

Quick Start Guide

DVI-OPT-TX220-Pro
DVI-OPT-RX220-Pro
DVI-OPT-TX220-ST-Pro
DVI-OPT-RX220-ST-Pro

Important Safety Instructions

Please read and keep the information in the attached safety instructions supplied with the product before start using the device.

i The extenders are Class 3R laser products.

Introduction

Lightware's DVI-OPT-TX220-Pro is a Single Link DVI optical transmitter and DVI-OPT-RX220-Pro is a Single Link DVI optical receiver. They use a single multimode fiber to extend DVI signals.

DVI-OPT-TX220-Pro and DVI-OPT-RX220-Pro are assembled with Neutrik NO2-4FDW type LC duplex fiber connector, DVI-OPT-TX220-ST-Pro and DVI-OPT-RX220-ST-Pro are assembled with ST fiber optical connector.

The extenders conform to DVI 1.0 specification, and handle signals between 25-165MHz pixel clock frequency: from 640x480@60Hz to 1920x1200@60Hz or 2048x1080@60Hz resolutions. The extenders have an RS-232 serial port for remote control applications and firmware upgrade. The transmitter has a front panel for local control operations.

**INVISIBLE LASER RADIATION
AVOID DIRECT EYE EXPOSURE
CLASS 3R LASER PRODUCT**
Radiated wavelengths:
778 nm, 800 nm, 825 nm, 850 nm
Output power <= 1mW
Classified by EN 60825-1:2008

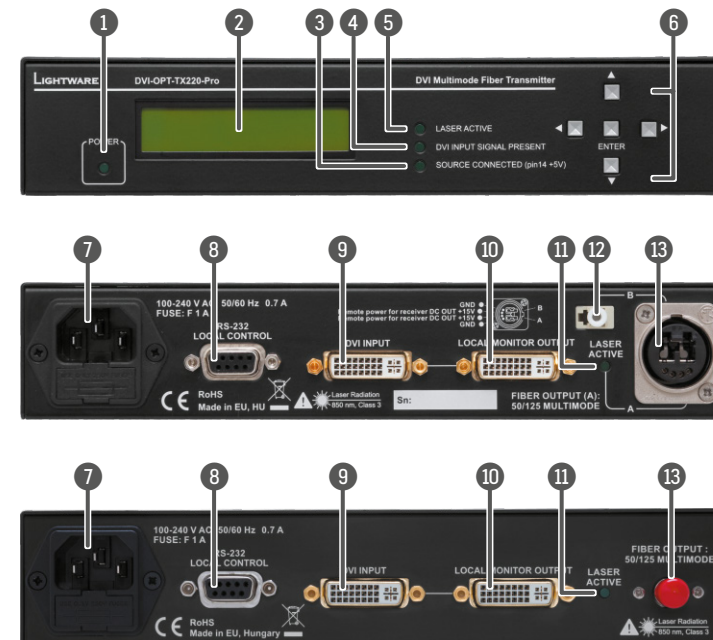
Installation (Receiver)

1. Connect the DVI display device(s) to the DVI OUTPUT connector(s).
2. Connect a compatible Lightware fiber transmitter unit to the FIBER INPUT.
3. Power on the transmitter and the DVI source (e.g. a computer).
4. To power the unit connect the standard IEC power cable. Now the unit is ready to be used.
5. Power on the connected display devices. They will display the picture from the DVI source (e.g. a computer).

Installation (Transmitter)

1. Connect the DVI source (e.g. a computer) to the DVI INPUT connector.
2. Connect a compatible Lightware fiber receiver unit to the FIBER OUTPUT port.
3. Optionally connect a display device to the LOCAL MONITOR OUTPUT connector.
4. Connect the IEC power cable to the transmitter.
5. Select the EDID to emulate depending on the desired display resolution.
6. Power on the DVI source (e.g. a computer). It will read the EDID from the transmitter, thereafter it will output the video signal according to the set resolution.
7. Power on the fiber receiver and the connected display devices. They will display the picture from the DVI source (e.g. a computer).

Transmitters - Front and Rear Views



Legend

- | | | |
|----|----------------------------|---|
| 1 | Power LED | Lights green when the unit is powered on. |
| 2 | Menu display | Displays status information and menu operation. |
| 3 | Source LED | Indicates if a powered-on DVI source is connected to the unit (detects +5V signal on Pin 14 of the input DVI connector). |
| 4 | Signal LED | Indicates when a valid DVI signal is detected on the DVI INPUT connector. |
| 5 | Laser LED | Indicates when the laser driver is enabled. |
| 6 | Menu navigation | Up, down, left, right and enter buttons. |
| 7 | AC connector | Standard IEC power connector. |
| 8 | Serial port | D-SUB connector for RS-232 communication. |
| 9 | DVI input | Connect a single link DVI device. |
| 10 | Monitor output | A local display device can be connected to monitor the outgoing signal. |
| 11 | Laser LED | Green: the laser driver is enabled. |
| 12 | Break-out connector | The break-out LC connector is internally connected to output B of the Neutrik connector. |
| 13 | Fiber output | In the case of Neutrik connectors: Channel A carries the signal from this unit's optical transmitter, channel B carries any optical signal from the break-out LC connector. |

Checking the Emulated EDID

1. Use the left and right buttons on the front panel to select the Emulated EDID menu.
2. In the lower line, three messages toggle automatically showing the preferred resolution, the name of the display and a three letter abbreviation assigned to the manufacturer.

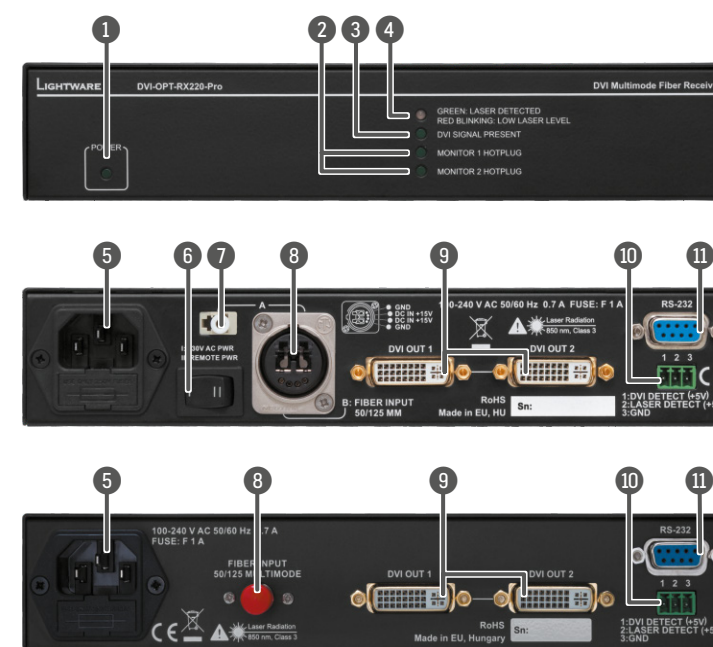
Selecting an EDID

1. Use the left and right buttons on the front panel to select the Switch EDID menu.
2. Use the up and down buttons to select the desired memory slot. Hold down the buttons to scroll faster.
3. Press ENTER to emulate the selected EDID.
4. The EDID change is confirmed with a following message: „EDID switched!“

Learning an EDID

1. Use the left and right buttons on the front panel to select the Learn EDID menu.
2. Use the up and down buttons to select a memory slot (it will be overwritten). Hold down the buttons to scroll faster.
3. Press ENTER to learn EDID to the selected memory slot from the last attached monitor on the LOCAL MONITOR OUTPUT.
4. The EDID learning is confirmed with a following message: „EDID learned!“

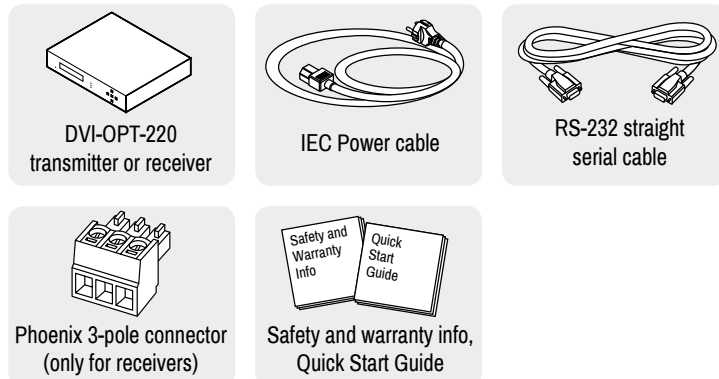
Receivers - Front and Rear Views



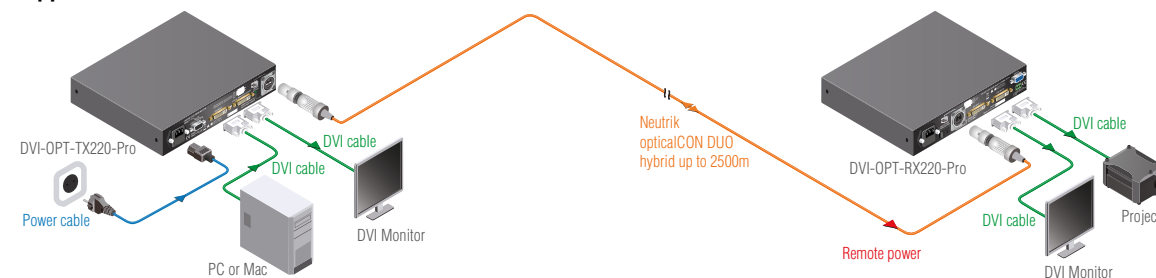
Legend

- | | | |
|----|----------------------------|--|
| 1 | Power LED | Lights green when the unit is powered on. |
| 2 | Monitor LEDs | Each LED indicates if a display device is connected to the corresponding DVI output. |
| 3 | Signal LED | Indicates valid DVI clock signal reception. |
| 4 | Laser LED | Green: the laser is properly detected on the optical input.
Red blinking: low laser level, or no incoming signal. |
| 5 | AC connector | Standard IEC power connector. |
| 6 | Power selector | In position "I" the receiver unit is powered by its own built-in power supply. In position "II" the receiver unit is powered through special hybrid fiber cable, type 'Neutrik 2M-4S75'. |
| 7 | Break-out connector | The break-out LC connector is internally connected to output A of the Neutrik connector. |
| 8 | Fiber input | In the case of Neutrik connector: Channel B carries the signal to this unit's optical receiver, and channel A carries any optical signal to the break-out LC connector. |
| 9 | DVI outputs | Two display devices can be connected. The resolution and pixel clock frequency are the same on both DVI connectors. |
| 10 | Alarm outputs | DVI signal detection and laser detection signals with ground reference are available on a three-pole Phoenix connector. |
| 11 | Serial port | The device is controllable by Lightware Device Controller software via RS-232 connection. |

Box Contents



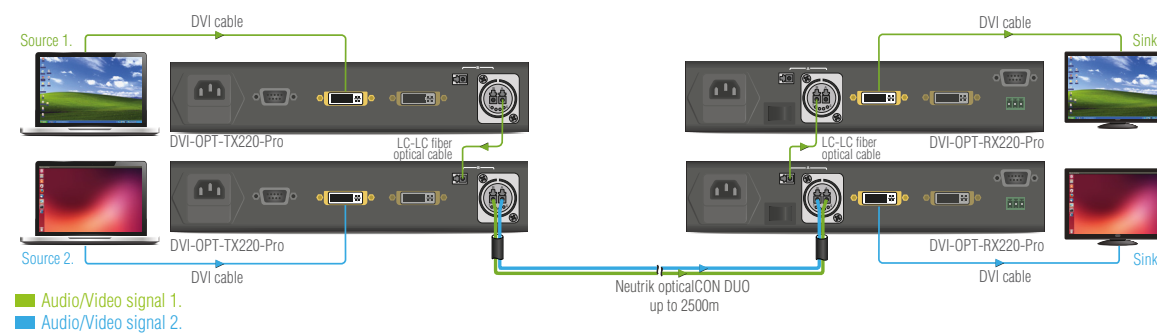
Typical Standalone Application



Double Linked Application

Neutrik OpticalCON Duo connector has two fiber channels. Lightware fiber extenders use only one fiber for signal transmission and the other fiber is available through the break-out connector.

In this case, one Neutrik OpticalCON Duo cable is enough to transmit two different A/V signal from one transmitter pair to another receiver pair.



Further information

The document is valid with the following firmware version: 1.1.8 for TX and 1.1.3 for RX.
The User's manual of this appliance is available at www.lightware.eu.
See the [Downloads](#) section on the website of the product.

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Doc. ver.: 2.1
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