

EP4R Pro Fiber Extender



Specifications

Change History

File Version	Release Date	Description
V1.1.1	2026-07-27	- Added the notes for Ethernet passthrough feature. - Updated the certifications.
V1.1.0	2026-04-02	Updated the description in the introduction section.
V1.0.0	2025-11-27	First release

Introduction

The EP4R Pro fiber extender employs advanced fiber optic technology to achieve lossless, long-distance transmission of audio and video signals via optical fiber. Unlike traditional cables, it effectively addresses limitations in length and signal degradation.

The EP4R Pro delivers optimal video signal quality, providing users with a clear and detailed visual experience. Its compact design and straightforward installation offer plug-and-play convenience, eliminating the need for complex setup. This allows users to effortlessly extend audio and video signals to their desired location.

The EP4R Pro is versatile and can be employed in various settings, including home theaters, conference systems, and monitoring centers. Suitable for both commercial and personal use, it delivers stable and reliable video transmission, making it an ideal choice for high-definition video transmission over long distances.

Certifications

CE, CB, EAC, FCC, KC, RCM, PSE

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

- Ultra-HD lossless transmission

Supports 8-bit/10-bit/12-bit transmission, utilizing advanced encoding technology to optimize video signals, ensuring clear and smooth image quality during transmission.

- 8-bit 4:4:4, max 4096×2160@60Hz
- 10-bit 4:4:4, max 4096×2160@30Hz
- 12-bit 4:2:2, max 4096×2160@60Hz

- Long-distance transmission

Transmit video signals over long distances via optical fiber without concerns about signal degradation.

- Neutrik etherCON for firmware update

- Integrated etherCON and opticalCON, plus powerCON connector for professional-grade connectivity

- Input source copy function

- Embedded audio input support

- 3D passthrough

- HDR support

- Zero latency video transmission

- KVM

Support remote control of multi-platform PC hosts via KVM roaming.

- Ethernet signal passthrough via DIP switch

- Clear signal indicators for easy device status monitoring

- Simple operation, plug and play

- HDCP-encrypted video transmission

- 24/7 operation

Appearance

Note

The pictures shown are for illustration purposes only. Actual product may vary due to product enhancement.

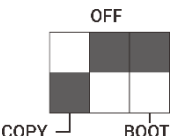
Front Panel



Area		Function
Rocker switch		Power on or power off the device.
Indicators	POWER	1x LED indicator (red), showing power status - On: The device is powered on. - Off: The device is powered off.
	LINK	4x LED indicators, showing real-time link status - Green: A normal OPT link connection is established. - Off: OPT link failure or no connection - Four indicators flash slowly (1 Hz/s, green): Enter the BOOT mode. - Four indicators flash quickly (2 Hz/s, green): Update is in progress.
	VIDEO	4x LED indicators, mirroring the status of the corresponding OPT ports of RX end - Green: Non-HDCP signal is successfully recognized. - Blue: HDCP signal is successfully recognized. - Off: Signal is not recognized or absent.

Rear Panel



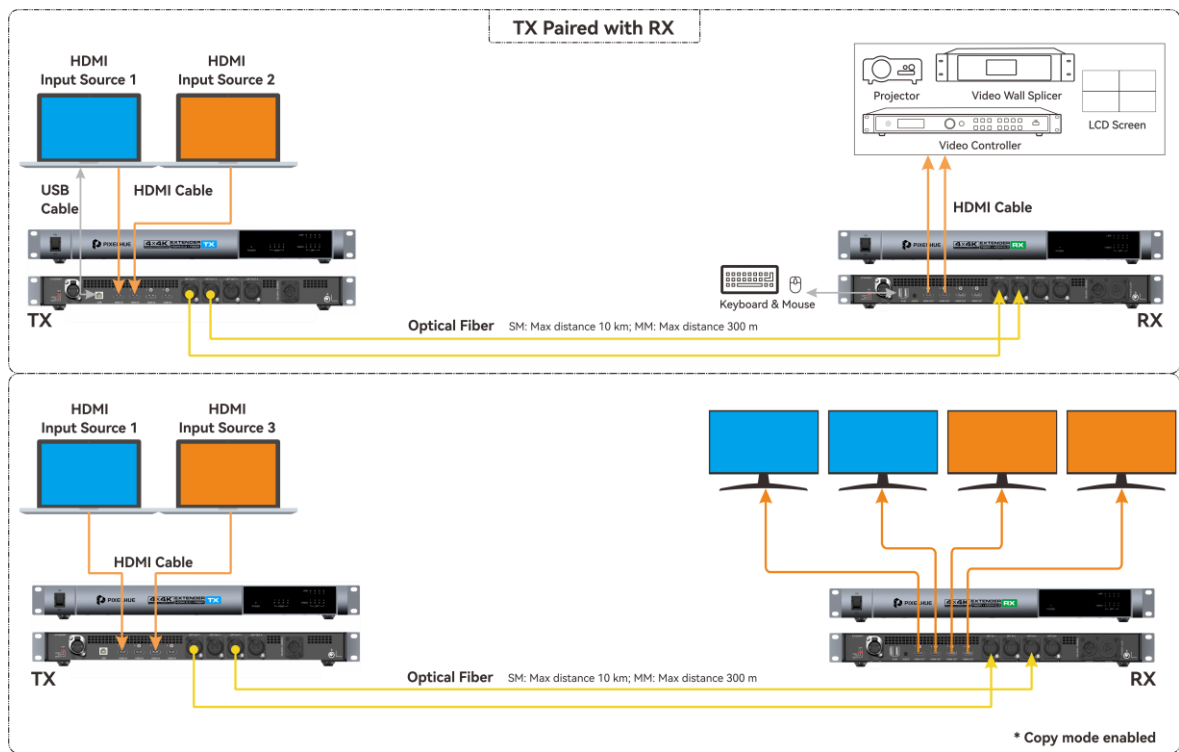
Connector	Description
DIP switch 	- DIP switch 1: Enable or disable the input source copying function. - HDMI 1 and HDMI 2 output the identical content from OPT 1 or OPT 2. - HDMI 3 and HDMI 4 output the identical content from OPT 3 or OPT 4. - DIP switch 2: Reserved - DIP switch 3: Enable or disable the BOOT mode for firmware update.

Connector		Description
		- Set DIP switches 1 and 2 to down position to enable forced lossless transmission. - HDMI 1 and HDMI 2 together (left and right) output the OPT 1 input image. OPT 2 input is not supported. - HDMI 3 and HDMI 4 together (left and right) output the OPT 3 input image. OPT 4 input is not supported. - When using forced lossless transmission, it works with the TX end. - Set DIP switches 1, 2 and 3 to down position to enable the Ethernet passthrough feature. Note After enabling or disabling BOOT mode, the device must be restarted.
ETHERNET		1x Neutrik etherCON - Connect a control computer for firmware update. - The paired use of TX and RX allows for Ethernet signal passthrough. Note - For the Ethernet passthrough function, the maximum transmission bandwidth is limited to 3 Mbps. - The Ethernet passthrough function is only suitable for transmitting general control commands, such as central control instructions, and is not suitable for large data volume transmissions like video or images.
USB		2x USB 2.0 (type-A) Connect a control computer for KVM control or firmware update.
Audio		1x 3.5 mm audio output Output the embedded audio from HDMI 1.
HDMI OUT	HDMI	4x HDMI 2.0, downward compatible with HDMI 1.4 and HDMI 1.3 - Max output resolution per connector: 4096×2160@60Hz - Single connector width range: 800 to 8192 pixels - Single connector height range: 600 to 8188 pixels - Max bit depth: 12-bit, downward compatible with 10-bit and 8-bit - Color space/sampling rate: RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2 - Support YCbCr 4:2:0 when the output resolution exceeds 4096×2160@30Hz. - Support embedded audio output, with a sampling rate of 48 kHz. 3D passthrough - HDR support - Support progressive and interlaced video signal transmission. - HDCP 2.2 compliant, downward compatible with HDCP 1.4 - Copy/backup support HDMI 1 and 2 form a backup pair, as do HDMI 3 and 4.

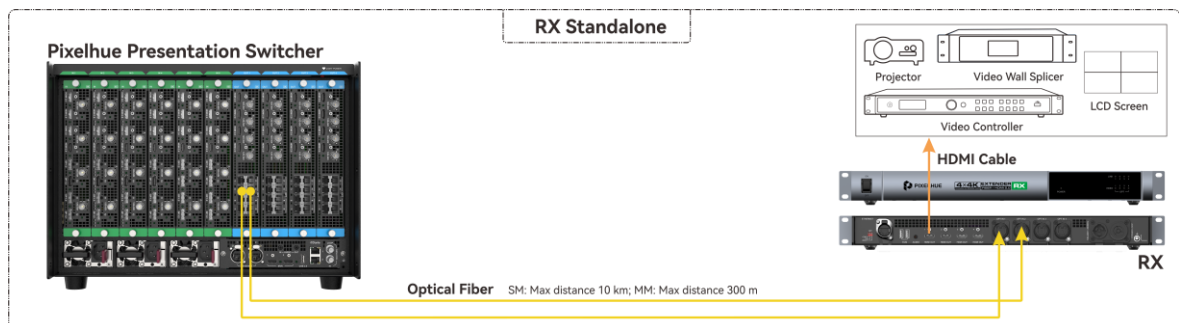
Connector		Description
OPT IN	OPT	4x Optical ports - Paired: - Max resolution per port: 4096×2160@60Hz - Single device supports 4x 4096×2160@60Hz - Standalone: - Max resolution of two ports: 4096×2160@30Hz - Single device supports 2x 4096×2160@60Hz or 4x 4096×2160@30Hz - Single connector width range: 800 to 8192 pixels - Single connector height range: 600 to 8188 pixels - Max bit depth: 10-bit, downward compatible with 8-bit - Color space/sampling rate: RGB 4:4:4, YCbCr 4:4:4, YCbCr 4:2:2, YCbCr 4:2:0 - Support embedded audio input, with a sampling rate of 48 kHz. 3D passthrough - HDR support - Support progressive and interlaced video signal transmission. - HDCP 2.2 compliant, downward compatible with HDCP 1.4 - Input copy/backup support OPT 1 and 2 form a backup pair, as do OPT 3 and 4. - Support single-mode transmission. Recommended optical module: EOLP-1396-10-I, with a maximum distance of 10 km - Support multimode transmission. Recommended optical module: EOLP-8596-02-I, with a maximum distance of 300 m - Dual-core LC fiber optic cables must be used to ensure stable signal transmission and system reliability. Note - The OPT ports are equipped with built-in 10G optical modules. - The 25G optical modules are not supported. - The product includes 4x EOLP-1396-10-I modules.
Power	-	powerCON connectors 100–240V~, 50/60Hz - POWER LOOP: 250V/16A Loop through the power to the linked device.

Applications

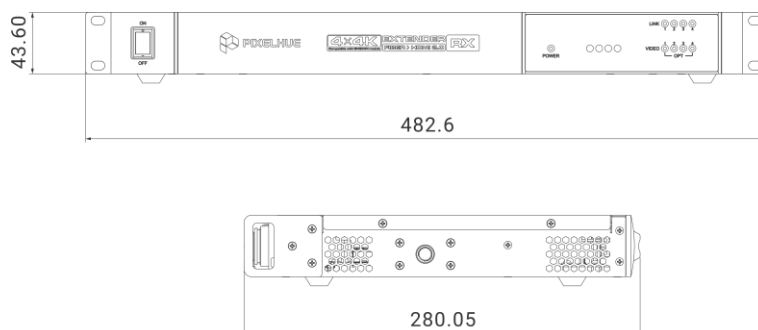
Paired Use



Standalone Use



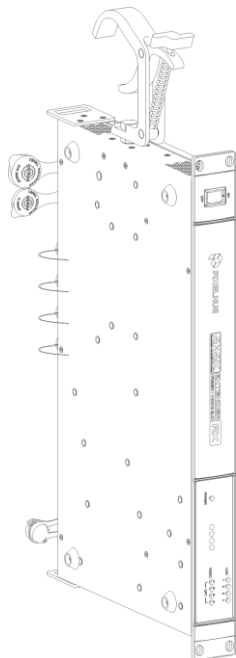
Dimensions


Tolerance: ± 0.3 Unit: mm

Installation

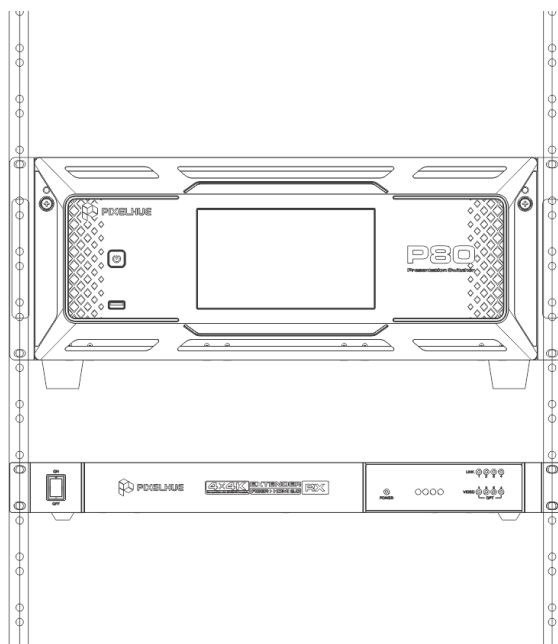
C-Clamp

Mount the device with a C-clamp.



Rackmount

Mount the device into a cabinet.



Note

For the specific installation dimensions, please contact PIXELHUE technical support.

Specifications

Electrical Specifications	Power	100–240V~, 50/60Hz
	Max power consumption	23 W
Operating Environment	Temperature	–10°C to +55°C
	Humidity	5% RH to 85% RH, non-condensing
Storage Environment	Temperature	–10°C to +60°C
	Humidity	5% RH to 95% RH, non-condensing
Physical Specifications	Dimensions	482.6 mm × 43.6 mm × 280 mm
Noise Level (Typical at 25°C/77°F)		31 dB (A)
Packing Information	Accessories	1x Power cable 1x Ethernet cable 1x HDMI cable 1x Certificate of Approval 1x Safety Manual
	Net weight	3.7 kg
	Gross weight	6.3 kg
	Packing size	565 mm × 450 mm × 175 mm

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 a 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.

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