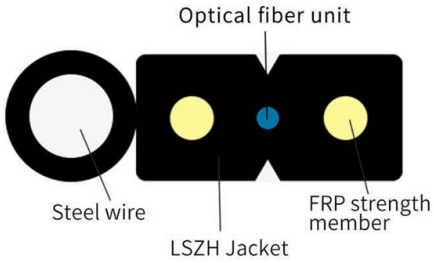
KVM connected to HDMI fiber optic transceiver



Overview

The 4KIP500F-KVM can transmit 4K ultra HD HDMI signals up to 550m (1800ft) over multi-mode optical fiber with zero latency.

Key Takeaways

HDMI fiber optic KVM extenders transmit high-resolution video and control signals over long distances with minimal latency, supporting 4K video, USB peripherals, and remote PC control. OverviewHDMI fiber optic KVM extenders allow you to transmit HDMI video, audio, and control signals (keyboard, mouse, USB, RS232, IR) over fiber optic cables, overcoming the distance limitations of standard HDMI cables. These devices are ideal for data centers, control rooms, broadcast studios, hospitals, and large buildings where high-quality video and remote system control are required.

Key FeaturesHigh-Resolution Support: Most modern fiber KVM extenders support 4K video at 30Hz or 60Hz, ensuring clear and detailed visuals for professional applications.

Long-

Distance Transmission: Using multi-mode or single-mode fiber, these extenders can transmit signals from hundreds of meters up to 20 km, depending on the model and fiber type. Low Latency: Fiber optic technology provides near-zero latency, making it suitable for real-time control and interactive applications. Peripheral Support: USB 2.

0/3. 0 ports allow connection of keyboards, mice, touchscreens, and other devices. Some models also support RS232 and IR control for remote device management.

© 2026 METRA FIBER MARKET - All rights reserved

Scalability: IP-based KVM extenders can connect multiple transmitter and receiver pairs through a Gigabit Ethernet switch, enabling centralized control of multiple systems without complex VLAN configurations.

EM

I Immunity: Fiber optic connections eliminate electromagnetic interference, ensuring stable and uninterrupted video transmission.

Typical Applications

Control Rooms and Broadcast Studios: Centralized management of multiple systems with high-resolution video output. Medical and Industrial Environments: Remote operation of computers and equipment in hospitals or industrial facilities. Large Buildings and Campuses: Extending HDMI and KVM signals across long distances without signal degradation.

Example Models4KIP500F-KVM: Supports 4K@30Hz HDMI over multi-mode fiber up to 550m, with USB 2. 0 peripheral support and zero latency. HE01F-4K6G: 4K@60Hz HDMI KVM extender with USB, RS232, and IR, capable of transmitting up to 10 km over single-mode fiber.

AVCiT 4K KVM Transmitter: Transmits UHD video, audio, USB-HID, RS232/485, and IR over fiber up to 20 km with near-zero latency, suitable for video wall and distributed control systems.

Primeda-

Telecom 4K HDMI Over Fiber: Single-mode LC fiber, uncompressed 4K@30Hz transmission up to 10 km, supporting KVM functionality.

Considerations

Fiber Type: Multi-mode fiber is suitable for shorter distances (up to ~550m), while single-mode fiber supports longer distances (up to 20 km or more),.

I

P vs Point-to-Point: IP-based KVM extenders allow multiple systems to be connected over a network, while point-to-point extenders are simpler but limited to direct connections. Peripheral Compatibility: Ensure the extender supports the required USB devices, RS232, or IR control for your setup. Bandwidth and Latency: For applications requiring real-time control, choose extenders with low-latency, uncompressed transmission.

© 2026 METRA FIBER MARKET - All rights reserved

HDM

I fiber optic KVM extenders provide a robust solution for extending high-resolution video and control signals over long distances, combining the benefits of fiber optics with versatile peripheral support for professional and industrial environments.

Article Content

Fiber 4K30 HDMI+USB KVM-Extender over IP (max. 500m MM), Zero

The 4KIP500F-KVM can transmit 4K ultra HD HDMI signals up to 550m (1800ft) over multi-mode optical fiber with zero latency. It offers exceptional stability, reliability, and easy integration, making it perfect

AV Access Unveils 4KIP500F-KVM: 550m KVM

The 4KIP500F-KVM is engineered for high-performance environments, offering up to 550 meters (1800 feet) of 4K Ultra HD HDMI signal transmission

4K HDMI 2.0 KVM USB over Fiber Optic Extender w/ IR

The receiving supports audio extracting and 2-way HDMI output. The extender also supports IR signal transmission; you can control the signal source equipment on

4K HDMI KVM Extender over Fiber

REMOTE ACCESS: USB & 4K HDMI KVM extender over fiber controls a KVM switch/console or PC using a fiber optic cable at distances up to 984''/300m (multimode cable) or 1,640''/500m (single mode

4K HDMI KVM Extender Over Fiber

Navceker 4K HDMI KVM Extender Over Fiber is design by High-performance N305+N735+IT318 Chipset,6-Layer PCB,Aluminum Shell and 24K Gold Plated

HDMI® Digital KVM Extender over Fiber/Cat5

KFH163S HDMI digital KVM extender delivers 1 channel video, mouse, keyboard, USB2.0 signals of servers over fiber cables or Cat 5 cables. A complete set of

HDMI® FHD KVM Extender over Fiber/Cat5

Kinan KFH168S HDMI FHD KVM extender over fiber/Cat5 is used to transmit 1-channel video, mouse, keyboard, USB2.0 and other signals of the servers

KVM Extenders:Fibre-Optic:

© 2026 METRA FIBER MARKET - All rights reserved

The VE882 is an Optical HDMI Extender that overcomes the length restriction of standard HDMI cables by using optical fiber to send high definition audio and video signals over...

4K UHD HDMI USB KVM Extender Kit Over Fiber with

Operating over single-mode fiber optic cabling, this extender is capable of transmitting signals up to 6.25 miles (10km), making it an ideal solution for

Fiber Optic Connector Accessories / Fiber Optic Connectors /

Connectors, Interconnects Fiber Optic Connectors Fiber Optic Connector Accessories - ODG provides real-time inventory updates and pricing. order now, Connectors, Interconnects ship quickly.

HDMI KVM EXTENDER OVER FO (20KM)

HDMI EXTENDER FIBER OPTIC Using a fiber optic cable to extend the distance of HDMI signal up to 20KM. Support IR remote control and 802.3 ethernet standard FULL HD 1080P Support audio and

Tripp Lite

Fiber Optic Cables Fiber Optic Cables Coaxial Cables (RF) Coaxial Cables (RF) Video Cables (DVI, HDMI) Video Cables (DVI, HDMI) USB Cables USB Cables RF Receiver, Transmitter, and

Fiber Optic Connector Adapters / Fiber Optic Connectors / Connectors ...

The primary purpose of fiber optic connector adapters is to provide a seamless and secure connection between two connectorized fiber optic cables. They ensure proper alignment and mating of

Fiber Optic Connector Adapters & Industrial Fiber Optics | ODG

Industrial Fiber Optics, Inc. specializes in the design and manufacture of high-performance fiber optic components and systems. Their product range includes fiber optic transceivers, fiber optic cables,

Global IT Products & Network Solutions Provider | Black Box

Black Box provides cutting-edge IT solutions and technology products to businesses worldwide, ensuring innovative and reliable services for global digital transformation.

KVM Switches (Keyboard Video Mouse)

What types of cables are used with KVM switches? The most common types of cables used with KVM switches include VGA, DVI, HDMI, and DisplayPort cables for video, as well as USB or PS/2 cables

© 2026 METRA FIBER MARKET - All rights reserved

Everything You Need to Know About Crimp Terminals | ODG

Selecting the right crimp terminal is crucial for a safe electrical connection. This guide covers how to match terminal types and sizes to your specific wire gauge.

Tv box with optical output-AliExpress

Optical Output A digital audio connection that uses fiber optic cables to transmit high-quality audio signals, commonly used for surround sound formats. HDMI Input A port that allows external devices

Related Video Reference

This video was associated with the source search result. Verify technical details against current product documentation and project requirements.

Contact Us

Continue your research online:

Website: https://metramarket.es
Technical inquiry: https://metramarket.es/contact.html

This document is for preliminary research. Verify specifications against current standards, product documentation and project requirements.

© 2026 METRA FIBER MARKET - All rights reserved