Introduction

The HDMI-OPT-TX200R is a HDMI and RS-232 transmitter device, providing signal extension over a single multimode fiber cable. It includes an EDID management function, which is configurable on the front panel.

Typical standalone application

visual engineering

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HDMI-OPT-TX200R and RX200R extender pair

Installation

- 1. Connect the source (e.g. Blu-Ray Player) to the HDMI INPUT connector.
- 2. You can connect a local display (e.g. monitor) to the MONITOR OUT connector.
- 3. Remove the dust cap from the SC connector.
- 4. Connect a compatible Lightware receiver device¹ to the SC MULTIMODE OUT connector with a single multimode fiber cable.
- 5. Optionally connect a serial device to the RS-232 female receptacle.
- 6. Supply the unit with the attached +5V 1A DC adaptor.

Status LEDs in PRIMARY (SOLID) mode

HDCP ENCRYPTED CONTENT — Indicates if the source signal is HDCP encrypted.

- HDMI SIGNAL Indicates the type of the video signal. In case of an HDMI signal the LED lights continuously. In case of a DVI signal the LED is off and the VIDEO CLOCK PRESENT LED is lights continuously.
- VIDEO CLOCK PRESENT Indicates if a valid video clock signal is present on the transmitters' HDMI INPUT.
- LINK RECEIVER DETECTED Indicates if a powered receiver (e.g. HDMI-OPT-RX200R) is connected to the transmitter and they can communicate over the fiber optical cable.
- ¹ Please check the Fiber Extension Cross Compatibility Table in the <u>www.lightware.eu</u> website

Status LEDs in SECONDARY (BLINKING) mode

EMULATED EDID INVALID

- Function 1: The LED lights red if the selected EDID is invalid or empty memory selected.
- Function 2: After applying a Hot Plug signal(s) to the OUTPUT(s), this LED indicates that the unit is trying to read the EDID from the connected display device, but the EDID is invalid or missing.
- Function 3: After pressing the LEARN button, this LED's blinking indicates if the learn process was unsuccessful.

EMULATED EDID VALID

- Function 1: The LED lights green if the selected EDID is valid.
- Function 2: After applying a Hot Plug signal(s) to the OUTPUT(s), this LED indicates that the unit is reading the EDID from the connected display device and the EDID is valid.
- Function 3: After pressing the LEARN button, this LED's blinking indicates if the learn process was successful.

MONITOR OUT HOTPLUG SENSE

Indicates if a powered display device (or matrix switcher, etc.) is connected to the HDMI output connector and sends a valid hotplug signal on pin 19 through the HDMI cable.

SOURCE +5V SENSE

Indicates if a powered source unit (computer, Blu-Ray player, etc.) is connected to the HDMI INPUT connector and sends a valid +5V signal on pin 18 through the HDMI cable.

Change Status LEDs' function

Press the LEARN button to switch between PRIMARY (SOLID) and SECONDARY (BLINKING) mode.

Selecting and EDID

- 1. Turn the EDID ADDRESS rotary switches to the desired position. The available factory preset EDIDs are listed on the top of the device.
- The EDID Status LEDs provide feedback in SECONDARY (BLINKING) mode: Red blinking: an empty memory or invalid EDID was selected. Green blinking: valid EDID is present at input.
- 3. Now the selected EDID is reported at the HDMI INPUT.

EDID Memory

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The factory preset EDIDs are listed on the top of the device (#01..#50) which support various embedded audio formats for HDMI audio. Memory range #51..#99 is user programmable. Address #00 contains a copy of the last attached monitor's EDID from MONITOR OUT, and memory #49 contains the Lightware UNIVERSAL EDID.

Learning EDID

- 1. To see EDID status, check if the Status LEDs are in SECONDARY (BLINKING) mode,
- 2. Turn the EDID ADDRESS rotary switches to the desired position, where you want to store the attached display's EDID from the MONITOR OUT (between user addresses #51..#99),
- 3. Connect the sink device to the MONITOR OUT with single multimode fiber cable,
- 4. Press and hold the LEARN button for approximately 2 seconds,
- 5. The EDID Status LEDs provide feedback in SECONDARY (BLINKING) mode:
 - Red blinking:the learn process failed from DDC OUT.Green blinking:the learn process was successful from DDC OUT.

Connect to the computer to use Lightware's Advanced EDID Management

- 1. Turn the BAUD RATE rotary switch to the #9 (SW Control) position,
- 2. Connect the device to the computer by a straight (male female) serial cable,
- 3. Start Lightware Matrix Control Software to access advanced settings.

RS232 extension mode - setup the serial baud rate

Turn the BAUD RATE rotary switch to the desired position (0..4) to select the speed of the extended serial communication.

0:	9600	1:	14400	2:	19200	3:	38400	4:	57600
5:	Not used	6:	Not used	7:	Not used	8:	Not used	9:	SW Cont.

Info: To select the best fitting baud rate please read the user's manual of serial devices. Locking DC plug



Locking DC plug: Twist 90° clockwise to lock

Front and Back view



HDMI-OPT-TX200R front view



HDMI-OPT-TX200R back view

Typical integrated system application



HDMI-OPT extender pair with Lightware Hybrid Matrix