom layout 7	Custom layout 7
Custom layout 8	Custom layout 8
PAP 2	Default layout PAP 
PAP 3	Default layout PAP 
PAP 4	Default layout PAP 
PAP 5	Default layout PAP 
Full screen layout 1	Window 1 in full screen
Full screen layout 2	Window 2 in full screen
Full screen layout 3	Window 3 in full screen

Method B: Software Control through RS-232 port / Ethernet port

System Requirement and Precautions

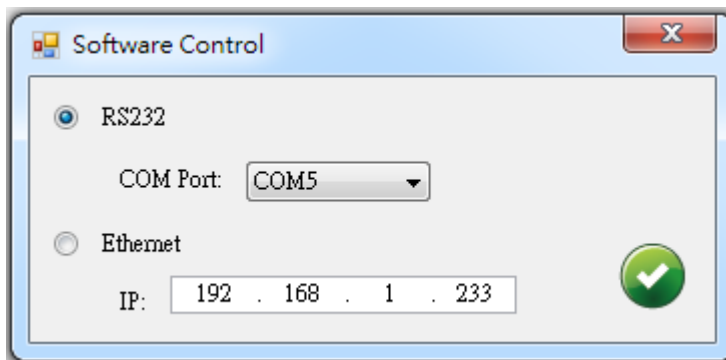
1. Whenever power off AV-GM08X3-S1, please stay unpowered at least 5 to 10 seconds to allow power capacitors to discharge.
2. The AV-GM08X3-S1 provides software control program which runs under Microsoft Windows 98, 2000, XP, 7, 8 through the interface of RS-232 serial control.
3. Before clicking on the icon of the software, make sure you have secured the connection between your computer COM port and the AV-GM08X3-S1.

Start the software control program

When clicking on the executable file, the following dialog will pop-up. There are two ways to control the AV-GM08X3-S1 device (under Microsoft Windows 7, please run as administrator).

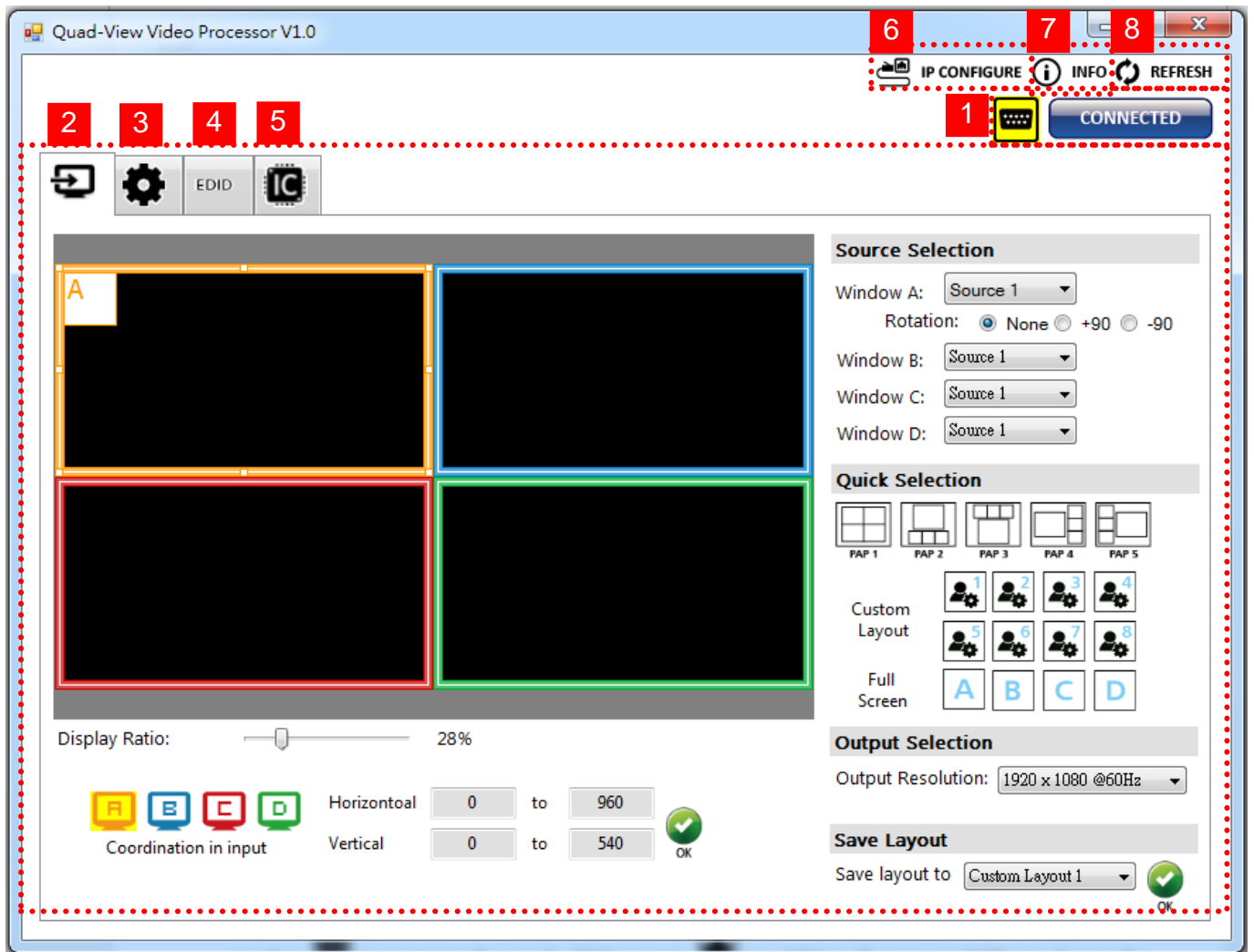
RS-232 serial Mode: Use RS-232 to connect the port on device and computer. Select correct COM port and click the OK button.

Ethernet Mode: Enter the IP address of the device and click the OK button.






After the software control setting is accomplished, it will enter directly to control interface.

Control Interface



1. Connection Status:

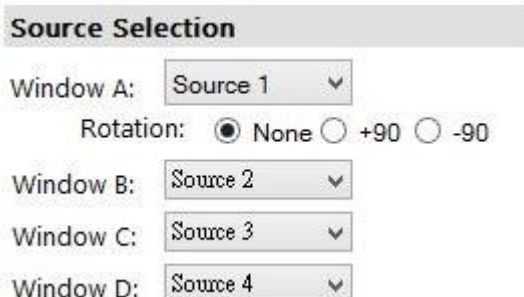
Show the connect information and status. If users use RS-232 serial Mode to connect device, the graph is . In contrast, the graph of Ethernet is . In addition, if users would like to change the control method, users can click on the  button to change the control approach.

2. Output Settings

In this section, users can set up the coordinate for inputs, the source of window A~D, output resolution, PAP layout setting and input rotation.

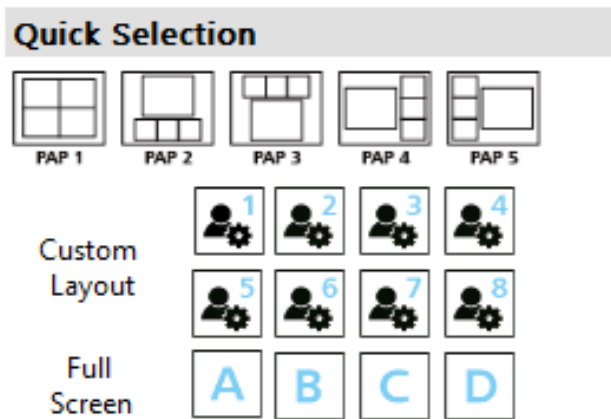
(1) Source Selection

For each display window, you can assign arbitrary video source here.



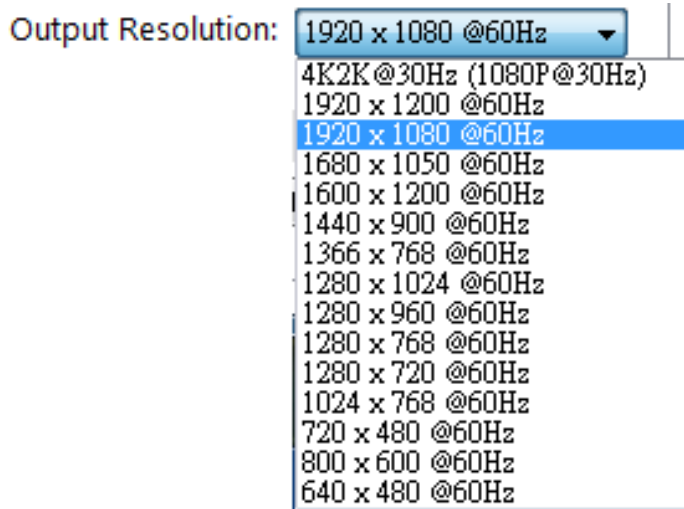
(2) Quick Selection

We provide 9 default modes and 8 custom modes for you to select.



(3) Output Resolution


Set the output resolution.



(4) Save Layout

We provide 8 custom layout space for users to save the frequently used scenarios into the flash memory.

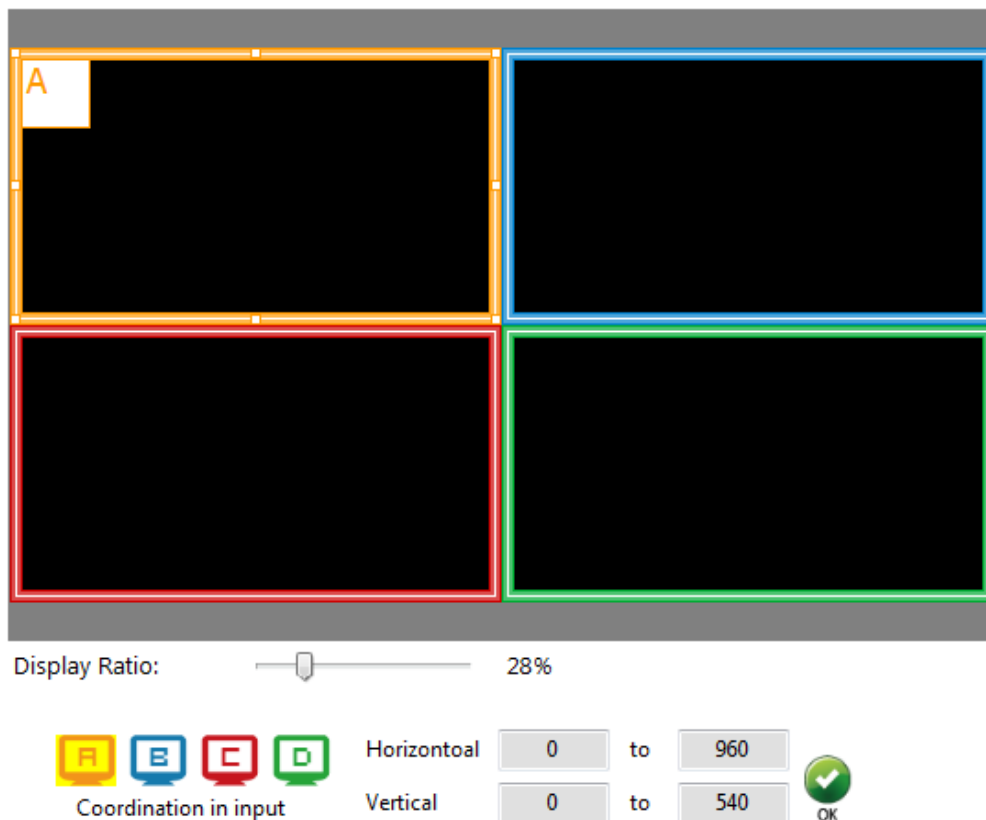
Save Layout

Save layout to 

- Custom Layout 1
- Custom Layout 2
- Custom Layout 3
- Custom Layout 4
- Custom Layout 5
- Custom Layout 6
- Custom Layout 7
- Custom Layout 8

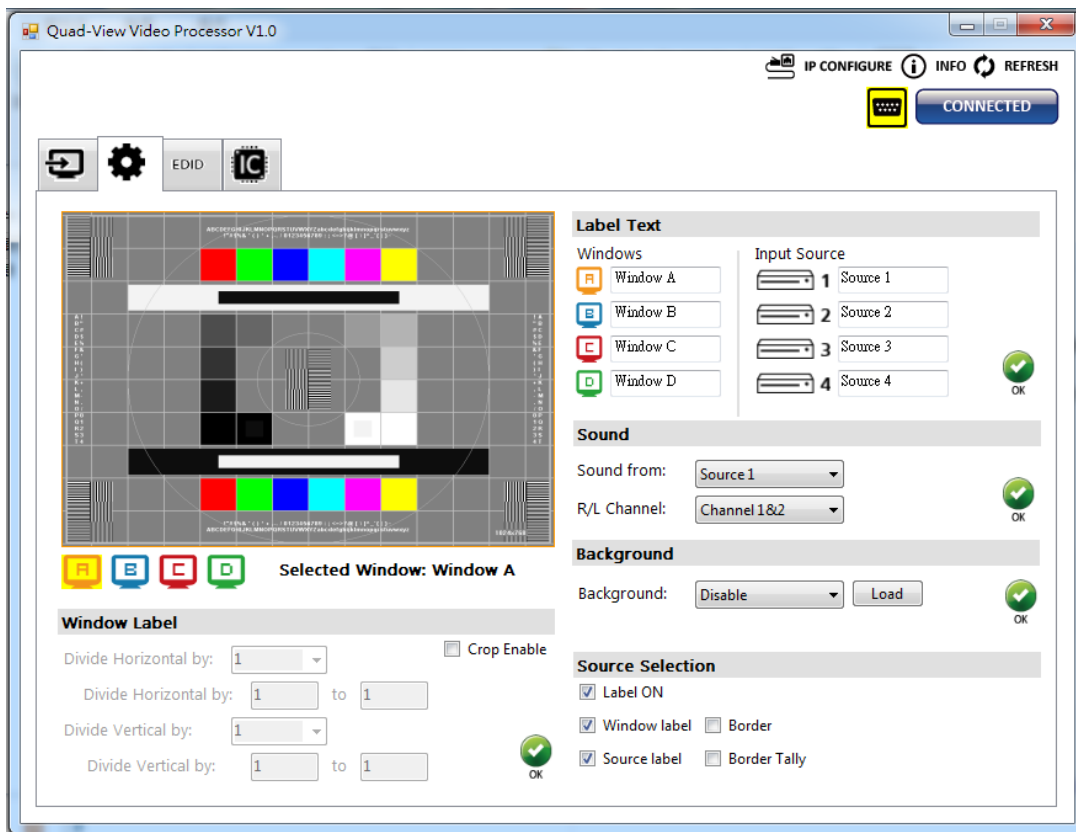
(5) Display Panel

In the left part of control interface, user can customize the display mode thru control. The different colors of frame represent the different input windows. The information of coordinate shows the position of input source screen. In addition, we provide display ratio for users to set the display panel sizes.




The screenshot shows a control interface for a display panel. It features four input windows arranged in a 2x2 grid, each with a different colored border: top-left is orange (labeled 'A'), top-right is blue, bottom-left is red, and bottom-right is green. Below the windows is a 'Display Ratio' slider set to 28%. At the bottom, there are four colored icons labeled 'A', 'B', 'C', and 'D' under the heading 'Coordination in input'. To the right of these icons are two rows of input fields: 'Horizontal' with values '0' and '960', and 'Vertical' with values '0' and '540'. An 'OK' button with a green checkmark is located to the right of the 'Vertical' input fields.

3. Advanced Setting

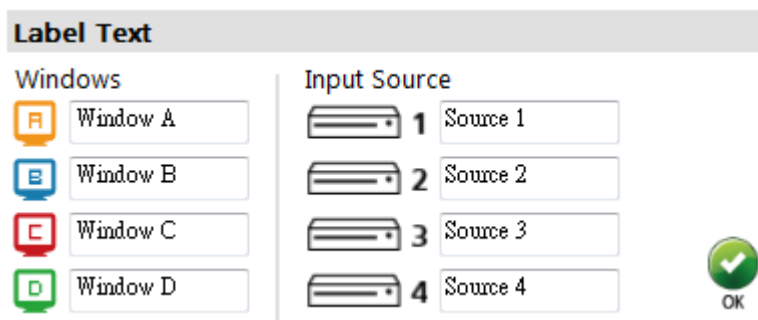


(1) Window settings

In this mode, users can adjust individual display area for selected input sources. Firstly, users have to choose the specific channel A, B, C, or D, which  as in the control panel as shown. After the specific channel is chosen, users can crop the display area of that particular channel at will and do the same to the rest of channels if necessary. The control panel of software can instantly give a quick shot on how those settings to be presented look like in the final outcome video.

(2) Label Text

In here, users can input the texts to be shown with the video.



(3) Sound

To set up the audio source of the output and R/L channels.

Sound

Sound from:

R/L Channel:




(4) Background

To set up the background of window. We provide 4 default pictures for you to select from. If you want to change default picture, and click the button to select the picture which you want to change.

Background

Background:



- Picture 1
- Picture 2
- Picture 3
- Picture 4
- Disable

(5) Window Label

In this function, users can determine if the window's label/border is turned on or off.

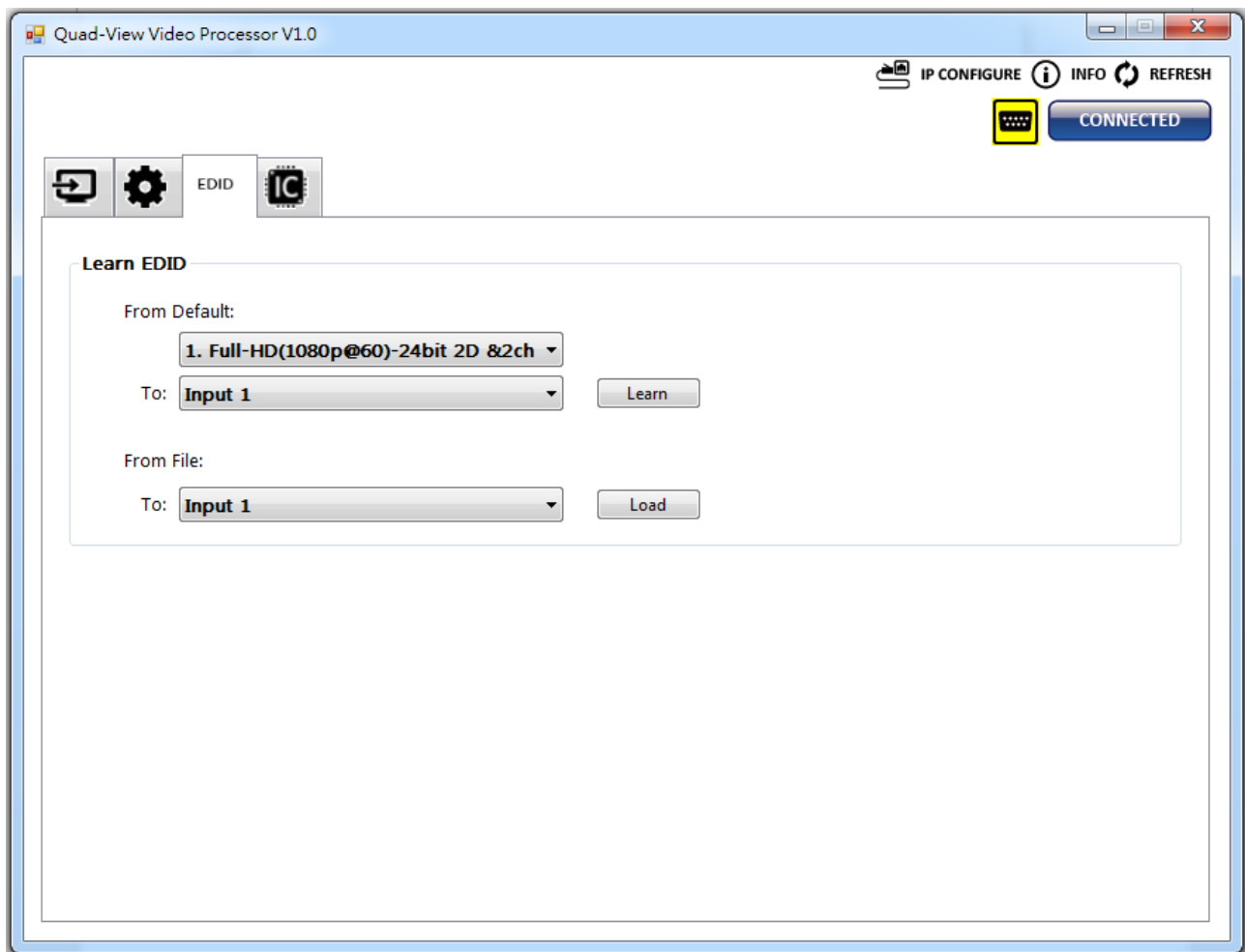
Source Selection

Label ON

Window label Border

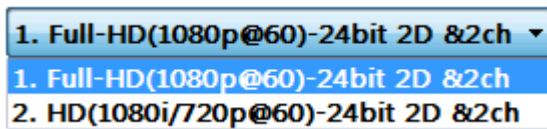
Source label Border Tally

4. EDID (Extended display identification data)

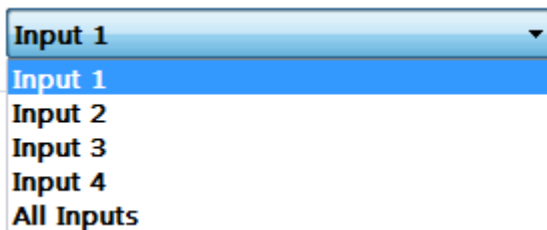


(1) Learn EDID from Default

- Select Default EDID

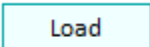


- Select Input

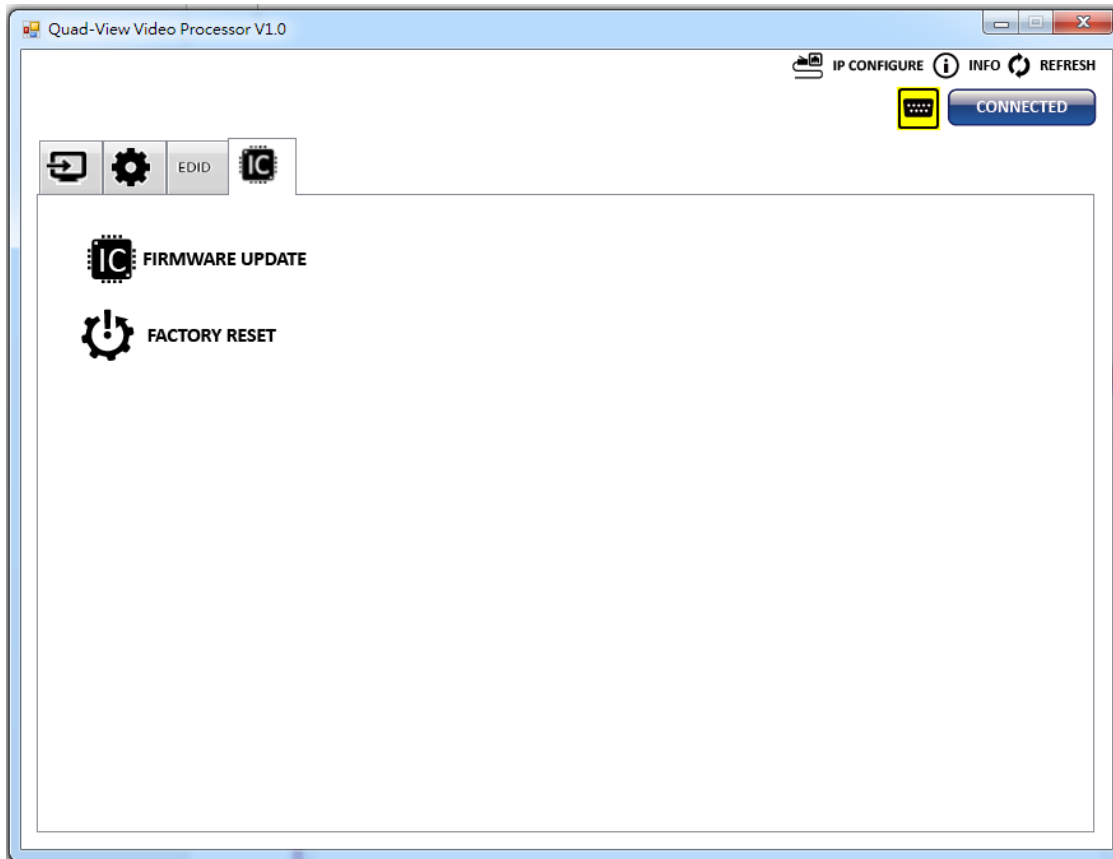


- Click  button to learn default EDID.


(2) Learn EDID from File

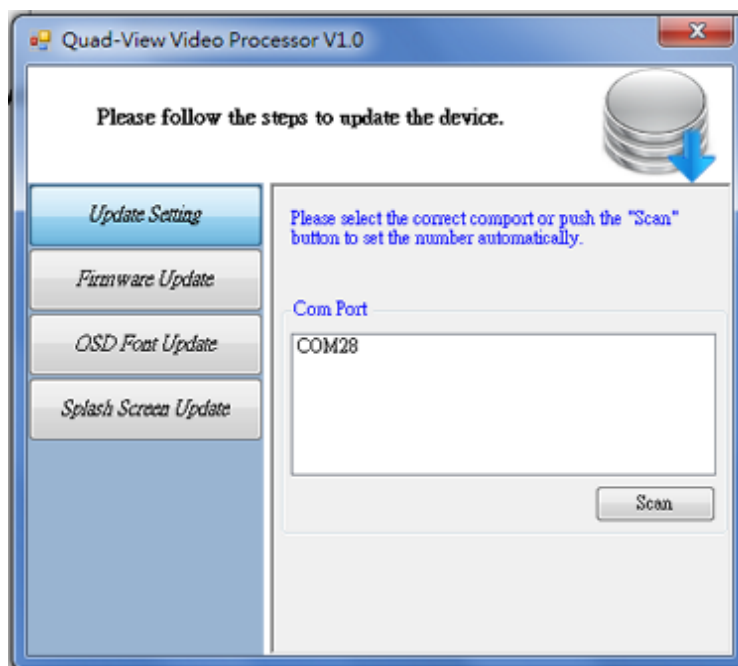
- Select input
- Click  button to select the EDID file and write it into input

5. System Setting



(5) Firmware Update

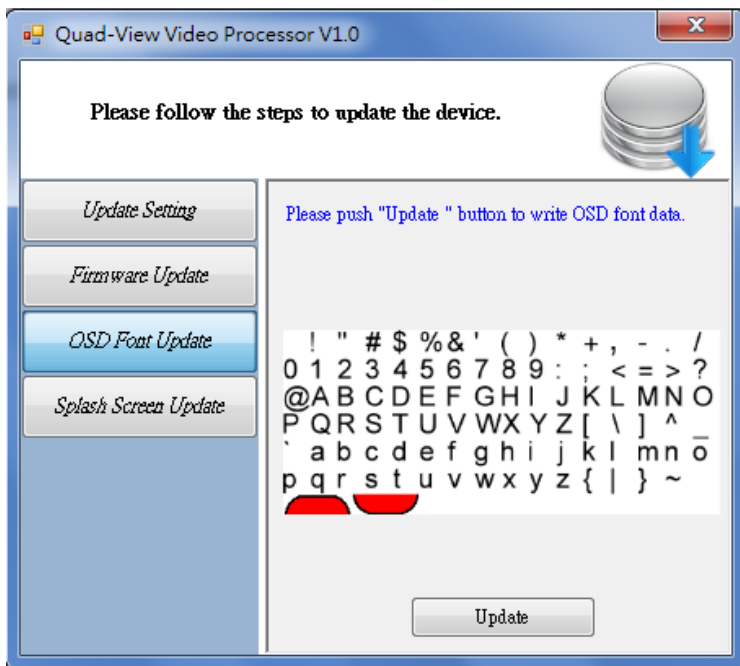
- Click  **FIRMWARE UPDATE** button to do firmware update.
- The "Firmware update" window shows up as below.




- Please select the correct COM port or click "Scan" button to connect device.
- Click "update" button to do firmware update.




- If you want to change OSD (window label) font, please click "OSD Font Update" window and click "update" to change OSD font.

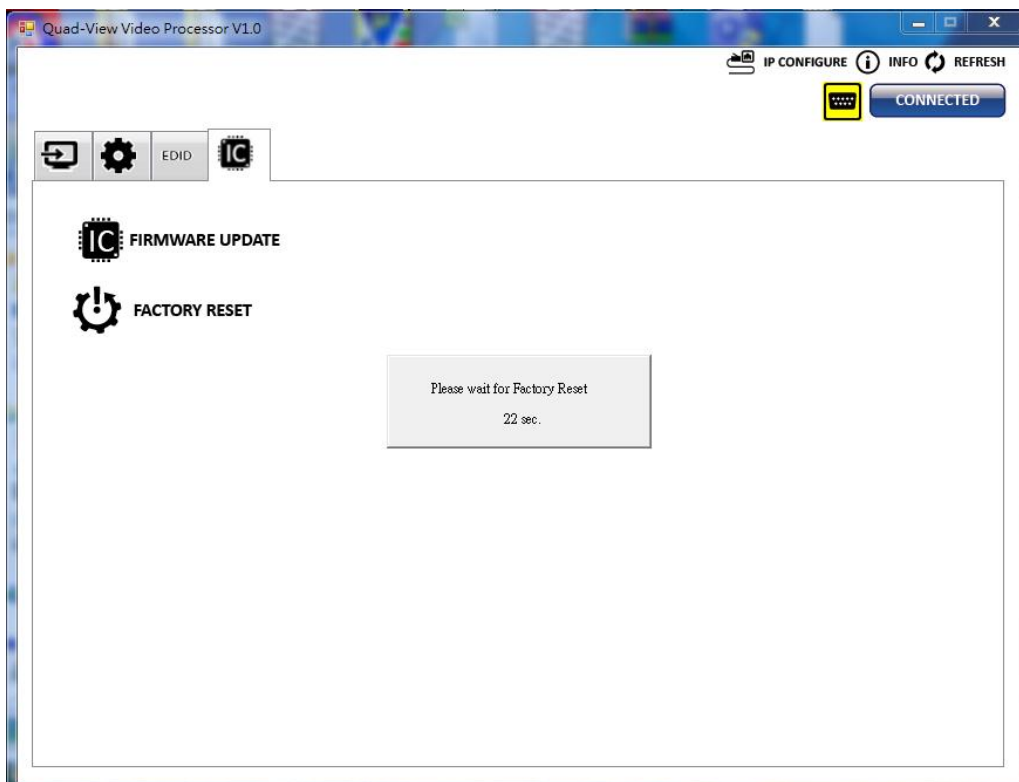


- If you want to change the boot screen, please click the “Splash Screen Update” window and click the  button to select the graph which you want to write into device.





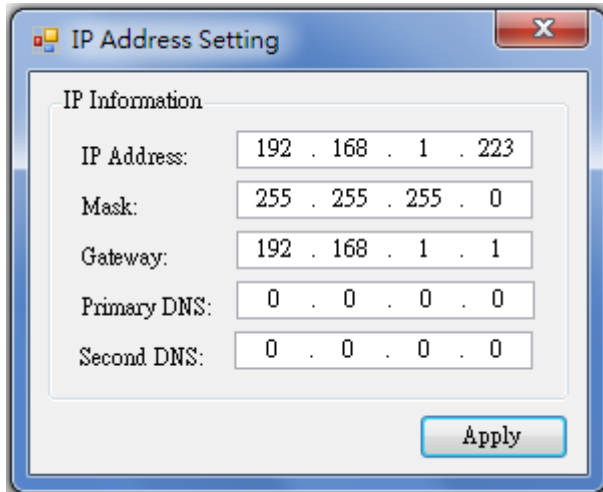
(5) Factory Reset

- Click  **FACTORY RESET** button to do factory default reset.
- The process of default reset will take about 25 seconds.



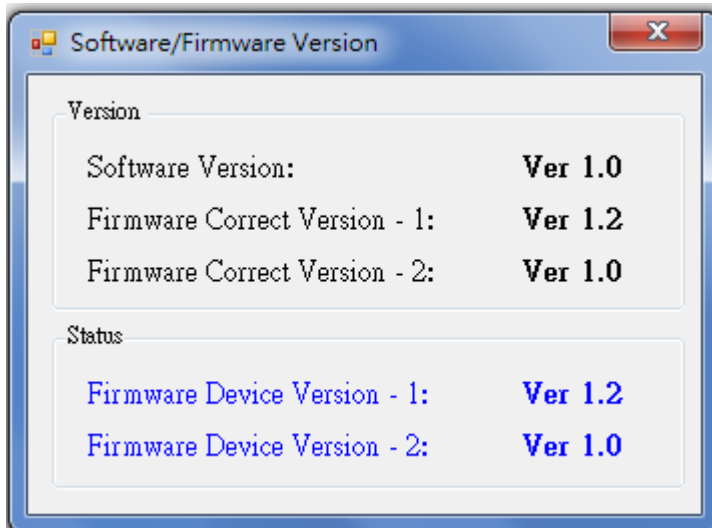
6. IP Configure

Users also can use the Ethernet to control the mixer. Firstly, users should click on the  IP CONFIGURE button to setup network set. Next, users can setup the Ethernet for the unit as below example shows. After the step of IP configuration, please click the  button.



7. Info

Read the Software and firmware version.



8. Refresh

This function can get all information of the device and update this software state.

WARRANTY

The SELLER warrants the **AV-GM08X3-S1 4x1 HDMI Quad-View Video Processor with 4K2K** free from defects in the material and workmanship for 3 years from the date of purchase from the SELLER or an authorized dealer. Should this product fail to be in good working order within 3 years warranty period, The SELLER, at its option, repair or replace the unit, provided that the unit has not been subjected to accident, disaster, abuse or any unauthorized modifications including static discharge and power surge. This warranty is offered by the SELLER for its BUYER with direct transaction only. This warranty is void if the warranty seal on the metal housing is broken.

Unit that fails under conditions other than those covered will be repaired at the current price of parts and labor in effect at the time of repair. Such repairs are warranted for 90 days from the day of reshipment to the BUYER. If the unit is delivered by mail, customers agree to insure the unit or assume the risk of loss or damage in transit. Under no circumstances will a unit be accepted without a return authorization number.

The warranty is in lieu of all other warranties expressed or implied, including without limitations, any other implied warranty or fitness or merchantability for any particular purpose, all of which are expressly disclaimed.

Proof of sale may be required in order to claim warranty. Customers outside Taiwan are responsible for shipping charges to and from the SELLER. Cables and power adapters are limited to a 30 day warranty and must be free from any markings, scratches, and neatly coiled.

The content of this manual has been carefully checked and is believed to be accurate. However, The SELLER assumes no responsibility for any inaccuracies that may be contained in this manual. The SELLER will NOT be liable for direct, indirect, incidental, special, or consequential damages resulting from any defect or omission in this manual, even if advised of the possibility of such damages. **Also, the technical information contained herein regarding the AV-GM08X3-S1 features and specifications is subject to change without further notice.**

Support

For more info or tech support
<http://www.siig.com/support>