



HDX Series

Modular Fiber Optic HDMI Extension System

Owner's Manual

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Welcome!

Congratulations on your purchase of **PureLink** HDX series Fiber Optical HDMI Extension Cable System. This manual contains information that will assist you in installing and operating the product.

Product Description

The HDX Series offers 330ft extension of high-resolution digital graphic data over fiber, directly connected between digital video source with HDMI output(DVD Player or media receivers) and HD-DTV displays. Two boxes, one located by the video source and the other by the display should be connected with a short HDMI copper cable. Between two boxes, the 4 LC patch cord fiber bundled cable enables to transmit 4 channels (R,G,B,Clk) of graphic data and scrambled digital audio data over it and the HDMI Digital Display Channel (DDC2B) interface and CEC are performed over a bundled copper cable, so called as DDC cable, which has RJ-45C connectors.

Shipping Group of **HDX Series Fiber Optical HDMI Extension Modules**

- ❑ **Tx and Rx boxes:** One (1) Transmitter (Tx) Box and One (1) Receiver (Rx) Box.
- ❑ **Optional: DDC cable (UTP for LAN) with RJ-45C.**
- ❑ **Optional: 4 LC Patch Cord fiber bundled cable (Multimode glass fiber).**
- ❑ **AC/DC power adapter:** One (1) +12V units
- ❑ **User's Manual**

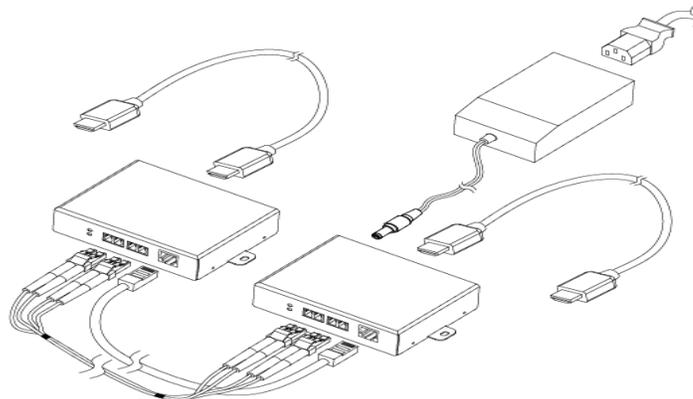


Figure 1 – Overall Fiber Optical HDMI Modules Connection

Installation

Important: Please use the installation procedure below. Improper or no operation may result if the start-up sequence is not correctly followed.

Step 1

Carefully unpack the contents of the shipping group.

Step 2

With system power turned **off**, connect the upstream Transmitter box to the HDMI receptacle of the video source with a HDMI copper cable(not included)

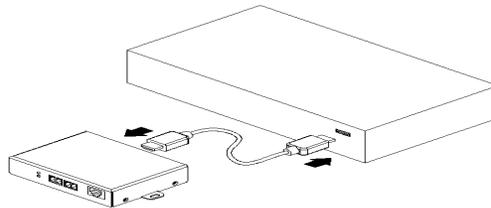


Figure 2 – Connection of HDMI cable between Transmitter box and video source

Step 3

In the same way as above, connect the Receiver box into the HDMI receptacle of DTV display with another HDMI copper cable(not included)

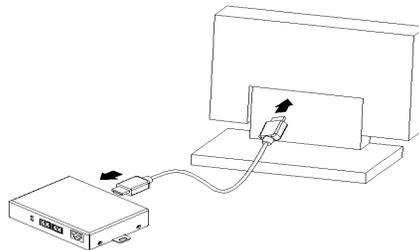


Figure 3 – Connection of HDMI cable between Receiver box and digital display

Warning: Please DO NOT look directly into the LC receptacles of the Transmitter box, while it is powered on, although this product is regulated strictly enough to operate under the Laser Class I, classified by CDRH/FDA for eye safety.

Step 4

Remove the module dust covers and connect each duplex LC fiber cable one by one to each of 4 LC receptacles of the Transmitter and Receiver boxes, as shown in Fig. 4. Please check the corresponding number of the fiber cables when making connections. Carefully recheck polarities and ensure the duplex connectors are fully engaged.

Step 5

Connect each RJ-45C of the DDC cable to each RJ-45C receptacle of the Transmitter and Receiver boxes.



Figure 4 – Connection of 2 duplex LC fiber cables and a DDC cable

Step 6

Connect an AC/DC power adaptor to either of the Transmitter and Receiver boxes as your availability of AC outlets.

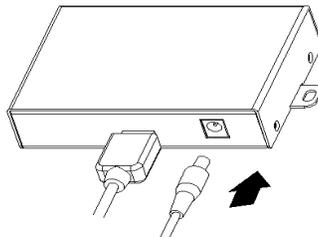


Figure 5 – Connection of AC/DC power adaptor

Step 7

Power on the video source than the display.

Tip 1: After initial installation as guided in the above, we recommend you to power On and Off while all connections are set and the Tx/Rx boxes are powered in.

Tip 2: Avoid “hot plugging” the Tx or Rx boxes as this is not recommended practice with live digital voltages.

Troubleshooting

The display displays only black screen.

- Check that all AC and DC plugs and jacks used by external power supplies (both HDX and others) are firmly connected.
- Ensure that power bars are live.
- Ensure that the Tx and Rx boxes plug correctly to the video display and the display respectively.
- Check if the video source and the display are powered on and properly booted.
- Re-boot up the system after reconnecting the optical system cable.

Screen is distorted or displays noises..

- Reset the system.
- Power down, disconnect the LC-LC fiber cable and try to blow inside of each LC receptacle by air blower
- Reconnect the fiber cable and power up.
- If noise continues, please contact Dtrovision for technical support.

Maintenance

No special maintenance is required for the optical system cables and power supplies. Ensure that the cables and power modules are stored or used in a benign environment free from liquid or dirt contamination.

There are no user serviceable parts. Refer all service and repair issues to Dtrovision or its authorized distributor.

Technical Support and Service

For commercial or general product support, contact your reseller. For technical service, contact Dtrovision by email support@dtrovision.com

Product Specifications

HDX Series Fiber Optical HDMI Extension System

- **Fully backward compatible with DVI standard:** supports DVI 1.0, using fiber-optic communication links and DDC2B.
- **Extension limit:** 100m (330feet) for ATSC 1080p (1.485Gbps) in ultimate operation.
- **Graphic Transmission Bandwidth:** supports up to 1.485Gbps bandwidth per graphic channel at ATSC 1080p.
- **Fiber-optic Connection:** The transmitter and receiver boxes of HDX have 2 duplex LC receptacles connected to four 62.5/125 μ m or 50/125 μ m Multi-Mode glass fibers cables.
- **Mechanical specifications of Tx and Rx boxes**
 - **Dimensions:** 108mm / 26mm / 80mm (W/H/D)
 - **Weight:** 46.0 \pm 1.5 gr for each of Tx and Rx.
- **Environmental Specifications**
 - Operating temperature: -10 $^{\circ}$ C to 50 $^{\circ}$ C
 - Storage temperature: - 30 $^{\circ}$ C to 60 $^{\circ}$ C

AC/DC Power Adapter

- **Power Input:** Universal AC 85-264V, 50/60Hz, AC power cord with power jack.
- **Power Output:** +12 V, 3.0 A SMPS DC-power Adapter
- **Cord DC Jack & length:** Core is +12 V and outer cylinder is GND. Length is 18.5 cm
- **AC Cord length:** 1.8m
- **Certification:** PSE, UL, cUL, FCC, CE, TUV-GS



FCC/CE Statement for regulation of Electro-magnetic emission

This device complies with part 15 of FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must not accept any interference received, including interference that may cause undesired operation. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 and 2 of FCC Rules, EN 55022/55024/61000-3 for CE certification. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction guide, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Re-orient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult a service representative for help.

Properly shielded and grounded cables and connectors must be used in order to comply with FCC/CE emission limits. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Certification for Safety

The AC/DC power adapter is certified by UL1310, 1950, 60950 for North America, cUL or CSA for Canada, TUV-CE & GS for EU and PSE for Japan.

Certification of Eye Safety

This laser product is inside implemented by using 850nm VCSEL (Vertical Cavity Surface Emitting Laser) Transceivers, manufactured by Dtrovision LLC, which are all certified by CDRH/FDA referred in Accession Number 0210774 as classified in Laser Class 1.

UL Statement

This device has completed a UL Commercial Inspection and Testing Services for the multimode DVI cable complied with VW-1 under UL 758. it is validated by the UL file number SV2038 and project number 04CA05353.

Warranty Information

1 (One) Year Warranty

Dtrovision warrants this fiber optical DVI extension cable to be free from defects in workmanship and materials, under normal use and service, for a period of one (1) year from the date of purchase from Dtrovision or its authorized resellers.

If a product does not work as warranted during the applicable warranty period, Dtrovision shall, at its option and expense, repair the defective product or part, deliver to customer an equivalent product or part to replace the defective item, or refund to customer the purchase price paid for the defective product.

All products that are replaced will become the property of Dtrovision.

Replacement products may be new or reconditioned.

Any replaced or repaired product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.

Dtrovision shall not be responsible for any software, firmware, information, or memory data of customer contained in, stored on, or integrated with any products returned to Dtrovision for repair under warranty or not.

Warranty Limitation and Exclusion

Dtrovision shall have no further obligation under the foregoing limited warranty if the product has been damaged due to abuse, misuse, neglect, accident, unusual physical or electrical stress, unauthorized modifications, tampering, alterations, or service other than by Dtrovision or its authorized agents, causes other than from ordinary use or failure to properly use the Product in the application for which said Product is intended.