Firstly connect the power adaptor to the DC input of the power injector, then connect a serial cable between the sink device and the RS-232 port of the receiver. Make sure the RS-232 switch is in Normal position. Connect the receiver to Ethernet by a CATx cable.

HDMI-TPS-RX95 and DVI-HDCP-TPS-RX95 are DVI 1.0 and HDMI 1.4 compatible long-distance extenders. The difference between HDMI and DVI-HDCP models is that the HDMI models support HDCP version 1.2 and the DVI-HDCP models support HDCP version 1.1. The HDMI-TPS-RX95 and DVI-HDCP-TPS-RX95 are compatible with all Lightware extenders and accessories and perform analog conversion automatically. The HDMI-TPS-RX95 and DVI-HDCP-TPS-RX95 are also compatible with all Lightware extenders and accessories and perform analog conversion automatically.

Connecting Steps

1. Connect the TPS output port of the Transmitter to the TPS input port of the Receiver by a CATx cable.
2. Connect a source to the HDMI (DVI-D) input port of the transmitter.
3. Connect an IR emitter unit to the IR input port of the transmitter.
4. Connect a controller device to the local RS-232 port of the transmitter. Make sure the RS-232 switch is in Normal position.
5. Connect a serial cable between the sink device and the RS-232 port of the receiver.
6. Connect the receiver to Ethernet by a CATx cable.
7. Connect an IR detector unit to the IR input port of the receiver.
8. Turn the device(s) upside down.
9. Connect the video source(s), sink(s) and the desired accessory device(s) to the matrix card's port, local adaptor must be used for the extender.
10. Supply the extenders with 12V 2A DC. If the remote power is disabled on the connected board, local adaptor must be used for the extender.

Mounting Options

Under Desk Mounting Kit (UD-kit)
The UD-kit makes it easy to mount one extender under any flat surface (e.g. furniture).

UD Mounting Kit Double (UD-kit double)
The UD-kit double makes it easy to mount two extenders under any flat surface.

Rack Shelf
1U high rack shelf provides mounting holes for fastening up to four extenders.

Mounting Steps

Always use the fixing screws which are supplied with the mounting accessory. If you insert screws longer than 8 mm, the device can be damaged.
1. Unplug all the cables connected to the device(s).
2. Turn the device(s) upside down.
3. Put the shelf upside down on the device(s). Position it to get the mounting holes aligned.
4. Fasten the shelf with the provided screws.
5. Fix the shelf to the desired place (screws are not supplied).

Remote Power Options

The TPS extenders can be powered remotely by its extender pair or a TPS matrix board. This feature can be enabled or disabled with jumper settings. Switch off the extenders. Loosen the screws and remove the small plate from the right side of the enclosure. To enable the remote power function place the jumper block onto all the pinheads. To disable it remove the jumper block. For detailed information, see the user’s manual of the matrix.

Installation of the Extender with a Matrix

1. Power all off devices. (Installing with powered devices may harm them.)
2. Check the RS-232 switch(es) on the extender(s); they must be in Normal position.
3. The state of the TPS link mode switch makes no difference on the extender because the connected board forces the extender to use the settings of the matrix.
4. Set the remote power mode of the matrix boards with the jumpers on them. Every port can be set for remote powering separately. To enable the remote power function place the jumper block onto all the pinheads of the desired port. To disable it remove the jumper block. For detailed information, see the user’s manual of the matrix.
5. Set the extenders’ remote power mode with the same method as it mentioned in the installation of the TPS matrix board.
6. Fix the extender(s) and the matrix board(s) with CATx cable(s). The transmitters’ TPS OUT with the input boards’ TPS IN and the receivers’ TPS IN with the output boards’ TPS OUT.
7. Connect the video source(s), sink(s) and the desired accessory device(s) to the extenders.
8. Set the video source(s), sink(s) and the desired accessory device(s) to the extenders.
9. Supply that matrix boards with 12V 6,67A DC which have ports with enabled remote powering.
10. Supply the extenders with 12V 2A DC. If the remote power is disabled on the connected matrix card’s port, local adaptor must be used for the extender.
11. Connect the power cord of the matrix into the outlet and switch on the matrix.

HDMI-TPS-TX95 and DVI-HDCP-TPS-TX95 are compatible with all Lightware extenders and accessories and perform analog conversion automatically. The HDMI-TPS-TX95 and DVI-HDCP-TPS-TX95 are also compatible with all Lightware extenders and accessories and perform analog conversion automatically.
### TPS Link Modes

The TPS working mode is determined by the mode set in the TPS device. Both parties influence on the setting which determines the final TPS transmission mode. The following TPS modes are defined:

- **Long reach (LR):** Longer CATx cable length, less bandwidth (limited resolution).
- **TLP (Total Line Power) mode:** Not available in LR TPS mode.
- **HPF (High Pass Filter):** Higher bandwidth (higher resolutions), shorter CATx cable length. If no video present, the unit changes to TLPP mode automatically.

### Low Power Partial Functionality (LPPF): Only Ethernet, RS-232 are extended.

### TPS Link Modes

The toggle switch on the extenders can be used to toggle between the LR and Auto TPS modes. If both units have Auto state and there is valid video signal on the transmitter the common mode will be HDBT. If no video signal appears devices go into TLPP mode.

### TPS Mode between an extender and a port of a matrix board

If an extender and a TPS matrix board is paired, the power source will be connected to the TX and RX of the TPS device, and the TPS working mode will change to the specified TPS working mode. The TPS working mode switch has no effect.

### Always use the Auto mode with third-party devices!

### Maximum Extension Distances

The following TPS modes are defined:

- **Long reach (LR):** Longer CATx cable length, less bandwidth (limited resolution).
- **TLPP (Total Line Power Partial) mode:** Not available in LR TPS mode.
- **HPF (High Pass Filter):** Higher bandwidth (higher resolutions), shorter CATx cable length. If no video present, the unit changes to TLPP mode automatically.

### Low Power Partial Functionality (LPPF): Only Ethernet, RS-232 are extended.

### TPS Working Modes

The following TPS working modes are defined:

- **Auto:** Auto working mode, TPS working mode switch is set to Auto.
- **LR:** Long reach (LR) working mode, TPS working mode switch is set to LR.
- **TPS-RX95L:** TPS working mode switch is set to TPS-RX95L.
- **TPS-TX95L:** TPS working mode switch is set to TPS-TX95L.

### Typical Application

- **Power connection:** CATx up to 170 m
- **Video input:** BD, BD-A, BD-Live, Blu-ray player
- **Power supply:** CATx (local)
- **Power output:** CATx (local)
- **Remote powering:** Enabled
- **Power send:** CATx
- **TPS connection:** CATx
- **TPS working mode:** Auto

### Specifications

- **Power supply option:** Power adapter / Remote power
- **Power consumption (TX):** 5.3W (typ.) / 8.6W (max.)
- **Heat dissipation:** 12 BTU (typ.) / 22 BTU (max.)
- **Dimensions in inch:** 100.4 W x 100.4 D x 26 H
- **Weight:** 1920x1200@60Hz: 152.9 MHz 100 m / NA 90 m / NA 120 m / NA

### Remote Power Options

The TPS extender can be powered remotely by the connected TPS matrix board or its extender pair. This feature can be enabled or disabled with jumper settings for every port separately. Switch off the matrix. Remove the desired cards. Pinheads are behind the TPS connectors. To disable the remote powering function of the port place the jumper block onto the corresponding pinheads. Connect the external 12V DC 6.7A power adapter to the card separately. Finally, set the extenders’ desired power modes. To disable the remote powering function for a port remove the jumper block from the corresponding pinheads.

### Jumper Settings

Place the jumper blocks onto all the pinheads of those units which you want to be powered remotely. For disabling the remote powering remove the jumper blocks and place them onto the upper line pinheads only.

### Read carefully all the detailed instructions about remote powered devices! Never use remote powering with third-party units!

**AWG 28 cables are not recommended for remote powering.**

**Always use the Auto mode with third-party devices!**

### Integrated with Local Powering

**Enabled**

**Disabled (local)**