

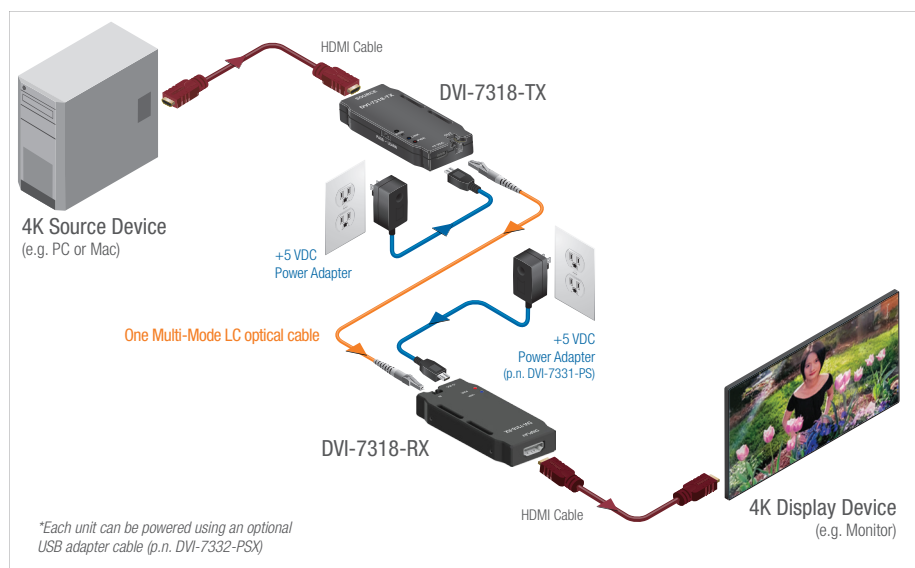
Introduction

High Performance — The DVI-7318 is a high performance 4K/60p Optical Extender that transmits high resolution HDMI signals over long distances using a single fiber optic cable. It supports HDMI v2.0 signals (with or without HDCP) with resolutions up to 3840x2160 /60p (4:4:4) over cable distances of up to 1,000 ft. (~ 300 meters).

Fiber Optic Extension — The extender uses Shortwave Wavelength Division Multiplexing (SWDM) to enable all signals to travel over a single strand of optical fiber. The extender set consists of an optical transmitter module that converts the HDMI signals into light pulses for transmission over a fiber optic cable. An optical receiver module converts the light pulses back to an HDMI signal for display on a monitor or projector.

Multiple Signals Over One Cable — While the video signal pathway is one-way, the unit also supports extension of bidirectional DDC signals without the need for additional cables. This enables “live” EDID and HDCP communications between the connected source and display. These features make the DVI 7318 the ideal future-proof choice for systems designers and integrators who need to send high resolution HDMI signals over long distances.

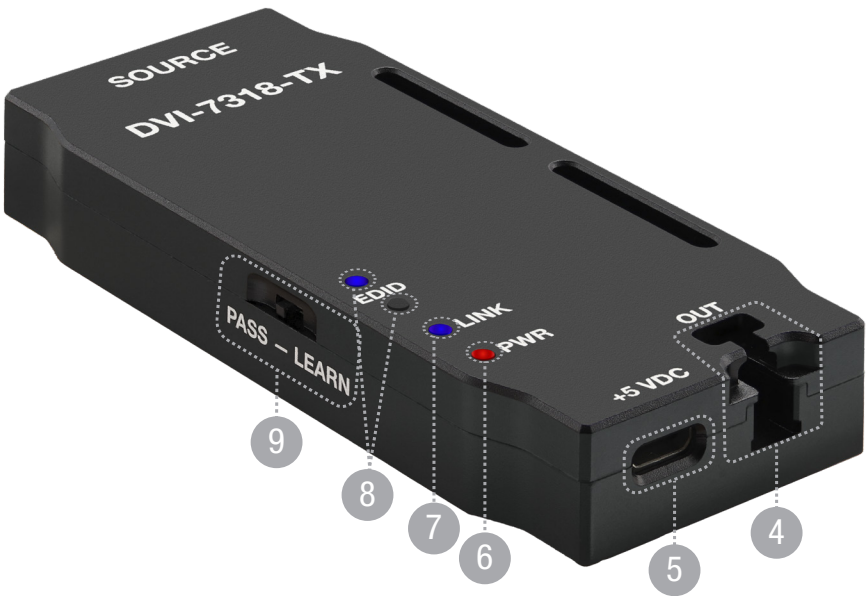
Typical Application



DVI-7318 4K/60p HDMI Fiber Optic Extender, 1x LC



DVI-7318-TX Input View



DVI-7318-TX Output View

1. HDMI Female Connector	DVI-7318-TX connects to an HDMI cable plugged into the <i>Source</i> device. DVI-7318-RX connects to an HDMI cable going to the <i>Display</i> device.
2. Tie-Strap Fixation Inlets	Cable ties enable secure mounting when run through the inlets.
3. Mounting Holes	Use two M2x3 mm screws to affix the unit to a rack shelf.
4. Fiber Optic Connector	1x LC optical connector for Multi-Mode fiber optic cable.
5. Micro-B USB Connector	This port is used to power the unit. Connect the External AC Power Adapter to this receptacle. Alternatively, it is possible to power the TX from a USB port that can supply adequate power.
6. Power LED	Illuminates Red when DC power is applied
7. Link LED	Illuminates Blue when optical link between the TX and RX is operating properly.
8. EDID Button and LED	Depress the button to activate EDID Learn mode following the procedure on page 4. LED flashes Blue when active.
9. EDID Switch	Use this switch when following the procedure on page 4.

Note 1: The DVI-7318-TX and DVI-7318-RX use the same type of enclosure and have the same connections.

Installation Instructions

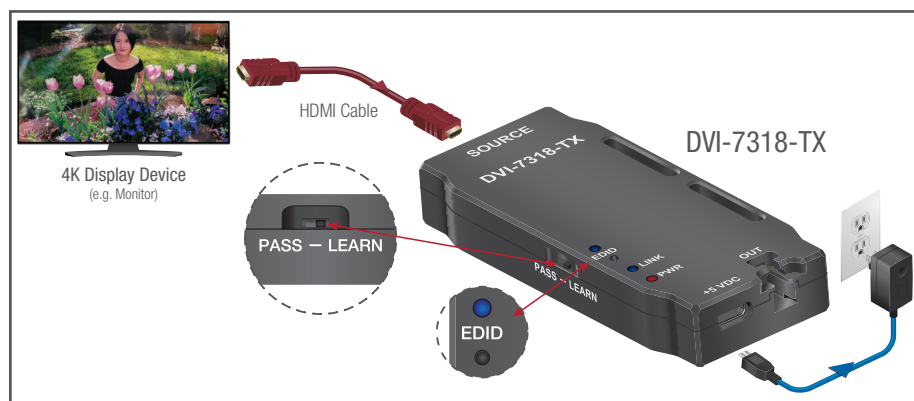
This product consists of a transmitter unit and a receiver unit. These units are interconnected by means of 1x LC-terminated optical cable, utilizing 50/125µ Multi-Mode fiber.

1. The default position of the EDID Switch is the **PASS** (pass-through) position. This position allows “live” DDC communications and enables support for HDCP. In some applications, where HDCP support is not needed, it may be helpful to cache the EDID from the connected display. To do this, set the EDID Switch to the **LEARN** position and follow the instructions on page 4.
2. Connect the TX unit to an HDMI cable connected to the output port of the signal source (e.g. PC or media player) using only high quality cables ≤ 5 meters in length.
3. Connect the RX unit to an HDMI cable connected to the the input port of a destination device (e.g. display or projector) using only high quality cables ≤ 5 meters in length.
4. Each unit has one (1) Optical port. Connect an LC-terminated Multi-Mode fiber optic cable between the TX unit and the RX unit.
5. Connect the included External AC Power Adapters to the USB Micro-B ports on the TX and RX. Then connect the power adapters to working AC power sources. Alternatively, each unit may be powered by an external USB port, provided that it can supply at least 350 mA power. To do this, connect the USB Micro-B port on the unit to the USB port on the source device using an appropriate adapter cable, such as p.n. DVI-7332-PSX.
6. Power on the display, then power on the source device. A picture will appear on the display within a few seconds.

EDID and HDCP Communications

On the fiber optic link, the video component of the signal always travels in one direction, from TX to RX. This extender employs Shortwave Wavelength Division Multiplexing (SWDM) to support bidirectional signals over the same optical fiber. This enables the device to support live EDID and HDCP communications.

Instructions for Learning the EDID from a Display



1. Apply power to the *Display*.
2. Connect the DVI-7318 Transmitter unit to an HDMI cable on the *Display's* HDMI input port.
3. Connect the External AC Power Adapter to the Transmitter unit.
4. Set the Transmitter's EDID Switch to LEARN (page 2 – #9). Depress the EDID button on top of the unit (page 2 – #8). The BLUE indicator LED will illuminate briefly when the button is pushed and then flash ON one time if the EDID is read and stored successfully.
5. If there is a problem reading the Display's EDID, the BLUE Indicator LED will flash ON/OFF rapidly six times. Should this happen, ensure that all connections are secure and attempt the EDID Learn process again.
6. When successful, remove the External AC Power Adapter from the Transmitter unit.
7. Disconnect the Transmitter unit from the *Display* and connect it to the HDMI cable of the signal *Source*.
8. Follow the Installation Instructions (2 – 6) listed on page 3.



WARNING: Invisible Laser Radiation

Do not view directly with optical instruments or look into beam.

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