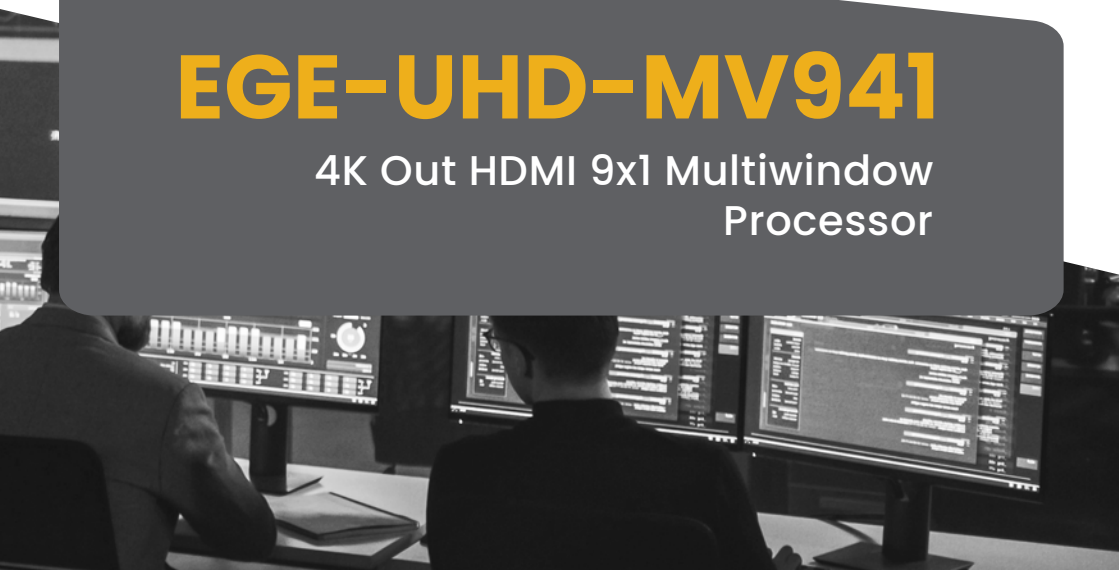
geratech®

EGE-UHD-MV941

4K Out HDMI 9x1 Multiwindow Processor



Safety Instructions

Note: Content of the manual is the information before the publication, the manufacturer has the right to change and improve its products, all data are subject to change without notice.

Installation Site

To ensure the equipment is safe and has satisfied performance, need to consider the following conditions when installing the device:

1.Keep away from high temperature heat source and environment.

2.Keep away from direct sunlight.

3.In order to ensure proper cooling, the equipment should avoid poorly ventilated places and please do not block the vents. The cover above and bilateral sides of the device have vents, in the installation, the distance should be more than 5CM between both sides or bilateral sides and other equipment or walls for the cooling.

4.This equipment should be installed horizontally.

5.Avoid sites with severe vibration after installation.

6.Avoid moving the machine between over cold and overheated sites to avoid condensation inside the device, which affects the life period of the machine.

7.Do not touch the power supply and the machine with wet hands.

8.Do not spill liquid on the device, to avoid internal short circuit or catching a fire.

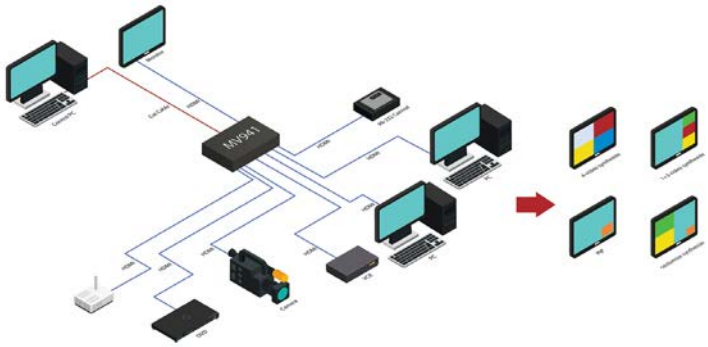
9. Do not put any other equipment on the top of the equipment.

10.In the installation, please connect the ground wire to avoid lightning damage to the main chip.

11.When the equipment is faulty, do not open the case by yourself to avoid the damage, please commit the qualified professional service personnel for maintenance in the designated maintenance center. for .

12.In order to avoid electric shock and fire, do not expose the machine to rain or damp places. Before use, please read and study all instructions and cautions in this manual! Keep this manual and original sales documents for the maintenance in the future when necessary. After unpacking, check if there is some missing or damages. If finding any missing or damage, do not install or operate this product, contact with the dealer as soon as possible.

EGE-UHD-MV941 Multiviewer processor is specialized in graphics processing, it can synthesize multiple videos into single HD video and output it, and users can adjust and transform window size, display position, image ratio and other aspects for the video signal, and output image signal with a unified format finally.



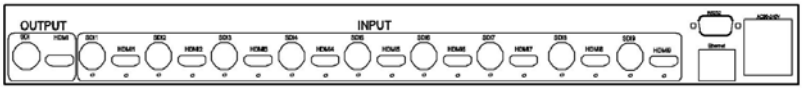
2. Features

- Synthesize 9 videos into single HD video.
- Each channel supports HDMI (DVI) or SDI input, select the input source type by the software.
- Support HDMI (DVI) or SDI output.
- HDMI (DVI) input is compatible with HDMI1.4, support HDCP1.2, Deep color: 12-bit YCC4:4:4, xvYCC supports IEC61966-2-4 standard color.
- SDI input supports 3G/HD-SDI, the rate is 1.485Gbps ~ 2.97Gbps, compatible with SMPTE292M, 424M.
- Supports front buttons and infrared remote control.
- Support to computer software control, user can customize any stretch or drag the video window. The customized video mode can be downloaded to the device then through the panel buttons or Infrared remote control.
- Supports off-site protection.
- 1U standard chassis.

3.Technical Specifications

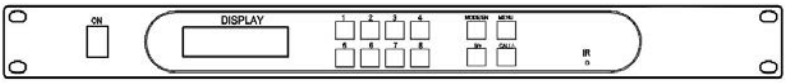
HDMI (DVI) Technical	
Input Standard	HDMI1.4A, DVI1.0, support HDCP1.2
Input Clock Range	25Mhz ~ 225Mhz
Interface Type	HDMI TypeA
Output resolution	1024X768,1280X720,1280X800,1280X1024, 1366x768,1440x900,1680x1050,1600x1200, 1920x1080, 1920x1200, 3840x2160
SDI Technical	
Input Standard	SMPTE259M, SMPTE292M, SMPTE424M
Output resolution	1080P30 / 25/60/50
Clock recovery	Support
Property	
Supply Voltage	AC 200V~240V
Consumption	35W
Dimensions	450x320x44mm
Net weight	5Kg

4.Device connection



- Left OUTPUT is signal output, connected to monitor.
- Right INPUT is 1 to 9 HDMI or SDI input ports.
- Interface marked RS232 on the most right side connects RS232 of the computer.
- Network port marked with Ethernet access.
- This device has 2 control methods, RS232 and Ethernet, users can choose one to connect, or do not need to connect if do not operate the computer.

5.Equipment operation



5.1. Preset screen mode switch

Press "1-9" numeric keys, outputs 1-9 single video in full screen. For example, press "1", LCD displays:

Multiviewer

1-Full

Press "MODE/EN", display predefined multi-windows. For example, the device has 9 input videos, LCD displays:

Multiviewer

9-Windows

5.2. Optional screen mode switch

"Optional screen mode" refers that users can save screen modes via PC software connecting the device, store up to 16 custom modes most,only the first 8 custom modes can be chosen through the device keys, the other 8 custom modes can be called by the PC software only.

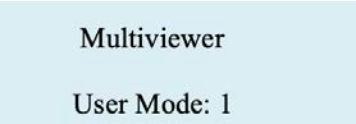
Firstly press "CALL/-", then press the number keys 1-9, displays stored multi-windows.

For example, firstly press "CALL/-", LCD displays:

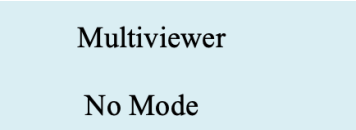
Multiviewer

Load Mode:1-8

Then press the number key "1", call the first custom screen mode, LCD displays:

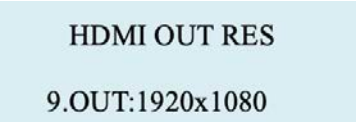


If you do not store the custom screen mode, displays:

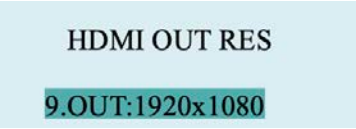


5.3. Set HDMI output resolution

Press "MENU", displays:



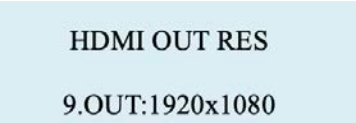
Then press "MODE/ EN", displays:



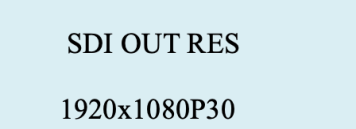
Then press "9/+" or "CALL/-", select different output resolutions and then press "MENU" to exit or press "MODE/EN" to return to the previous menu.

5.4. SDI output resolution setting

Press "MENU", displays:



Then press "9/+", displays:



Then press "MODE/EN", displays:

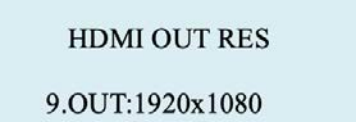
Then press "9/+" or "CALL/-", select different output resolutions and press "MENU" to exit or press "MODE/EN" to return to the previous menu.

Note: SDI and HDMI outputs are synchronized, and only when HDMI output resolution is 1920x1080, SDI output is normal. SDI output resolution supports 1080P/25/30/50/60.

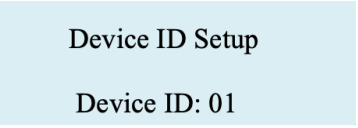
5.5. Device address modification

Device address is used only for RS232 and network communication, and valid when multiple devices are controlled by the same software.

Press "MENU", displays:



Then press "9/+", displays:



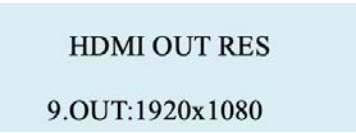
Then press "MODE/EN", displays:

Then press "9/+" or "CALL/-", the device ID will increase or decrease, changing from 1 to 16. Finish the setting and then press "MENU" to exit or press "MODE/EN" to return to the previous menu.

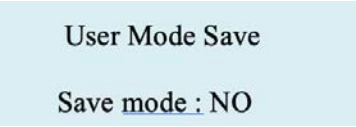
5.6. Save screen mode

After the device is restarted, this setting determines whether to display the screen mode before the power off.

Press "MENU", displays:



Then press "9/+" continuously until displays:

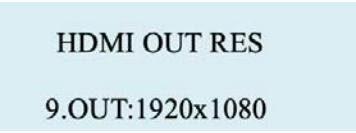


Then press "MODE/EN", displays:

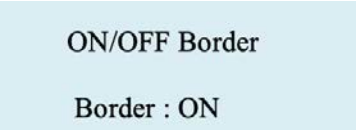
Then press "9/+" or "CALL/-", it will change between "No" and "YES". Finish the setting, then press "MENU" to exit or press "MODE/EN" to return to the previous menu.

5.7. ON/OFF Border

Press "MENU", displays:



Then press "9/+" continuously until displays:



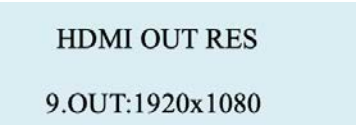
Then press "MODE/EN", displays:

Then press "9/+" or "CALL/-" it will change between "ON" and "OFF". Finish the setting then press "MENU" to exit or press "MODE/EN" to return to the previous menu.

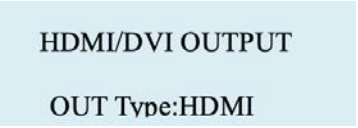
5.8. HDMI / DVI output select

Although the output port of the device is HDMI, can set the output video standard as DVI or HDMI.

Press "MENU", displays:



Then press "9/+" continuously until displays:



Then press "MODE/EN",displays:

Then press " 9/+ "or" CALL/- ", it will change between HDMI and DVI.

Finish the setting then press "MENU" to exit or press "MODE/EN" to return to the previous menu.

6. Software operation

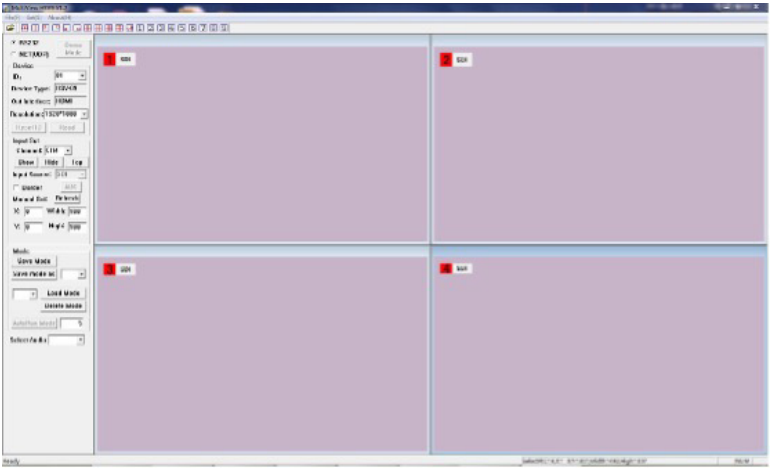
6.1. Software Installation

Run the “setup.exe”, software automatically install to the default directory, the installation program will automatically generate the desktop shortcut MultiView.exe, double-click the shortcut icon to launch the application.

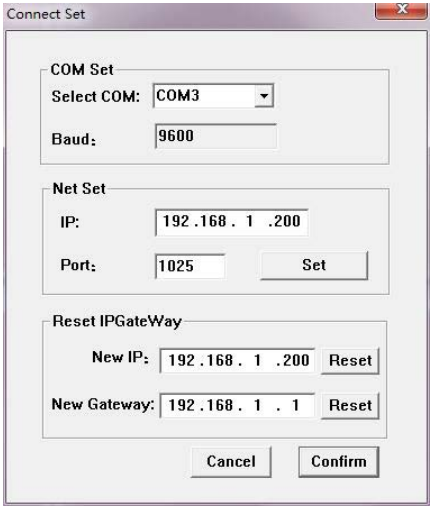
6.2. Software Operation

(1) Run software

Software starts, running into the main window, as shown:



The first time you run the software, you need to select the RS232 port to connect device and the computer, click on the menu "Set" the following dialog box:



Select the correct RS232 port of the computer and press "Confirm" to return.

If you choose the wrong RS232 port or device is not connected properly, may cause communication failure.

If you used LAN to control device, you need setup device's IP, the device's default IP is 192.168.1.200. Modify the "New IP" and the "New Gateway" then click "Reset", then click "Confirm" to return.

(2) Connecting device.

Click the "connect" button, 3 seconds later, If the communication fails, the software failure message box will pop up, the software will automatically enter the demo mode, the RS232 port will not send control commands under demo mode.

Demo mode to re-connect equipment, you need to close the software, Re-run the software.

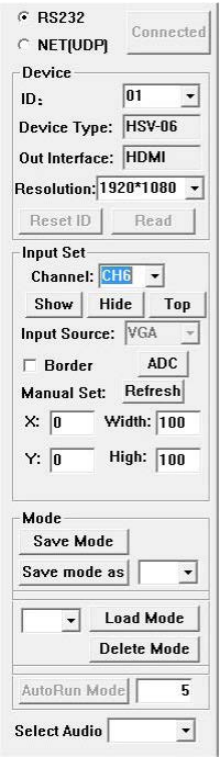
If the device is connected will pop a dialog:

Dialog box will display the basic information of the device, including equipment channels, output resolution, current display mode, number of the user-defined screen mode. Click “OK”, software will enter the main window, the main window will display six sub windows, to simulate the screen window of the device output.Use the mouse to drag, stretch the sub window size can zoom and move actual window of the output video.

(3) Control Panel

Device is connected successfully, the software control panel as shown on the left (in the 6-channel example):

Control panel has got three parts, device, input settings, and mode setting.

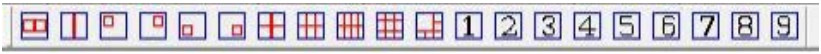


- **ID:** If multiple devices through a RS232 port cascaded, you can use " ID" drop-down box to select the ID number of the device. If you want to modify the device's ID, you need to modify the device's ID through the device menu, the software can't modify the device's ID. Device's ID of the default is 1.
- **Device type:** HSV4 or HSV6 or HSV9… behind the numeral is number of the input channels.
- Output Interface: Output interface is HDMI and SDI.
- **Resolution:** Drop-down box is used to modify the device's output resolution.
- **Channel:** Channel drop-down box is used to select the current operating of channel, then the channel can be switched signal source(except for fixed signal source equipment), show or hide, manually set the image size, and so on.
- **Input source:** Each channel can have HDMI, SDI input sources to choose.
- Border: check this button, the window of each channel can add borders, the default is no border.
- **Manual setting:** Manually enter the absolute size of the sub window to accurately adjust the image display position and size. X is the horizontal start position, Y is the vertical start position.

- **Mode:** User-visible screen displayed window is called video mode, such as the 4-video mode, 2-video mode, one screen, etc. call video mode. Device has a video mode queue, which can store 16 video modes, the device's video mode is initially empty queue, the queue to use the video mode to be set in advance.
- **Save mode:** The state of the current screen is saved as a video mode into the device, the video mode number is automatically increaed, and saved successfully return a "mode saved successfully" dialog.

- **Save mode as:** Use the current display screen overwrite the selected video mode of the size, which is equivalent to modify the specified video mode size.
- **Load mode:** Select a video mode number(1~16), then press this button to call up this video mode.
- **Delete mode:** Remove selection box selected custom video mode, behind the current video mode number is automatically rolled forward.

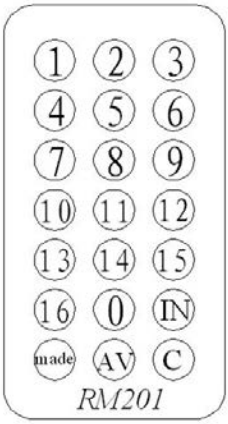
(4)Toolbar



As shown above, toolbars are predefined video mode, press to quickly switch video mode.

7. Infrared operation

Infrared remote control like the front panel buttons, the number keys 1 to 9 selected single full screen display, MODE switch the video mode



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