

## TPS (HDBaseT™) Extender for DisplayPort with Local Monitor Out



Part No: 9154 0019



### Highlight features

- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Extends DisplayPort1.1 + Audio + Ethernet + RS-232 + IR over a single CAT5e-CAT7e cable up to 170 m distance\*
- Event Manager
- 10/100 Ethernet extension
- Bi-directional RS-232 and IR

\*Depends on cable category and quality

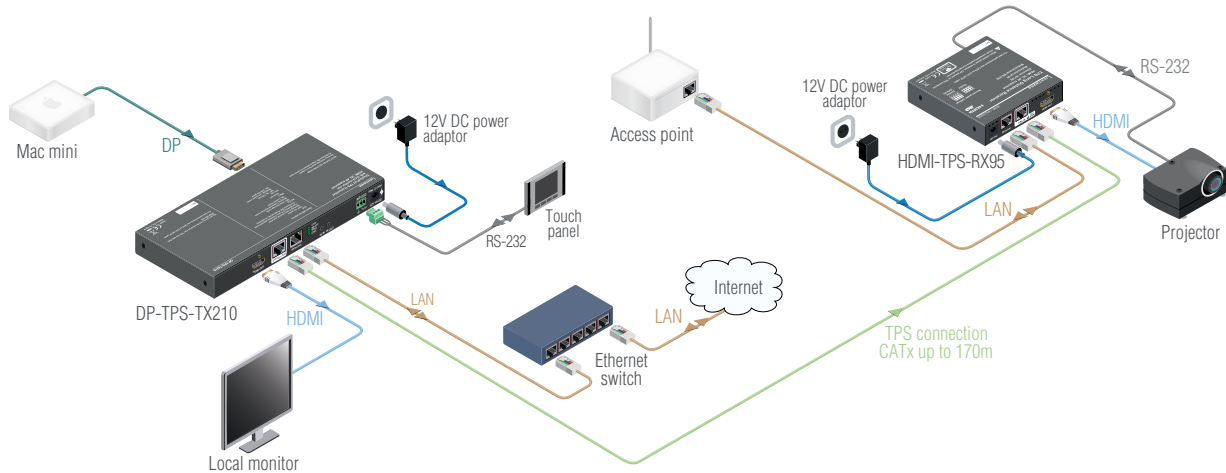
DP-TPS-TX210 can transmit universal video, audio and control up to a 170 meter distance over a single CAT cable in dynamically changing environments such as small board rooms and classrooms. The extender was designed to handle DP1.1 digital video, Embedded Audio and control signals.

DP-TPS-TX210 handles HDCP encryption. Using the factory, custom or transparent EDID emulation the user can fix and lock EDID data on each input connector. Advanced EDID Management forces the required resolution from any video source and fixes the output format conforming system requirements. The unit offers bi-directional and transparent IR, RS232 and Ethernet transmission. Both the RS232 and IR connection supports command injection. Remote powering is available through the single CAT 5e - CAT 7 cable, but local power supply can also be used. All devices can be mounted on a rack shelf or used standalone. DP-TPS-TX210 is compatible with both the HDBaseT™ extenders and matrix switchers.

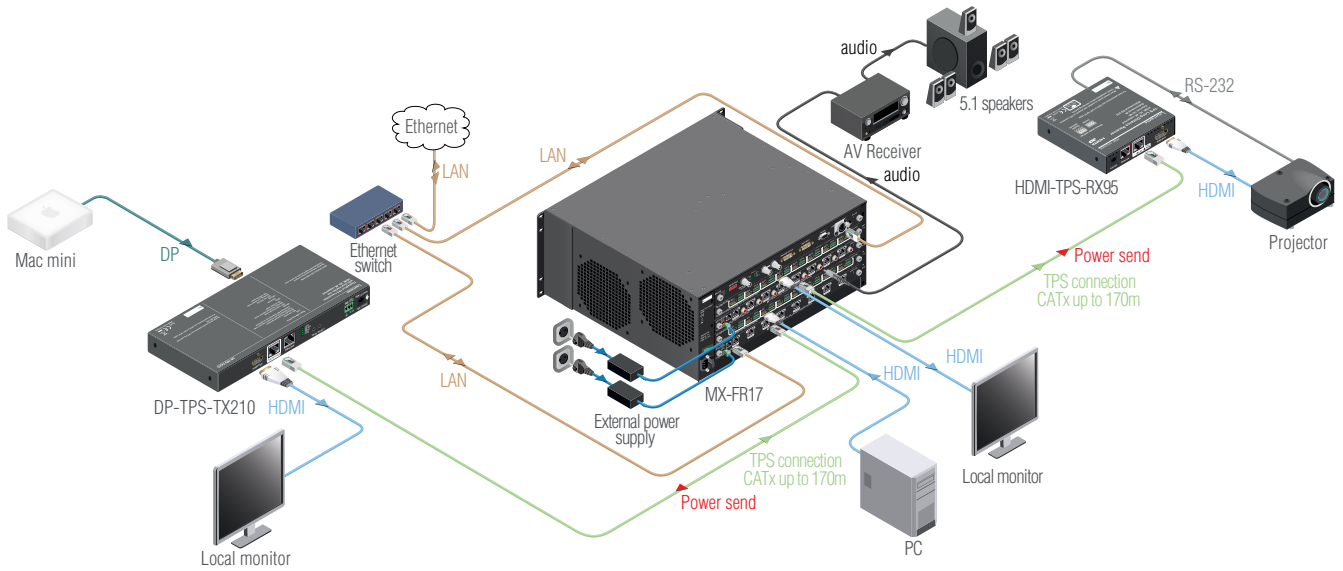
HDBaseT™ and the HDBaseT Alliance logo are trademarks of the HDBaseT Alliance

# DP-TPS-TX210

## Standalone Application



## Application Diagram



## Transmitter Front and Back View



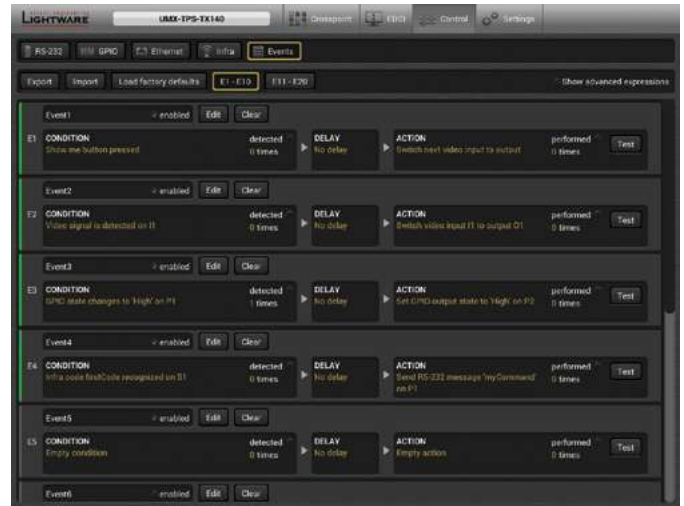
DP-TPS-TX210

## Event Manager

The Event Manager is a completely new feature of Lightware's UMX-TPS extender family. It's available through the Lightware Device Controller and can be configured to detect LW3 protocol CHANGE messages. The Event Manager was developed to handle tasks from the most simple; like displaying internal events on GPIO ports, and controlling the extender via GPIO inputs instead of front panel pushbuttons; to expert ones like controlling the rolling shutter, the air conditioning system or the lights based on any condition changes on the media ports, such as a new source being connected or removed. The Event Manager makes the UMX-TPS extender family an expert solution in a wider range of applications.

### Event Manager Wizard

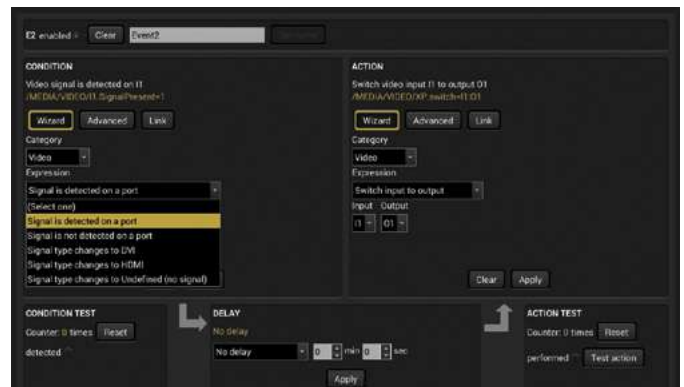
Assigning an action to a condition is quick and easy with the Event Manager's smart Wizard function. The user can choose from the given port options in the dropdown menu and also add expressions to it.



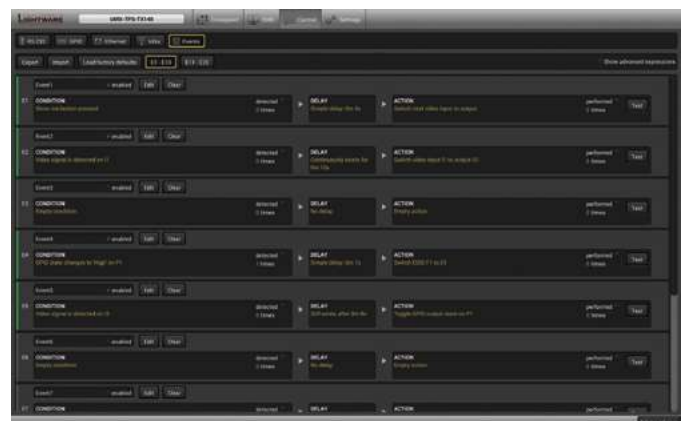
The Events menu contains 20 separately configurable Events



The Event Wizard makes the setup easy with simple dropdown options

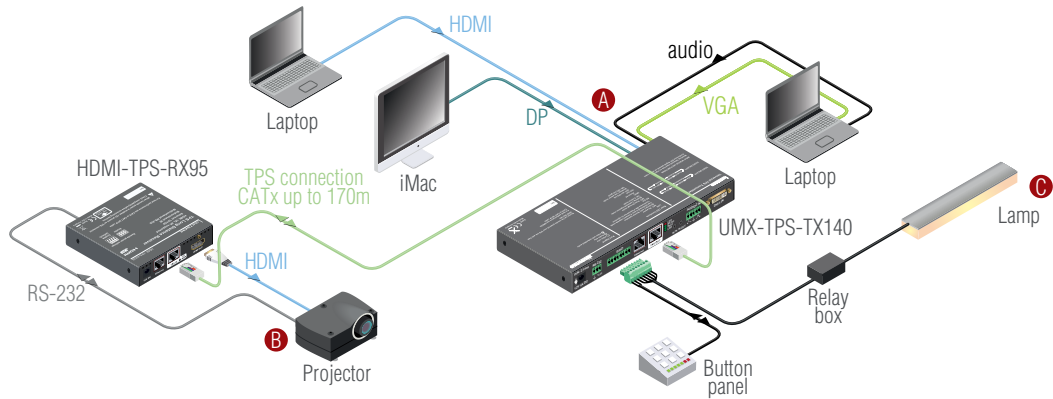


There are many default Expressions available to choose from



Green lines show which Event is configured and active, the rest stay grey

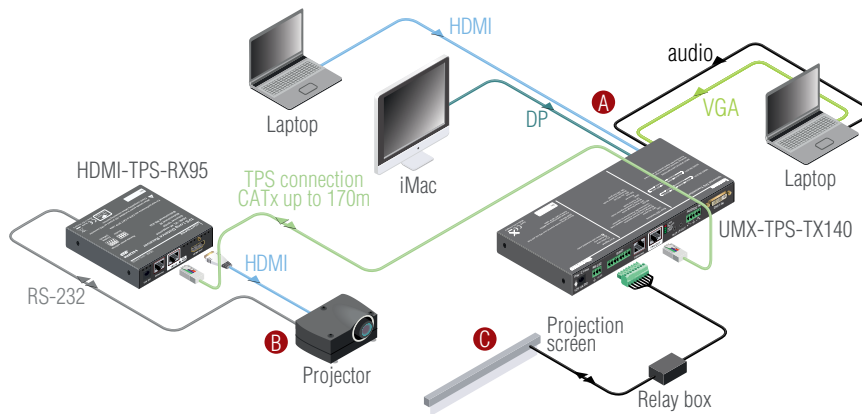
## Event Manager Example A



| Condition              | Action                    |
|------------------------|---------------------------|
| <br>Press button panel | <br>A Input select        |
|                        | <br>B Projector switch on |
|                        | <br>C Lamp switch off     |

With a connected button panel through the GPIO port the UMX-TPS-TX140 can be controlled from a remote location, input switching is available even if the transmitter mounted underdesk. In the example above there are three actions followed by a condition. When an input selector button is pressed on the remote button panel, the input port is switched to the selected one, the lamp switches off, and the projector turns on as well.

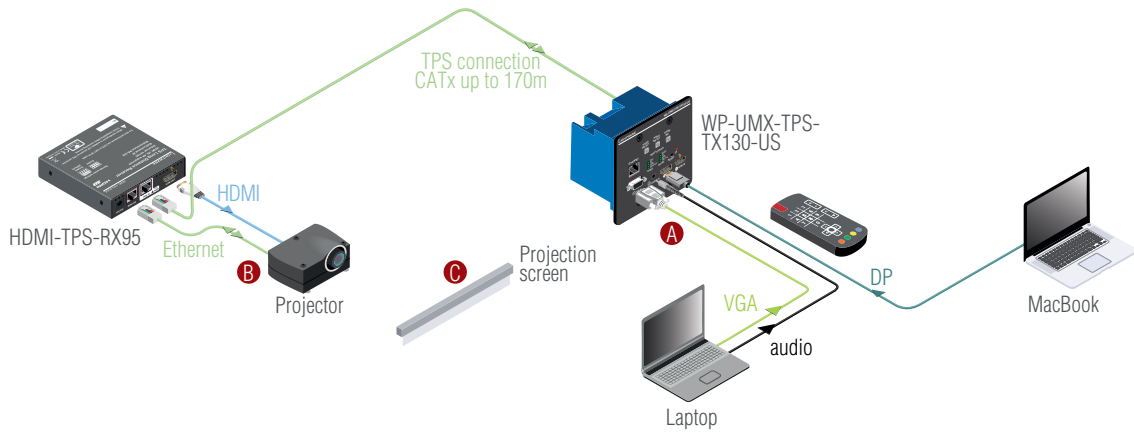
## Event Manager Example B







| Condition | Action                    |
|-----------|---------------------------|
|           | <br>A Input select        |
|           | <br>B Projector switch on |
|           | <br>C Screen down         |

The projector and the rolling screen (through the Relay box) are connected to the UMX-TPS-TX140. When the user connects a laptop through HDMI to the transmitter the connected input is selected automatically the screen goes down and the projector turns on to display the connected source.

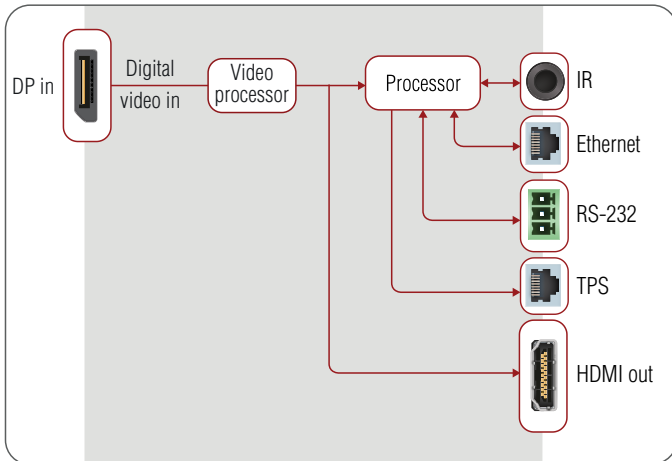
## Event Manager Example C



| Condition   | Action   |
|---|--|
|  Press remote controller |  <b>A</b> Input select        |
|   |  <b>B</b> Projector switch on |
|   |  <b>C</b> Screen down         |

A MacBook with DisplayPort and another laptop with VGA and analog audio are connected to the WP-UMX-TPS-TX130-US wallplate which means there are two audio signals and two video signals connected. With a remote controller via IR these inputs can be switched. For example the analog audio of the Laptop can be mixed with the DisplayPort video of the MacBook. The Event Manager helps the user to assign actions like rolling the screen down and switch the projector on when the desired input is selected.

## Port Diagram



## Compatibility Products

- MX Series matrix frames with MX-TPS-IB or MX-TPS2-IB
- HDMI-TPS-RX90
- DVI-HDCP-TPS-RX95
- HDMI-TPS-RX95
- TPS-PI-1P1

## Applications

- Small classrooms
- Conference rooms, meeting rooms
- Control rooms
- Home cinemas

## Features

- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Extends DisplayPort 1.1 + Audio + Ethernet + RS-232 + IR over a single CAT5e-CAT7e cable up to 170 m distance\*
- Audio and video connectors: DisplayPort (input) HDMI (output)
- Advanced EDID Manager
- Event Manager
- 10/100 Ethernet extension
- Bi-directional RS-232 and IR
- HDCP compliant, CEC

\*Depends on cable category and quality

## Specifications

|                           |  |
|---------------------------|--|
| Resolution:               | Up to 4K UHD 3840x2160@30Hz, 1600x1200@60Hz, FullHD 1920x1080@60Hz             |
| Digital audio formats:    | Supports up to 8 channel PCM, Dolby TrueHD and DTS-HD Master Audio 7.1 formats |
| Input cable equalization: | Automatic, adaptive  |
| EDID emulation:           | Yes, Advanced EDID Management  |
| EDID memory:              | 120 factory preset, 15 user programmable                                       |
| HDCP pass-through:        | Yes  |
| RS-232 pass-through:      | Yes, configurable  |
| RS-232 (control option):  | 9600, 19200, 38400, 57600, 115200 Baud Rx,Tx (through CATx) (default: 57600)   |
| Local power:              | Universal power adaptor, DC 12V 2.5A   |
| Power over TPS:           | DC 48V 1 A   |
| Power consumption:        | 8W (typ)   |
| Enclosure:                | 1 mm metal   |
| Dimensions:               | 221 W x 100.4 D x 26 H mm  |
| Compliance:               | CE   |
| Warranty:                 | 3 years  |

## Connectors

|                       |                                     |
|-----------------------|-------------------------------------|
| Digital video input:  | DisplayPort connector               |
| Digital video output: | HDMI connector                      |
| Ethernet:             | 1 x RJ45                            |
| IR:                   | 3.5 mm jack                         |
| TPS output:           | 1 x RJ45                            |
| Serial port:          | 3-pole PHOENIX                      |
| Power:                | Locking DC connector (2.1 / 5.5 mm) |

## Supplied Accessories



**PSU-12VU Universal DC adaptor (Part No: 1180 0098)**  
Wall power adaptor with interchangeable plug for international use.  
Universal input: 100-240 V AC, 50-60 Hz, output: 12 V DC, 2.5 A



**IR emitter and IR eye (Part No: 1374 0003 TX, 1374 0002 RX)**  
IR emitter is supplied with TPS-TX, IR eye is supplied with TPS-RX units. Needed for IR extension.

## Optional Accessories



**Under desk mounting kit double (Part No: 5240 0276)**  
The UD-kit double makes it easy to mount multiple devices on any flat surface (e.g. furniture).



**Rack shelf (Part No: 5240 0935)**  
1U high rack shelf provides mounting holes for fastening four quarter-rack sized units. Pocket sized devices can also be fastened on the shelf.

## Max Cable Lengths Supported by the Available Firmware Versions

| Resolution              | Pixel Clock Rate | Cable Lengths (Auto / Longreach TPS mode) |               |                |
|-------------------------|------------------|---|---------------|----------------|
|                         |                  | CAT5e AWG24                               | CAT7 AWG26    | CAT7 AWG23     |
| 1024x768@60Hz           | 65 MHz           | 100 m / 130 m*                            | 90 m / 120 m* | 120 m / 170 m* |
| 1280x720p@60Hz          | 73.8 MHz         | 100 m / 130 m*                            | 90 m / 120 m* | 120 m / 170 m* |
| 1920x1080p@60Hz / 24bpp | 148.5 MHz        | 100 m / 130 m*                            | 90 m / 120 m* | 120 m / 170 m* |
| 1920x1200@60Hz          | 152.9 MHz        | 100 m / NA*                               | 90 m / NA*    | 120 m / NA*    |
| 1600x1200@60Hz          | 162 MHz          | 100 m / NA*                               | 90 m / NA*    | 120 m / NA*    |
| 1920x1080@60Hz / 36bpp  | 223 MHz          | 70 m / NA*                                | 70 m / NA*    | 100 m / NA*    |
| 3840x2160@30Hz UHD      | 297 MHz          | 70 m / NA*                                | 70 m / NA*    | 100 m / NA*    |
| 4096x2160@30Hz 4K       | 297 MHz          | 70 m / NA*                                | 70 m / NA*    | 100 m / NA*    |

Above values are valid when the extender is powered by a local adaptor; distances may decrease depending on the powering mode (local or remote) and cable quality.  
\* with Long reach operation mode which supports pixel clock frequencies up to 148,5 MHz.