



HDMI Pure Fiber Detachable Extender

Vitex Part Number: LHD-301

LHD-301 is Vitex's Pure Fiber HDMI 2.1 Detachable Extender, empowering high-performance video system designers to extend their high-performance HDMI signals further, delivering crystal clear audio and deep color video. With one HDMI detachable transmitting connector on one end, and a detachable receiving connector on the other, Vitex's detachable video extender kit allows an HDMI 2.1 signal to travel over a pure fiber cable, providing minimal interference and high-speed HDMI transmission, up to 1000 feet (300 meters).

Features

- HDMI 2.1 signal
- Reach up to 1000 feet
- Full fiber connection
- Pre-wire and connect – No splicing or fiber terminations required
- Locking couplers ensure correct optical alignment
- Protective caps
- Plenum rated FO Cable
- Optional keystone wall plate

Applications

- Remote USB Device Connection
- High Speed USB Cameras
- Video Games, Entertainment Systems
- Control Rooms
- Video Conference Systems
- Medical Imaging, Display Connections
- Flight Simulation and Defense Applications



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Product Overview

Engineered utilizing pure fiber optical cable, Vitex's Pure Fiber HDMI Detachable Extender offers a fiber connection for stunning picture clarity, detail, and color depth up to 1000 feet (300 meters). Developed for professional A/V applications, the pure fiber optic MPO cable minimizes EMI and RFI interference where needed. The kit consists of two 6' connector dongles with an HDMI transmitting (TX) connector for source (PC, or GPU) and a DisplayPort receiving (RX) connector for display (monitor, or projector) for use on either end of the fiber cable.

HDMI source components (TX) supply 5V power. If the source component does not provide enough power, a hardwired USB power cable is included to draw power externally. At the display (sink) location, the RX connector USB power cable must be connected to a 5V powered USB connector located on the display panel.



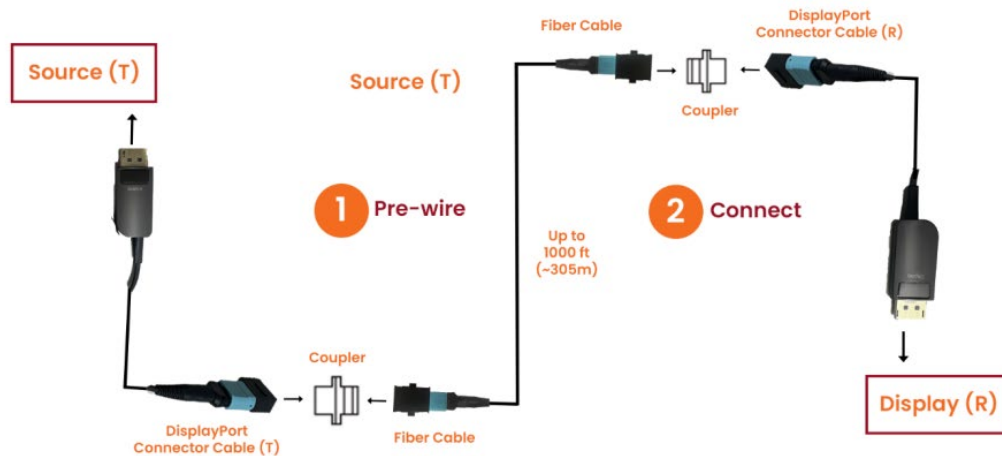


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Specifications

Parameter	Specification
HDMI Version	HDMI 2.1
Data Rate	Up to 48 Gbps
Resolution	Up to 8k@60Hz Chroma sampling rate up to 4:4:4
Supported Features	HDMI High Speed HDCP v2.3 EDID CEC HDR Dolby Vision BT.2020 Deep Color
Power	TX: 0.5W / RX: 0.5W; 5V DC
Temperature / Humidity	-4°F ~ 158°F (-20°C ~ 70°C) 0% - 90% RH
Audio Return Channel	Yes
LED Status Indicator	At TX & RX HDMI connectors Powered LED verifies connectivity
Cable Jacket	Plenum rated, 12 Fiber Strand
Fiber Optic Cable Pull Strength	60 pounds
Bend Radius	0.50" / 13mm
HDMI Connector Dimension	0.35" x 0.73" x 1.54" / 9 x 18.5 x 39 mm
Fiber Optic Connector Dimension	0.31" x 0.51" x 1.77" / 8.2 x 12.9 x 45.0 mm

Connection Diagram



Ordering Information

Part Number	Description
LHD-301	Pure Fiber HDMI Detachable Extender, Transmitter and Receiver
FO-CABLE-yyyPA yyy: denotes length - available in 35ft, 50ft, 100ft, 160ft, 200ft, 1000ft	Vitex Pure Fiber Optic MPO Cable



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Cable Information

Vitex's **FO-CABLE** pure Fiber Optic MPO Cables are ideal for interconnection between the Pure Fiber DisplayPort Extender transmitter and receiver.

Part Number	Length (in Feet)	Meters
FO-CABLE-035PA	35ft	10m
FO-CABLE-050PA	50ft	15m
FO-CABLE-100PA	100ft	30m
FO-CABLE-160PA	160ft	48m
FO-CABLE-200PA	200ft	60m
FO-CABLE-500PA	500ft	150m

Revision History

Date	Description
February 11, 2024	Version 1.0
November 7, 2024	Version 1.1



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About Vitex

As a US-based fiber optic connectivity solutions partner, Vitex is relied on by network builders, operators, and OEMs to help make their ideas come to life. Vitex has developed active and passive optics for more than 20 years to help networks reach farther, go faster, and perform better. Regarded for their ability to optimize their broad portfolio of transceivers, cables, and WDMs, companies turn to Vitex when out-of-box thinking, active listening, and relentless solution-seeking are needed.

Vitex's global network of suppliers, partners, and skilled engineering staff make what if and how possible.

We aim to be the fiber optic expert extension of your product development, engineering and procurement departments.

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