PIXELHUE

EP Series

Fiber Extender

User Manual

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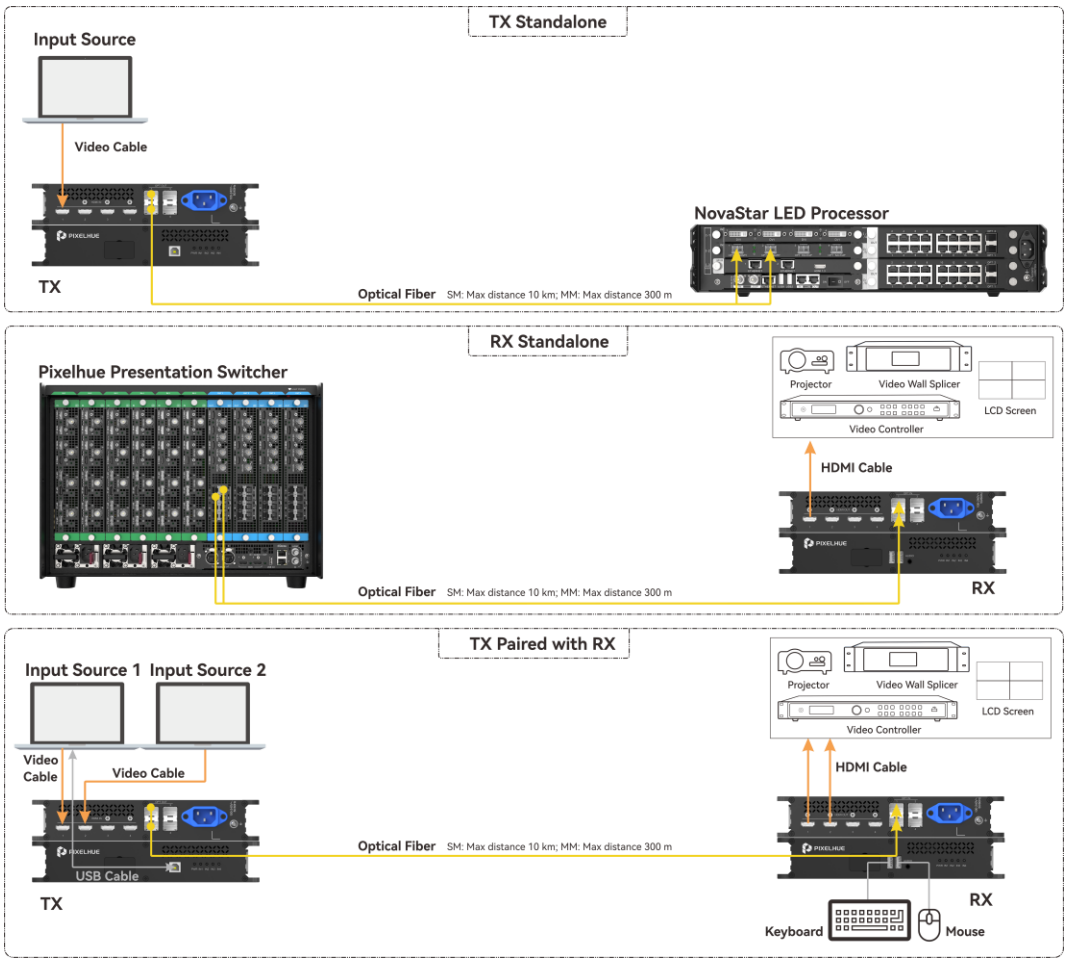
Content

1 Applications 1
2 Software Installation 2
2.1 Obtain Software 2
2.2 Software Installation 2
2.3 Control Connections 2
3 Device Update 4
4 Device Connection and Usage 8
4.1 TX Standalone Usage 8
4.1.1 Direct Output 8
4.1.2 Mosaic Output 9
4.1.3 Copy Output 10
4.1.4 Conversion Output 11
4.2 RX Standalone Usage 12
4.2.1 Direct Output 12
4.2.2 Copy Output 13
4.2.3 Mosaic Output 14
4.3 RX and TX Paired Usage 14

1 Applications



Caution

The picture is for illustration purpose only. In actual use, stacking of the devices is forbidden.

2 Software Installation

2.1 Obtain Software

The BCTools installation package can be obtained through the following methods:

- Obtain the BCTools installation package from the device provider and copy it to your control computer.
- Contact your sales or technical engineer to obtain the software installation package and copy it to your control computer.

2.2 Software Installation

Extract the software package to the computer, double click the BCTools.exe installation package, and follow the prompts to complete the installation of the software.

BCTools currently supports installation on Windows 7 and above systems only.

2.3 Control Connections

Connect the control computer to the USB connector of the EP4R using a USB cable.

Figure 2-1 RX device connection

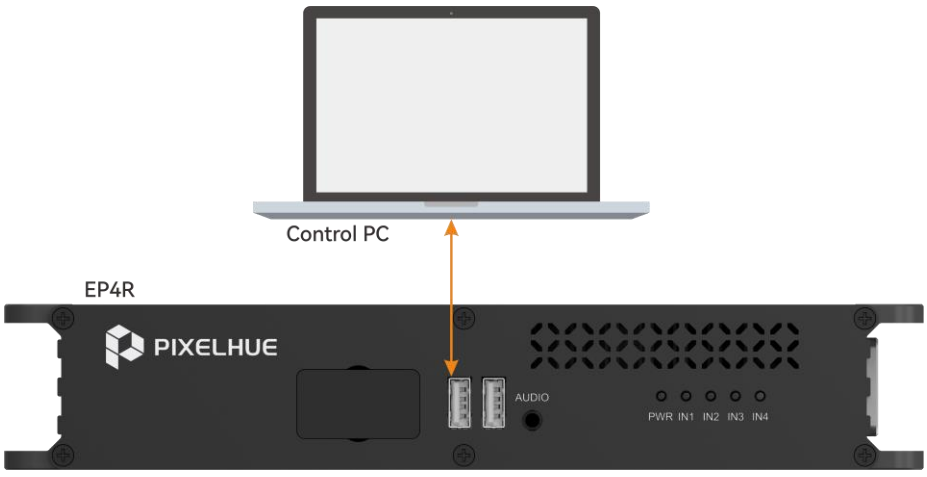
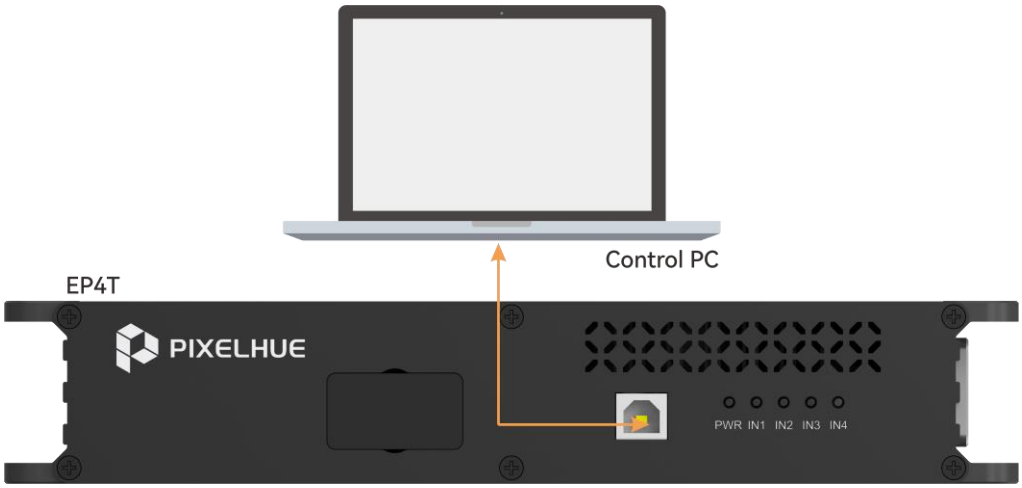


Figure 2-2 TX device connection



3 Device Update

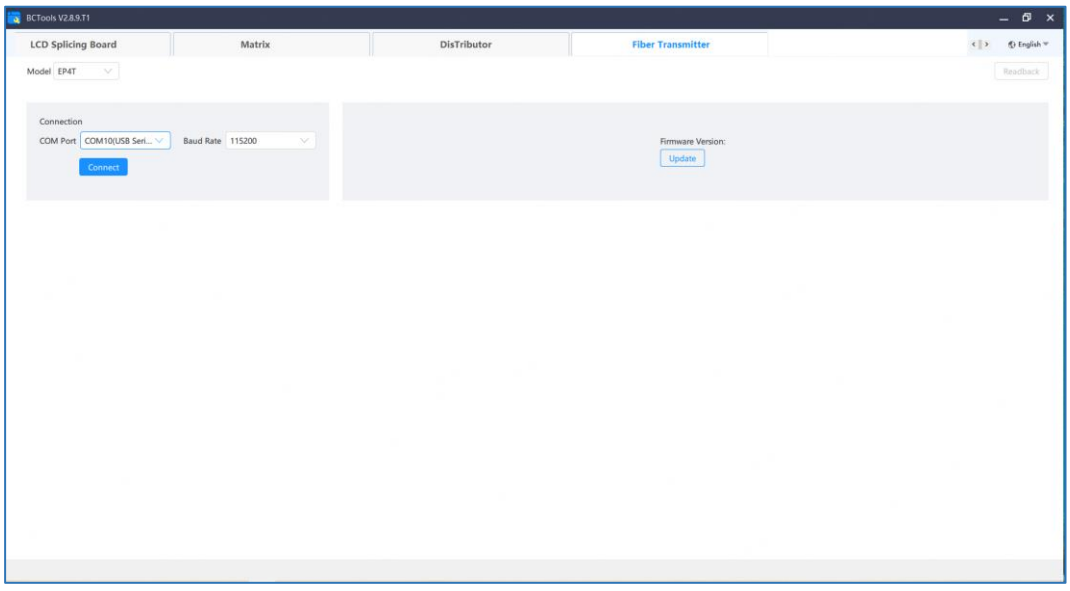
Prerequisites

- The corresponding device update package has been obtained.
- The device has been connected to the control computer.
- All inputs and outputs of the device to be updated have been disconnected.

Operating Procedure

Step 1 Launch the BCTools program, select **Fiber Transmitter** to and enter the corresponding interface.

Figure 3-1 Fiber extender interface



Step 2 Click the dropdown box next to **Model** in the top-left corner and select the device model to be updated.

Step 3 Open the silicone cover on the front panel of the device.

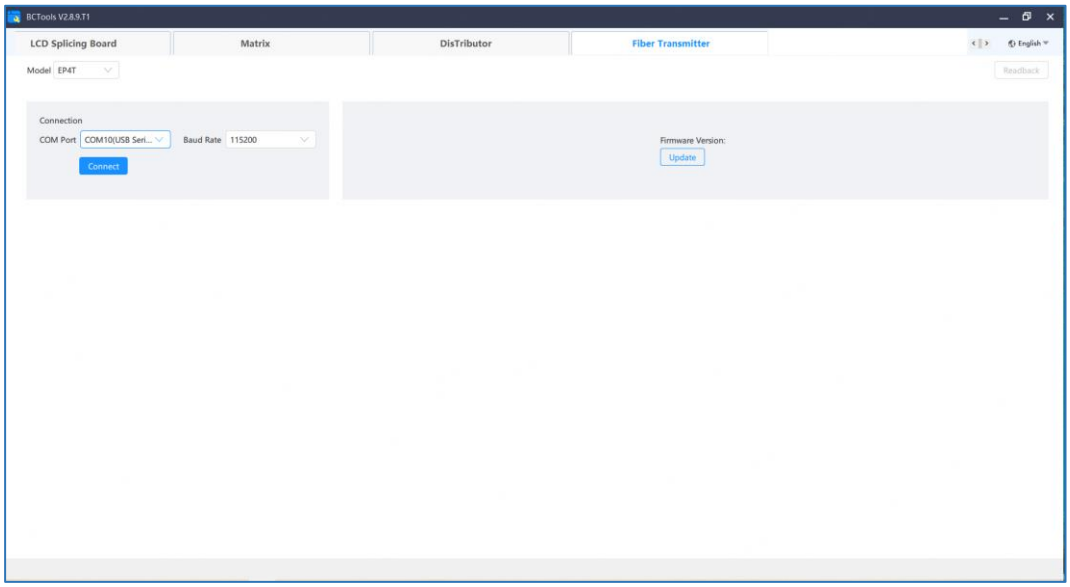
Figure 3-2 Open silicone cover

Step 4 Toggle the BOOT switch upward to enable the BOOT mode.

Step 5 In the **Connection** section, establish the device connection.

1. Click the dropdown box next to **COM Port** and select the serial port number connected to the control computer.
2. In the **Baud Rate** section, select the device baud rate (default is 115200).
3. Click **Connect**. BCTools will automatically connect to the extender. Upon successful connection, BCTools will automatically read back the device information.

Figure 3-3 Device connection successful



Step 6 Click **Update** on the right and select the update package.

BCTools will update the device. Once the update is complete, click **Readback** in the top-right corner to view the updated version information.

Step 7 After the update is complete, toggle the BOOT switch downward to disable the BOOT mode.

If the update fails, modify the device port number and retry.

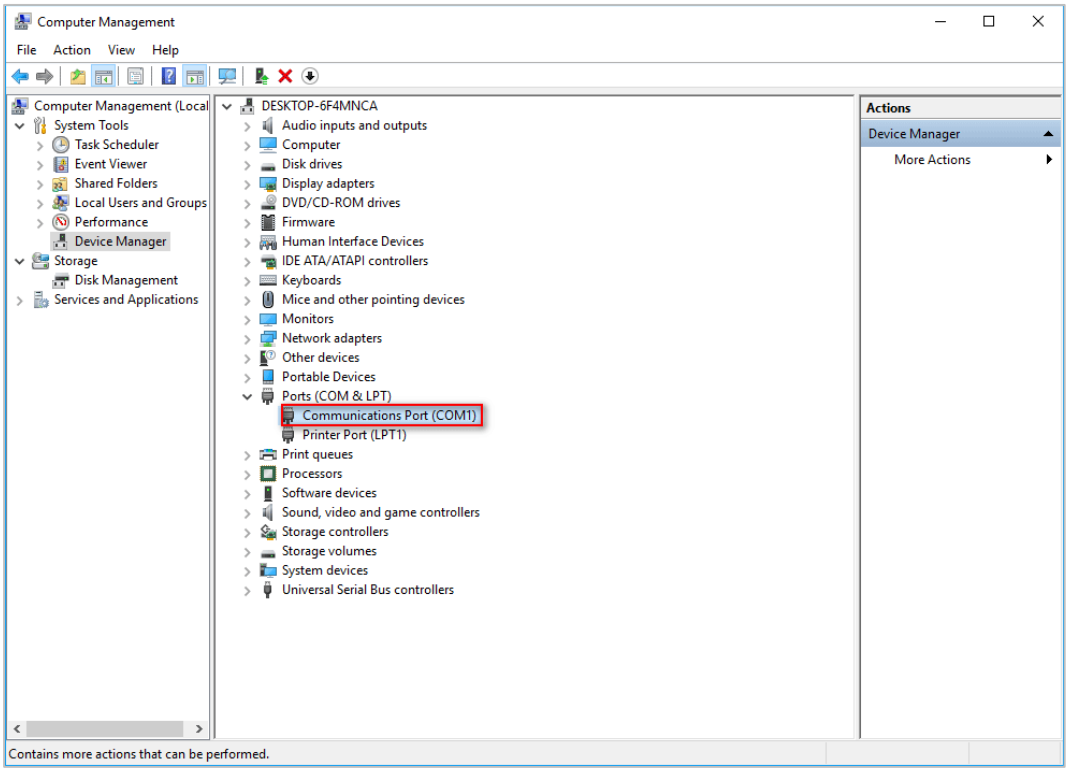
Modify COM Port Number

If the device update fails via BCTools, modify the COM port number and retry the update.

Step 1 On the computer desktop, right click **This PC**, select **Manage**, and enter the **Computer Management** interface.

Step 2 Click **Ports** to expand the port list interface.

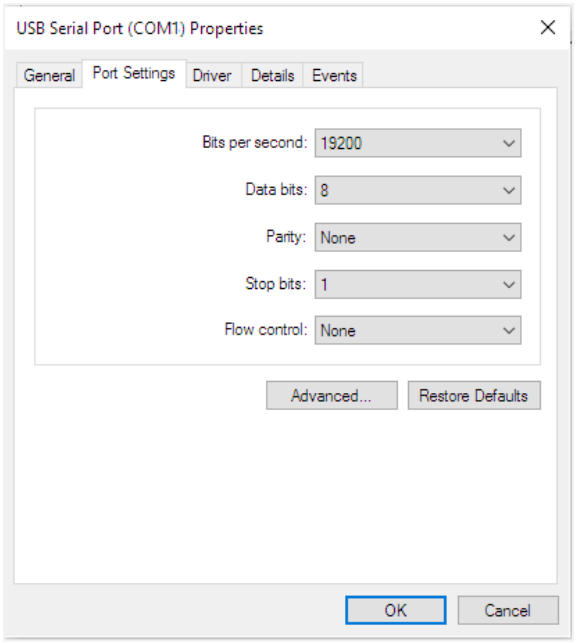
Figure 3-4 Computer management



Step 3 Right click the target serial port, select **Properties**, and enter the serial port properties interface.

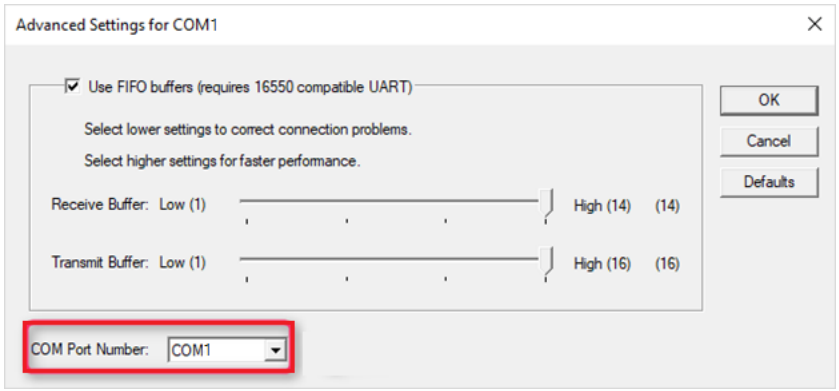
Step 4 Select **Port Settings** to enter the port settings interface.

Figure 3-5 Port settings



Step 5 Click **Advanced** to enter the advanced settings interface.

Figure 3-6 Advanced settings



Step 6 Click the dropdown box next to **COM Port Number** and select the port number.

Step 7 Click **OK** to complete the port number settings and return to the **Computer Management** interface to view the updated port number.

After modifying the COM port number, use BCTools to update the device again.

4 Device Connection and Usage

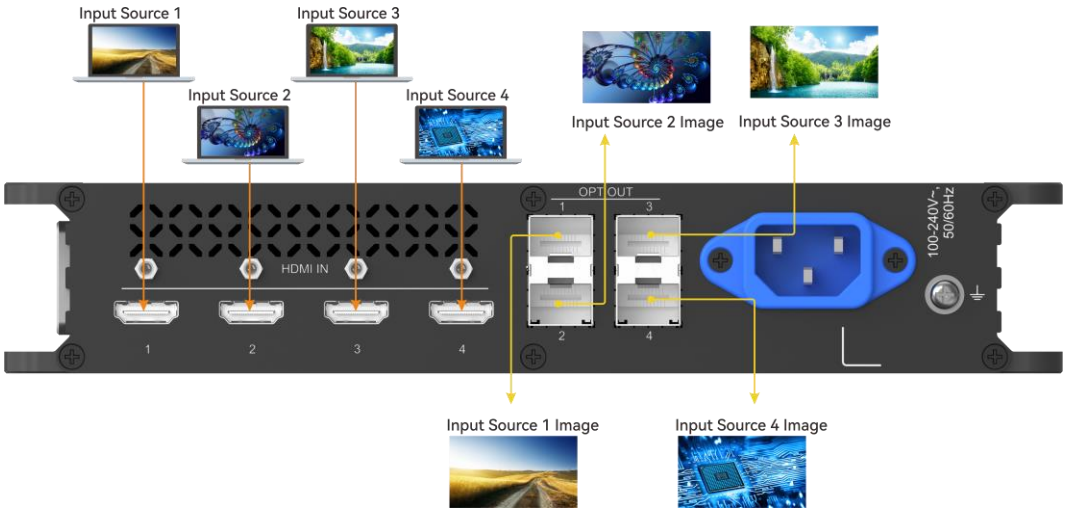
4.1 TX Standalone Usage

4.1.1 Direct Output

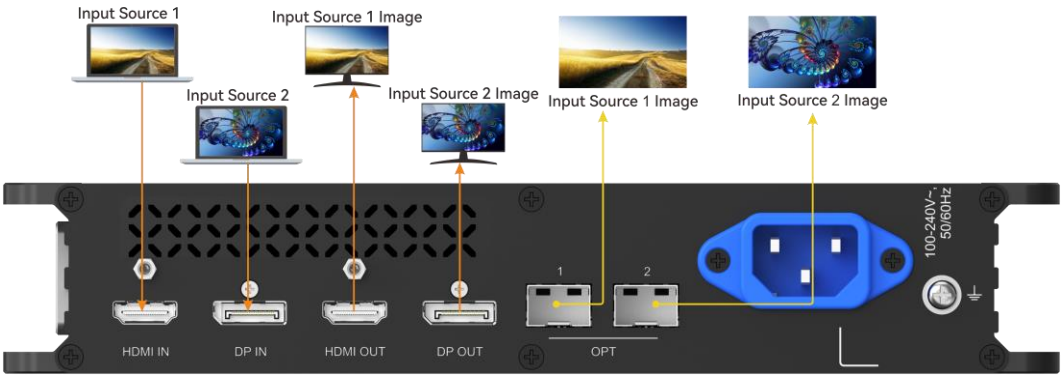
When the input source resolution is DL (3840×1080@60Hz) or below, the OPT port corresponds to the HDMI connector for output.

EP4T

- OPT 1 outputs HDMI 1.
- OPT 2 outputs HDMI 2.
- OPT 3 outputs HDMI 3.
- OPT 4 outputs HDMI 4.



EP2

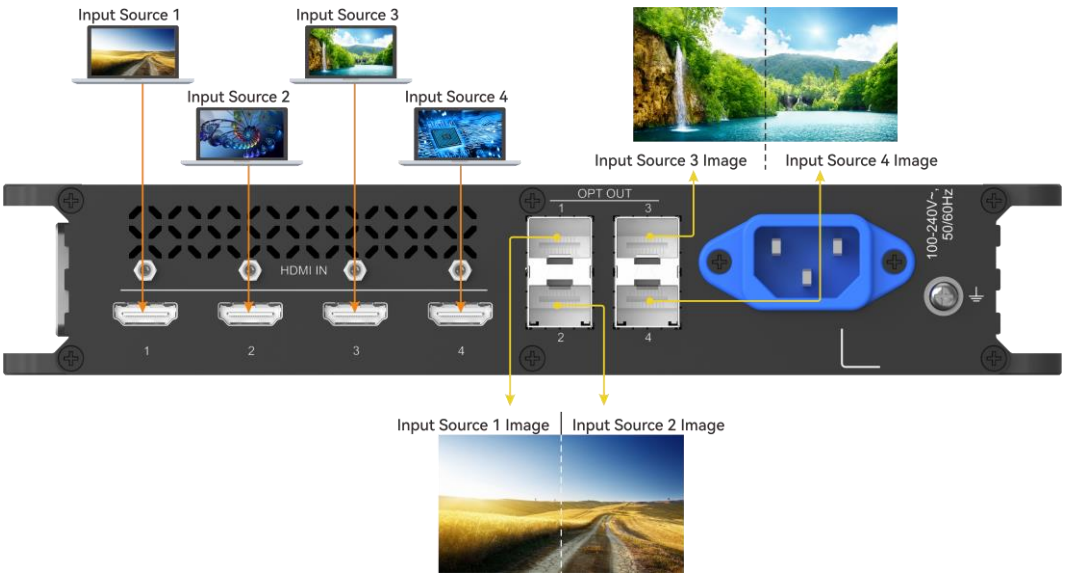


4.1.2 Mosaic Output

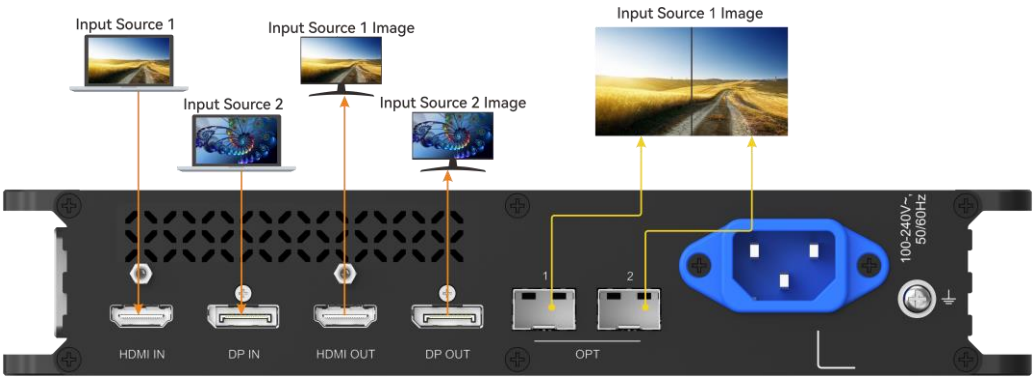
When the input source resolution is DL (3840×1080@60Hz) or above, two OPT ports stitch the HDMI output.

EP4T

- When all 4 HDMI input connectors are connected:
  - OPT 1 and OPT 2 stitch and output HDMI 1 content.
  - OPT 3 and OPT 4 stitch and output HDMI 3 content.
  - HDMI 2 and HDMI 4 do not output.
- When HDMI 1 and HDMI 3 are not connected:
  - OPT 1 and OPT 2 stitch and output HDMI 2 content.
  - OPT 3 and OPT 4 stitch and output HDMI 4 content.



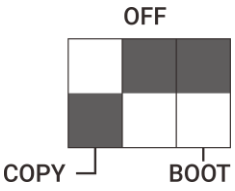
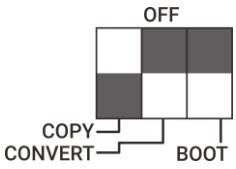
EP2



4.1.3 Copy Output

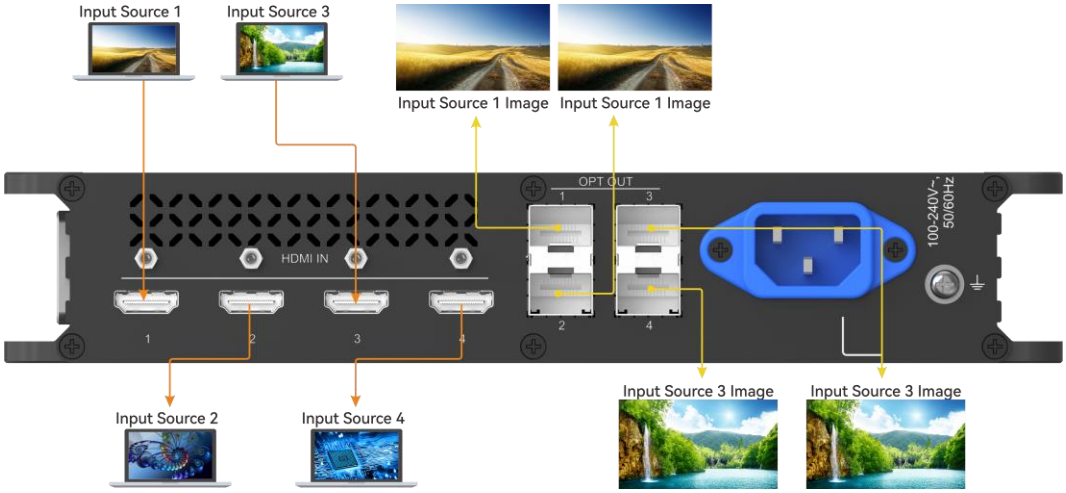
Open the silicone cover on the front panel and toggle the COPY switch downward to enable the copy function.

When the input source is DL (3840×1080@60Hz) or below, two OPT ports copy and output the HDMI content.

EP4T Copy Output Enabled	EP2 Copy Output Enabled
	

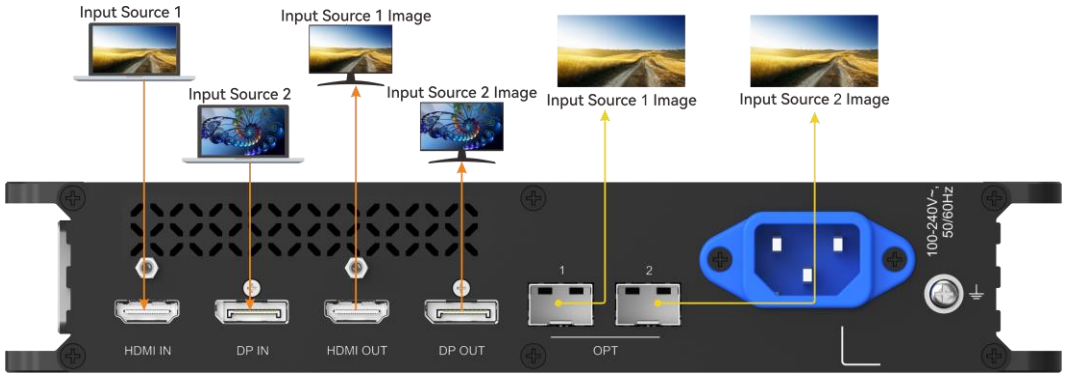
EP4T

- When all 4 HDMI input connectors are connected:
  - OPT 1 and OPT 2 copy and output HDMI 1 content.
  - OPT 3 and OPT 4 copy and output HDMI 3 content.
  - HDMI 2 and HDMI 4 do not output.
- When HDMI 1 and HDMI 3 are not connected:
  - OPT 1 and OPT 2 copy and output HDMI 2 content.
  - OPT 3 and OPT 4 copy and output HDMI 4 content.



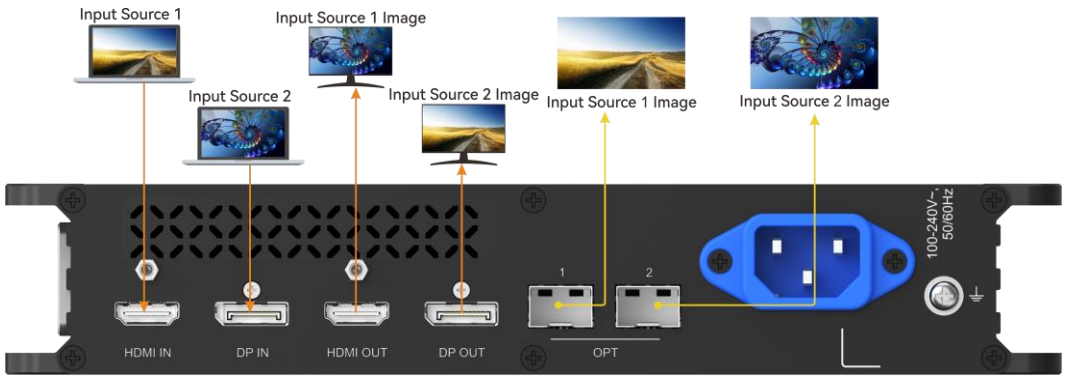
EP2

- When both HDMI and DP input connectors are connected, OPT1 and OPT2 copy and output the HDMI content.
- When the HDMI input connector is not connected, OPT1 and OPT2 copy and output the DP content.

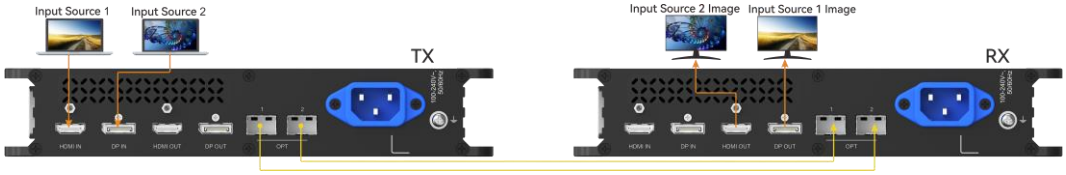


4.1.4 Conversion Output

When EP2 is used as TX, it supports HDMI and DP connector conversion. Open the silicone cover on the front panel and toggle the CONVERT switch downward to enable the conversion function.



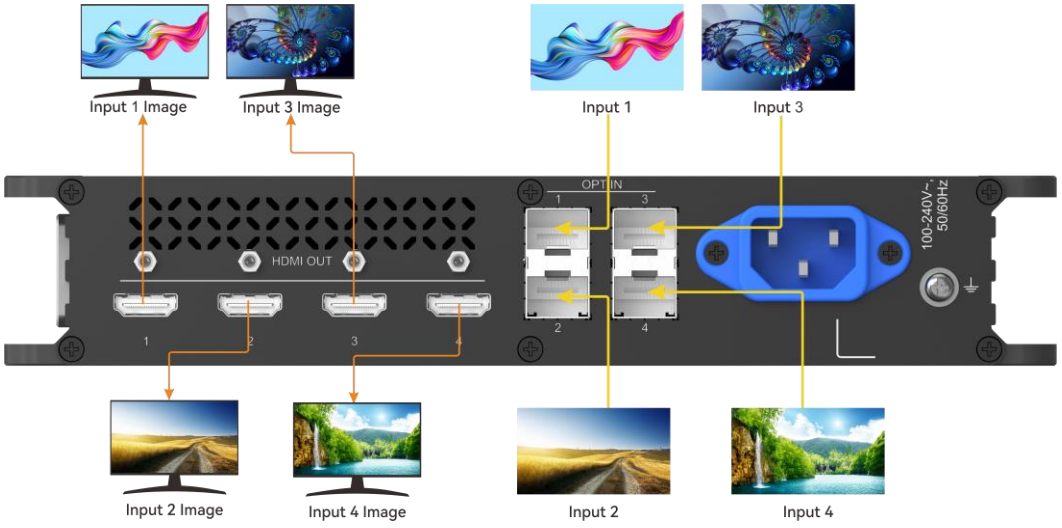
When paired with RX for signal format conversion, the OPT ports can be cross-connected.



4.2 RX Standalone Usage

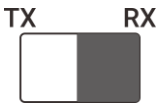
4.2.1 Direct Output

EP4R

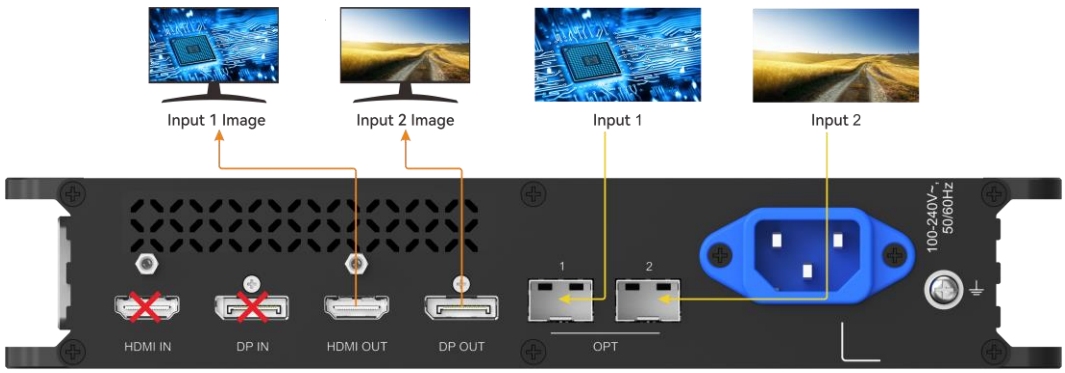


EP2

Open the silicone cover on the front panel and toggle the TX and RX switches to the right to set the device to RX mode.

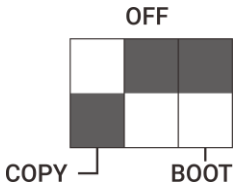
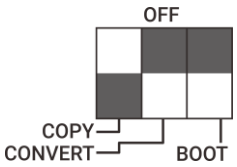


When EP2 is used as RX, the HDMI IN and DP IN connectors are unavailable.



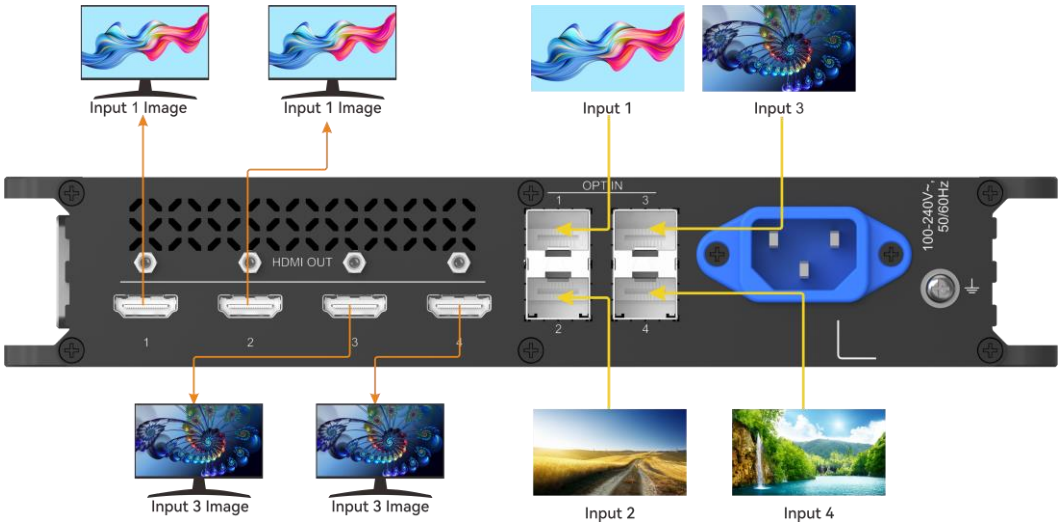
4.2.2 Copy Output

Open the silicone cover on the front panel and toggle the COPY switch downward to enable the copy function.

EP4R Copy Output Enabled	EP2 Copy Output Enabled
	

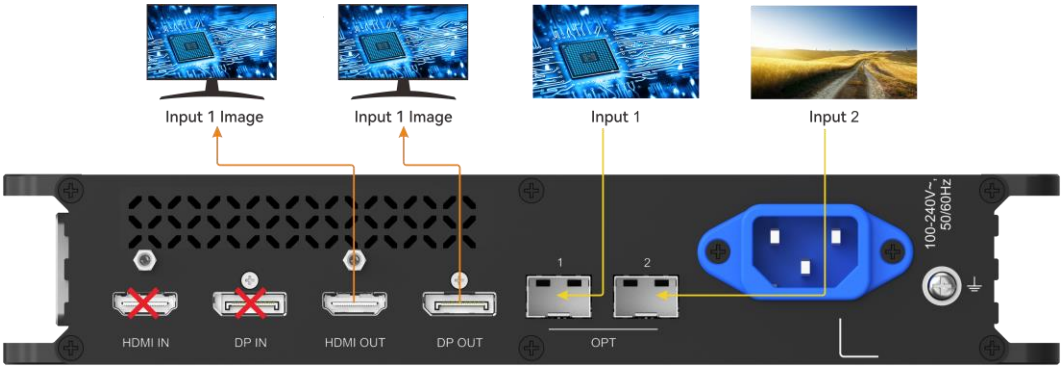
EP4R

- When all 4 OPT ports are connected:
  - HDMI 1 and HDMI 2 copy and output the OPT 1 content.
  - HDMI 3 and HDMI 4 copy and output the OPT 3 content.
  - HDMI 2 and HDMI 4 do not output.
- When OPT 1 and OPT 3 are not connected:
  - HDMI 1 and HDMI 2 copy and output the OPT 2 content.
  - HDMI 3 and HDMI 4 copy and output the OPT 4 content.



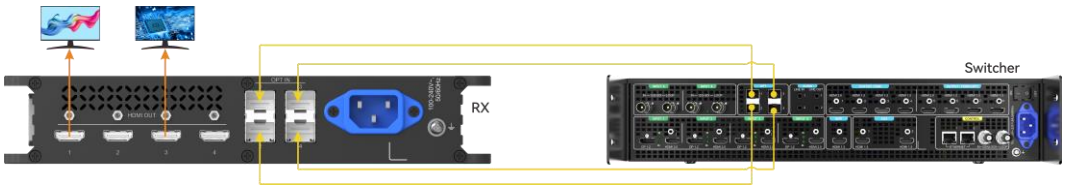
EP2

- When both OPT ports are connected, the HDMI and DP connectors copy and output the OPT 1 content.
- When the OPT 1 port is not connected, the HDMI and DP connectors copy and output the OPT 2 content.
- When EP2 is used as RX, the HDMI IN and DP IN connectors are unavailable.

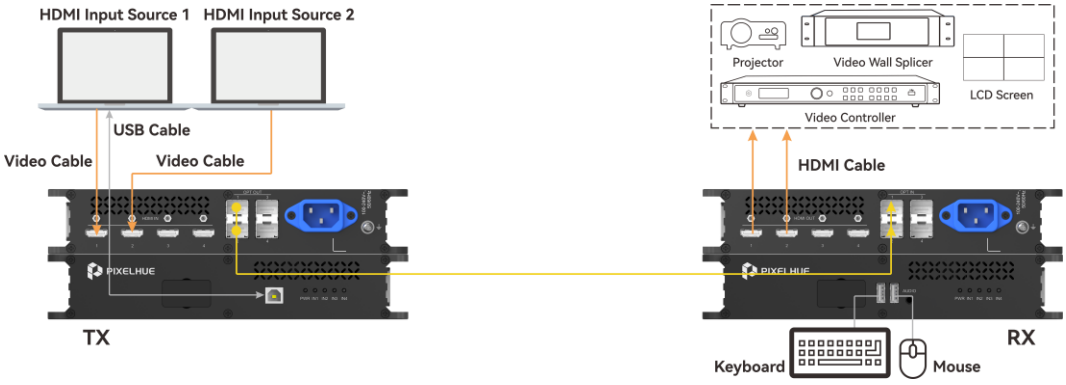


4.2.3 Mosaic Output

When the input is from a switcher, the RX device automatically stitches the OPT input signals for output.



4.3 RX and TX Paired Usage



- When RX and TX are paired, a single connector supports up to 4096×2160@60Hz.
- For KVM control, the mouse and keyboard connected to the RX must be plug-and-play devices. Bluetooth or wireless devices are not supported.