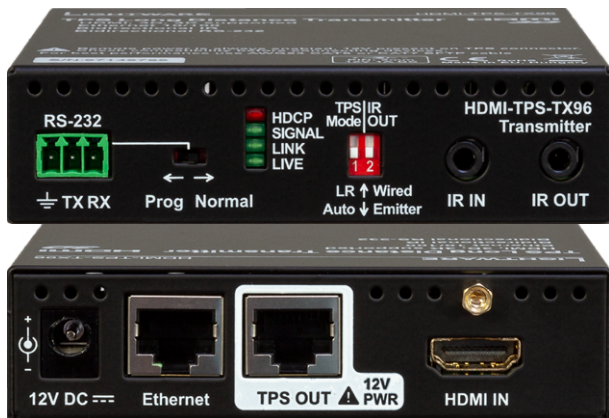


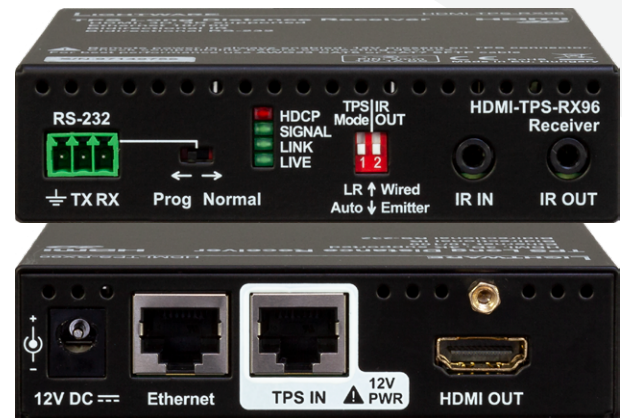
# HDMI-TPS-TX96, HDMI-TPS-RX96

Part No: 9154 0067 (TX), 9154 0066 (RX)

TPS extender for single CATx cable



HDMI-TPS-TX96



HDMI-TPS-RX96

HDMI-TPS-TX96 and HDMI-TPS-RX96 twisted pair HDBaseT™ extenders provide extension of **uncompressed Full-HD video** 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 at all standard AV resolutions up to 4K and 48-bit color depth handling all standard audio formats and also 120 Hz 3D signals. **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 HDBaseT™ 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.

## Applications

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

## Highlight Features

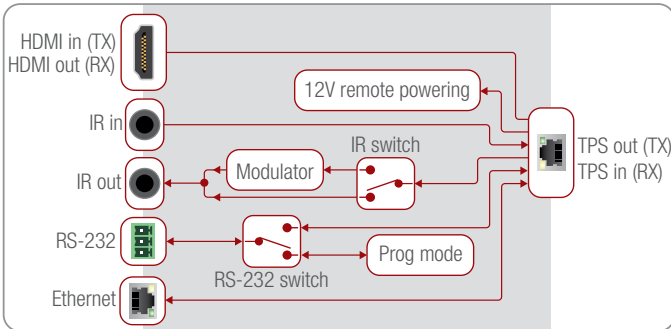
- **Selectable operation mode (Auto or forced Long Reach mode)**
- **Ethernet extension (100 Mbps)**
- **Bi-directional RS-232 and IR extension (pass-through)**
- **Extends DVI or HDMI 1.4 + Audio + Ethernet + RS-232 + IR over one CAT5/6/7 cable**

## Features

- Can be remote powered through CATx cable (12V)
- Supports HDMI 3D signal formats (frame packing, side-by-side and top-bottom)
- Supports deep color signals (24/30/36 bit RGB/YCbCr 4:4:4)
- 1920x1080@120Hz/4:4:4, 4096x2048@30Hz/4:4:4 or 60Hz/4:2:0 maximum resolutions (300MHz)
- Supports all VESA and HDTV resolutions
- HDMI 1.4, HDCP 1.4 and DVI 1.0 compliant
- Bi-directional RS-232 extension (pass-through)
- HDCP 2.2 compliant (transparent pass-through)
- Compatible with 120 Hz 3D video signals
- Uncompressed video up to 9 Gbps datarate (300 MHz pixel clock)
- No signal latency, zero frame delay
- Extends DVI or HDMI 1.4 + Ethernet + RS-232 + IR over one CAT5/6/7 cable
- Cross compatible with TPS series Lightware extenders and I/O boards (HDBaseT compatible)
- Supports all embedded audio formats (including PCM, Dolby Digital and DTS high bitrate audio)
- Extension distance up to 170 meters (with CAT7 S/FTP AWG23 cable, 1920x1080p60)
- HDBaseT compatible
- Transparent EDID pass-through
- Bi-directional IR extension (pass-through)
- CEC support (pass-through)
- Supports HDMI 4K signal formats (4K UHD @30Hz RGB 4:4:4 or @60Hz YUV 4:2:0, up to 9 Gbps)
- No video compression
- Status LEDs (Live, TPS link, signal and HDCP detect)
- Twist-and-lock DC power connector
- Low power mode (standby)
- Local or remote (remote-send / remote-receive) power source
- External universal power adaptor
- Mounting options for rack, furniture or truss

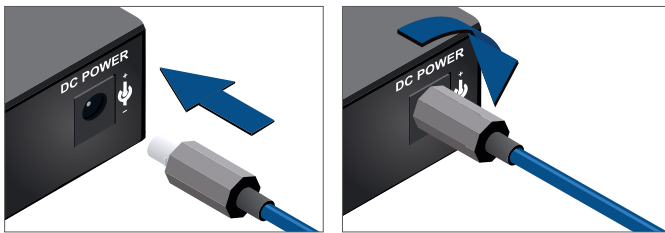


## Port Diagram



## 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

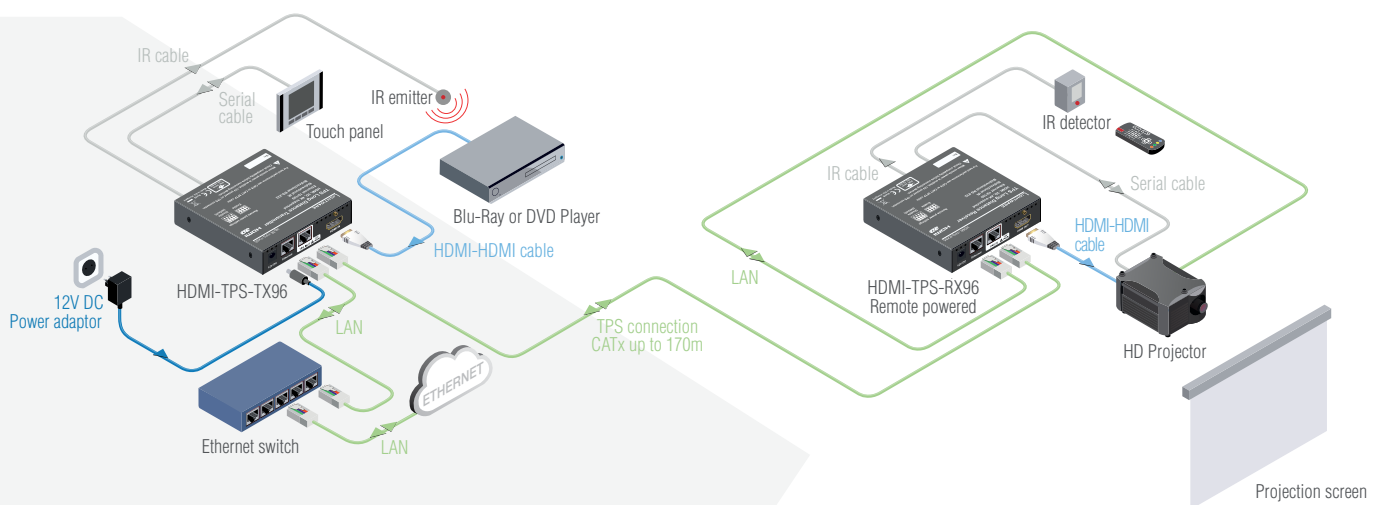


Twist 90° clockwise to lock

## 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)

## Standalone Application



## 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.

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