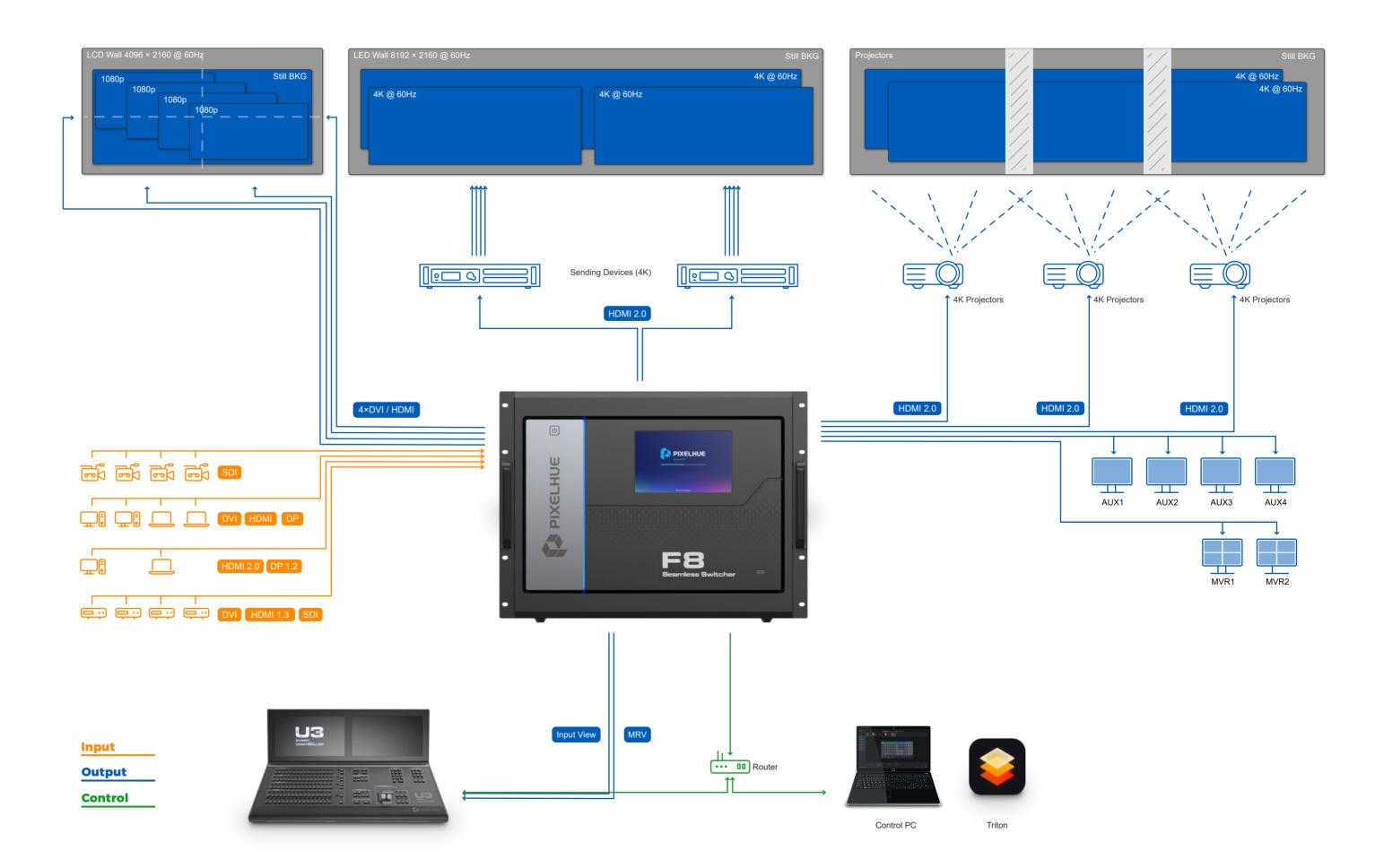


### What F8 Can Do for You





## **FEATURES**

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#### **The Highest Performance**

Pixelhue Flexi View series- F8, designed for easy management of multiple displays for shows or visual management systems. Suitable for use with a variety of

F8, designed with the latest high-Performance FPGA Chipset, delivers reliable, stable, faster, and better image performance, and outputs non compressed 4k@60hz 4:4:4 10bits video. Built with a focus on environmental protection, the Pixelhue designed foundation is a great long-term solution, simplifying upgrades through modules for future

#### **Ultimate flexibility** through modular design

The F8 Processor is designed with 8 input slots and 8 output slots, allowing you to easily select I/O modules with different input and output connectors to match the visual system's requirement. More optional I / O modules will be provided for upgrades in the future. The F8 utilizes a modular design and supports 8 input and output cards with a maximum of 32 inputs and outputs. Each output card can offer up to 2K@60Hz loading capacity. The F8 supports at most 64 SL mix layers, or 32 DL mix layers or 16 4K mix layers. It also supports a variety of input and output connectors, including DVI, DP, HDMI, and 3G SDI connectors, allowing easy customization for any project or

#### **Key Features**

Modular design, field-swappable I/O cards, power supplies and main control card

Removable and swappable dual power supplies

Up to 32×2K60p inputs and 32×2K60p outputs

True 4K60p 4:4:4 10 bit video processing Removable and swappable I/O cards

Up to 64  $\times$  SL mixing layers, 32  $\times$  DL mixing layers or 16  $\times$  4K mixing layers

Cross-connector layer does not occupy layer resources, full screen roaming

BKG and LOGO management

#### **Reliable & worry-free** operation

In this rapidly evolving market, reliable technology is the key to an outstanding event. The F8 allows you to configure the system to accommodate a variety of connectivity arrangements and display requirements. The F8 features dual power supplies, full machine data backup to local configuration, fast restore and can work perfectly 24/7. F8 Lite also undergoes a series of rigorous drop tests, shock & vibration tests and thermal tests, ensuring it can survive in any kind of road trip or event environments.

#### Easy to Use

F8 works exceptionally well with our matching video processing software, TRITON. TRITON provides an offline mode and preediting functionality, which can directly import while on-site and migrate between different devices. This software is easy to master and a sophisticated yet user-friendly interface guides you from beginning to end of any kind of event with as little complex

#### **Total event control with U3** Controller

With the U3 event controller, satisfy any kind of event requirements such as stage performance, high-end auto shows, TV program recording, product launch events, or any kind of large-scale exhibition.

Support for virtual pixels

 $2\times$  Multiviewer outputs with flexible layouts, adjustable borders and UMD

Luma key and chroma key

Input sync with Genlock; Genlock accepts bi-level or tri-level signals

Live input view on Triton

Custom timing and frame rates on outputs

Input EDID management, including standard resolution, custom resolution and advanced resolution settings

Project file for data backup and restore

Adjustable layer mask, flipping and border

### **Technical Specifications**

#### Inputs

- 1. Up to 8 input cards
  a. 4K connector supports up to 4K2K@60 4:4:4 8-bit inputs
  b. DL connector supports up to 4K1K@60 4:4:4 10-bit inputs
  c. SL connector supports up to 2K1K@60 4:4:4 10-bit inputs
  d. 4K connectors (DP 1.2 and HDMI 2.0), each supporting up to 4K2K@60Hz 4:4:4 8-bit.
  e. DL connectors (DP 1.1 and dual-link DVI), each supporting up to 4K1K@60Hz 4:4:4 10-bit.
  f. SL connectors (HDMI 1.3, single-link DVI and 3G-SDI), each supporting up to 2K1K@60Hz 4:4:4 10-bit.

  2. Standard, custom and advanced EDID settings
- Standard, custom and advanced EDID settings
   Common resolutions: 1920×1080p@60Hz,

3840×1080p@60Hz and 3840×2160p@60Hz, etc 3. Input source deinterlacing processing

#### **Outputs**

4. Input source cropping

- 1. Up to 8 outputs
  a. 4K connector supports up to 4K2K@60 4:4:4 8-bit outputs
  b. DL connector supports up to 4K1K@60 4:4:4 10-bit outputs
  c. SL connector supports up to 2K1K@60 4:4:4 10-bit outputs
  d. 4K connectors (HDMI 2.0), each supporting up to 4K2K@60Hz 4:4:4
- 8-bit.
  e. DL connectors (HDMI 1.4 and dual-link DVII), each supporting up to 4K1K@60Hz 4:4:4 10-bit.
  f. SL connectors (HDMI 1.3, single-link DVI and 3G-SDI), each supporting up to 2K1K@60Hz 4:4:4 10-bit.
  g. 10G OPT copy

Standard, custom and advanced output timing settings
 Output width can be up to 8192 pixels, better choice for LED

#### **Multiviewer Outputs**

1.2 dedicated single-link DVI or HDMI 1.3 outputs configurable as MVR connectors with a fixed resolution of 1920×1080p@60Hz 2. Monitor all inputs and screens (PVW and PGM)

3. UMD display and color adjustment

4. MVR background color adjustment5. Customizable layouts for easy use

6. Border adjustment for MVR window

#### **AUX**

1. Supports AUX screen. AUX connector can be in independent or mosaic

2. AUX screen can follow the preset switching. 3. Free view of inputs and screens (PGM)

### 2. Dual control modes, U3 event controller and control PC

## **MODULAR**

### Inputs

 $8 \times$  slots for input cards Each supports up to 4K@60Hz or  $4 \times 1080$ p60Hz



#### **SL-DVI Quad Input Card** Single link DVI-D×4

HDCP 1.4 compliant

- SL mode: Up to 2048×1080@60Hz 4:4:4 8-bit
   DL mode: Up to 4096×1080@60Hz 4:4:4 8-bit Dual link mode supported, connectors 2 and 4
- EDID management for VESA, and CVT compliant
- user timings
- Common resolutions

**3G-SDI Quad Input Card** 

Deinterlacing by default

· Common resolutions

• 720×576i ( PAL )@50Hz

and 259M

**HDMI 2.0×1** 

1920×1080p@30/48/50/59.94/60Hz

• Downward compatible with SD/HD SDI

Support for SMPTE 425-1, 2048-2, 296M, 292M

Bi-level at SD and Tri-level at HD

720×480i (NTSC)@59.94Hz
 1920×1080i@50/59.94/60Hz

4K HDMI2.0/DP1.2 Input Card

• DP 1.2: HDCP 1.3 compliant

• HDMI 2.0: HDCP 2.2 compliant

compliant user timings

Common resolutions

· DP or HDMI can be used each time. • EDID management for VESA, and CVT

Up to 4096×2160@60Hz 4:4:4 10-bit

Up to 4096×2160@60Hz 4:4:4 8-bit

1920×1080p@30/48/50/59.94/60Hz
 3840×1080p@30/50/59.94/60Hz
 3840×2160p@30/50/59.94/60Hz

#### HDMI1.3 Quad Input Card HDMI1.3×4

- HDCP 1.4 compliant Up to 2048×1080@60Hz 4:4:4 8-bit
- EDID management for VESA, and CVT compliant user timings
- · Common resolutions
- · 1920×1080p@30/48/50/59.94/60Hz

### **DP1.1 Quad Input Card**

- SL mode: Up to 2048×1080@60Hz 4:4:4 8-
- EDID management for VESA, and CVT compliant user timings
- 1920×1080p@30/48/50/59.94/60Hz
   3840×1080p@30/50/59.94/60Hz

## Dual 4K HDMI2.0/DP1.2 Input Card

- Group 2: Connectors 3&4)
- · Common resolutions



### **AUX**



#### **AUX SL-DVI Output Card** DVI1.3×4

- HDCP 1.4 compliant
- Up to 2048×1080@60Hz 4:4:4 8-bit Max. output width: 2048 pixels Max. output height: 2048 pixels
- Support for VESA/CVT and user timings
- Common resolutions • 1920×1080p@30/48/50/59.94/60Hz

- HDCP 1.3 compliant
- DL mode: Up to 3840×1080@60Hz 4:4:4 8-
- Common resolutions

#### **HDMI 2.0×2** • DP1.2: HDCP 1.3 compliant Up to 4096×2160@60Hz 4:4:4 10-bit • HDMI: HDCP 2.2 compliant Up to 4096×2160@60Hz 4:4:4 8-bit Only one of the HDMI2.0 or DP1.2 can run simultaneously with that in the other parallel

#### • EDID management for VESA, and CVT compliant user timings

1920×1080p@30/48/50/59.94/60Hz
3840×1080p@30/50/59.94/60Hz
3840×2160p@30/50/59.94/60Hz

#### **AUX HDMII Output Card** HDMI1.3×4

- HDCP 1.4 compliant Up to 2048×1080@60Hz 4:4:4 8-bit
- Max. output width: 2048 pixels Max. output height: 2048 pixels Support for VESA/CVT and user timings
- Common resolutions 1920×1080p@30/48/50/59.94/60Hz

### Outputs

6×slots for output cards Each supports up to 4K@60Hz or 4×1080p60Hz



#### **SL-DVI Quad Output Card** Single link DVI-D×4

- HDCP 1.4 compliant Up to 2048×1080@60Hz 4:4:4 8-bit
- Max. output width: 2048 pixels
  Max. output height: 2048 pixels
- Support for VESA/CVT and user timings
- Common resolutions · 1920×1080p@30/48/50/59.94/60Hz

### DVI(HDMI1.4) Quad Output Card

- DVI(HDMI 1.4)×4 HDCP 1.4 compliant
- · SL mode:
- o Up to 2048×1080@60Hz 4:4:4 8-bit Max. output width: 2048 pixels Max. output height: 2048 pixels Connectors 1, 2, 3 and 4 are all active.
- Up to 4096×1080@60Hz 4:4:4 8-bit Max. output width: 4096 pixels
- Max. output height: 4096 pixels
  Connectors 2 and 4 are active, connectors 1 and 3 copy the output on connectors 2 and 4.
- · Support for VESA/CVT and user timings • Support for single link (default) and dual link modes
- · Compatible with HDMI 1.4 in DL mode Common resolutions
- 1920×1080p@30/48/50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz 3840×1080p@30/50/59.94/60Hz



- Up to 4096×2160@60Hz 4:4:4 8-bit
- Max. output width: 4096 pixels
  Max. output height: 4096 pixels
- Max. output height: 7680 pixels
   HDMI1: output interface, HDMI2: copy for HDMI1A
- OPT 1 and OPT 2 copy the output on HDMI. • OPT 3 and OPT 4 copy the output on OPT1 & OPT 2.
- Support for VESA/CVT and user timings Common resolutions
- 1920×1080p@30/48/50/59.94/60Hz
   2048×1080p@30/48/50/59.94/60Hz
   3840×1080p@30/50/59.94/60Hz
- · 3840×2160p@30/50/59.94/60Hz
- RELEASED.

6. Up to 128 presets

Screens

- 1. Outputs configured as single screens or edge-blended widescreens
- 2. Bezel compensation and edge blending
- Irregular screen mosaic and output AOI function, ideal for complex and irregular LED screen applications 4. Dedicated BNC with loop through for Genlock to ensure a chronized
- 5. Virtual pixels supported

### **Transition and Effect**

- 1. Send PVW to PGM via Take, Cut or T-bar operation.
- 2. Fade transition3. Customizable transition durations 4. Copy or swap display on PVW and PGM.

- Layers 1. Each output card supports up to 8× SL mixing layers, 4× DL mixing
- layers or 2× 4K mixing layers.
- 2. Full screen roaming supported 3. Fade and cut transitions on all layers
- 4. Adjustable layer flipping, mask and border 5. Pure color layer can be used as background
- **BKG & LOGO**
- 1. BKG can be a captured or imported image. 2. Unlimited BKG quantity in 512 MB storage space 3. Supports imported LOGO images. 4. Independent BKG and LOGO for each screen

### **Processing**

1. High quality scaling engine 2. Low latency processing3. Compliant with HDCP 1.4 and HDCP 2.2

5. BKG fills the whole screen by default

- Control
- 1. Intuitive control via U3 event controller

# HDCP 1.4 compliant

## **HDMI1.3 Quad Output Card**

- Up to 2048×1080@60Hz 4:4:4 8-bit Max. output width: 2048 pixels
  Max. output height: 2048 pixels
- Support for VESA/CVT and user timings
- Common resolutions
- · 1920×1080p@30/48/50/59.94/60Hz

HDMI1.4 Quad Output Card

 HDCP 1.4 compliant SL mode:

Up to 2048×1080@60Hz 4:4:4 8-bit

- Max. output width: 2048 pixels
  Max. output height: 2048 pixels Connectors 1, 2, 3 and 4 are all active Up to 4096×1080@60Hz 4:4:4 8-bit
- Max. output width: 4096 pixels Max. output height: 4096 pixels Connectors 2 and 4 are active, connectors 1 and 3 copy the output on connectors 2 and 4
- Support for VESA/CVT and user timings • Support for single link (default) and dual link modes
- Common resolutions 1920×1080p@30/48/50/59.94/60Hz 2048×1080p@30/48/50/59.94/60Hz

3840×1080p@30/50/59.94/60Hz



### DVI(HDMI1.4)/OPT Output Card

- DVI(HDMI 1.4)×2 • DVI: HDCP 1.4 compliant Up to 4096×1080@60Hz 4:4:4 8-bit
  Max. output width: 4096 pixels
- Max. output height: 4096 pixels • OPT 1 copies the output on DVI-1
- OPT 2 copies the output on DVI-2 • OPT 3 copies the output on OPT 1
- OPT 4 copies the output on OPT 2 Support for VESA/CVT and user timings Common resolutions
- 1920×1080p@30/48/50/59.94/60Hz
   2048×1080p@30/48/50/59.94/60Hz
   3840×1080p@30/50/59.94/60Hz

### Caution

All the cards can be only installed into the designed slots as illustrated in the above figure. Installing a card into an incorrect slot will cause device failure. Specifications subject to change without prior notice.