

Q8

Seamless Switcher



Specifications

Introduction

PIXELHUE's Q8 is a seamless switcher that operates at a full 4K standard and supports 8K video processing. It adopts a modular design with a plug-in structure and allows users to flexibly configure input and output cards according to their needs, accommodating various live video inputs with stable performance. Working with the professional intelligent management software PixelFlow and the event controller U5 or U5 Pro, it can easily achieve a wide array of visual effects. Thank to that, the Q8 can be employed in various settings, including stage performances, high-end auto shows, business conferences, television production, product launches, and large exhibitions.

The Q8 is built on a powerful hardware FPGA system architecture with a modular design, combining the stability and efficiency of a purely hardware-based approach with flexible input and output card configurations. It supports full 4K ultra-high-definition video inputs and outputs, multi-screen and multi-layer management, irregular screen loading, edge blending, input EDID management and output timing management, as well as image monitoring and input view. This provides a rich visual construction experience.

Certifications

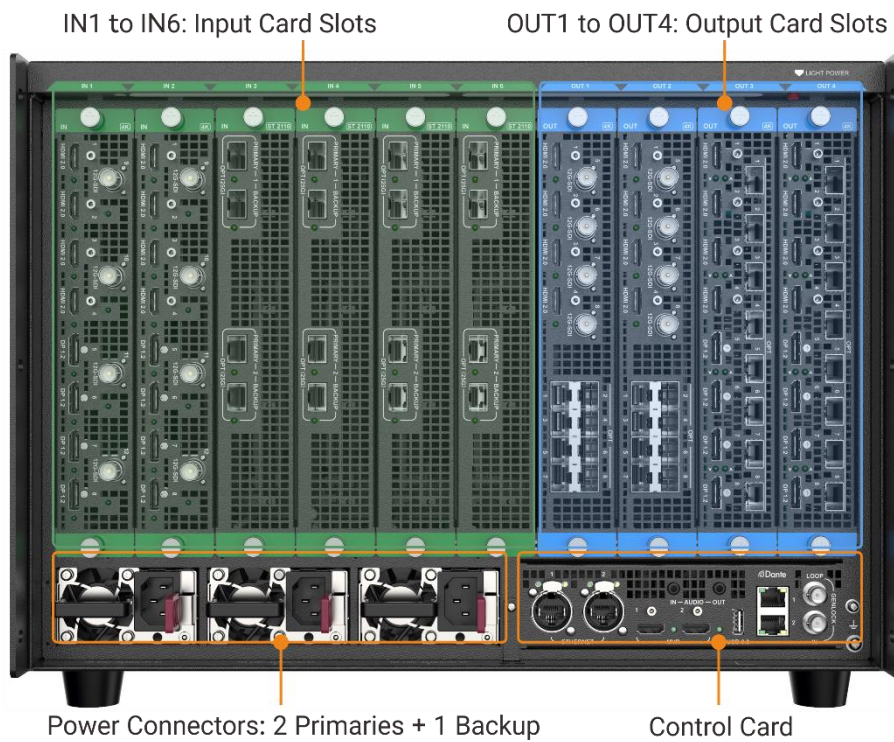
CE, FCC, IC

If the product does not have the relevant certifications required by the countries or regions where it is to be sold, please contact PIXELHUE to confirm or address the problem. Otherwise, the customer shall be responsible for the legal risks caused or PIXELHUE has the right to claim compensation.

Features

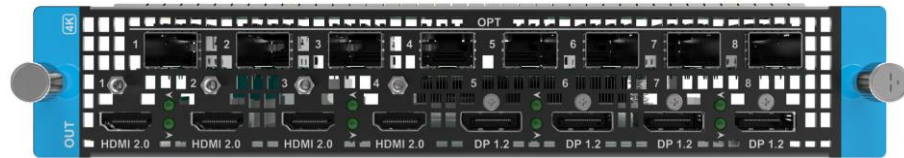
Plug-in Structure for Flexible Card Configuration

- The input and output cards feature a modular design with a plug-in structure, enabling users to freely choose and combine various input and output cards
 - A card slot supports multi-capacity inputs
 - Ability to monitor input and output connection status in real-time
 - Ability to monitor board working status and key chip temperatures
 - Input source cropping
 - Advanced DSK capability for input: smart key, luma key and chroma key
 - Output color gamut adjustment
 - 90° output rotation for creative display
 - Automatic HDCP decryption for inputs and HDCP encryption for outputs
 - Optical port backup and long-distance transmission via optical ports
 - 3 EDID setting modes
 - Preset EDID
 - Custom EDID
 - Advanced EDID settings by configuring video source timing parameters
 - Sync signal information at a glance
Display the current synchronization signal and its frame rate, along with the synchronization status. If synchronization fails, users can check the reason for the failure.
 - Support for multiple standard timings such as DMT, CEA and SMPTE
 - Various control options:
 - Front panel LCD
 - Event controller U5/U5 Pro
 - Event management software PixelFlow
 - Third-party control system Stream Deck (Companion integrated into the Q8)
 - Audio matrix
Manage and map input and output audios.
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 **Note**

- The picture above is the rear panel of the device when it is fully loaded. Users can configure input and output cards as needed.
 - The input and output cards are replaceable. Up to 6 input cards and 4 output cards can be installed.
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**Q8_HDMI2.0x4+
DP1.2x4+SFPx8
Output Card**


The 4x HDMI 2.0 and 4x DP 1.2 connectors are divided into 4 groups. Each group includes 1x HDMI 2.0 and 1x DP 1.2, and connectors within the same group copy each other's output.

- Connector 1 (HDMI 2.0) and connector 5 (DP 1.2) form Group 1.
- Connector 2 (HDMI 2.0) and connector 6 (DP 1.2) form Group 2.
- Connector 3 (HDMI 2.0) and connector 7 (DP 1.2) form Group 3.
- Connector 4 (HDMI 2.0) and connector 8 (DP 1.2) form Group 4.

4x HDMI 2.0

- Up to 4Kx2K@60Hz 8bit 4:4:4 output
- Support for 8-bit and 10-bit output settings
- Support for 4:2:2 and 4:4:4 output settings
- Support for YCbCr and RGB color space settings
- Support for HDR outputs
- Support for color gamut adjustment
- Support for interlaced video signal
- Support for 8-channel embedded audio (24bit/48kHz)
- Custom resolutions
 - Maximum width: 8192 pixels
 - Maximum height: 8186 pixels

4x DP 1.2

- Up to 4Kx2K@60Hz 10bit 4:4:4 output
- Support for 8-bit and 10-bit output settings
- Support for 4:2:2 and 4:4:4 output settings
- Support for YCbCr and RGB color space settings
- Support for 3D outputs
- No support for interlaced video signal
- Support for 8-channel embedded audio (24bit/48kHz)
- Custom resolutions
 - Maximum width: 8192 pixels
 - Maximum height: 8186 pixels

8x 10G OPT

- Support for single-mode and multi-mode optical outputs
- Transmission distance up to 10km in single mode
- Support for 8-channel embedded audio (24bit/48kHz)
- OPT ports copy outputs on video connectors
 - OPT 1 and OPT 2 copy the output from Group 1.
 - OPT 3 and OPT 4 copy the output from Group 2.
 - OPT 5 and OPT 6 copy the output from Group 3.
 - OPT 7 and OPT 8 copy the output from Group 4.

Status LEDs

Each HDMI and DP output connector has a status LED which indicates the connection status of backend device. The optical port does not have status LEDs.

- On: The output connection is normal.
- Off: The output connection is abnormal.

Notes and Cautions

FCC Caution

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Others

This is Class A product. In a domestic environment, this product may cause radio interference in which case the user may be required to take adequate measures.

The product can be mounted in a standard 19-inch rack capable of withstanding at least four times the total weight of the mounted equipment. Eight M6*16 screws should be used to fix the product.

This product can only be placed horizontally. Do not mount vertically or upside-down.

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