User Manual

DVI Pure Fiber Optic Extender Dual Link ODC

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Unpacking

Each DVI Pure Fiber Optic Extender Dual Link package includes the following items;
- ODC TX/RX Unit
- DVI-D Dual Link Cable – 1.2m, 2pcs
- 12V Power Adapter: 2 pcs
- User manual

Contents

Description, General Specification

- Send DVI video signal and digital audio signal to long distance using pure fiber optic cable (multimode 8 strands)

- Owing to its compact size and low power design ODC connects monitors only for DVI-D dual link, PDP, and projectors at the lowest price

- ODC uses fully insulated fiber optic cable and is rarely affected by electronic wave or electric noise. The best quality of DVI video signal and digital audio signal can be achieved in every industrial site and place

ITEM	DESCRIPTION
Model Name	ODC
Input Signal	Digital RGB (DVI), Digital Audio (OPTICAL, COAXIAL)
Output Signal	Digital RGB (DVI), Digital Audio (COAXIAL)
Resolution	VGA~QXGA
Distance	500m (1640ft) at 2560x1600
Receptacle	DC Power Jack DVI 29 Pin Female LC type fiber optic connecter 8 strands
HDCP/DDC Support	Compliant/Save EEprom
Interface	DDWG DVI 1.0
Power Consumption	12V Power Adapter(Included), Max 10 W
Dimension	125x111x35 mm
Weight	TX, RX: 0.40Kg each

Environmental and Reliability Specifications

Recommended environmental conditions for the operation are temperature range of 10°C~40°C, non-condensing humidity levels of 10%-80%, and altitude ceiling of 3,000 meters (9,840 feet).

Environmental limits for transportation are temperature range of -25°C ~ 60°C, non-condensing humidity levels of 5%~95%, and altitude ceiling of 15,000 meters (49,200feet)

Environmental limits for storage are established at temperature range of -20°C~45°C, non-condensing humidity levels of 5%~95%, and altitude ceiling of 3,000 meters (9,840 feet)

The DVI Pure Fiber Optic Extender Dual Link is expected to function for more than 50,000 hours of use at a 90% confidence level. The device is tested according to the identical standards for testing LCD monitors.

Main Features

High Quality Picture - No Signal Loss and Digital Noise Free
Our ODC is built to deliver the highest quality picture preserving the native resolutions of the video sources without any signal loss. At the same time, the digital noises that may affect the picture quality will be eliminated. Due to the nature of the digital signals and passing through multiple stack of connection, it is important to eliminate the digital noises and boost the signal strength to preserve/enhance the video signal quality, which ODC does.

Signal Amplification for signal reliability and long length signal transmission.
ODC gets internal or external DC 12V power to run an internal chipset, which was designed to transmit high quality visual signal to long distance. It has a specialized EQ chipset on input and out port for long distance application, allowing DVI-D Dual Link cable up to 10m.

Compact and Practical Design
● The ODC is designed compactly and practically allowing customers more ease and convenience

Long distance signal transmission over fiber optic cable
● DVI signal can be transmitted minimum 500m (1640ft) to maximum 1000m (3280ft) over multimode fiber optic cable without signal loss

HDCP (High-bandwidth Digital Content Protection)
● ODC fully supports HDCP
● Currently every digital visual product sends high resolution signal with HDCP signal. You cannot see the picture if the product is not compatible with HDCP.

Compliance to DVI Ver 1.0
● ODC fully supports DDWG standard, DVI 1.0

Video Connection

Step 1: Ensure the digital video/audio source and display is turned off
Step 2: Connect the digital DVI-D Dual Link cable and fiber optic cable to ODC module
Step 3: Connect power adapter to the transmitter (TX/RX) module of ODC
Step 4: Connect power code to the power adapter and plug in to power outlet
Step 5: Turn on the display
Step 6: Turn on the source

EDID data saving
Step 1: Connect DVI Input port on ODC **TX** unit to display such monitor or HDTV
Step 2: Push EDID S/W for 3~4 seconds
Step 3: EDID LED is illuminated for about 1 second if EDID was saved correctly

- If EDID was not saved correctly, EDID LED blinks 6 times. The default EDID when it is shipped is QXGA 2650*1600.
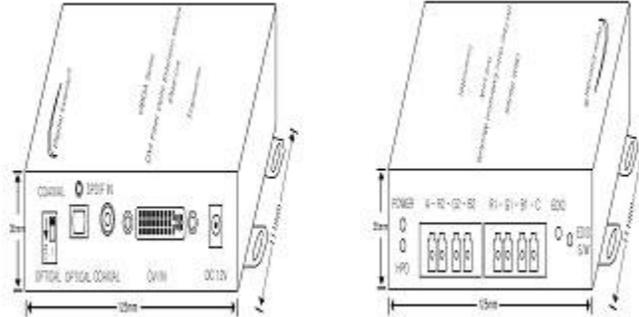- EDID saving is to display the best resolution between the video source and the display

Connection of fiber optic cable
Connect fiber optic cables one to one according to the signs on ports.
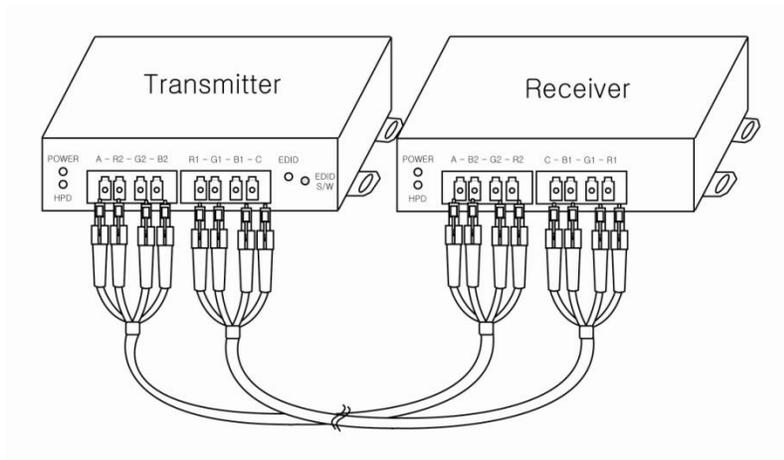
Mechanical Specification
Dimension: 125x111x35 mm

TX Functioning part
DVI In: DVI-D Dual Link Input port
SPDIF In: Digital Audio (Optical, Coaxial) Input port
DIP S/W: Digital Audio (Optical, Coaxial) selection switch
A-R2-G2-B2-R1-G1-B1-C: Fiber optic cable connection port
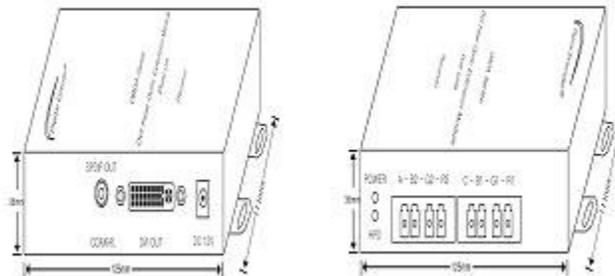DC-12V: power input port
Display part
POWER LED: display Power on/off
EDID LED: display the status of EDID appropriate operation
EDID S/W: EDID operation switch
HPD LED: display the status of DVI Input

RX Functioning part
DVI Out: DVI-D Dual Link Output port
SPDIF Out: Digital Audio (Coaxial) Output port
A-B2-G2-R2-C-B1-G1-R1: Fiber optic cable connection port
DC-12V: power input port
Display part
POWER LED: display Power on/off
HPD LED: display the status of DVI Input

Technical Specification

Data transmission speed: 2.25 Gbps (Dual Link)
Digital Video Bandwidth: 25~268.5 Mhz
Resolution: Up to QXGA (2560x1600)@60Hz
            1080P
Input/output signal standard: Digital RGB, TMDS, SPDIF
Maximum length: 2560*1600p -> 500m (1640ft)
          Optional   -> 1000m (3280ft)
Light Source: 850 nm Vcsel
Fiber Optic cable: 50/125 & 62.5/125 multimode
Input connector type: DVI Female 29P / LC type Fiber Optic connecter * 8 strands
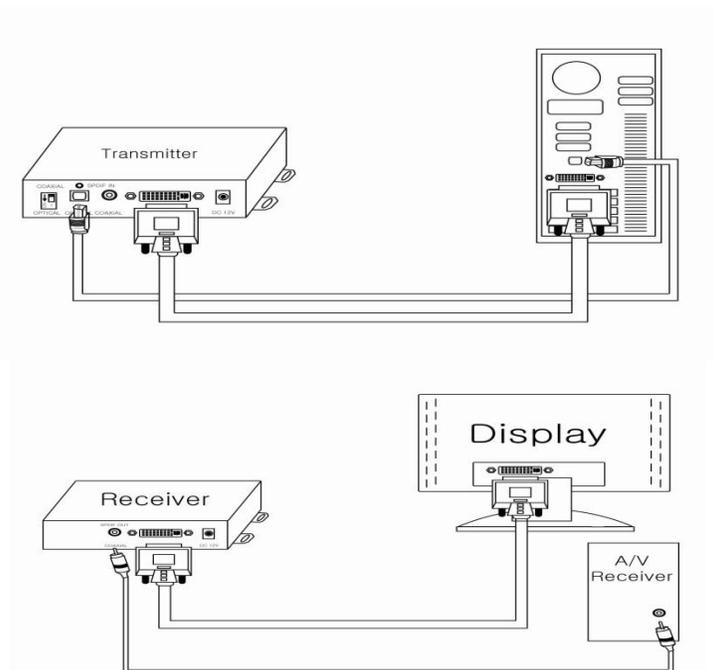   Digital Audio (OPTICAL, COAXIAL)
Output connector type: DVI Female 29P / LC type Fiber Optic connecter * 8 strands
              Digital Audio (COAXIAL)
Power consumption: TX 4.5 Watts (Max), RX 6.2 Watts (Max)
Power supply: DC 12V, 2A

Product connections

Warranty Information

PURELINK STANDARD LIMITED WARRANTY For Products purchased directly from PureLink or Dealer, PureLink warrants Products shall be free from defects in workmanship and materials, under normal use and service, for a period of five (5) years on parts and three (3) years on labor for PureMedia and Media Axis Products, (39) months on parts and labor on all PureView products, and three (3) years on parts and labor for all other Products from date of purchase. Any repaired or replaced equipment related to Product shall be covered only under the remaining portion of the warranty. This warranty has no relationship to and exists independently of any warranty offered by Dealer.

PureLink shall repair or replace the Product if it develops a material fault during the period of warranty, on condition that i) the Product has only been subject to normal use in a domestic or commercial environment in a manner consistent with its specification and functionality, ii) the Product has been cared for reasonably and only subjected to reasonable wear and tear, iii) the defect has not been caused by willful or negligent abuse or neglect, or any accident or improper installation procedure, iv) the serial number of the Product has not been altered or removed.

This warranty only applies to the original purchaser, and shall be the exclusive remedy to the original purchaser. PureLink shall not be liable for any damages whatsoever caused by Product or the failure of Product to perform, including incidental or consequential damages. PureLink shall not be liable for any claim made by a third party or made by the purchaser for a third party.

Except as expressly set forth in this warranty, PureLink makes no other warranties, expressed or implied, including any implied warranties of merchantability and fitness for a particular purpose. PureLink expressly disclaims all warranties not satisfied in this limited warranty. Any implied warranties that may be imposed by law are limited to the terms of this limited warranty. This warranty statement supersedes all previous warranties.

Troubleshooting

The DVI Pure Fiber Optic Extender Dual Link is designed for years of trouble free service, please reference the troubleshooting chart below if experiencing issues with the device.

Problem	Solution
No picture(or signal)	1. Ensure the power LED is illuminated. 2. Check if TX or RX module is properly connected to sources or displays. 3. Check if fiber optic cable is properly connected. 4. Make sure that the display is only for DVI-D Dual Link 5. Reboot source device after the connection of fiber optic cables.
Poor picture or noise	1. Ensure the graphic resolution is correctly set up. - Select "Settings" on Window Display properties - Check if the resolution is lower than QXGA (2560x1600)@60Hz 2.Restart the system 3.Turn off DC power adapter, disconnect fiber optic cable, reconnect the cables and power on. 4, Check electric ground level of power for DVI Devices 5. Make sure that saved EDID is same as that of display
No Sound	1. Check if the Audio (coaxial) plug or jack is securely connected 2.Check if the input / output audio is digital 3. Ensure the power LED is illuminated.