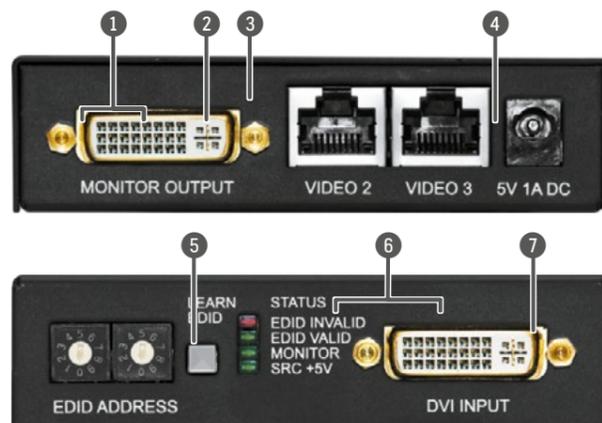




## Quick Start Guide

DVI-TP-RX100  
DVI-TP-TX200  
DVI-TP-TX300

### Front and rear view - Transmitter



❗ DVI-TP-TX200 contains only one CATx output.

⚠ The extenders do not have networking capabilities. Do not connect the extenders to a Local Area Network device or a PC via the RJ45 sockets. Doing so may damage the unit!

### Legend - Transmitter

- 1 EDID rotary switches
- 2 Learn EDID button
- 3 Status LEDs
- 4 DVI input
- 5 Monitor output
- 6 CATx output(s)
- 7 DC 5V input

The rotary switches select one of the EDID memory addresses.

Stores the EDID of the display device attached to the output in the selected memory address.

The LEDs give feedback about the state of the units and the video signal.

Connect one DVI-D or DVI-I cable (only digital pins are connected internally) between the DVI source and the transmitter.

Connect one DVI-D or DVI-I cable (only digital pins are connected internally) between the transmitter and the local display device. The output connector is able to supply 500 mA current on pin 14 to power fiber optical DVI extenders like DVI-OPT-TX100.

Connect one or two CAT5x cables between DVI-TP-TX200/TX300 and the receiver (DVI-TP-RX100 or Lightware Hybrid Matrix equipped with twisted pair input cards).

Connect the output of the supplied +5V DC power adaptor or use Lightware's rack mountable power supply.

### Status LEDs - Transmitter

#### EDID INVALID

- BLINKING: invalid EDID is read from the connected sink or EDID learning failed.
- ON: invalid EDID is selected by the rotary switches.

#### EDID VALID

- BLINKING: valid EDID is received from the connected sink or EDID learning is successful.
- ON: valid EDID is selected and emulated by the rotary switches.

#### MONITOR

- ON: a sink is connected to the Monitor output port and sends a valid Hot plug signal.

#### SRC +5V

- ON: a DVI source is connected, powered on and sends the +5V signal.

### Status LEDs - Receiver

#### MANUAL EQ

- ON: Manual equalization mode is active.

#### AUTO EQ

- ON: Auto equalization mode is active.

#### SIGNAL PRESENT

- ON: a valid DVI clock signal is present on the CATx (video) input port.

#### MONITOR HOTPLUG

- ON: a sink is connected to the DVI output port and sends a valid Hot plug signal.

### Important safety instructions

Please read and keep the information in the attached safety instructions supplied with the product before start using the device.

### Introduction

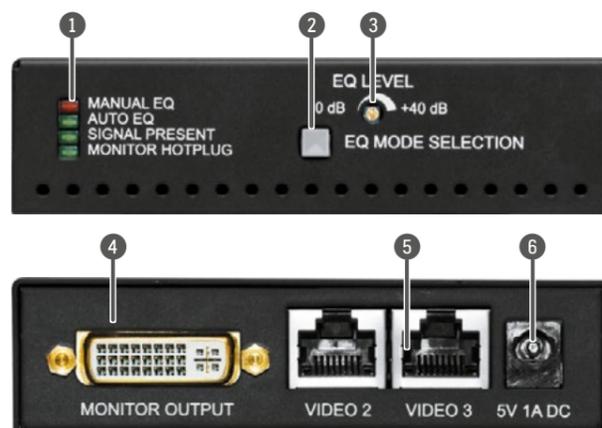
DVI-TP-TX200/TX300 and DVI-TP-RX100 are Single Link DVI over Twisted Pair extenders which allow video signals of up to 1920x1200@60Hz or 2048x1080@60Hz resolution to be transmitted through 50 meters of high quality CAT7 cables. Accessible distances depend on the used cable quality and signal resolution.

DVI-TP-TX200 and DVI-TP-TX300 transmitters include an EDID Manager and built-in DVI distribution amplifier for local monitor output. Only one CATx cable is needed for DVI signal transmission, there is no need for second CAT cable. Beside the local DVI output TX200 provides one and TX300 provides two identical CATx outputs. TX300 allows transmission of DVI signal to three different remote displays including local monitor.

### Box contents



### Front and rear view - Receiver



### Legend - Receiver

- 1 Status LEDs
- 2 EQ mode selector button
- 3 EQ level adjust
- 4 CATx input
- 5 DVI output
- 6 DC 5V input

The LEDs give feedback about the state of the units and the video signal.

Toggles between automatic and manual EQ mode. The EQ mode status LEDs indicate which mode is currently active.

The 25-turn potentiometer can be used to precisely set the right amount of equalization in manual EQ mode. The potentiometer does not stop at the end positions, but rotates indefinitely. After reaching the end position, a clicking sound can be heard at every full turn of the knob.

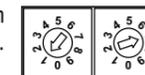
Connect one CATx cable between DVI-TP-RX100 and the transmitter (DVI-TP-TX200/TX300 or Lightware Hybrid Matrix equipped with twisted pair output cards).

Connect one dual link DVI-D or DVI-I cable (only digital pins are connected internally) between the receiver and the local display device. The output connector is able to supply 500 mA current on pin 14 to power fiber optical DVI extenders like DVI-OPT-TX100.

Connect the output of the supplied +5V DC power adaptor or use Lightware's rack mountable power supply.

### EDID selection

Use a flat head screwdriver to change the address. The left switch sets the tens value, the right switch gives the ones value of the EDID.



❗ Avoid the use of keys, coins, knives and other sharp objects.

### Maximum twisted pair distances

Resolution	Vfreq (Hz)	Pixel clk freq. (MHz)	Cat5e UTP	Cat6 UTP	Cat6 FTP	Cat7 S/FTP
640x480	60	25.2	60 m	65 m	70 m	80 m
800x600	60	40.0	60 m	65 m	65 m	75 m
1024x768	60	65.0	55 m	60 m	60 m	75 m
1280x720p	60	74.2	55 m	60 m	60 m	70 m
1280x1024	60	108.0	50 m	55 m	60 m	65 m
1400x1050	60	121.8	45 m	45 m	55 m	60 m
1600x1200	60	162.0	30 m	35 m	45 m	50 m
1920x1080p	60	148.5	30 m	35 m	45 m	50 m
1920x1200p	60	153.0	30 m	35 m	45 m	50 m

❗ Category 7 cable is always recommended since they are screened and foiled by standard.

### Powering on

1. After the system is complete, firstly connect the output of the Power Adaptor to the extenders, then secondly to the AC power socket.
2. At first the extenders display the firmware version using the upper two LEDs. The following example shows this process for a firmware version of 1.2.9:
  - RED blinks once, short pause.
  - GREEN blinks twice, short pause.
  - GREEN blinks nine times.
3. The EDID INVALID LED on the transmitter lights up for 2-3 seconds, then turns green if the selected EDID is valid, or remains red, if the selected EDID is invalid (or the selected memory is empty).
4. The attached DVI source and monitor(s) can be powered on.

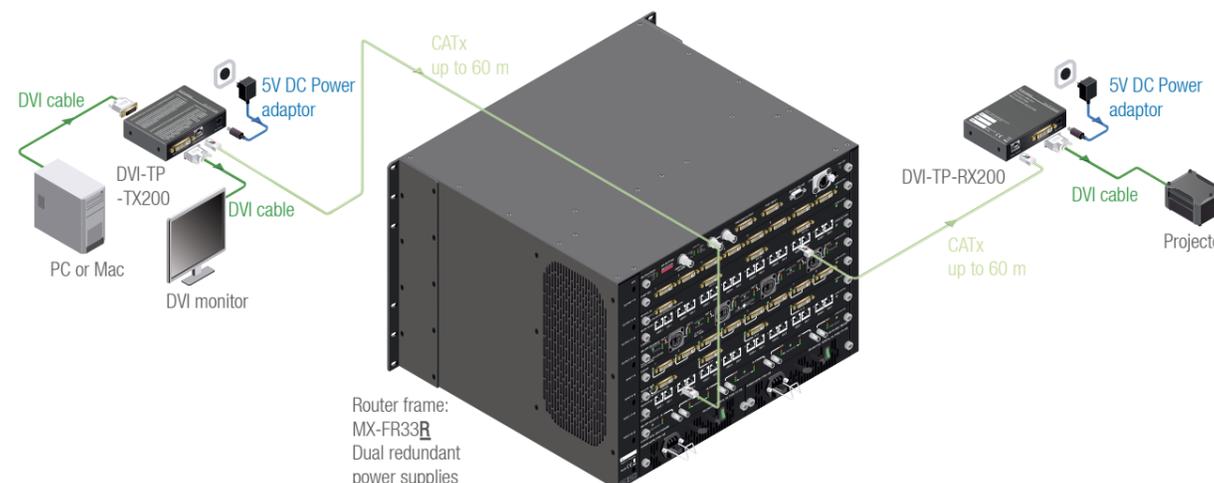
❗ If none of the LEDs light up upon power-up, the unit is most likely damaged and further use is not advised. Please contact [support@lightware.eu](mailto:support@lightware.eu).

### Adjusting the input equalization

The amplitude of high frequency signals decreases after they pass through long distances in copper cables. To counter-act this phenomenon, RX100 amplifies the signal while maximizing the amplitude at a certain level. The RX100 offers two equalization modes: automatic and manual. The mode can be toggled by pressing the EQ MODE SELECTION button.

⚠ It is always advised to use the automatic mode and only adjust the equalization manually if the auto mode does not give a good result.

### Integrated system application



Router frame:  
MX-FR33  
Dual redundant power supplies

### Further information

The document is valid with the following firmware version: 1.1.5 for RX and 1.2.9 for TX.  
The User's manual of this appliance is available at [www.lightware.eu](http://www.lightware.eu).  
See the [Downloads](#) section on the website of the product.

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