

Universal Two Input TPS (HDBaseT™) Transmitter with Built in Event Manager



Part No: 9154 0012



Highlight Features

- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Extends HDMI or VGA + 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
- IR and RS-232 connection supports command injection
- Embeds analog audio

UMX-TPS-TX120 transmits universal 4K video, audio and control up to a 170 m distance over a single CAT cable. This transmitter was designed for digital and analog video and audio signals: VGA, YPrPb and HDMI1.4 with analog stereo audio from local input or embedded 7.1 HBR audio. I can also handle HDCP encryption. Analog signals (both audio and video) are converted into a digital format and can be transmitted separately from each other. The unit offers bi-directional and transparent IR, RS-232 and Ethernet transmission. Furthermore the IR and RS-232 connection supports command injection, allowing it to send any IR or RS-232 control command directly from the LAN connection.

Remote powering is available through a single CAT cable, but local power supply can also be used. UMX-TPS-TX120 is compatible with both HDBaseT™** extenders and matrix boards.

*Depends on cable category and quality

**For further details see page 6

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Standalone Application



* with Long reach operation mode which supports pixel clock frequencies up to 148.5 MHz.

Peterdy 15, Budapest H-1071, Hungary ■ +36 1 255 3800 ■ sales@lightware.eu ■ www.lightware.eu

Event Manager

The Event Manager is a smart, built-in feature in the Lightware HDBase™ compatible TPS extender family, the MODEX line and in select matrix switchers like the MMX6x2-HT series units. The feature is available through the freely downloadable Lightware Device Controller software and can be configured to detect changes in the device status and perform actions according to the predefined settings.

The Event Manager was developed to handle tasks from the most simple (displaying internal events on GPIO ports or 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 ensures that no additional control solution is required in less complex systems.

The latest upgrade of the Event Manager application added substantial available options to the list of configurable conditions and performable actions.

Now a delay (three types) can be added between the condition and the action and more actions can be triggered by a single condition change. With the help of the 'condition count' and 'action test' features the predefined settings can be tested before going live. The system can recognize infrared commands which can also be set as conditions, and commands can also be sent via Ethernet.

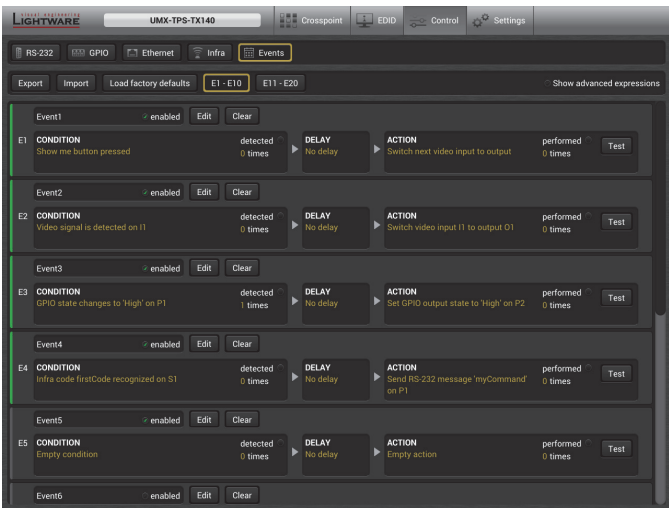
Event Manager Wizard

Assigning an action to a condition is quick and easy with the Wizard function of Event Manager.

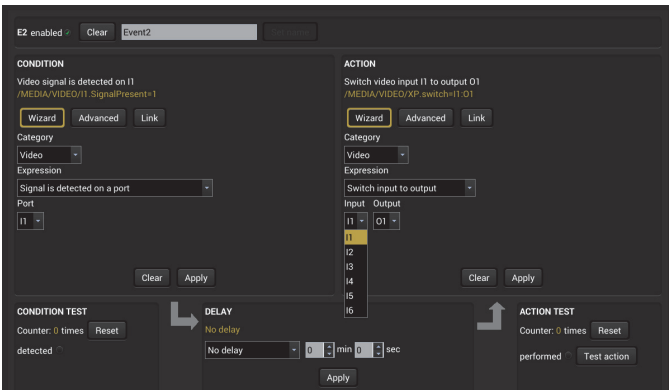
The most typical examples of the currently selectable conditions and actions within the Event Manager Wizard are the following:

Conditions	
Video	Signal is detected on a port
Video	Signal is not detected on a port
Audio	Signal is detected on a port
Audio	Signal is not detected on a port
Audio	Signal type changes to PCM
Audio	Signal type changes to Compressed
Audio	Signal type changes to HBR
Audio	Signal type changes to Undefined (no signal)
IR	Infra code recognized
General	OPT / TPS link state changes to Connected
General	OPT / TPS link state changes to Disconnected

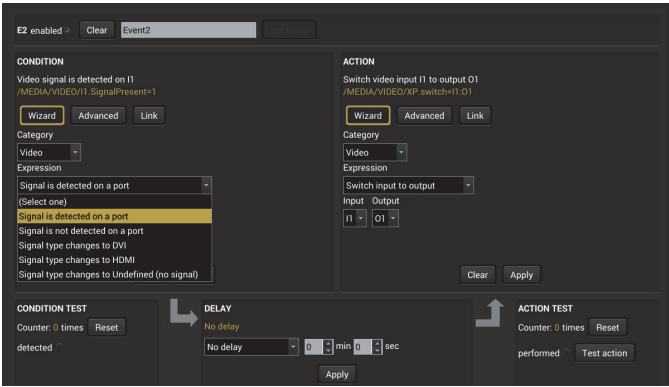
Actions	
Video	Switch input to output
Video	Enable autoselect output
Video	Disable autoselect on output
Ethernet	Send TCP command
Ethernet	Send UDP command
R232	Send RS232 message
EDID	Switch EDID
Audio	Set audio volume
Audio	Mute output
Audio	Unmute output
Audio	Increase/decrease volume



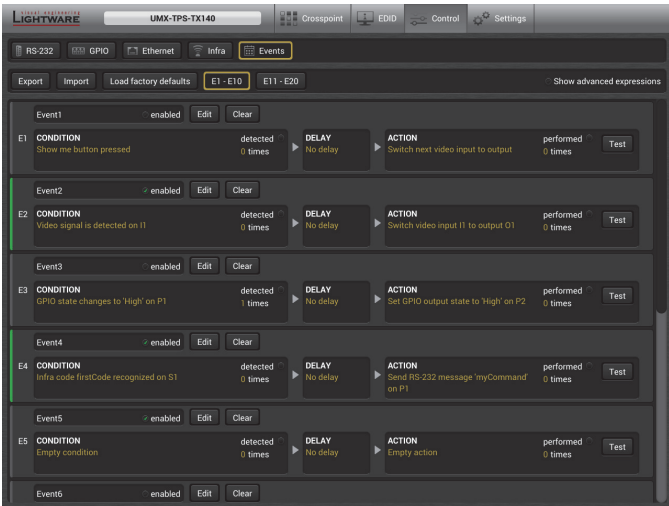
The Events menu contains separately configurable Events



The Event Wizard makes the setup easy with simple dropdown options

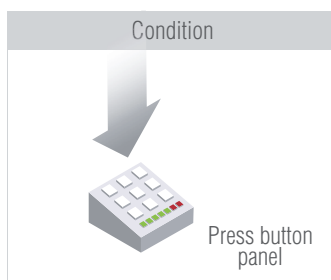
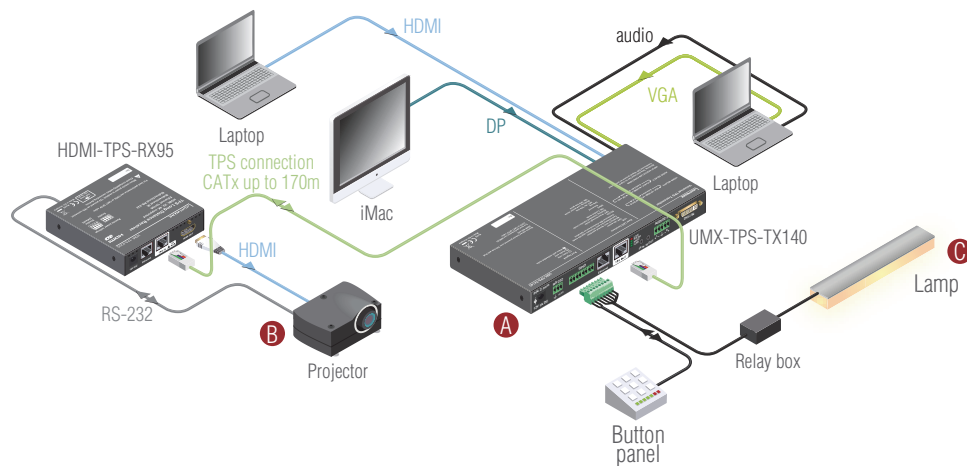


There are many default Expressions available to choose from



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

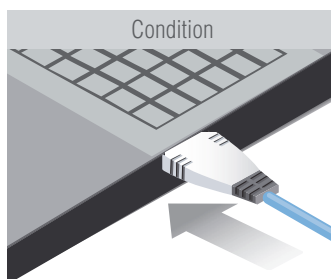
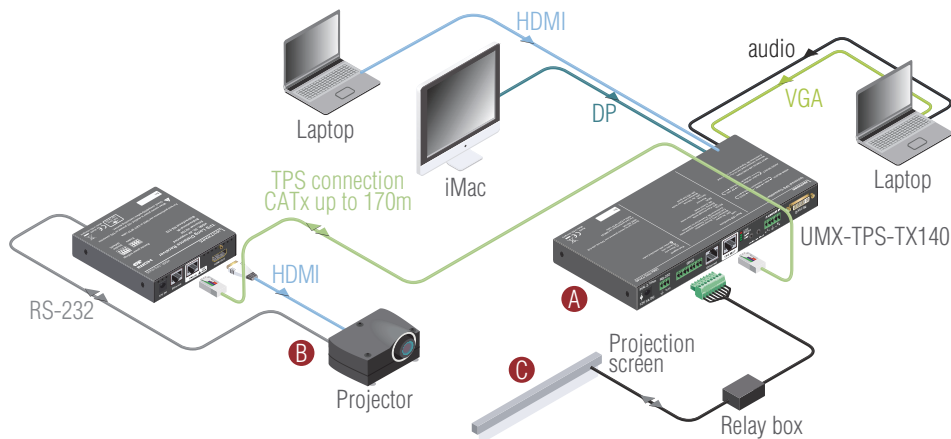
Event Example A



Action	
INPUT	A Input select on the TPS transmitter
PROJECTOR	B Switch on the projector using RS232
LAMP	C Switch off the lamp using the transmitter's GPIO port

With a button panel connected through the GPIO port, the UMX-TPS-TX140 can be controlled from a remote location; input switching is available even if the transmitter is 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 input, the lamp switches off and the projector turns on.

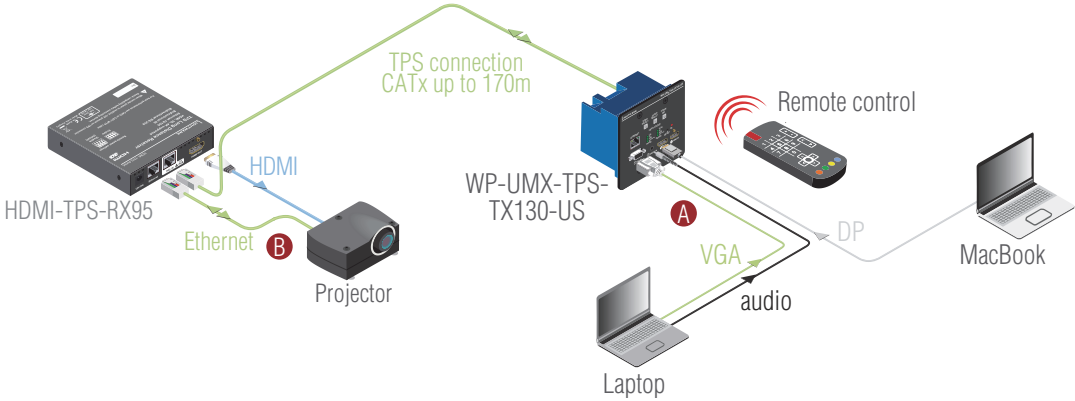
Event Example B






Action	
INPUT	A Input select on the TPS transmitter
PROJECTOR	B Switch on the projector using RS232
SCREEN	C Roll down the projection screen using the transmitter's GPIO port

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

Event Example C



Condition
 Press remote control

Action	
 INPUT	A Input select on the TPS transmitter
	B Switch on the projector using RS232

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. These inputs can be switched via IR using a remote control. For example the analog audio of the Laptop can be mixed with the DisplayPort video of the MacBook. The Event Manager helps the user assign actions like switching the projector on when the desired input is selected.

Applications

- Small classrooms
- Conference rooms, meeting rooms
- Control room
- Home cinema

Features

- 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Extends HDMI or VGA + Audio + Ethernet + RS-232 + IR over a single CAT5e-CAT7e cable up to 170 m distance*
- Audio and video connectors: HDMI, VGA, Stereo jack
- Embedded 7.1 HBR audio support
- Separate audio and video transmission
- Autoselect mode: video and audio priority modes
- Intuitive Control Software
- Event Manager
- 10/100 Ethernet extension
- Bi-directional RS-232 and IR
- IR and RS-232 connection supports command injection
- HDCP compliant, CEC, EDID transparent
- Embeds analog audio
- HDBaseT™ compatibility
- Advanced EDID management
- No signal latency
- Frame detector
- Remote powering through CAT cable

*Depends on cable category and quality

Compatible Products

- MX Modular matrix frames with MX-TPS-IB or MX-TPS2-IB
- HDMI-TPS-RX90
- MODEX TPS family
- DVI-HDCP-TPS-RX95
- HDMI-TPS-RX95

Specification

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:	4K UHD/15m; FullHD/30m
EDID emulation:	Yes, Advanced EDID Management
EDID memory:	119 factory preset, 15 user programmable
VGA to digital conversion:	0 microseconds delay
HDCP pass-through:	Yes
RS-232 pass-through:	Yes, configurable
RS-232 (control option):	9600, 19200, 38400, 57600, 115200 Baud Rx,Tx (local or through CATx)(default: 57600)
Local power:	Universal power adaptor, DC 12V 2.5A
Power over TPS:	DC 48V 1A
Power consumption:	8W (typ)
Enclosure:	1 mm metal
Dimensions:	221 W x 100.4 D x 26 H mm
Net weight:	629 g
Compliance:	CE
Warranty:	3 years

Connectors

Digital video input:	HDMI connector
Analog video input:	VGA connector
Audio input:	Stereo jack
Ethernet:	1 x RJ45
Control:	IR
TPS output:	1 x RJ45
Serial port:	3-pole PHOENIX
Power:	Locking DC connector (2.1 / 5.5 mm)

Analog Audio Input

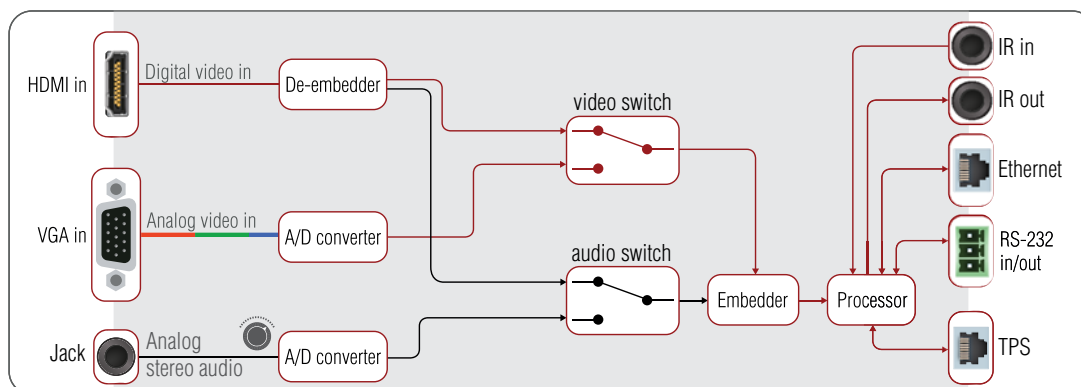
Volume:	-96 .. 0 dB
Balance:	0 .. 100%

Transmitter Front and Back View



UMX-TPS-TX120

Port Diagram



Supplied Accessories



PSU-12VU Universal DC adaptor (Part No: 1180 0051)

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.