

## TPS Extenders for Single CATx Cable with Poe



Part No: 9154 0024 (TX97), 9154 0023 (RX97)



### Highlight Features

- Single-Link DVI and HDMI extension supporting 4K/UHD (30Hz RGB 4:4:4, 60Hz YCbCr 4:2:0) and 3D capabilities
- Extends Single-Link DVI or HDMI + Ethernet + RS-232 + IR over one CATx cable to up to 170m\* transmission distance
- 10/100 Ethernet transmission
- Bi-directional RS-232 and IR
- HDCP compliant, CEC, EDID transparent
- Operation mode switch (Auto or forced Long Reach Mode)
- IR out mode switch (Wired / Emitter)

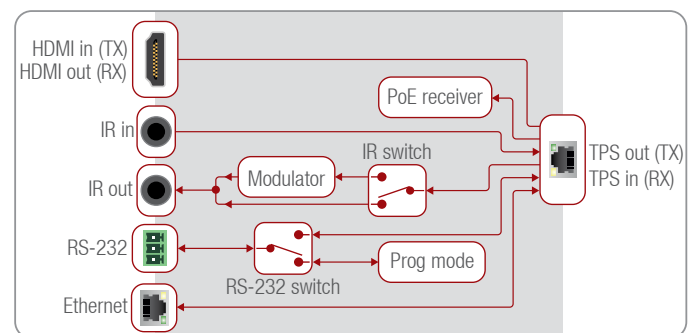
\*Depends on cable category and quality

HDMI-TPS-TX97 and HDMI-TPS-RX97 twisted pair HDBase™ extenders provide extension of uncompressed 4K/UHD video with embedded audio (up to eight channel PCM or HBR audio) for long distances over a single CATx cable. The unit offers bi-directional RS-232, IR, and Ethernet pass-through on the same CATx cable that carries the video signal. The TPS extenders support full HDCP and EDID compliance and work on all standard AV resolutions up to 4K and 48-bit color depth handling all standard audio formats and also 120 Hz 3D signals. PoE 48V remote powering is available through a single CATx cable, but a local power supply can also be used. All devices can be mounted on a rack shelf or used standalone.

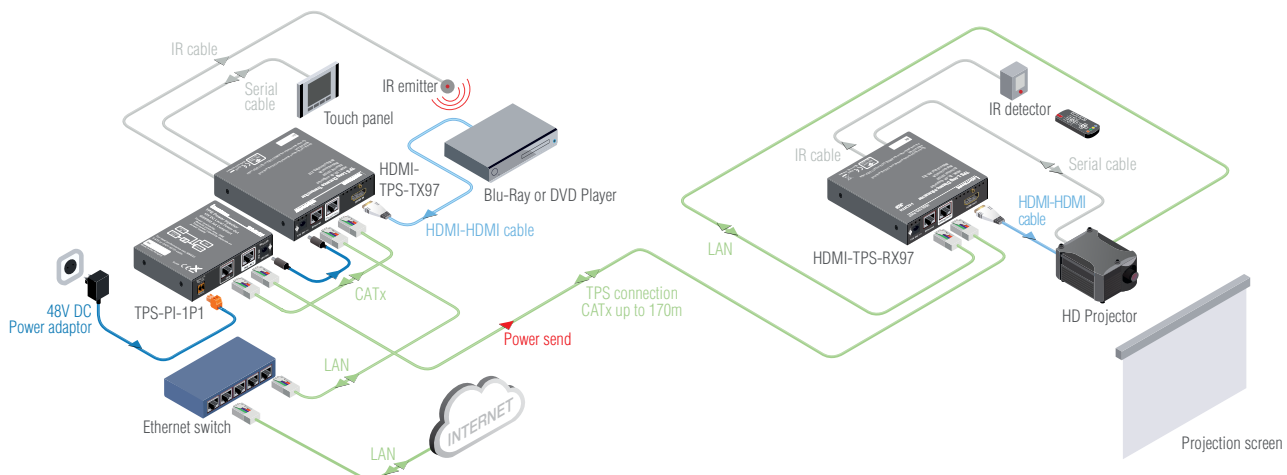
The auto operation mode allows the device to detect the far end extender's mode and adopt it. If the far end device is in Auto mode or it is a third party HDBase™ device the link will be set to HDBT mode. If the far device is in forced Long Reach Mode then the auto operation will set the Link to Long Reach Mode. The IR OUT can operate in either Wired (unmodulated) or Emitter (modulated) mode.

HDMI-TPS-TX97 and HDMI-TPS-RX97 are compatible with HDBaseT extenders and matrix switchers.

Port Diagram



### Standalone Application



# HDMI-TPS-TX97, HDMI-TPS-RX97

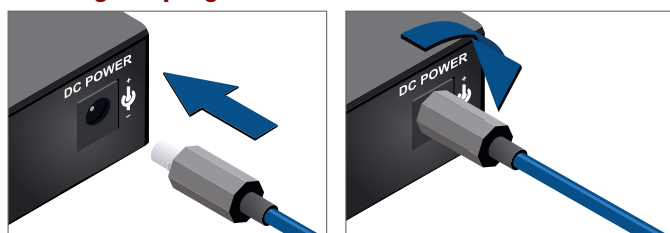
## Applications

- Post production studios
- Control room
- Digital Signage
- Multiroom video
- Conference rooms, collaborative telepresence

## Features

- DVI and HDMI extension over a single CAT7 cable
- Two available operation modes to maximize potential cable length
- Operation mode switch (Auto or forced Long reach mode)
- Low power mode in Auto operation mode
- 10/100 Ethernet extension
- Bi-directional RS-232 pass-through
- Bi-directional IR pass-through
- Supports all DVI resolutions up to 1080p or 1920x1200
- Supports all HDMI 1.4 resolutions
- Compatible with 120 Hz 3D video signals
- Remote powered through CATx cable
- HDCP 2.2 compliant, CEC, EDID transparent
- Uncompressed video/audio up to 10,2 Gbps
- Live, Link detection, Video and HDCP detection LEDs
- Rack mounting options
- Locking DC connector

## Locking DC plug



Twist 90° clockwise to lock

## Specification

Data rate:	3.4 Gbps per color
Resolution:	All HDMI 1.4a resolutions supported
Equalization:	Adaptive, automatic
EDID support:	Transparent
HDCP pass through:	Yes
Ethernet pass-through:	Yes
RS-232 pass through:	Yes
IR pass through:	Yes
Overall signal delay:	10µs (including 100m CATx cable)
Power:	Universal power adaptor, DC 12 V 2.5 A
Power consumption (-TX):	3.6 W (typ) 4.2 W (max)
Power consumption (-RX):	5.3 W (typ) 6.1 W (max)
Enclosure:	1 mm metal
Dimensions:	100.4 W x 100.4 D x 26 H mm
Weight:	330 g / product
Compliance:	CE
Warranty:	3 years

## Connectors

TX input, RX output:	HDMI connector
TX output, RX input:	RJ45 (TPS interface)
Ethernet:	RJ45
IR In, out:	3.5mm TRS connector (1/8" mini-jack)
Serial port:	3-pole PHOENIX
Power:	Locking DC connector (2.1 / 5.5 mm)

## Transmitters and Receivers Front and Back View



HDMI-TPS-TX97



HDMI-TPS-RX97

## Max Cable Lengths with the Available Operation Modes

Resolution	Pixel Clock Rate	Cable Lengths (Auto / LR Link 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	223,6 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*

\* with Long reach operation mode which supports pixel clock frequencies up to 148,5 MHz.

\*\* when remote powering is used with AWG26 cables, distances are 20% shorter.

### 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 (Part No: 5240 0275)

The UD-kit makes it easy to mount a single device on any flat surface (e.g. furniture).



#### 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.

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