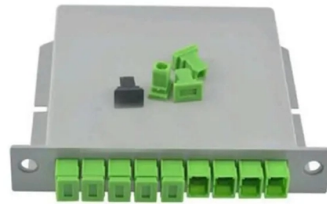


HDMI single-mode fiber



Overview

HDMI Single-Mode Converters HDMI Single-Mode Fiber Converters allows the transport of 12G-SDI or 3G-SDI over distances up to 10km when using standard Hdmi.

Key Takeaways

HDMI over single mode fiber allows full HD or higher video and audio signals to be transmitted over distances up to 25 km using a single strand of fiber optic cable. Overview

HDMI over single mode fiber is a technology that converts HDMI signals into optical signals for long-distance transmission. Unlike traditional HDMI cables, which are limited to around 50 feet before signal degradation occurs, single mode fiber can carry uncompressed video and audio over kilometer-scale distances without loss of quality . This makes it ideal for professional AV installations, broadcasting, surveillance, and remote display setups.

Key Features

- Distance: Single mode fiber extenders can transmit HDMI signals up to 20-25 km depending on the system and fiber quality .
- Resolution Support: Supports Full HD 1080p, 1080i, and in some modern systems, 4K resolutions with deep color and multichannel audio formats including Dolby Digital Plus, 7.1 LPCM, Dolby TrueHD, and DTS Master Audio .
- Audio Support: Embedded audio signals are transmitted alongside video, and some systems allow separate analog audio over fiber .

- IR Control: Many extenders include an IR return path, enabling remote control of source devices from the receiving end .
- USB KVM Support: Certain models allow keyboard and mouse control over the same fiber link, useful for control rooms or remote workstations .
- Single Strand Operation: Modern systems often require only one strand of single mode fiber with SFP LC connectors, simplifying installation .

Applications

- Broadcasting and Media Production: Transmit high-quality video from cameras or media servers to control rooms.
- Surveillance and Security: Long-distance video monitoring without signal loss.
- Corporate and Educational AV: Connect multiple workstations to a central display rack over long distances.
- Home Theater or Remote Display: Extend HDMI from media players to distant TVs or projectors.

Product Examples

- Thor F-HDMI Extender: Supports 1080i/1080p video with up to 8 audio channels over a single strand of fiber, with optional IR return path .
- Hanutech HDMI Extender: Supports 1080p video up to 20 km, includes USB KVM support, and allows IR control over single mode SC/SC fiber .

Considerations

- Each HDMI input may require its own fiber strand if multiple channels are transmitted simultaneously, especially for high-bandwidth applications .
- Ensure compatibility with HDCP-protected content if transmitting encrypted signals .
- Power supply stability is important for continuous operation, particularly in professional or industrial environments . Using HDMI over single mode fiber provides a reliable, high-quality solution for long-distance video and audio transmission, overcoming the limitations of traditional copper HDMI cables while supporting advanced AV features.

Article Content

HDMI Single-Mode Converters

HDMI Single-Mode Fiber Converters allows the transport of 12G-SDI or 3G-SDI over distances up to 10km when using standard

Hdmi Extender over single mode Fiber, Hdmi over Fiber 4K HDMI

Setting up the HDMI over fiber extender is straightforward. Simply connect the HDMI video source to the extender unit using a

MT-VIKI HDMI KVM Fiber Extender, HDMI Extender Over Single

This HDMI over fiber system is used to extend HDMI signals up to 12.4miles (20Km) over a LC to LC Single-mode Fiber optic cable,

HDMI 2.0 Fiber Extender Kit, Single Mode

In addition, the HDMI 2.0 Fiber Extender Kit, Single Mode is HDCP 2.2 compliant and supports IR and RS-232 pass-through and

MuxLab Single-Mode HDMI 2.0 Fiber Extender Kit 500485 B&H Photo

MuxLab 500485 Overview This Single-Mode HDMI 2.0 Fiber Extender Kit from MuxLab can transmit and receive a HDMI 2.0 signal

1ch 4K HDMI Single-Fiber LC 20km Mini Optical Transceiver

About this item [EXCELLENT QUALITY] Mini 4K HDMI fiber extender is more smooth and stable while transmitting signal, support

Cutting-Edge Connectivity: Understanding Fiber Optic HDMI Cables

If you're in need of a particularly long HDMI cable, a fiber optic HDMI cable might be what you need. Here, you'll learn

Any HDMI 2.1 extender over single mode fiber

HDMI has much higher bandwidth than ethernet. SFP+ is 10G, whereas HDMI2.1 is 48G. SFP28 is 25G, and it's fairly common, but

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