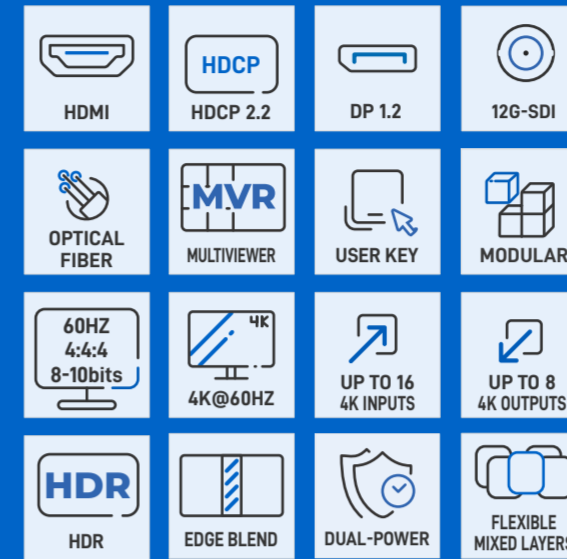


	F8	F4	F4 Lite
Input Card Slots	8	8	8
Output Card Slots	8	6	6
AUX Card Slots	1	1	1
Layers <i>(No Multiviewer)</i>	64x SL mixing layers, 32x DL mixing layers, or 16x 4K mixing layers	48x SL mixing layers, 24x DL mixing layers, or 12x 4K mixing layers	40x SL mixing layers, 20x DL mixing layers, or 10x 4K mixing layers
Multiviewer Connectors	2	2	2
Input View	Via Ethernet cable	Via Ethernet cable	Via DVI/HDMI cable
Presets	128	128	128
BKG Storage	512 MB	512 MB	512 MB
LOGO	16	16	16
Control	Triton GUI-based event management software designed for the F series U3 Large-scale event controller engineered for the F series		
Processing	FPGA-based Apollo image processing architecture Real 4K60p 4:4:4 8-bit video processing		
Front Screen	7" Touchscreen	7" Touchscreen	3.5" LCD
Ethernet Port	100M	100M	100M
Dimensions	Without handles, rack ears & rack mount L 482.6 × P 354.9 × H 515.5 mm W 19 × D 14 × H 20.3 inches	Without handles, rack ears & rack mount L 482.6 × P 513 × H 212.2 mm W 19 × D 20.2 × H 8.4 inches	Without handles, rack ears & rack mount L 482.6 × P 513 × H 212.2 mm W 19 × D 20.2 × H 8.4 inches
	With handles, rack ears & rack mount L 482.6 × P 361.4 × H 543.5 mm W 19 × D 14.2 × H 21.4 inches	With handles, rack ears & rack mount L 482.6 × P 546.5 × H 228.2 mm W 19 × D 21.5 × H 9.0 inches	With handles, rack ears & rack mount L 482.6 × P 546.5 × H 228.2 mm W 19 × D 21.5 × H 9.0 inches
Weight	Fully loaded without accessories 39.1 kg / 86.2 lbs	Fully loaded without accessories 30.3 kg / 66.8 lbs	Net weight without accessories 25 kg / 55.12 lbs
	Fully loaded with accessories & flight case 67.5 kg / 148.8 lbs	Fully loaded with accessories & flight case 50.3 kg / 110.9 lbs	Shipping weight with accessories 50 kg / 110.82 lbs
Electric Parameters	Power connector: 100–240V~, 50/60Hz, 10A–5A Max power consumption: 700 W	Power connector: 100–240V~, 50/60Hz, 10A–5A Max power consumption: 600 W	Power connector: 100–240V~, 50/60Hz, 10A–5A Max power consumption: 450 W
Noise on Average <i>(@1.075m height)</i>	55 dB	53 dB	53 dB
Operating Temperature	0°C to 45°C	0°C to 45°C	0°C to 45°C
Operating Humidity	0% to 85%, non-condensing	0% to 80%, non-condensing	0% to 80%, non-condensing
Certifications	CE, FCC, IC, RoHS	CE, FCC, IC, RoHS	CE, FCC, IC, RoHS
Packing Information	1x Grounding cable 1x Ethernet cable 1x USB cable 1x USB drive 1x Philips screwdriver 2x Power cords (Optional) 1x Flight case (Optional) 1x Quick Start Guide 1x Customer Letter 1x Safety Manual 1x Certificate of Approval	1x Grounding cable 1x Ethernet cable 1x USB cable 1x USB drive 1x Philips screwdriver 2x Power cords (Optional) 1x Flight case (Optional) 1x Quick Start Guide 1x Customer Letter 1x Safety Manual 1x Certificate of Approval	1x Grounding cable 1x Ethernet cable 1x USB cable 1x USB drive 1x Philips screwdriver 2x Power cords (Optional) 1x Flight case (Optional) 1x Quick Start Guide 1x Customer Letter 1x Safety Manual 1x Certificate of Approval

# F Series

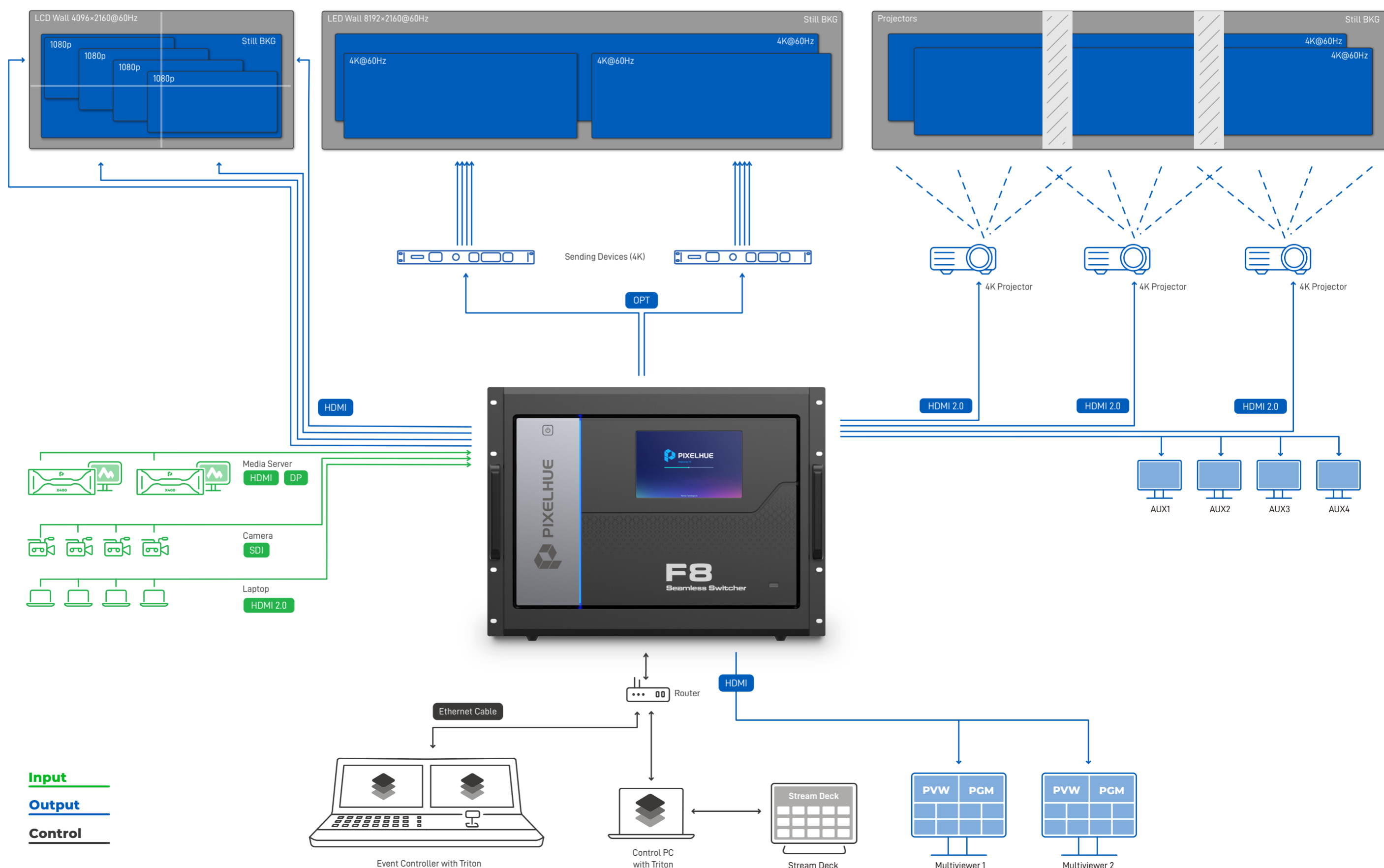
## Flagship Flex-View Seamless Switchers



Powerful Seamless Switchers 48 megapixel, true 4K@60Hz



# APPLICATION





# FEATURES



## Highest Performance

PIXELHUE's Flex-View Seamless Switchers are specifically designed for easy management of multiple displays for shows or visual management systems, suitable for use with a variety of input formats and multiple display outputs.

Designed with the latest high-performance FPGA Chipset, the F Series deliver reliable, stable, faster, and better image performance, and output non-compressed 4K@60Hz 4:4:4 10bits videos. Built with a focus on environmental protection, the PIXELHUE-designed foundation is a great long-term solution, simplifying upgrades through modules for future use.

What's better, the F Series feature the support for projectors and irregularly shaped displays.



## Ultimate Flexibility Through Modular Design

The Flex-View Seamless Switchers are designed with up to 8 input slots and 8 output slots, allowing you to easily select I/O modules with different input and output connectors to match the your visual system requirements. The module design allows for easy deployment and upgrade in the field, bringing more convenience and ease your on-site applications.

In addition, the F Series support at most 64x SL mixing layers, 32x DL mixing layers or 16x 4K mixing layers, and also support a variety of input and output connectors, including DVI, DP, HDMI, and 3G-SDI connectors, allowing for easy customization for any project or show.

## Key Features

- Based on Apollo pure FPGA architecture
- True 4K60p 4:4:4 10 bit video processing
- Modular design through removable and field-swappable I/O cards, power supplies and main control card
- Abundant I/O cards to provide a variety of connectivity possibilities
- Up to 32x 2K60p inputs and 32x 2K60p outputs
- Up to 64x SL mixing layers, 32x DL mixing layers or 16x 4K mixing layers
- Cross-connector layer does not occupy layer resources, full screen roaming
- Flexible layer management, including mask and border, flipping, copying and mirroring
- BKG and LOGO management
- Luma key and chroma key, DSK
- Cut and fill
- 2x Multiviewer outputs with flexible layouts, adjustable borders and UMD
- Input and PGM view on an auxiliary output
- Input sync with Genlock; Genlock accepts bi-level or tri-level signals
- Live input view in Triton



## Outstanding Onsite Stability by Backup Solution

The onsite stability and reliability is crucial to all the events. How to safeguard your event and make your display not go bad? PIXELHUE brings its own backup solution to make sure your event is a success. Through the signal backup, device backup and dual redundant power supplies, whenever the signal, device or power fails, the backup one will take over the job seamlessly and you will feel nothing has changed.



## Total Event Control with U3 Controller

The U3 event controller has built-in an exceptional video processing software Triton, which provides the offline mode and pre-editing functionality, and helps you directly import while on-site and migrate between different devices. The easy-to-master and user-friendly graphical user interface guides you from beginning to end of any events with as little complex operation as possible. With the U3 event controller, the F Series can 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 exhibitions.



## Reliable & Worry-Free Operation

In this rapidly evolving market, reliable technology is the key to an outstanding event. Our F Series devices allow you to configure the system to accommodate a variety of connectivity arrangements and display requirements. The F Series feature dual power supplies, full machine data backup to local configuration, fast restoration, and working perfectly 24/7. What's more, our products have passed a series of rigorous drop tests, shock & vibration tests and thermal tests, ensuring they can survive in any kind of road trips or event environment.



## Technical Features

### Inputs

- Up to 32x inputs through 8x input cards
- Standard, custom and advanced EDID settings  
Common resolutions: 1920x1080p@60Hz, 3840x1080p@60Hz and 3840x2160p@60Hz, etc.
- Input source deinterlacing processing
- Input source cropping
- Status LED indicators provided for easy troubleshooting

### Outputs

- Up to 32x outputs through 8x output cards
- Standard, custom and advanced output timing settings
- Output width can be up to 8192 pixels, better choice for LED applications
- Status LED indicators provided for easy troubleshooting

### Multiviewer Outputs

- Two dedicated output connectors configured as Multiviewer connectors, with a fixed resolution of 1920x1080p@60Hz
- Monitor all inputs and screens (PWW and PGM)
- Customizable layouts for easy use
- UMD display and color adjustment
- Multiviewer background color adjustment
- Border adjustment for Multiviewer windows

### Screens

- Outputs configured as single screens or edge-blended widescreens
- Bezel compensation and edge blending
- Irregular screen mosaic and output AOI function, ideal for complex and irregular LED screen applications
- Dedicated BNC with loop-through for Genlock to ensure a synchronized output
- Virtual pixels supported
- Up to 128 presets

### AUX

- AUX screens supported  
AUX connector can be in independent or mosaic use
- AUX screen can follow the preset switching
- Free view of inputs and screens (PGM)

### Transition and Effect

- Cut and fill
- Luma key and chroma key, DSK
- Cut and fade transitions
- Customizable transition durations
- PWW to PGM via Take, Cut or T-bar operation
- Copy or swap display on PWW and PGM

### Layers

- Each output card supports up to 8x SL mixing layers, 4x DL mixing layers or 2x 4K mixing layers
- Full screen roaming supported
- Fade and cut transitions on all layers
- Adjustable layer mask and border with different border effects
- Layer flipping, copying and mirroring
- Pure color layer can be used as background

### BKG & LOGO

- BKG can be either a captured or imported image
- Unlimited BKG quantity in 512 MB storage space
- Imported LOGO images supported
- Independent BKG and LOGO for each screen
- BKG filling the whole screen by default

### Processing

- PIXELHUE high-quality scaling engine
- Low latency processing
- Compatible with HDCP 1.4 and HDCP 2.2
- Compliant with HDR
- Bezel compensation

### Control

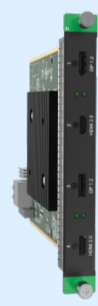
- Intuitive control via U3 event controller
- Multiple control modes via U3 event controller, control PC and Stream Deck

### Others

- Free conversion between HDR10, HLG and SDR
- User keys (containing layer properties such as size, position, border color, etc.) for more convenient and fast layer properties configuration


# MODULAR

## Inputs



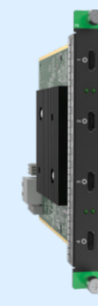
**Dual 4K HDMI2.0/DPI.2 Input Card**  
**2x DP 1.2**  
**2x HDMI 2.0**

- DP 1.2: HDCP 1.3 compliant
  - Up to 4096x2160@60Hz/8192x1080@60Hz 4:4:4 10-bit
- HDMI 2.0: HDCP 2.2 and HDCP 1.4 compliant
  - Up to 4096x2160@60Hz 4:4:4 8-bit
- Only one of the HDMI 2.0 or DP 1.2 can run simultaneously with that in the other parallel group (Group 1: Connectors 1 & 2, Group 2: Connectors 3 & 4)
- Capacity switching between SL, DL and 4K
- EDID management for VESA, and CVT compliant user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz
  - 3840x1080p@30/50/59.94/60Hz
  - 3840x2160p@30/50/59.94/60Hz




**12G-SDI Input Card**  
**2x 12G-SDI or 4x 3G-SDI or 1x 12G-SDI + 2x 3G-SDI**

- 12G-SDI:
  - Downward compatible with 6G-SDI, 3G-SDI, HD-SDI and SD-SDI
  - Connectors 1 and 3 are available
- 3G-SDI:
  - Downward compatible with HD-SDI and SD-SDI
  - Four connectors are available
- Deinterlacing by default
- Common resolutions
  - 12G-SDI:
    - 720x480i@59.94Hz
    - 720x576i@50Hz
    - 1920x1080i@50/59.94/60Hz
    - 3840x2160p@23.98/24/25/29.97/30/50/59.94/60Hz
  - 3G-SDI:
    - 720x576i(PAL)@50Hz
    - 720x480i(PAL)@59.94Hz
    - 1920x1080i@50/59.94/60Hz




**HDMI.4 Quad Input Card**  
**4x HDMI1.4**

- HDCP 1.4 compliant
  - SL: Up to 2048x1080@60Hz 4:4:4 8-bit
  - DL: Up to 3840x1080@60Hz 4:4:4 8-bit
- EDID management for VESA, and CVT compliant user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz
  - 3840x1080p@30/50/59.94/60Hz




**3G-SDI Quad Input Card**  
**4x 3G-SDI**

- Downward compatible with SD-SDI and HD-SDI
- Bi-level at SD and Tri-level at HD
- Deinterlacing by default
- Support for SMPTE 425-1, 2048-2, 296M, 292M and 299M
- Common resolutions
  - 720x576i(PAL)@50Hz
  - 720x480i(PAL)@59.94Hz
  - 1920x1080i@50/59.94/60Hz



**DPI.1 Quad Input Card**  
**4x DP 1.1**

- HDCP 1.3 compliant
  - SL: Up to 2048x1080@60Hz 4:4:4 8-bit
  - DL: Up to 3840x1080@60Hz 4:4:4 8-bit
- EDID management for VESA, and CVT compliant user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz
  - 3840x1080p@30/50/59.94/60Hz



**HDMI.3 Quad Input Card**  
**4x HDMI 1.3**

- HDCP 1.4 compliant
  - Up to 2048x1080@60Hz 4:4:4 8-bit
- EDID management for VESA, and CVT compliant user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz

## Outputs



**3G-SDI Quad Output Card**  
**4x 3G-SDI**

- Downward compatible with HD-SDI and SD-SDI
- Support for ST-424 (3G), ST-292 (HD) and SMPTE259 SD
- Under 1920x1080@50/59.94/60Hz, Level A and Level B adjustment supported
- Support for interlaced signal output
- Support for output timing settings
- Connector copying supported  
Connectors 2 and 4 are active, while connectors 1 and 3 copy the outputs on connectors 2 and 4 respectively
- Common resolutions
  - 720x480i (NTSC)@59.94Hz
  - 720x576i (PAL)@50Hz
  - 1280x720p@23.98/24/25/29.97/30/50/59.94/60Hz
  - 1920x1080p@23.98/24/25/29.97/30/50/59.94/60Hz
  - 1920x1080i@50/59.94/60Hz




**12G-SDI Output Card**  
**1x 12G-SDI or 4x 3G-SDI**

- 12G-SDI:
  - Downward compatible with 6G-SDI, 3G-SDI, HD-SDI and SD-SDI
  - Connectors 1 is available, while connector 2 copies the output on connector 1
  - Connectors 3 and 4 are unavailable
  - Max. resolution: 4096x2160@60Hz
- 3G-SDI:
  - Downward compatible with HD-SDI and SD-SDI
  - Four connectors are available
  - Max. resolution: 1920x1080@60Hz
- Support for ST-2082(12G), ST-2081 (6G), ST-424 (3G), ST-292 (HD) and ST-259 (SD)
- Level A and Level B adjustment NOT supported
- Support for interlaced signal output
- Support for output timing settings
- Common resolutions
  - 12G-SDI:
    - 720x480i (NTSC)@59.94Hz
    - 720x576i (PAL)@50Hz
    - 1280x720p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 1920x1080p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 1920x1080i@50/59.94/60Hz
    - 2048x1080p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 3840x2160p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 4096x2160p@23.98/24/25/29.97/30/50/59.94/60Hz
  - 3G-SDI:
    - 720x576i (PAL)@50Hz
    - 720x480i (NTSC)@59.94Hz
    - 1280x720p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 1920x1080p@23.98/24/25/29.97/30/50/59.94/60Hz
    - 1920x1080i@50/59.94/60Hz




**4K HDMI2.0/OPT Output Card**  
**2x HDMI 2.0**  
**4x 10G OPT**

- HDMI 2.0: HDCP 2.2 and HDCP 1.4 compliant
  - Up to 4096x2160@60Hz 4:4:4 8-bit
  - DL and 4K output supported
- DL:
  - Max. output width: 4096 pixels
  - Max. output height: 4096 pixels
- 4K:
  - Max. output width: 8192 pixels
  - Max. output height: 4096 pixels
  - HDMI 2 copies the output on HDMI 1
- OPT 1 and OPT 2 copy the output on HDMI 1.
- OPT 3 and OPT 4 copy the output on OPT 1 & OPT 2.
- Support for VESA/CVT and user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz
  - 2048x1080p@30/48/50/59.94/60Hz
  - 3840x1080p@30/50/59.94/60Hz
  - 3840x2160p@30/50/59.94/60Hz



**AUX HDMI Output Card**  
**4x HDMI 1.3**

- HDCP 1.4 compliant
  - Up to 2048x1080@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
  - 1920x1080p@30/48/50/59.94/60Hz



**HDMI.3 Quad Output Card**  
**4x HDMI 1.3**

- HDCP 1.4 compliant
  - Up to 2048x1080@60Hz 4:4:4 8-bit
  - Max. output width: 2048 pixels
  - Max. output height: 2048 pixels
- Connectors 2 and 4 are active, while connectors 1 and 3 copy the outputs on connectors 2 and 4 respectively
- Support for VESA/CVT and user timings
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz



**HDMI.4 Quad Output Card**  
**4x HDMI 1.4**

- HDCP 1.4 compliant
- Support for single link (default) and dual link output
- SL:
  - Up to 2048x1080@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
- DL:
  - Up to 3840x1080@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
- Common resolutions
  - 1920x1080p@30/48/50/59.94/60Hz
  - 2048x1080p@30/48/50/59.94/60Hz
  - 3840x1080p@30/50/59.94/60Hz

### More Cards

We offer more DVI cards for your choice, including SL-DVI Quad Input Card, DVI (HDMI.4) Quad Output Card, DVI (HDMI.4)/OPT Output Card, SL-DVI Quad Output Card and AUX SL-DVI Output Card. If you need more details about these cards, please contact us.

### Caution

All the cards can be only installed into the designed slots. Installing a card into an incorrect slot will cause device failure.

Specifications subject to change without prior notice.