Quick Start

- 8K ready with quad link HDMI 2.0 input
- HDR 10 & HLG compliant
- Up to eight 4K/UHD layers per port
- Fully customisable in/out resolutions & EDID Management
- OSD overlay features
- XPOSE 2.0 Web Server Built in with IP connection
- Genlock/Sync
- I/O Module Based Design and hot swap capacity
- Each input module support up to 4*4K2K@60
- Each output module support up to 2*4K2K@60
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Overview

X8 as a new member of X series maintains leading technology. Since 2015, X series provide excellent solutions for national conference, stage activities and other high-end applications. With the higher requirements of resolution and layers, X8 upgrades and supports 4K/8K processing.

X8 is an HDCP compliant, scalable and extendable routing and video wall processor configurable to support a variety of inputs and outputs. It features RGBlink 3rd generation high performance video scaling technology for excellent image reproduction. The most outstanding feature of it is its thoroughly modular design, the card frame style, SmartSlot system allowing installation of up to 24 inputs and 12 outputs. Any input can be scaled, positioned, routed, transcoded to any output or be assembled as layers across outputs. Built for intensive switching and routing applications, the modular design extends to all aspects of the X8 for reliable and durable service.

System Connection

RGBlink offers solutions to demanding technical problem. Any application questions, or required further information, please contact with our customer Support Engineers.

SYSTEM CONNECTION DIAGRAM
Note:
AC Power Cable supplied as standard according to destination market.
Hardware Orientation

Front Panel

**Front Panel Structure**

<p>| | |</p>
<table>
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<tr>
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</thead>
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<tr>
<td>1</td>
<td>TFT-LCD panel, show the info of input and output module, device status, weather and so on</td>
</tr>
<tr>
<td>2</td>
<td>1×USB 2.0; 1×USB 3.0 (blue), for upgrade</td>
</tr>
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Rear Panel

Chassis Module Structure

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6 input module slots up to 24 inputs totally, for Quad 4K HDMI Input Module, Quad DP 1.2 Input Module, Quad 12G SDI Input Module, Single HDMI 2.1 &amp; DP 1.4 Output Module</td>
</tr>
<tr>
<td>2</td>
<td>6 output module slots up to 12 outputs totally, for Dual 4K HDMI Output Module, Dual DP 1.2 Output Module</td>
</tr>
<tr>
<td>3</td>
<td>Communication ports including Genlock, LAN, RS232, CTL, USB 3.0 and HDMI</td>
</tr>
<tr>
<td>4</td>
<td>CXP ports (to be developed)</td>
</tr>
<tr>
<td>5</td>
<td>2 slots for power supply modules and Power Switch</td>
</tr>
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</table>

HDMI 2.1 & DP 1.4 Input Module Leadtime: 2022/6/1
DP 1.2 Input Module Leadtime: 2022/6/15
DP 1.2 Output Module Leadtime: 2022/7/1
Install Your Product

Plug in Signals
Connect signals to the product (ensure all the device are all power off first). Tighten connector screws/locks where provided.

💡 Please use cable that can support HDMI 2.0 to ensure 4K@60Hz input and output when 4K signal is used.
Connect RS232 port of device and computer with serial cable or connect LAN port of device and computer with network cable or connect both device and computer to the same router, make sure their IP address is not completely same.

Plug in Main Power
Connect IEC cable to device and plug into wall socket. Turn on power at wall socket.

💡 If the devices is restarted, make sure the indicator light upon the PSU module is totally out before plugging in the power.

Turn on Your Product
Turn on the power switch on the rear panel.

The system begins to work, and the TFT-LCD screen shows the input slot and output slot information, device status, COM. Versions. IP address and serial number.

Use Your Product
Install XPOSE 2.0

Environment Requirements

Window
Processor: 1 GHz or above 32 bit or 64 bit processor
Memory: 4 GB or more
Graphics: Support DirectX 9 128M or above (open AERO effect)
Hard disk space: Above 16G (primary partitions, NTFS format)
Monitor: Resolution must be 1920x1080 pixel or above (it can not display normally if the resolution is lower than 1920x1080)
Operating system: Windows 7 or above (full version, not Ghost version or compact version)
CPU:i5 and above

Mac
Monitor: Resolution must be 1680x1050 pixel or above (it can not display normally if the resolution is lower than 1680x1050)
CPU:i5 and above

XPOSE Controls X8

Connect the Device

Click the icon to open 【System Setting】 , and select X8 in 【Find Devices】.

Click the icon and click refresh to check all available devices in the network. Click to choose X8 and click to obtain the control of this device in 【Chosen Devices】 , as shown in the picture below.
purple tip indicates input modules, blue output modules, yellow communication port.

**Input Setting**

Click any input port in purple area, the board where the port locates is selected. Users can do settings to the board now. A red rectangle flashes around the chosen port when it is clicked.

**Property Setting**
Input Port: Current port

**Scale**
X/Y: Vertical and horizontal position
Width/Height: Vertical and horizontal size

**Crop**
Left: crop left
Top: crop top
Width: horizontal size after crop
Height: vertical size after crop

**SDR to HDR**
Status: ON/OFF
Gamma: 0~9.99 (Adjust the brightness of picture, the higher the number, the higher the brightness)
Bright Factor: 0~9.99

**EDID Setting**

Input Port: Current Port and type
Customized EDID: Monitor Name, Width, Height and Frequency
Output Setting

Click any output port, the module where the port locates is selected. Users can do settings to the modules now. A red rectangle flashes around the port when it is chosen.

Resolution Setting

Output Switch: Slide to On or OFF
Format Range: select ALL or Module. All means this setting is applied to all output ports, Module means this setting is only valid on this module.
Format Type: Standard / Customize
Choose Customize, width, Height, Refresh Rate have to be put in by users manually.
Format: when format type is Standard, there are standard format list to choose.
Format for ALL: 720×480@60 → 7680×1080@60
Format for Module: 1024×768@60 → 7680×1080@60

DE Setting

Port: choose current port or Port All
Bits: 8bits/10bits/12bits
HDR: ON/OFF
OSD Setting

Output port: the current port
Status: ON or OFF

Position
X/Y: the starting horizontal and vertical position
Width/Height: the horizontal and vertical size of the text

Font Style
Font: font of the text, all fonts installed in the computer are available
Font Type: Normal, Italic, Bold, Bold Italic
Font size: 0-300 pixels
Pixel alignment: Left, Right, Center to Horizontal, Vertical Center Right, Align Bottom Right, Align left bottom, Vertical center left, Vertical center, Horizontal center bottom

Transparent: font transparent
Color: Click to select more font color

Background
Transparent: background transparent

Color: Click to select more background color

Scrolling
Scroll Speed: 0-16
Scroll Direction: Scroll Off, Scroll Left, Scroll Right
Input Text: The exact content of the text.
After setting, users choose Save OSD, Clear OSD (if the setting is not desired) or Close All OSD

Device Overview
Click Return, there are overview, IP setting, Fan Control, Power ON, Factory Setting,
Overview: show Device Info, module info of version and temperature in each slot.

IP Setting
Select Auto IP address or manually type in the IP address, MASK and Gateway
Fan Control
Auto adjustment: ON/OFF
Fan speed: 0-100

Backup
Backup: ON/OFF
Backup Mode: Input Backup/Preset Backup

Power On Reserve
Power On Reserve: 0~255s

Factory Setting
Remove Logo/EDID, Save IP

Display Management
Display System is for users to set layout of outputs.
Click this icon first enter the interface as follow:
Container

Container here means the Display Area, for example it could be a formed LED screen or an array of LCDs

Template
There are 15 types of basic “Display Area” which is used to contain output interface, and could be regarded as layout of output.

Mode
At present, X8 supports Presentation Mode, Other products of X series also support PST+PGM Mode, Rotation Mode and Edge Blending. Rotation and Edge blending is valid only when ARO rotation module is installed to the device. Each mode is marked in different color and provided with fitted templates.
Container (dragged from Template) under Presentation Mode

Delete Container: long press the "x" to cancel the Container / Display Area

Customize Container
Click this icon at the bottom of template list. Fill in the H Total, V Total, Row and Column, then click a customized container is created. If this container need to be saved, click SAVE.
For example create a 1×2, 7680×2160 container as follows

**Adjust Display Area**

Place the mouse in the Container, roll the mouse can zoom in or out the Container in the XPOSE window.

Clicking icon [ ] and [ ] can do the same work.

Drag the border of the display area to move its place in the interface.
Output
Show all the output ports on the device. Once the monitor is dragged into container meaning this output is used and the output port get dark.

Click this icon on Display to cancel the display in Display Area

Pressing CTRL+ALT can lead to close of all displays on the XPOSE window.

Display System

Show all Containers/Display Area that have been created.

Click tick icon behind to give alias to the each Display Area if necessary.
Parameters

Parameter is designed to set size (Width, Height) and position (X,Y) of each display. There are two ways to adjust the display, by Parameter or by the bar below the window.

Parameter

Bar under XPOSE window

Swap: Swap two output ports if needed.

Hotkey
Layer Management

Layer Management is designed to manage the layer of each monitor. Click this icon 🖋 to enter the interface:

Display Area
Here is to show all the Display Area set in previous step System Management. Click ✖️ to cancel or use the corresponding Display Area.
Signal
To show the signal list of all inputs. Drag source from signal list to each display or Container.

Click this icon and alias of signal could be put in if necessary.

Click this icon to confirm the alias setting.

Layer
After signal is dragged into display, show Layer index Versus Signal index

Numbers on Monitor
Numbers on monitor is to show how many layers at present allowed to put in the monitor . (each neighboring monitor (5 and 6, 9 and 10) allows to put 8 layers, if there is no neighboring monitor in the display area, the single monitor can contain 8 layers. For example in one display area, there are monitor 5 and monitor 6, monitor 5 can contain 8 layer and so does monitor 6)
Cross over display will take up one more layer, as shown in the picture below.

**Layer Adjustment**

There are two ways to adjust the layer.

1. Use the bar under the interface

Choose one layer and the bar shows its signal source, type in position and size.

2. Layer Scale and Crop

Alpha: 0~128

Brightness/Contrast/Saturation: 0~100

Freeze: Turn ON freeze to prevent misoperation

**Layer Movement**

Place the cursor on the layer, it turns to a palm icon 🧠, press the left of mouse, the icon turns to a fist ⚡, moving the mouse can drag the layer.

**Layer Remove**
Click the cross on the top right of the layer to remove the layer if needed.

Layer Max

Click this icon to cover up all monitors in the same Display Area with the one signal, as the following:

Layer Lock

Click the lock icon on the right middle of the later boarder, When the layer is locked, any movement or removal to the layer is invalid.

Other Operation on Layer

Use the tools bar on top of window to do such operations:
Save to Bank Automatically

When layer setting of one BANK is done, click next or other BANK, this BANK can be saved automatically.

![Bank Setting](image)

Blending

Width: the width of blending
Turn ON blending

![Blending Setting](image)

HotKeys

Hot keys, provided to do quick layer setting such as Copy Layer, Layer move

![HotKey Setting](image)

Preset Management

Preset Management is designed to switch bank (scene setting done in last step).

Manual Mode

Switch Manual Mode or Schedule Module by the bar in the left bottom corner of the window. Preset is showing the BANK selected. PGM is in first box in the bottom left.

Take Setting

Click this icon after selecting a BANK.
Fade Time: 0.0 ~ 10.0s
Black out: slide to ON or OFF
The tick on the bank indicates that the bank is selected.
Keep|Swap

Only when separate Display switching is OFF can Keep|Swap work. Under the Keep status, users need to select a bank and use Cut or Take to switch image from PST to PGM. Under Swap status, users select a bank, then use Take or Cut to swap this bank and the bank before this one.

Cut|Take

Cut, switch from PST to PGM without any effect. Take, switch from PST to PGM with chosen effect in set Fade Time.

Display Area

Display Area is to let users to choose which display areas to display on the PGM and allow users to set transition effect for each display area so that they can switch from PST to PGM in desired effect.

Bank Save and Load

Save Bank to Page
Select a bank, click Page, select Page X, the bank is saved in the page. The page turns green then become green, indicating the bank is saved in the page.

Load bank from Page
Click Load Page, pages with bank saved are green, select one from them and the selected one becomes red. The bank is loaded from page to PST.
**Script Save and Load**

Save Script
Fill in the blank with the name of setting and click Save

Load and Delete Script
After the script is saved, the bank name will appear in the load list.
Select the file and click Load
Select the file and click Delete, the chose file can be deleted from list.

**Preset Name**

Select a bank and click Preset Name, fill in the blank after New Preset Name to rename a Preset (Bank)
Click the color block after Color Selection and choose a new color for the boarder of chosen bank.

For example change Bank1 to RGBlink, with pink boarder
**Schedule Mode**

This mode is designed to set auto bank (scene/preset) switch.

1. Select the bank that need to be looped.

2. Set **Start Time** and **End Time** and click **OK** to confirm.

   The Preset can be added into the loop list after confirm. click this icon to edit Start Time and End Time if needed. Click this icon to delete this preset if it is not needed.

3. Turn on **Daily Loop** and **Loop Switch**

**System Setting**

Click this icon and enter System Setting interface
System Info
Software Version: show the current software version
Language: Chinese, English and Russian

Keyboard Manager

Click Keyboard Manager, it will be redirected to keyboard setting window.

Keyboard setting is designed to fit for different operation systems such as Windows and Mac. Users can set short cut keys for Input, Output, Layer and Preset.

Drag Input, Output, Layer and Preset from the list to the keys you desired as follow:

Please note the keyboard area where allows to set short cut keys as follow:
If the setting goes wrong or no need for short cut keys any more, click to clear some keys or clear all.

**Clear:** is to clear some keys, the keys need to selected before hand.

**Clear all:** is to remove all already set short cut keys.

After setting the shortcut keys, you can modify the default file name and save the script. The script will be automatically saved to the corresponding path in the XPOSE folder. You can load in script Settings when used again.

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**Find Device**

New version of XPOSE 2.0 is blank default in Find Device. Users are supposed to choose the device needed in System Setting.

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**Communication Setting**

Search by Serial Port, Ethernet Connection or Both. Default communication by both.
Direct Communication by selecting device and putting its IP Address

Authorization Setting

Click [icon] to open up the authorization entry. Click Management

New: Add new USER NAME and PASSWORD

Edit: Edit username and password already built.

Delete: Delete username and password already built.

Permission: functions on this XPOSE 2.0 on this computer that the created users are allowed to operate.
Slave Unit

Slave Unit is to control multiple devices simultaneously, which are connected to same network. ("In the same network" means the third section in the IP address digits are the same) XPOSE do operation on one device, same operation synchronized to other devices. For example, there is another devices linked to the same network, one with IP 192.168.0.45.

If users need to back up operation from current running device to this device slave unit shall be used. First fill in the quantity of to be linked devices, click Set Numbers, Index, Device IP and State will come up.

Choose the IP address of the other device from drop down list, e.g. IP 192.168.0.45 and Slide to ON, the red dot behind turns to green indicating that the device has been connected.

Web Server Control X8

X8 supports Web control, operate as following steps:

1. Make sure your computer and the device are in the same network segment.
2. Type the IP address of the device in the web, and then login in, the interface of web control are the same as XPOSE software. Please refer to 3.2 XPOSE Control X8.
Contact Information

Warranty:
All video products are designed and tested to the highest quality standard and backed by full 1 years parts and labor warranty. Warranties are effective upon delivery date to customer and are non-transferable. RGBlink warranties are only valid to the original purchase/owner. Warranty related repairs include parts and labor, but do not include faults resulting from user negligence, special modification, lighting strikes, abuse(drop/crush), and/or other unusual damages. The customer shall pay shipping charges when unit is returned for repair.

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