AVLINK®

High Speed Make Easy

# 4K AV over IP Solution

IPS-TF / IPS-TC
IPS-RF / IPS-RC
IPS-M

# User Manual

V.2019 IPS-Serials.00

## CAUTION

- Follow all instructions marked on the device during using.
- Provide proper ventilation and air circulation and do not use near water.
- It is better to keep it in a dry environment.
- Place the device on a stable surface (example cart, stand, table, etc.).
- The system should be installed indoor only. Install either on a sturdy rack or desk in a well-ventilated place.
- Make sure the rack is level and stable before extending a device from the rack if necessary.
- Make sure all equipment installed on the rack including power strips and other electrical connectors are properly grounded.
- Only use the power cord supported with the device.
- Do not use liquid or aerosol cleaners to clean the device.
- Always unplug the power to the device before cleaning.
- Unplug the power cord during lightning or after a prolonged period of non-use to avoid damage to the equipment.
- Do not stand on any device while installing the device to the rack.
- Do not attempt to maintain the device by yourself, any faults, please contact your vendor.
- Save this manual properly for future reference.

## Copyright and Trademarks



## Contact Information

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# CHAPTER 1 OVERVIEW

## 1.1 Introduction

IPS provides a true 4K AV over IP solution with Zero compression and Zero latency, it also includes unmatched I/O density, shared infrastructure, increased I/O flexibility, and built-in scalability. Based on this structure, AVLink controller IPS-M provides an efficient way to configure the AV over IP system upon IPS-TX and IPS-RX. This IPS-M is an API based command server, and you can easily use PC to configure the IPS-TX and IPS-RX connected to Ethernet switch. The IPS-M can also monitor the status of each device within the network.

## 1.2 IPS-TX


**Figure 1-1 IPS-TF**


**Figure 1-2 IPS-TC**

## 1.3 IPS-RX


**Figure 1-3 IPS-RF**


**Figure 1-4 IPS-RC**

## 1.4 IPS-M


**Figure 1-5 IPS-M**

## 1.5 Packing

| | |
|---|---|
|  or  | IPS-TC / IPS-TF x 1 |
|  or  | IPS-RC / IPS-RF x 1 |
|  | IPS-M x 1 |
|  | Power Adapter x 2 |
|  | User Manual x 1 |

# CHAPTER 2 FEATURES

| Feature | |
|---|---|
| HDMI Input | • True 4K/60 4:4:4 and HDR<br>• HDMI 2.0 compatible input port<br>• Support HDCP 1.4 and 2.2 |
| HDMI Output | • True 4K/60 4:4:4 and HDR<br>• HDMI 2.0 compatible output port<br>• Support HDCP 1.4 and 2.2 |
| 10G-SFP+Transport | XFI interface<br>• 10GBASE-T 100m with Cat 6a cable<br>• Multi-mode fiber 300/500m with OM3/OM4 fiber<br>• Single-mode fiber up to 30KM |
| Video Routing | • Lightweight 1.4 to 1 artifact-free compression<br>• Time to switch between sources in under 100 milliseconds. |
| Audio Routing | • Lossless audio transmission<br>• HDMI downmixed stereo channel |
| 1G Control Interface | • Extension of Gigabit Ethernet data network<br>• Built-in Ethernet switch connects 1GbE Ethernet to 10GbE interface<br>• Device Control |
| USB Routing | Up to 480 Mbps |
| RS232 Routing | • Baud rate up to 115200<br>• Unicast and broadcast routing between devices<br>• Serial data routing between multiple devices |
| IR Routing | • IR data routing between multiple devices |
| Video Scaling | • Upscaling (TV wall) and downscaling (Multi-view)<br>• Color space, Chroma sampling, and frame-rate conversion<br>• Multi-source video compositing<br>• Video wall processing with bezel correction and display synchronization |

# CHAPTER 3 SPECIFICATIONS

**IPS-TX/RX Specifications:**

| | |
|---|---|
| **VIDEO INPUT (IPS-TX)** | |
| Video Formats | Up to HDMI 2.0 4K60, 4:4:4, HDR, DisplayPort 1.2, |
| Connector | HDMI type A; DisplayPort |
| **VIDEO OUTPUT (IPS-RX)** | |
| Video Formats | Up to HDMI 2.0 4K60, 4:4:4, HDR |
| Connector | HDMI type A |
| EDID | Read Display EDID |
| **HDCP (IPS-TX/IPS-RX)** | |
| HDCP | HDCP 2.2/1.4 Compliant |
| **AUDIO INPUT/OUTPUT (IPS-TX)** | |
| Audio Format | Analog L/R |
| Connector | 3.5mm Jack |
| **AUDIO OUTPUT (IPS-RX)** | |
| Audio Format | Analog L/R |
| Connector | 3.5mm Jack |
| **SERIAL DATA (IPS-TX/IPS-RX)** | |
| Channel Capacity | 1 bi-directional |
| Signal Format | RS-232 |
| Data Rate | Up to 115,200 baud rate |
| Connector | DB-9 / Female |
| **USB (IPS-TX/IPS-RX)** | |
| Signal Format | USB 2.0 |
| Connector | Type A |

| ETHERNET (IPS-TX/IPS-RX) | |
|---|---|
| Ethernet Speed | 10/100/1000 Base-T |
| Connector | RJ-45 |
| **10G ETHERNET** | |
| IPS-TF & RF | 10G Fiber SFP+ / LC |
| IPS-TC & RC | 10GBASE-T / RJ45 |
| **POWER CONSUMPTION** | |
| Voltage | +12V DC |
| Current (Max) | 2A |
| **CASE** | |
| Dimensions (LxDxH) | 210 mm(L) x 114 mm(W) x 25mm(H) |
| Construction | Aluminium enclosure with black textured paint finish |
| Weight | 380g (IPS-TX); 390g (IPS-RX) |

**IPS-M Specifications:**

| VIDEO OUTPUT | |
|---|---|
| Video Formats | Up to HDMI 2.0 4K60, 4:4:4 |
| Connector | HDMI type A |
| EDID | Read Display EDID |

| SERIAL DATA | |
|---|---|
| Channel Capacity | 1 bi-directional |
| Signal Format | RS-232 |
| **USB** | |
| Signal Format | USB 2.0 |
| Connector | Type A |
| **USB** | |
| Signal Format | USB 3.0 |
| Connector | Type A |
| **USB** | |
| Signal Format | USB Type-C |
| Connector | Type C |
| **ETHERNET** | |
| Ethernet Speed | 10/100/1000 Base-T |
| Connector | RJ-45 |
| **POWER CONSUMPTION** | |
| Voltage | +12V DC |
| Current (Max) | 1.25A |
| **CASE** | |
| Dimensions (LxDxH) | 210 mm(L) x 114 mm(W) x 25mm(H) |
| Construction | SGCC enclosure with black textured paint finish |
| Weight | N/A |

# CHAPTER 4 COMPONENTS

## 4.1 Front Panel

These LEDs on the front panel specify the status of Power, Video data, Network packet and USB routing.

**Figure 4-1 IPS-TX front panel**

**Figure 4-2 IPS-RX front panel**

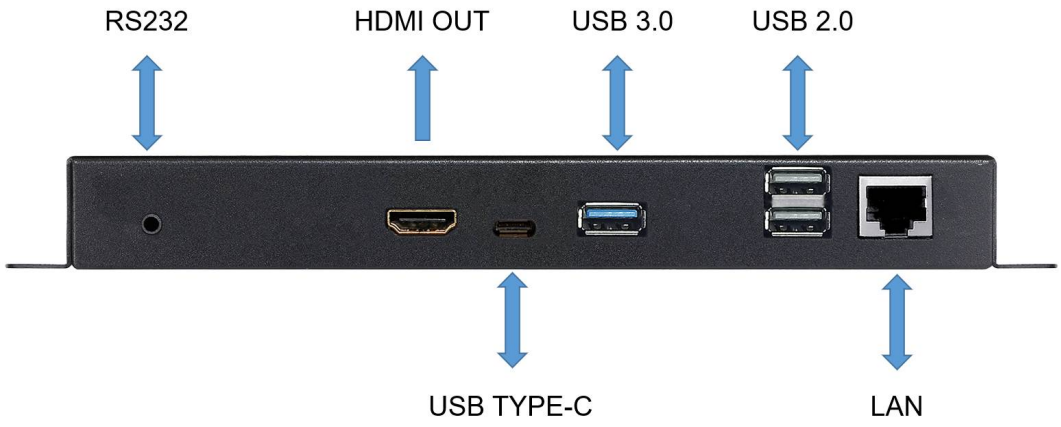



**Figure 4-3 IPS-M front panel**

## LED Indicators:

- **POWER：**
  - Yellow Bright: System power-on successfully.
  - Off: No power or power-on fail.
- **DATA IN / DATA OUT：**
  - Yellow Blink: Data transmit and receive through Ethernet.
  - Off: No Data transmit or receive through Ethernet, or without attaching Ethernet cable.
- **VIDEO：**
  - Yellow Bright: Video signal is stable.
  - Off: No Video Source or Video signal is unstable, or stop Video Streaming.
- **USB PAIR：**
  - Yellow Bright: USB chip is paired.
  - Yellow Blink: USB chip is not paired.
  - Off: No USB chip/FW loaded
- **USB STREAMING：**
  - Yellow Blink: USB data traffic present.
  - Off: No USB data traffic present.

## Connectors:

- **USB Port:**
  - IPS-TX (LEX)：Connected to the USB host (e.g. PC) within the 5-meter limitation.
  - IPS-RX (REX)：Connected to the actual USB device within the 5-meter limitation.
- **IR IN / IR OUT:** Connected to Infrared devices (e.g. Infrared remote, receiver or blaster)
- **Audio IN / OUT Port (IPS-TX):** Connected to speaker or audio source.
- **Audio OUT Port (IPS-RX):** Connected to speaker.

## 4.2 Rear Panel

**IPS-TX:**

IPS-TX supports 2 video interfaces on the rear panel including HDMI and DisplayPort (DP). It supports 10G network interface including either 10GBaseT or SFP+.

**Figure 4-4 IPS-TC rear panel**

**Figure 4-5 IPS-TF rear panel**

**IPS-RX:**

IPS-RX only supports HDMI output on the rear panel. It supports 10G network interface including either 10GBaseT or SFP+.

**Figure 4-6 IPS-RC rear panel**

**Figure 4-7 IPS-RF rear panel**

**IPS-M:**

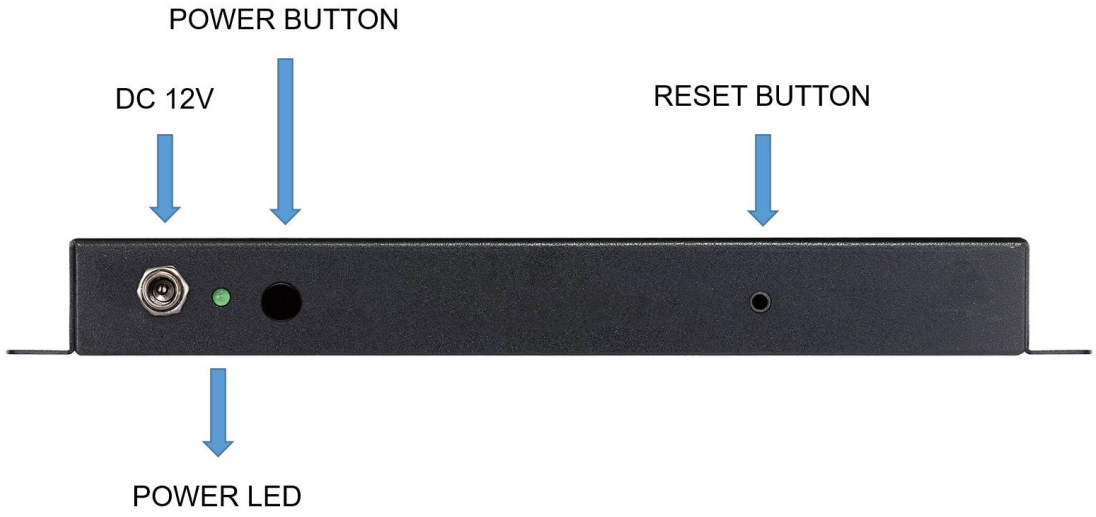



**Figure 4-8 IPS-M rear panel**

| Interface | Description |
|---|---|
| POWER | Connected to +12V voltage adapter |
| HDMI OUT | Connected to a HDMI (2.0 or above) compatible Monitor |
| 10G SFP+ | Connected to 10G Ethernet switch through 10G fiber cable with SFP+ connector |
| 10G RJ45 | Connected to 10G Ethernet switch through copper cable. (CAT6a up to 100m) |
| RS-232 | Connected to remote PC for controlling software<br>• Data routing between devices<br>• Date routing between device and application |
| 1G RJ45 | • Extension of Gigabit Ethernet data network<br>• Device Control |

- For the connection of each interface, please refer to *Chapter 5 Connection*

# CHAPTER 5 CONNECTION

## 5.1 IPS-TX & IPS-RX Connections

Through multiple IPS-TX and IPS-RX, the AV signal source and output destination can be switched and configured. The built-in Audio / Video interface can transmit the signal source to the destination via the 10G network and output it with the specified display. You can control the output templates and related configurations to specified displays among multiple signals.

In addition, the IPS-TX and IPS-RX provide the feature each data stream can be routed output independently. Video signal can be sent to a specified IPS-RX upon an independently routed. Audio signal can be routed and switched to extra IPS-RX. This feature allows you to configure the video and audio more flexible.

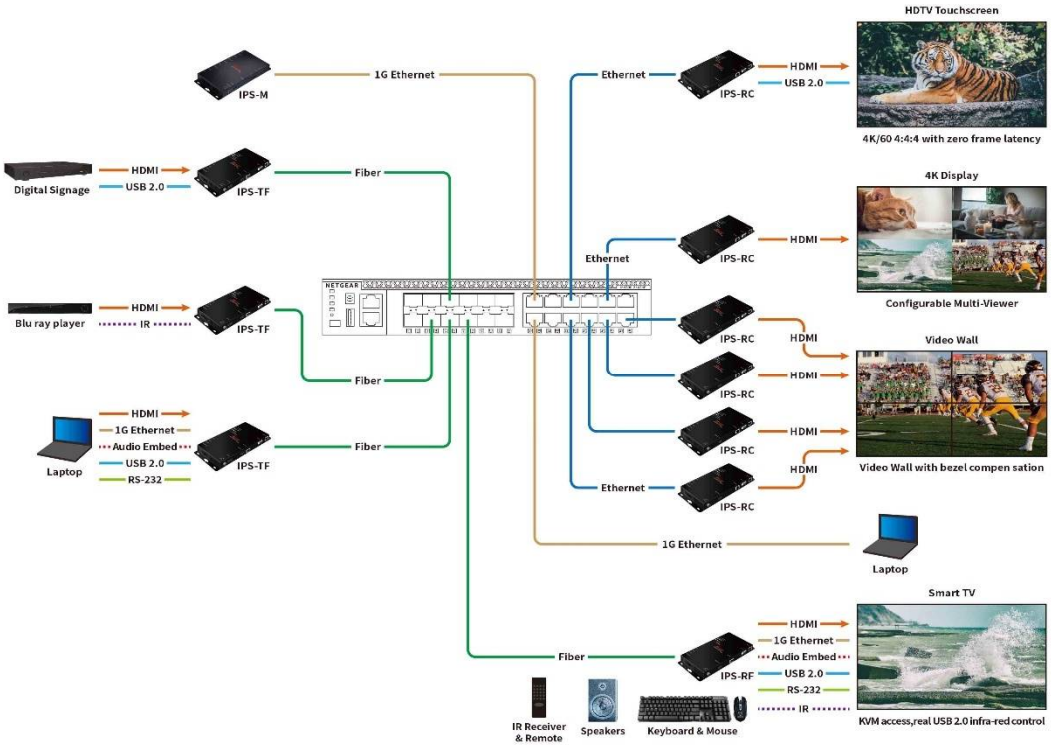



**Figure 5-1 IPS-TX and IPS-RX connections**

## 5.2 IPS-TX & IPS-RX for KVM

The IPS-TX & IPS-RX supports KVM Switch application：

- Support USB 2.0 at full 480Mbps bandwidth for control command.
- 10 Gbps for more USB applications.

Not only keyboard and mouse, but flash, web cameras, and more.

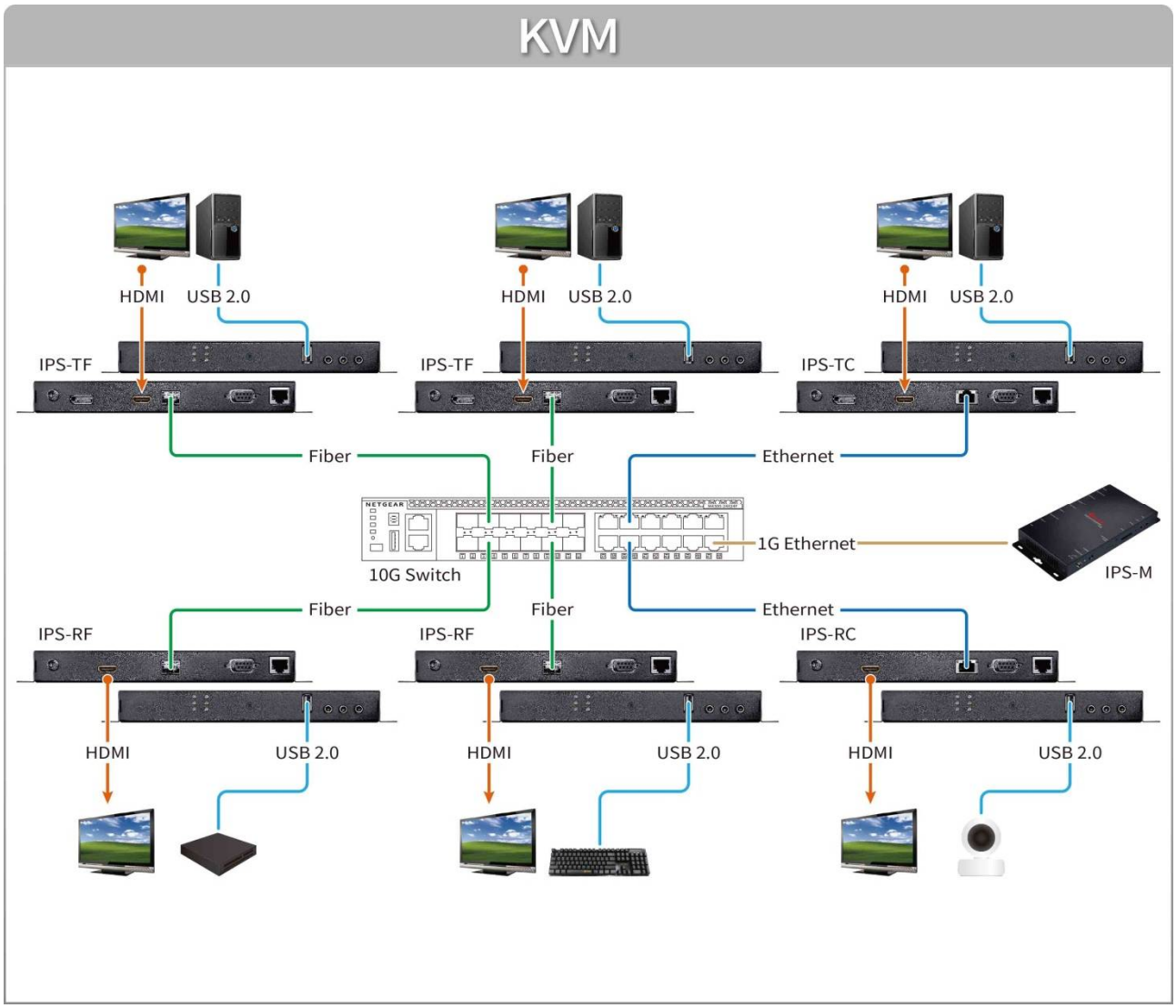



**Figure 5-2 KVM application connections**

## 5.3 IPS-TX & IPS-RX for Video Wall

The Video Wall mode allows you to output signal source of a single video through multiple displays.

- The video source is connected to the HDMI interface of a single IPS-TX.
- Each display is connected to the HDMI interface of each IPS-RX.
- IPS-TX transmits video signals to each IPS-RX by 10G Ethernet switch.

IPS-RX supports crops and scales display features, the built-in scaler engine is used to cut out a single video to display the cropped area on screen.

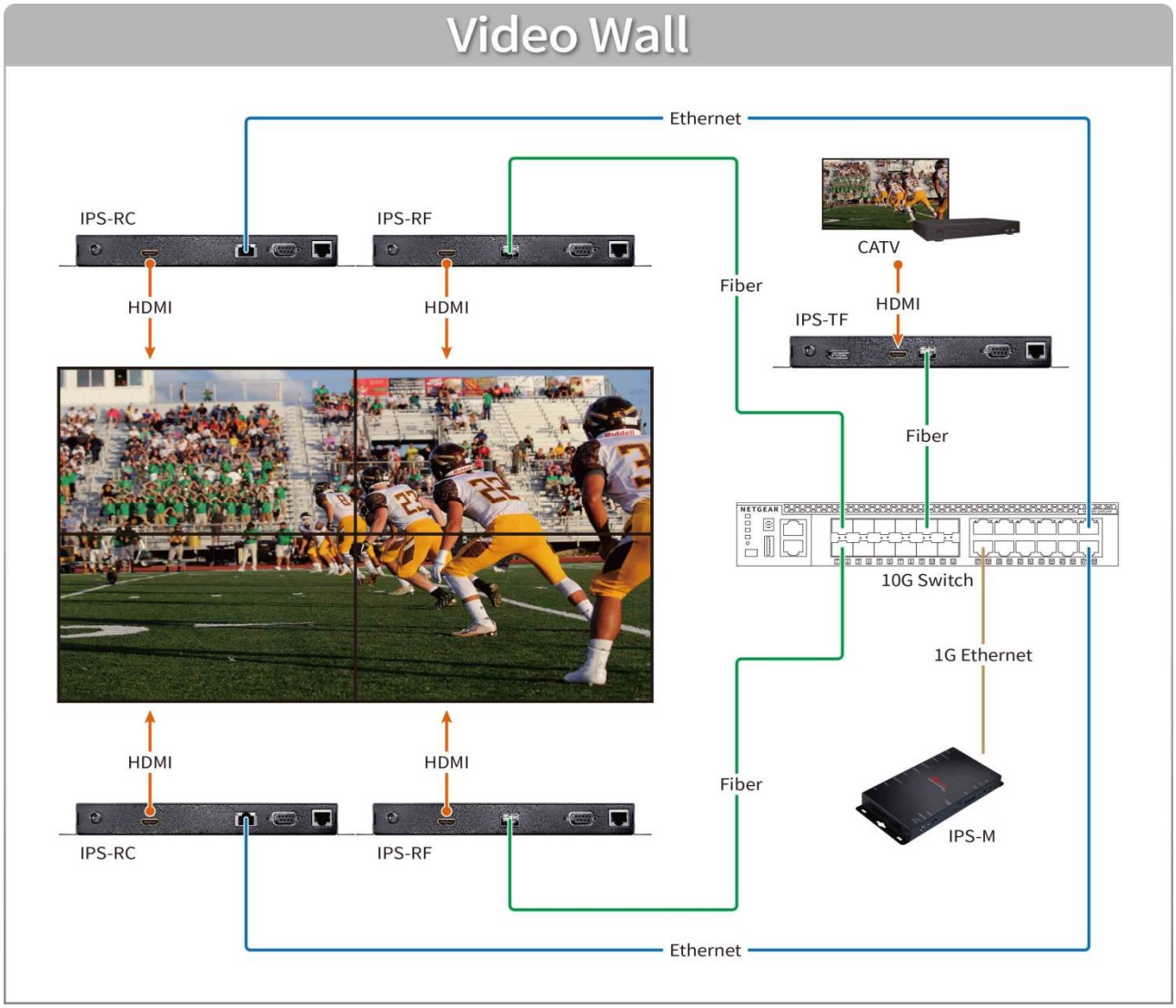



**Figure 5-3 Video Wall application connections**

## 5.4 IPS-TX & IPS-RX for Matrix Switch

The input image of each IPS-TX can be freely switched to the specified IPS-RX for output. Through the routing configuration of IPS-M, the video signal is rendered seamlessly on realistic on the screen.

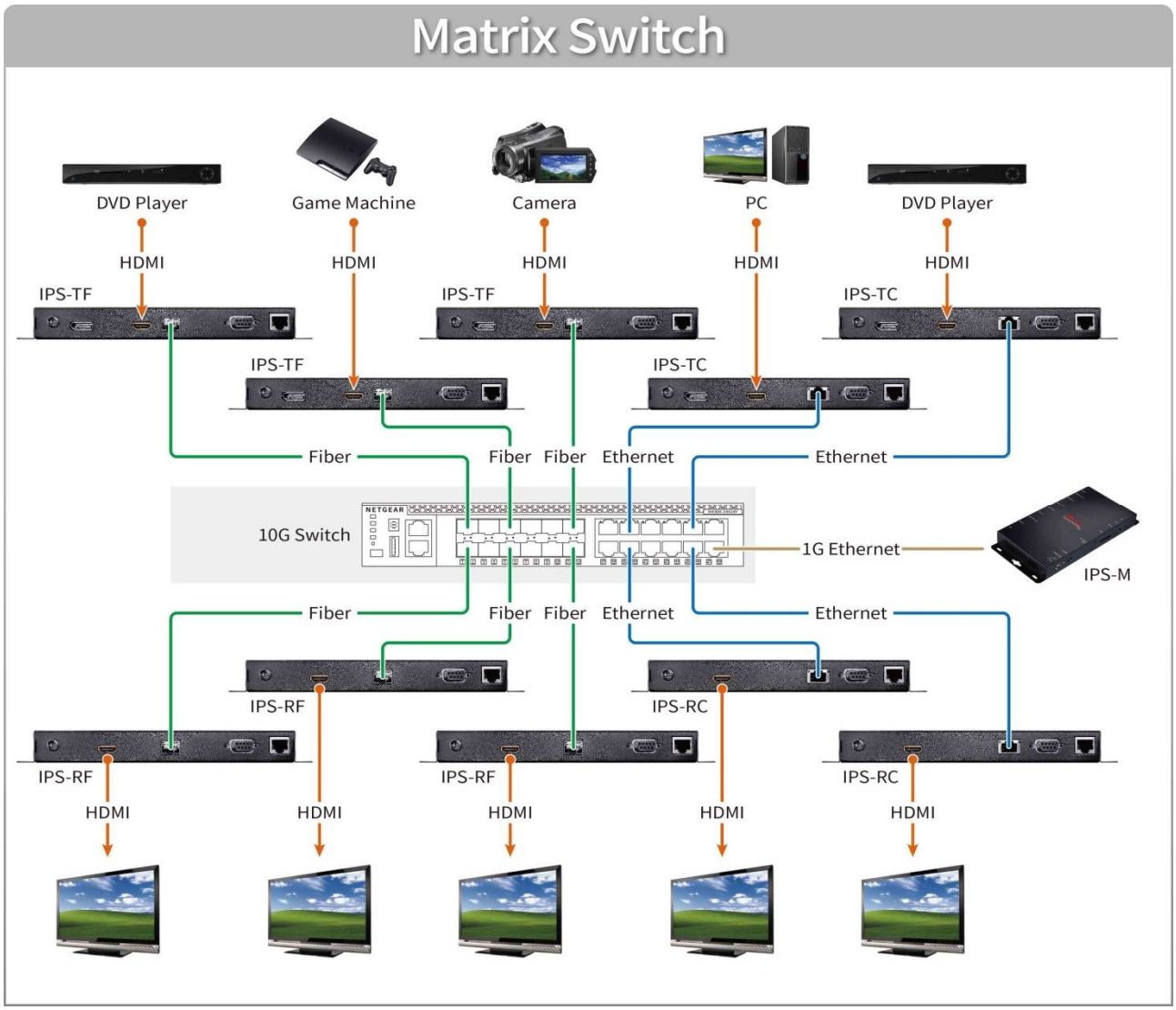



**Figure 5-4 Matrix Switch application connections**

## 5.5 IPS-TX and IPS-RX for Multi-view

Multi-view feature allows you to combine multiple video signal into a specified screen. You can see multiple different video signals or PIP (Picture in picture) on one screen.

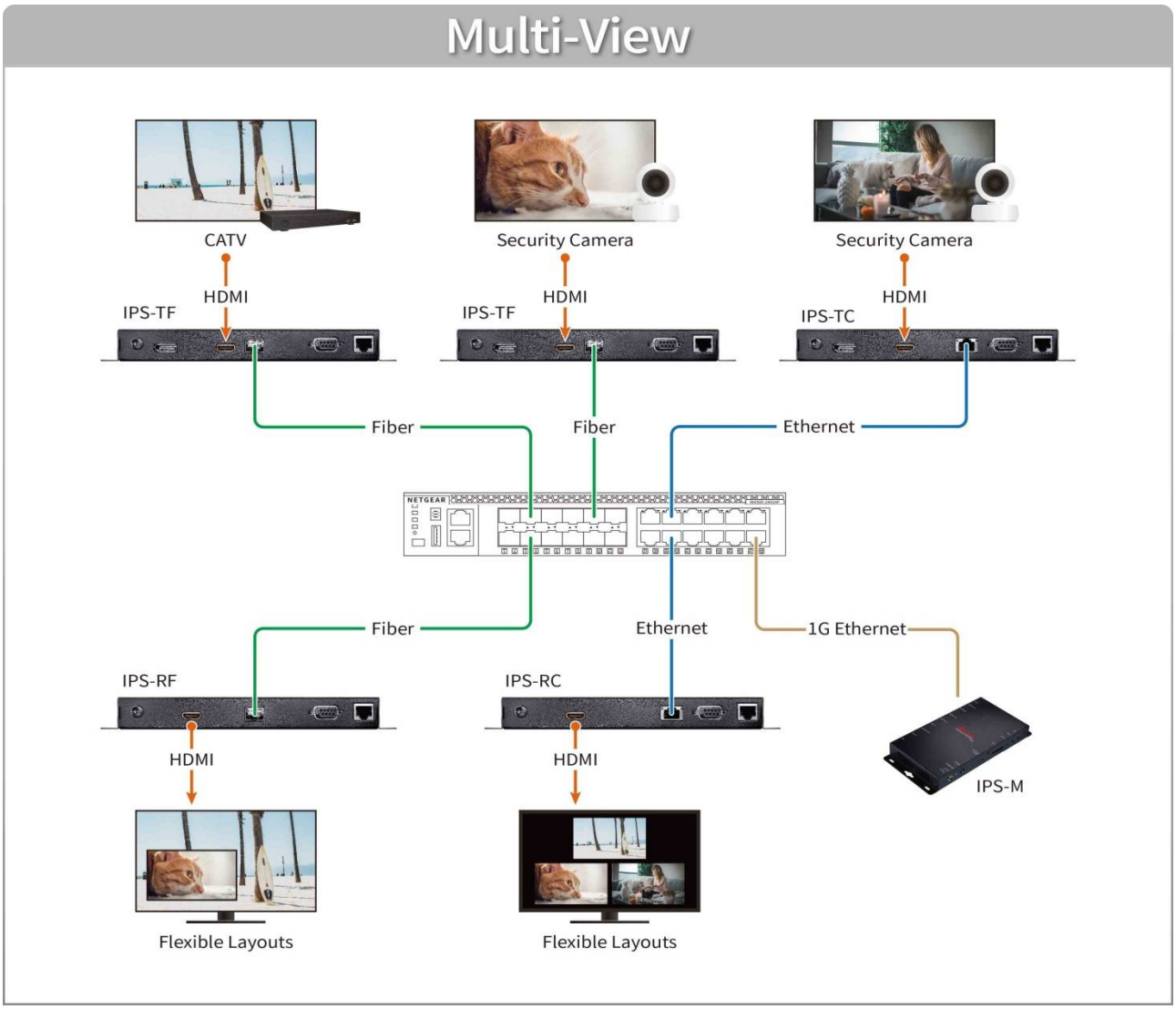



**Figure 5-5 Multi-view application connections**

## 5.6 Audio Routing

Through IPS-TX and IPS-RX, Digital and Analog audio signals can be output individually described as below:

When the Analog Audio of IPS-TX is specified for **"Audio output"**:

The Analog Audio and HDMI output of IPS-RX, Analog Audio of IPS-TX can be as an audio output to transmit the audio signal that comes from the HDMI input of IPS-TX.

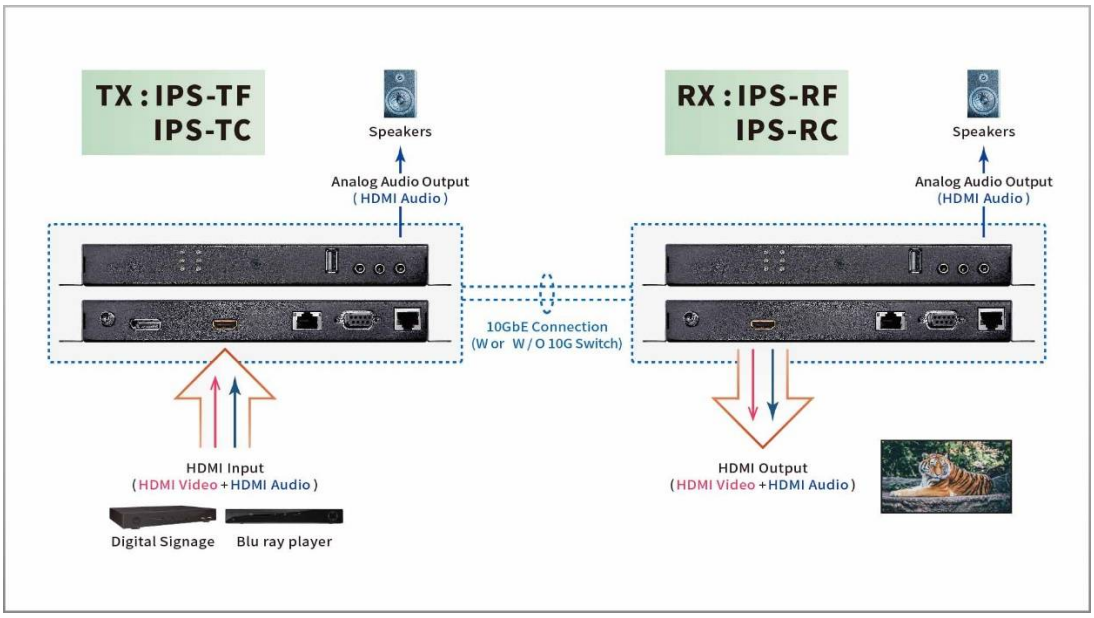



**Figure 5-6 IPS-TX Analog Audio output routing**

When the Analog Audio of IPS-TX is specified for **"Audio input"**:

The Analog Audio and HDMI audio input of IPS-TX can be transmitted to the HDMI output of IPS-RX and Analog Audio output respectively.

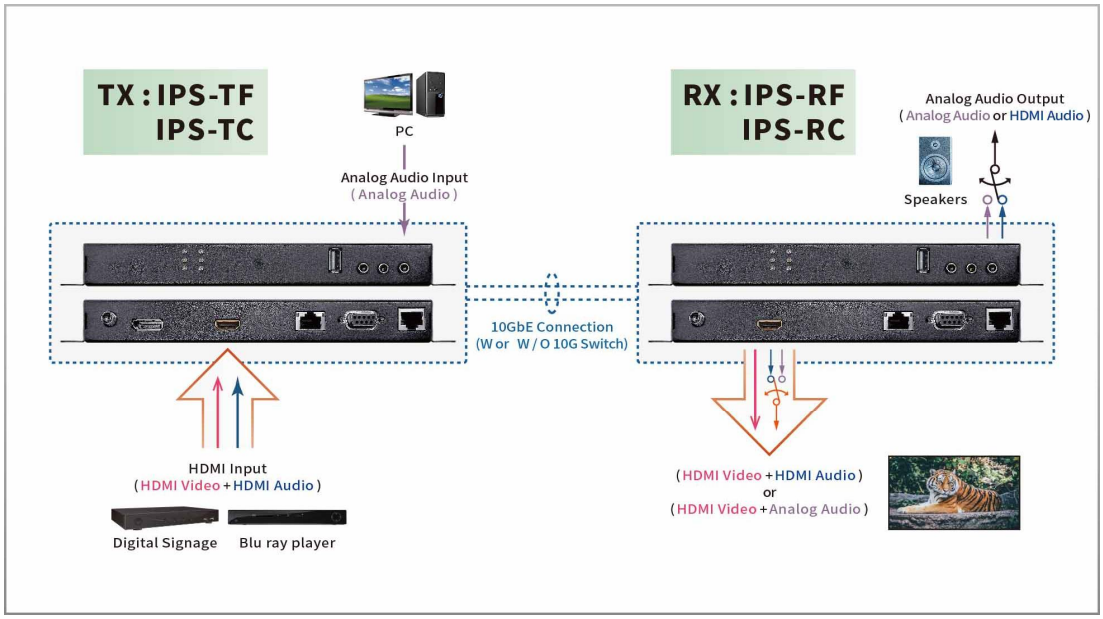



**Figure 5-7 IPS-TX Analog Audio input routing**

# CHAPTER 6 OPERATION

## 6.1 Powering Off and Restarting

If it is necessary to power off or restart IPS-TX, IPS-RX, and IPS-M, you have to:

1. Unplug the IPS-TX / RX / M power cable.
2. Wait a few seconds and plug IPS-TX / RX / M power cable back and restart them.

## 6.2 Hot Plugging

The IPS-TX & IPS-RX support USB hot plugging without shutting down the device.

# CHAPTER 7 WEBSITE CONFIGURATIONS

The system provides IPS-M with build-in website for you to configure the whole system. Supported web browsers are described as below:

- ☑ Chrome (the latest version)
- ☑ Firefox (the latest version)
- ☑ Safari (the latest version)

## 7.1 IPS-M

Before beginning website configurations, you need an IPS-M controller to setup and control all IPS-TX and IPS-RX devices. The IPS-M is a main manager for website configurations. It uses network to communicate with IPS-TX and IPS-RX devices. The IPS-M helps you setup each IPS-TX and IPS-RX devices for video and audio routing, TV Wall building, and other functions. Moreover, a build-in website in the IPS-M provides simple operations for you to quickly configure the whole system. For normal operation, we suggest it should be always keeping the IPS-M online in the system.

### 7.1.1 IPS-M Connections

1. Connect Cat 5e cable to the **Ethernet port**.
2. Connect power adapter cable to **Power Jack**.
3. Connect display device to the **HDMI output port** for the IPS-M Information.

### 7.1.2 IPS-M Information

After connecting the IPS-M to a display by HDMI cable, the IPS-M Information shows the URL of the build-in website for you to open by the supported browser as following figure:


**Figure 7-1 IPS-M information**

**PC connection steps:**

To open the build-in website and start to configure the system, please follows steps as below:

1. Connect your PC to switch by Ethernet cable.
2. Open the supported browser and enter the URL of the build-in website.

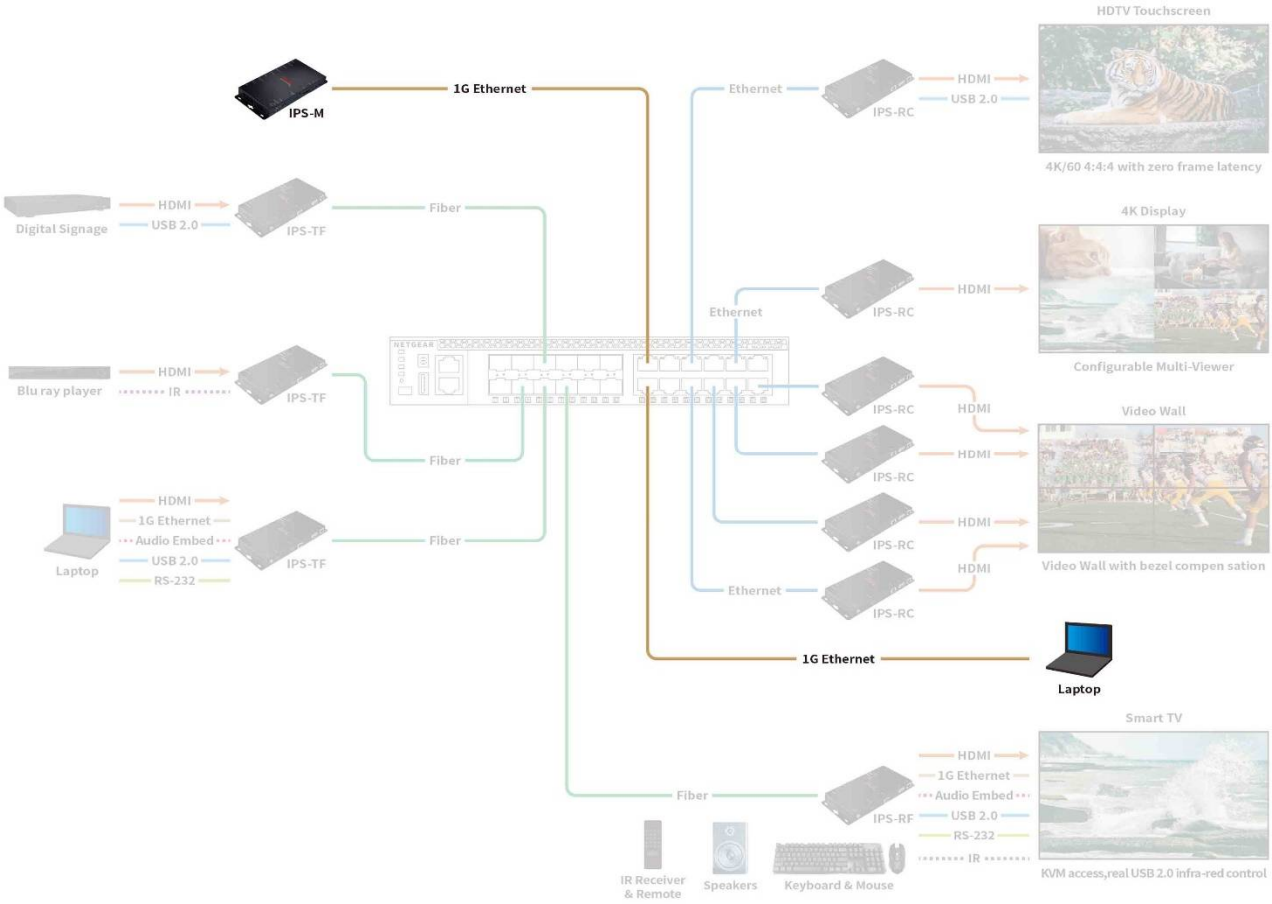



**Figure 7-2 IPS-M connections**

## 7.2 Routing

Type in the IPS-M website URL in browser to enter the main screen of IPS-M application. The IPS-M application includes **ROUTING, LAYOUT, SHOW, SCHEDULE** and **DEVICE** configurations. Routing is the main page described as below:

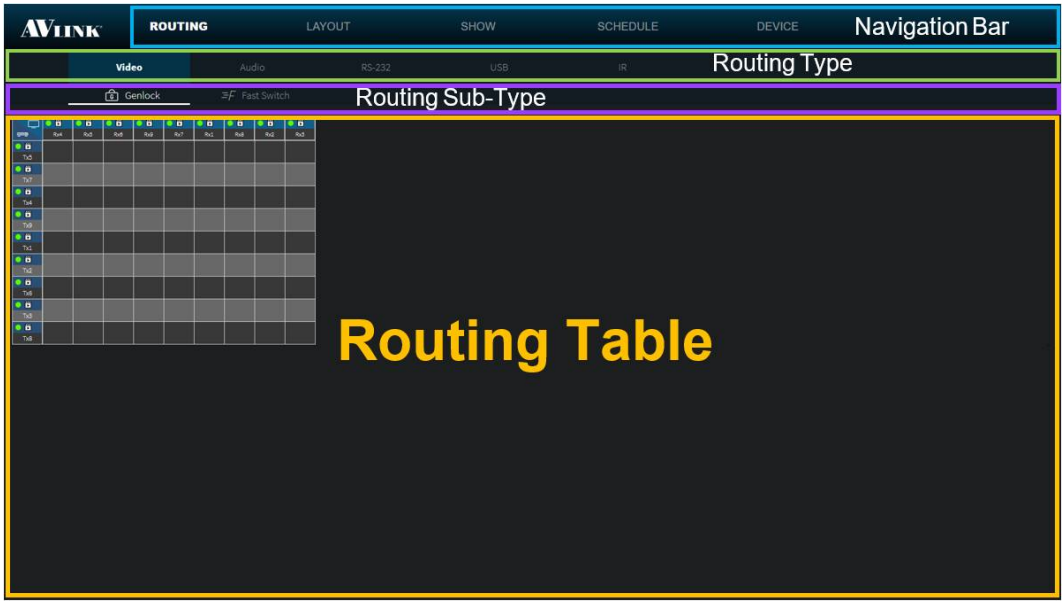



**Figure 7-3 ROUTING configuration**

In the **ROUTING** configuration screen, it allows you to view the channel of signal transmissions and configure IPS-TX/IPS-RX channels including **Video, Audio, RS-232, USB** and **IR** types.

## 7.2.1 Video

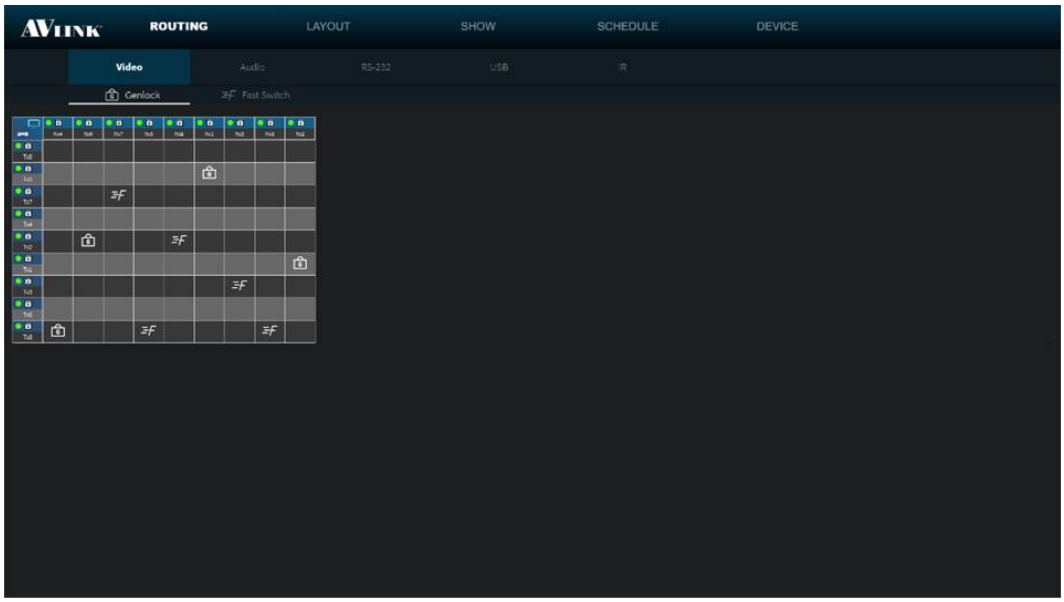



**Figure 7-4 Video type in ROUTING configuration**

Select **Video** routing mode:

**Genlock:** Select this mode to configure IPS-RX to synchronously display video from IPS-TX, but IPS-RX takes a few seconds to switch between different IPS-TX.

**Fast switch:** Select this mode to configure IPS-RX to quickly switch video between different IPS-TX, but IPS-RX does not promise displayed video is synchronously to source.

- **Subscribe** - Click at the position that corresponds to the horizontal (x-axis) or vertical (y-axis) grid
- Re-click to **unsubscribe**

The Green Bright is specified for on-line channel.

## 7.2.2 Audio

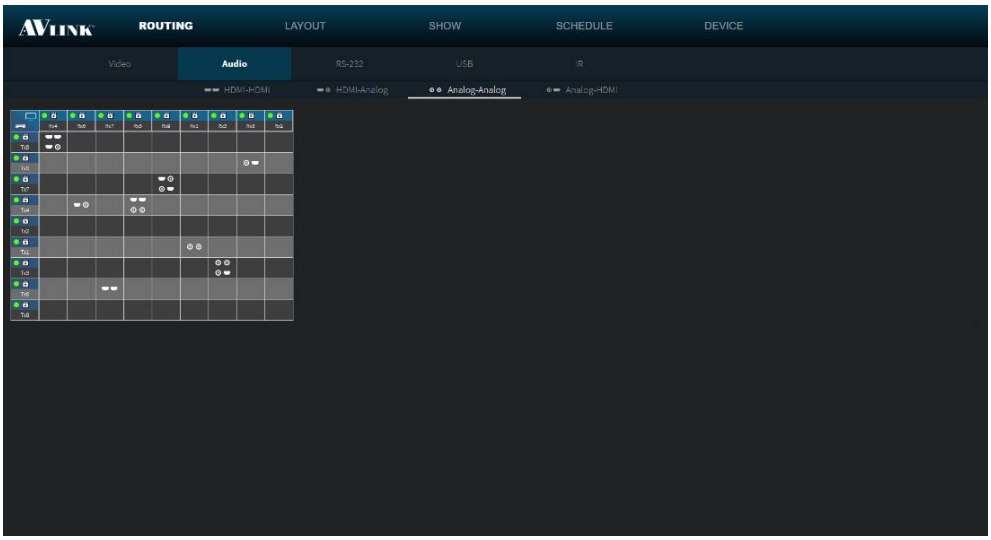



**Figure 7-5 Audio type in ROUNTING configuration**

In the **Audio** routing mode, we support four kinds of combinations described as below:

1. HDMI – HDMI (HDMI input – HDMI output)
2. HDMI – Analog (HDMI input – Analog output)
3. Analog – Analog (Analog input – Analog output)
4. Analog – HDMI (Analog input – HDMI output)

- **HDMI – HDMI** & **Analog – HDMI** can't be configured at the same time
- **HDMI – Analog** & **Analog – Analog** can't be configured at the same time

## 7.2.3 RS-232

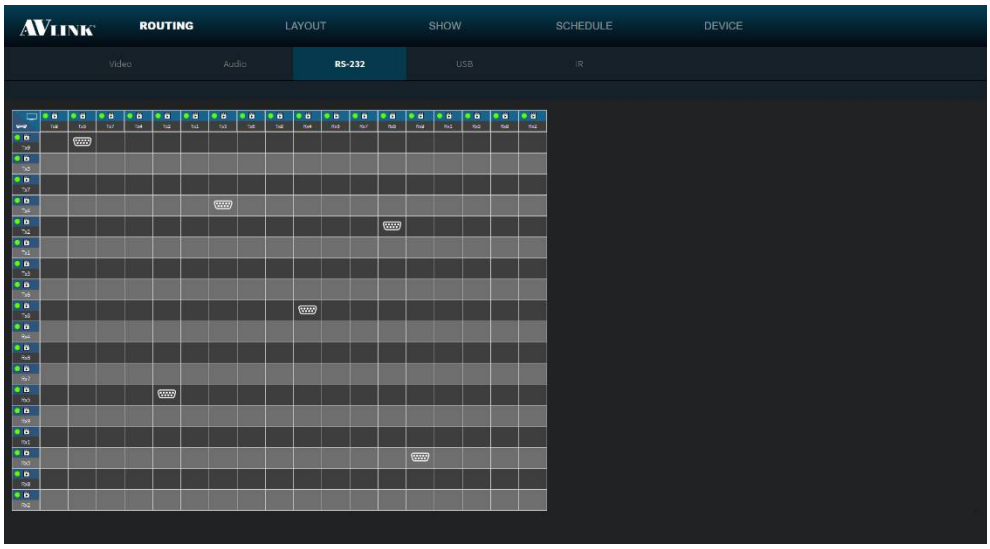



**Figure 7-6 RS-232 type in ROUNTING configuration**

The RS-232 is a bi-direction interface through which signals can be transmitted and received. Both IPS-TX / IPS-RX can be a sender / receiver

## 7.2.4 USB

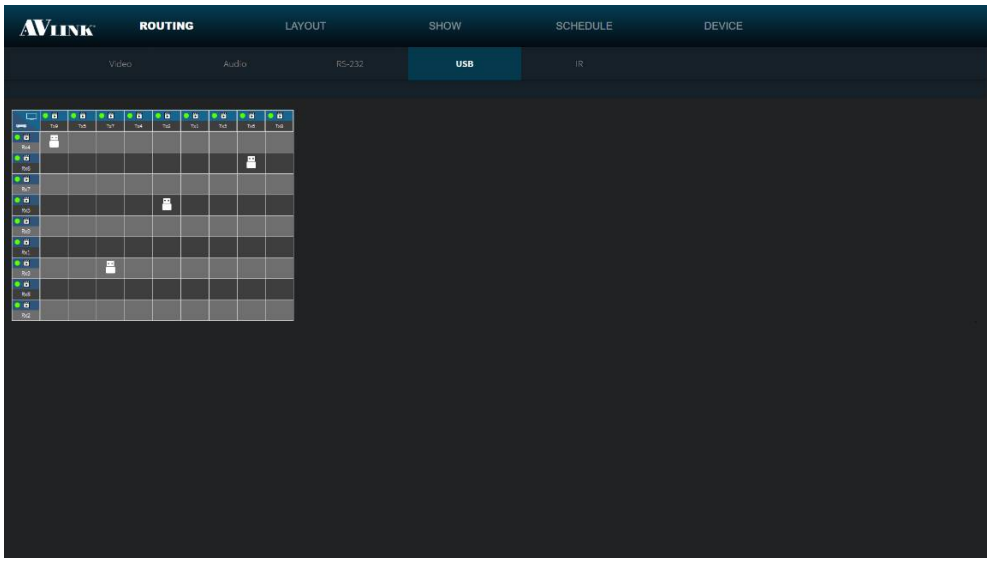



**Figure 7-7 USB type in ROUTING configuration**

You can configure USB routing between IPS-TX and IPS-RX in this page.

## 7.2.5 IR

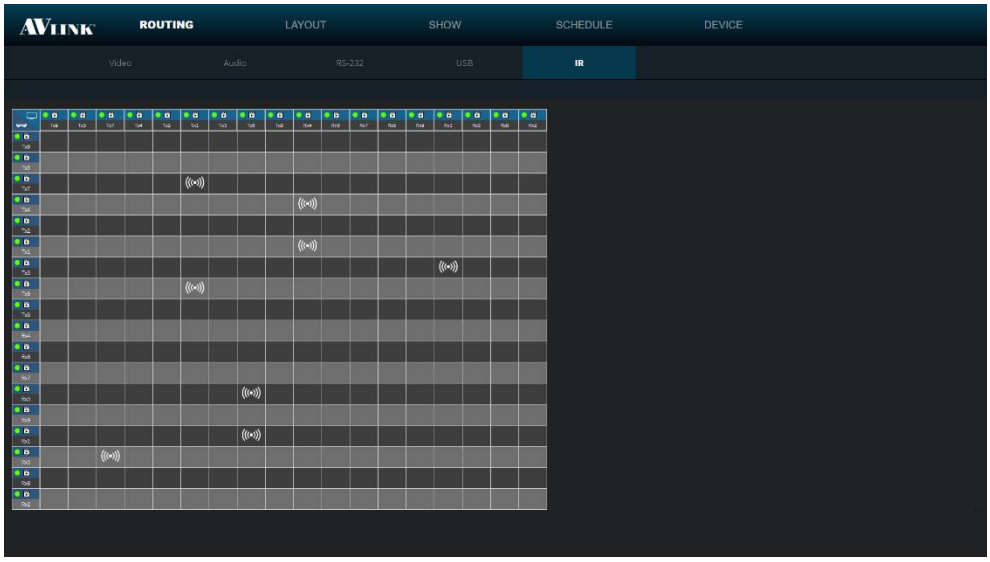



**Figure 7-8 IR type in ROUTING configuration**

The IR is a bi-direction interface through which signals can be transmitted and received. Both IPS-TX / IPS-RX can be a sender / receiver.

# 7.3 Layout

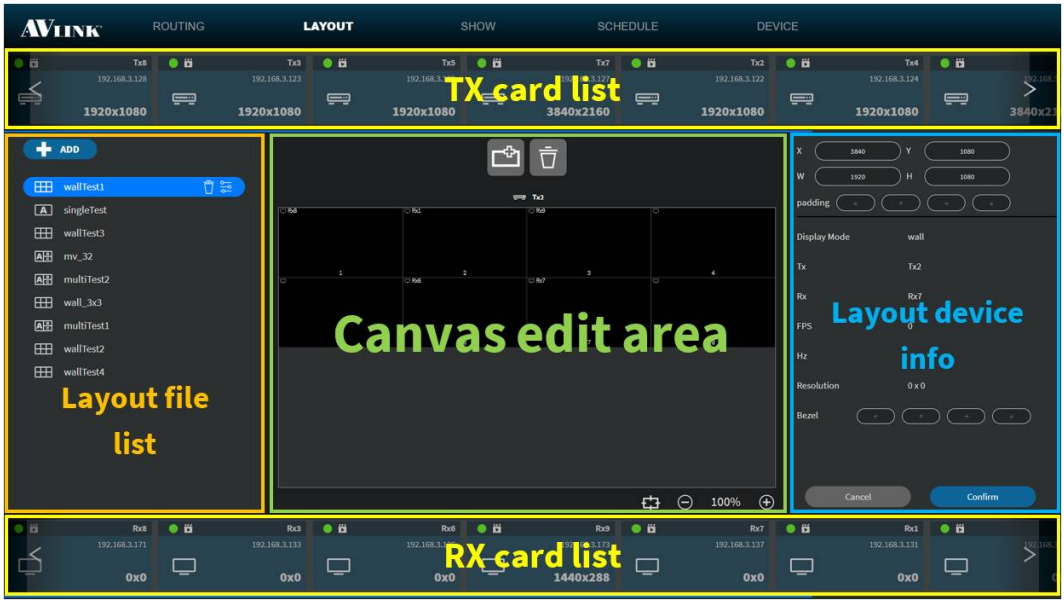



**Figure 7-9 LAYOUT configuration**

In the **LAYOUT** configuration screen, you can configure output layout upon the provided features.

## 7.3.1 Layout component

### 7.3.1.1 Layout Template

Click **Add** button  on the top of Layout file list, it will popup **Layout Template** window allowing you to configure an output layout and naming it.

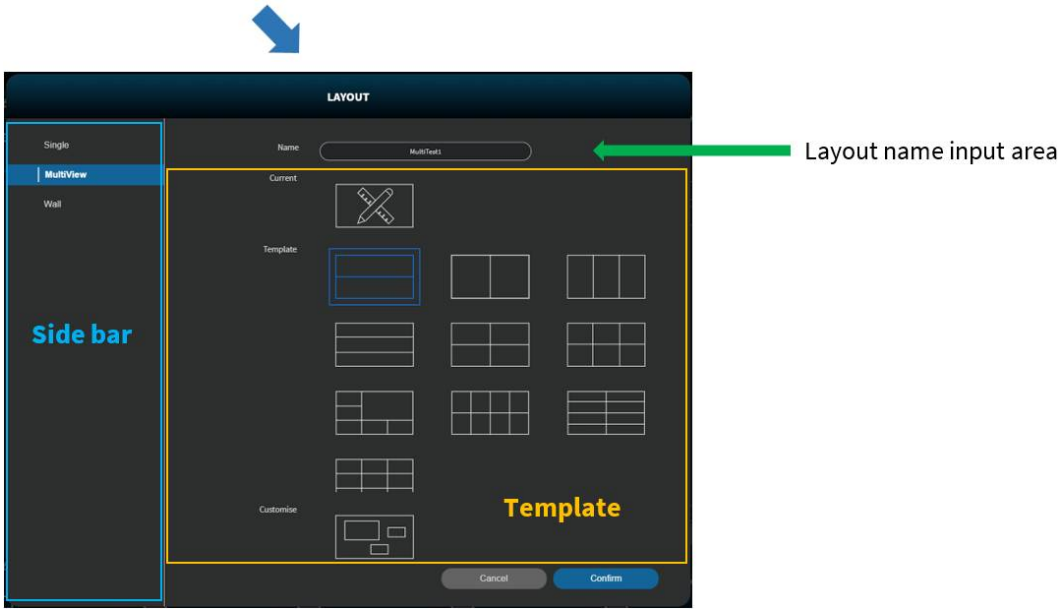



**Figure 7-10 Layout Template window**

### 7.3.1.2 Layout File List

**Layout File** list shows saved layouts includes Single view, Multi-view and Wall view types.

Click a layout to display the design of it in the **Canvas Edit Area**. The **Delete** button allows you to delete the layout from system. The **Edit** button can change the name and type of saved layout.

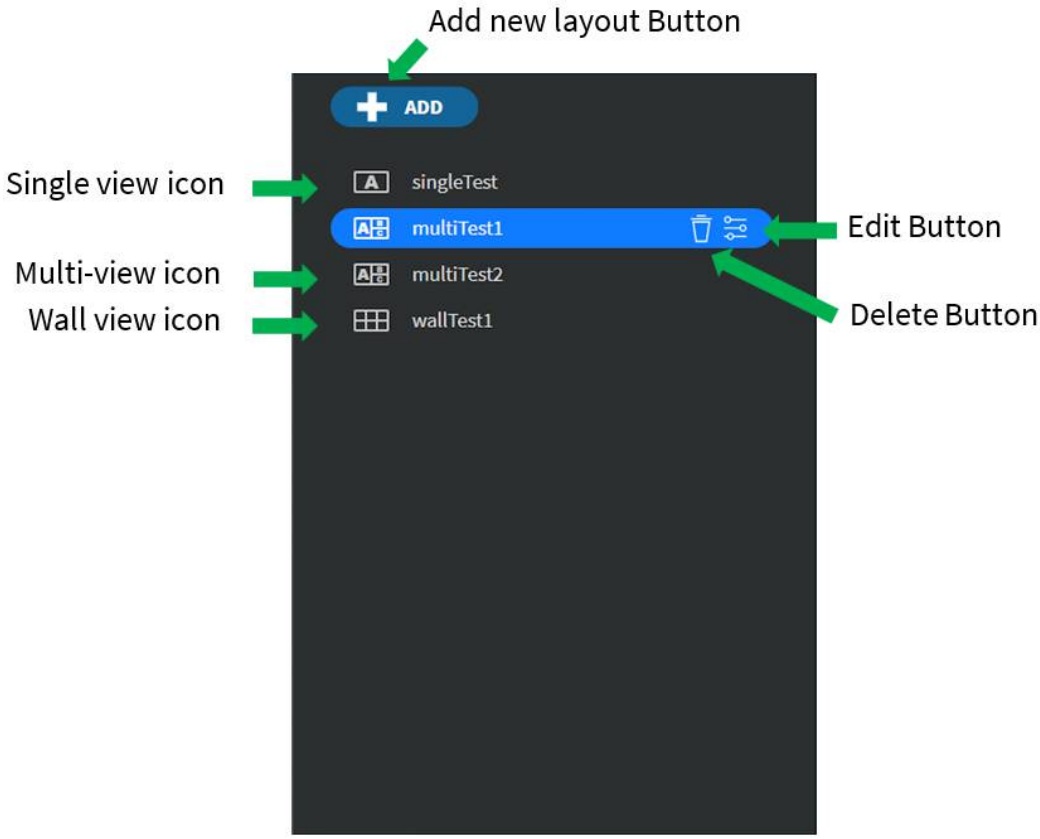



**Figure 7-11 Layout File list**

### 7.3.1.3 Canvas Edit Area

After selecting a layout, you can use **Canvas Edit Area** to start editing content. In this area you can select the **General** mode or the precise **Grid** mode by clicking the **Grid toggle** button as shown below.

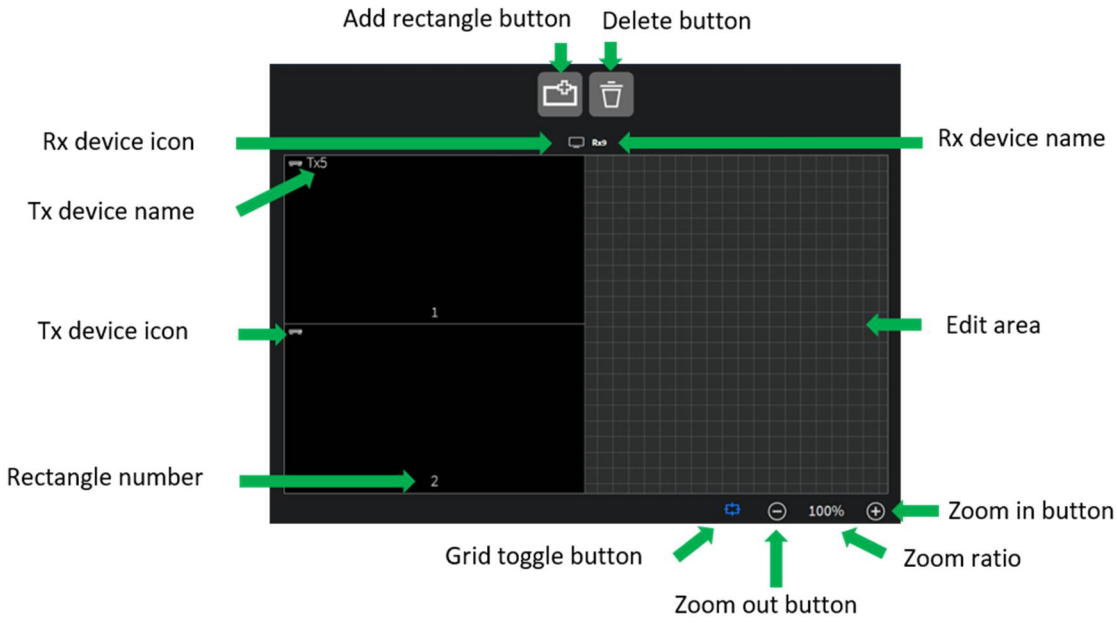



**Figure 7-12 Canvas Edit Area**

### 7.3.1.4 Layout Device Info

In the **Layout Device Info** area, you can adjust the coordinates, height and width of the output video, and bezel compensation for the gap between the monitors.

When using **Wall** view layout, the monitor's bezel gaps introduce space that was not intended to be there resulting in a disjointed image that is not continuous across all displays. With **Bezel Compensation** setting, it can produce a more continuous image across the displays and provides a more realistic experience.

In the area, you can also configure the **Routing Mode** to **Genlock** or **Fast Switch**. Click **Confirm** to save or **Cancel** to abandon all changes.

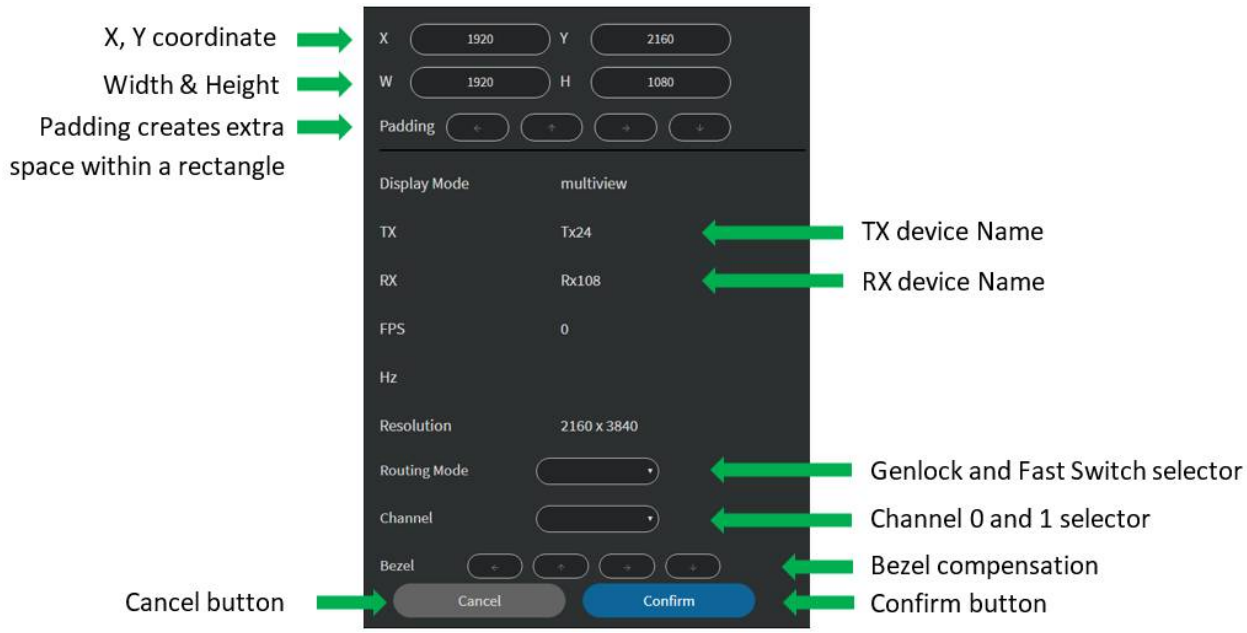



**Figure 7-13 Layout Device Info**

**Note:** Bezel compensation feature is only applicable for Wall view layout. Multi-view layout can’t use Bezel compensation.

### 7.3.1.5 Device Card

On the top of Layout configuration screen shows you the IPS-TX device card list and the bottom of Layout configuration screen shows the IPS-RX device card list.

- IPS-TX device card


**Figure 7-14 IPS-TX device card**

- IPS-RX device card


**Figure 7-15 IPS-RX device card**

## 7.3.2 Single

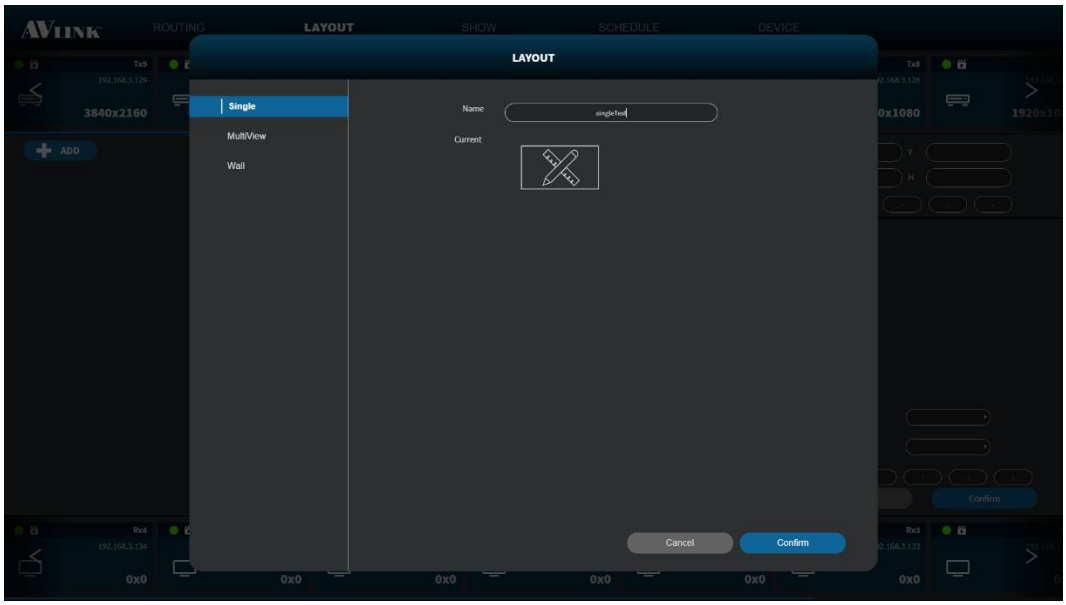



**Figure 7-16 Single view Layout Template window**

- **Current** - Existing layout file you have edited.

## 7.3.3 Create a New Single View Layout

1. Click ADD button in Layout File List.
2. Select Single mode from Side bar.
3. Enter layout name in the input field.
4. Click **Confirm** button Confirm.

## 7.3.4 Multi-view

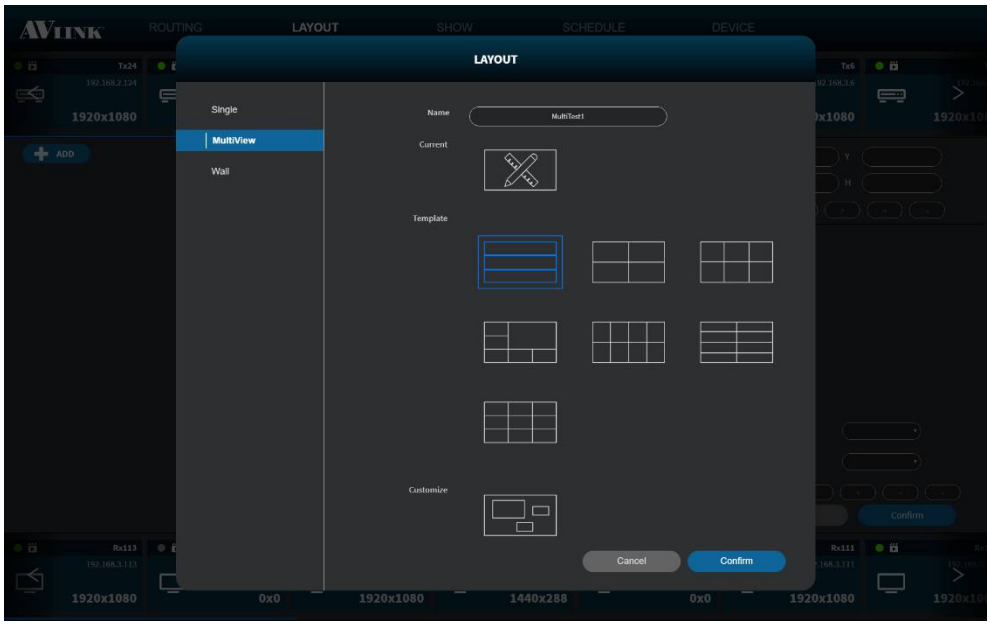



**Figure 7-17 Multi-view Layout Template window**

- **Template** – Most common Multi-view layout templates.
- **Customize** – Using drag features to create your own layout.

## 7.3.5 Wall

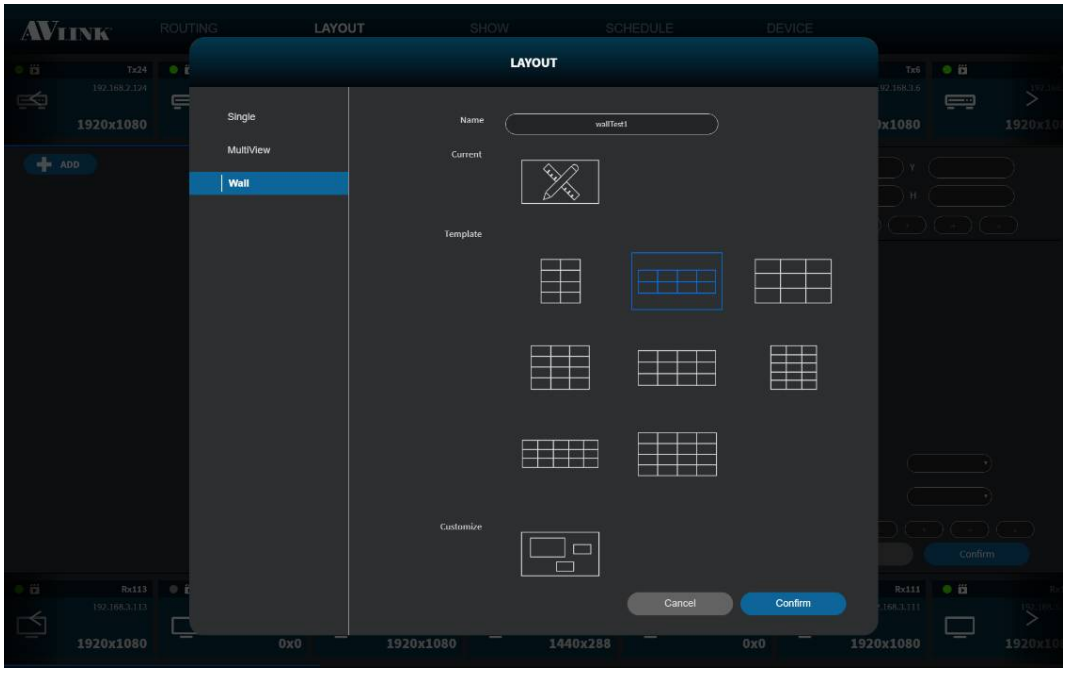



**Figure 7-18 Wall view Layout Template window**

- **Template** – Most common Wall view layout templates.

## 7.3.6 Create a New Multi-view / Wall view Layout

1. Click ADD button in Layout File List.
2. Select mode (Multi-view, Wall) from **Side bar.**
3. Enter name in the input field.
4. Select a **Template** or **Customize.**
5. Click **Confirm** button 

.

## 7.3.7 Edit Layout

Set **IPS-TX** and **IPS-RX** devices in the layout by dragging device card into rectangle in **Canvas Edit Area**. Below figures show an example of Multi-view layout (Figure 7-19) (Figure 7-20):

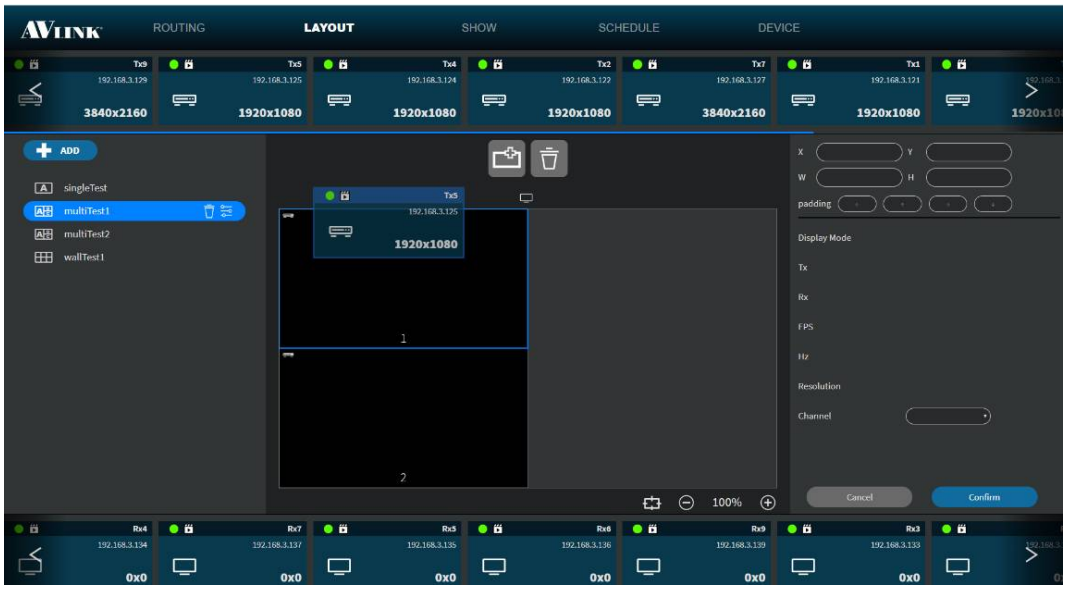



**Figure 7-19 IPS-TX assignment in Multi-view layout**


**Figure 7-20 IPS-RX assignment in Multi-view layout**

- Single view

  Drag an IPS-TX device card to background.

  Drag an IPS-RX device card to rectangle.

- Multi-view

  Drag an IPS-TX device card to a desired rectangle.

  Drag an IPS-RX device card to background.

- Wall view

  Drag an IPS-TX device card to background.

  Drag an IPS-RX device card to a desired rectangle.

- After dragging IPS-TX and IPS-RX device cards, then select one of rectangles (click on it), the **Layout device info** area will show the configured information.

- Adjust **X** and **Y** coordinates of the rectangle.


**Figure 7-21 Rectangle coordination setting**

- Click Grid toggle  under Canvas Edit Area, makes it easier to align rectangles by giving you a visual grid line.

- Edit width and height of the selected rectangle.


**Figure 7-22 Rectangle width and height setting**

- Adjust **padding** to create extra space within layout.


**Figure 7-23 Layout padding setting**

- Select Channel in **Multi-view** layout.


**Figure 7-24 Channel selection of rectangle in Multi-view layout**

- Select Routing Mode in **Single view** layout.


**Figure 7-25 Routing mode selection of rectangle in Single view layout**

- Adjust Bezel to create space around the rectangle in **Wall view** layout.


**Figure 7-26 Bezel setting of rectangle in Wall view layout**

- On the **Multi-view** and **Wall view** layout, you can **add** or **delete** rectangle.

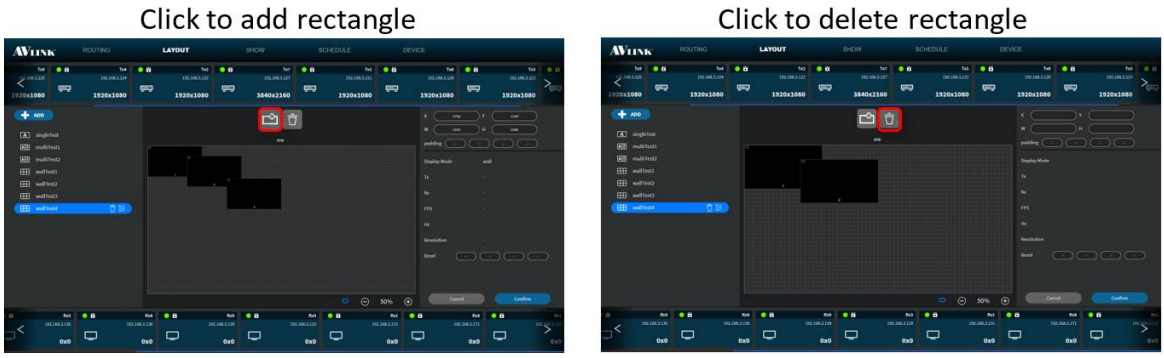



**Figure 7-27 Effect of add and delete rectangle**

- Zoom out ⊖ / Zoom in ⊕.

Zoom out

Zoom in

**Figure 7-28 Effect of zoom out and zoom in**

- Click the file list **Edit button**  , you can **re-select** layout template.


**Figure 7-29 Layout File list item**

- Click **Confirm** button to save and send.

### 7.3.8 Delete Layout

Click **Delete** button to popup **Delete layout** message. Click **Delete** button to cancel layout.

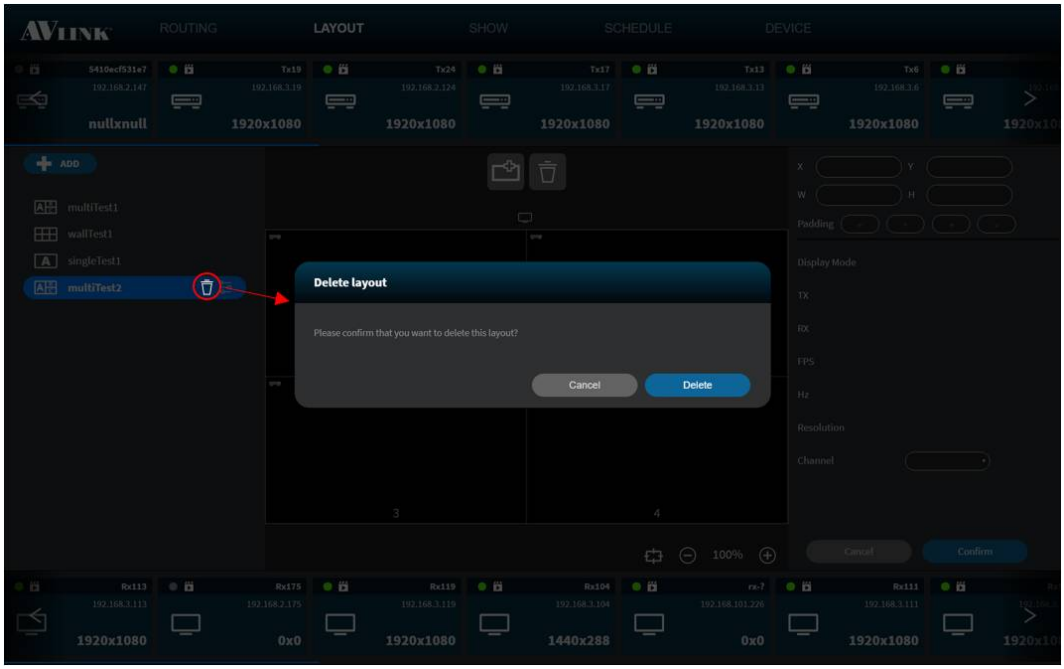



**Figure 7-30 Popup window of delete layout**

## 7.4 Show

In the **SHOW** configuration screen, you can set the layout playback time and add effects on the layout.

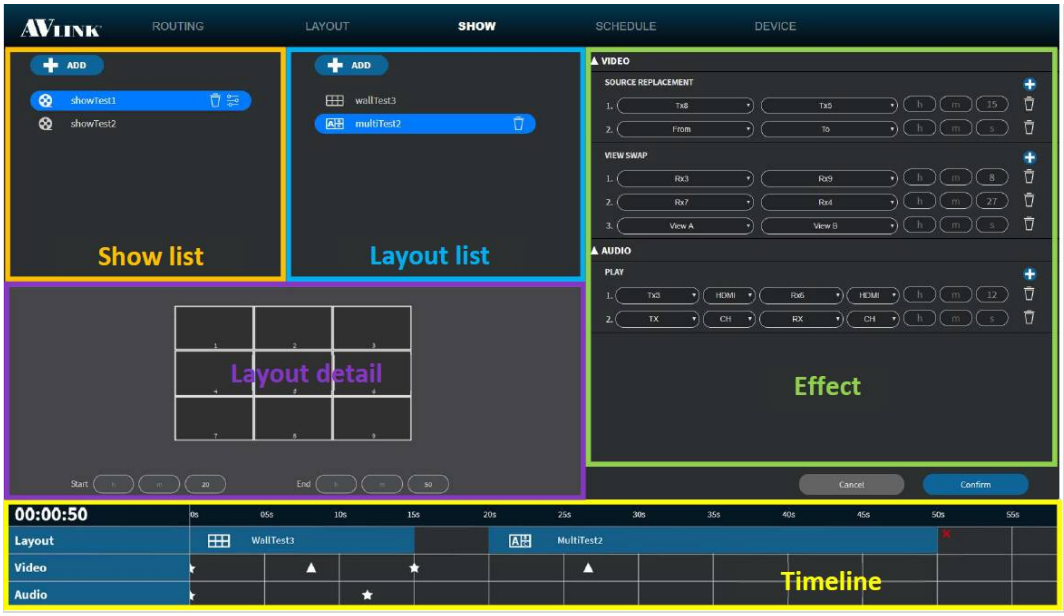



**Figure 7-31 SHOW configuration**

## 7.4.1 Show Component

### 7.4.1.1 Show List

Show List lists the shows that have been set.

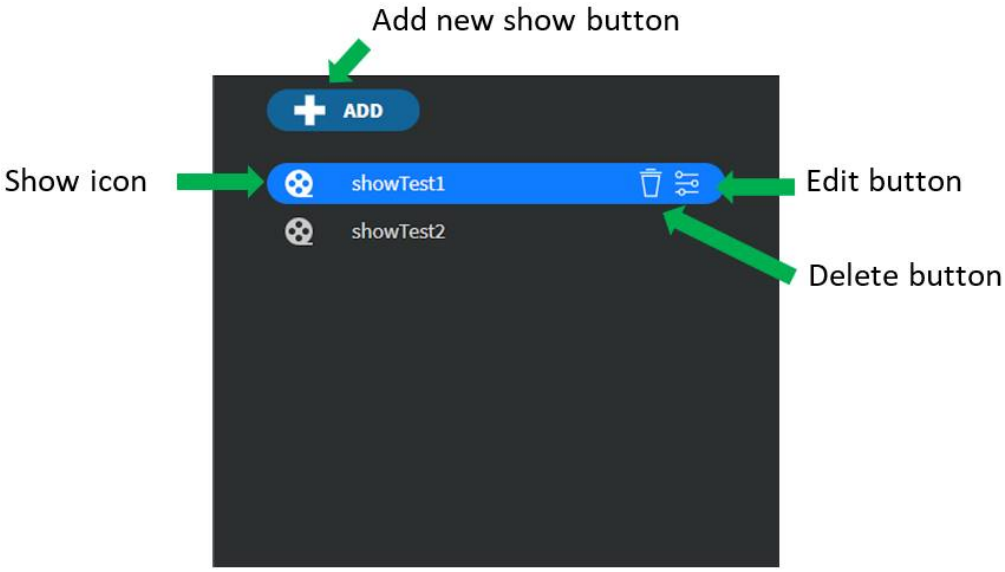



**Figure 7-32 Show list**

### 7.4.1.2 Create Show

Click **Add** button 

on the top of show list, it will popup **Create Show** window. Enter the show name and configure the duration to play. Then, click confirm button to create a show.

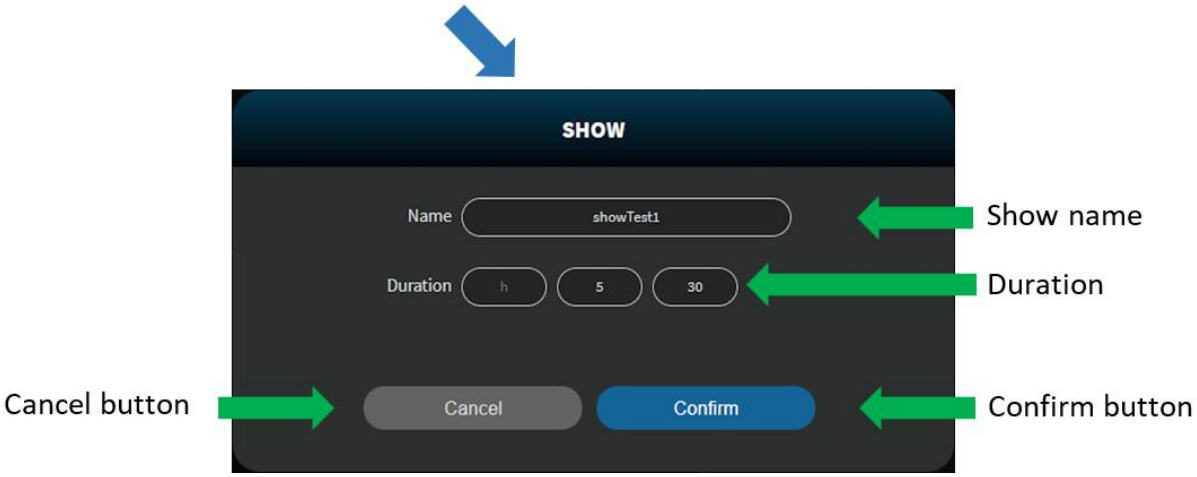



**Figure 7-33 Create Show window**

### 7.4.1.3 Layout List

Layout List lists layouts that have been set in this show.

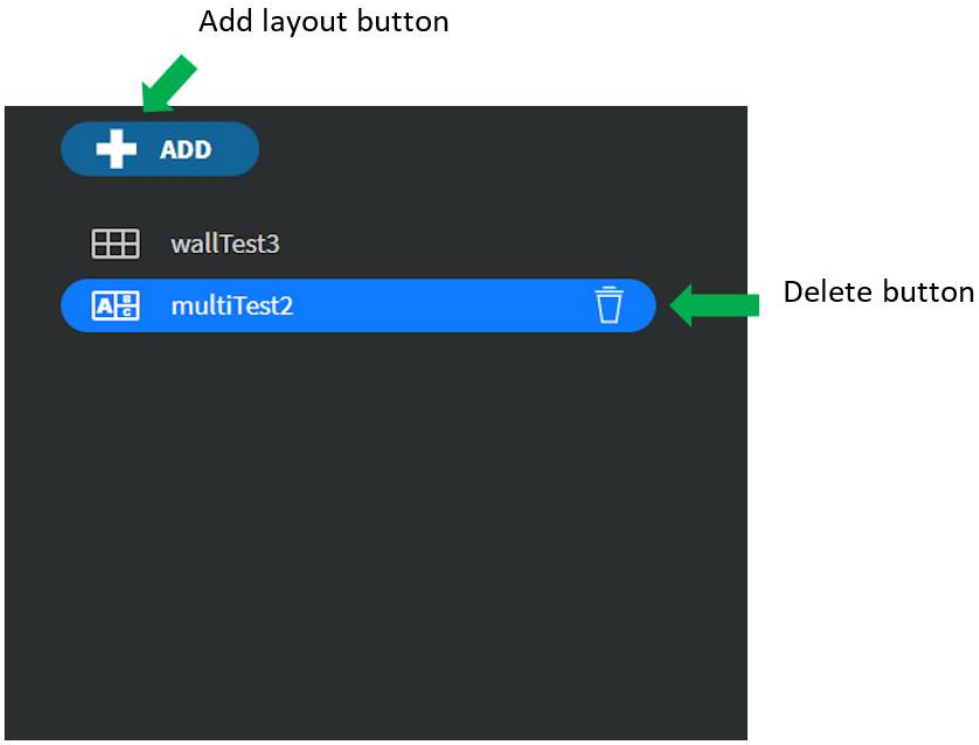



**Figure 7-34 Layout List of show**

### 7.4.1.4 Layout Library

Click **Add** button 

on the top of Layout List, it will popup **Layout Library** window. Select one of saved layouts to play from the library then click **Confirm** button.

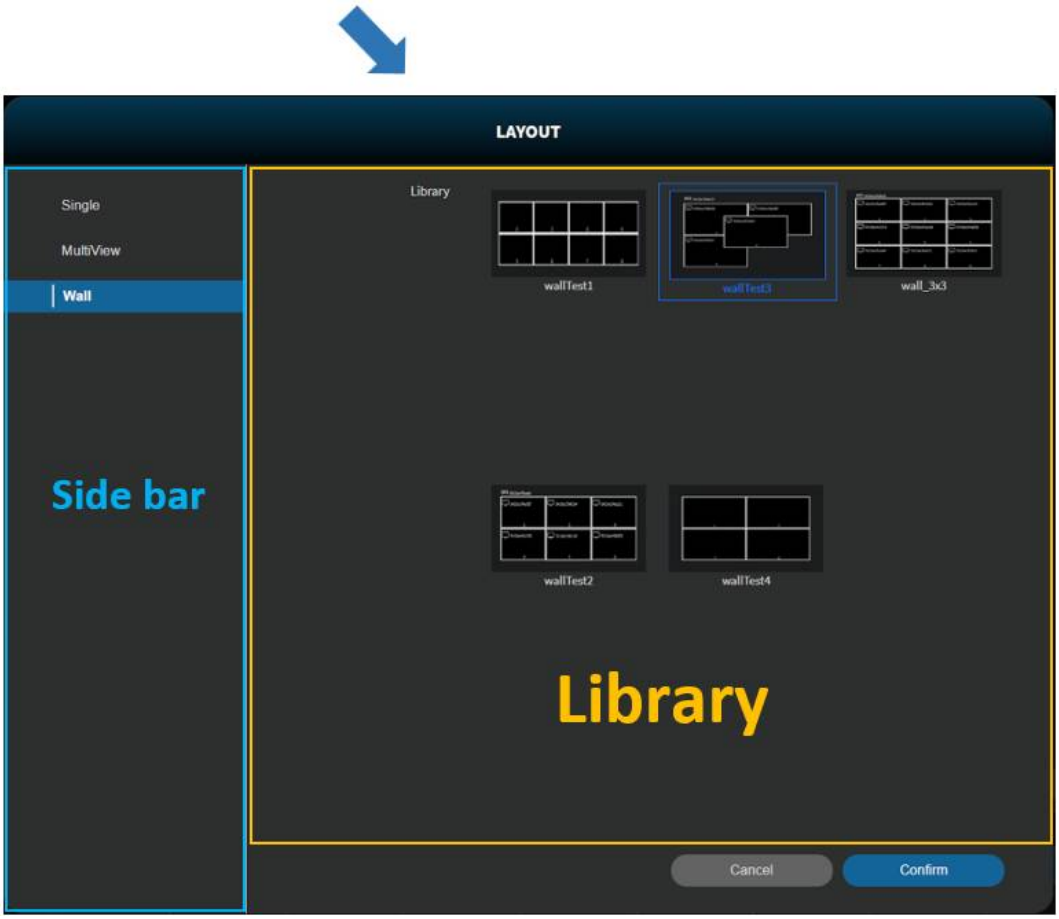



**Figure 7-35 Layout Library window**

### 7.4.1.5 Layout Detail

The Layout Detail shows the thumbnail of selected layout in Layout List. In this area, you can set the start and end time of the layout.

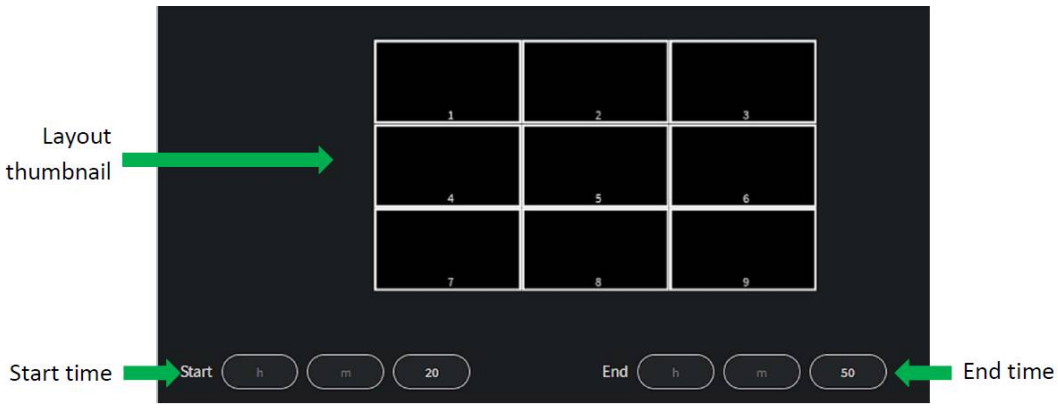



**Figure 7-36 Layout Detail area**

### 7.4.1.6 Effect

- Source Replacement Effect

The effects allowing you to switch used IPS-TX at specific moment. Click to add Source Replacement Effect or delete to clear settings.

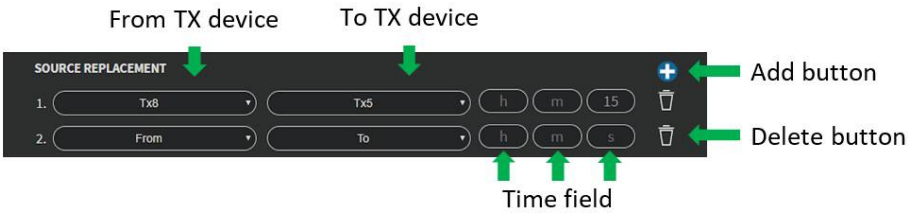



**Figure 7-37 Source Replacement Effect list of show**

- View Swap Effect.

View Swap Effect is used to switch displayed video between two IPS-RX devices at specific moment. Click to add a View Swap Effect or delete to clear settings.

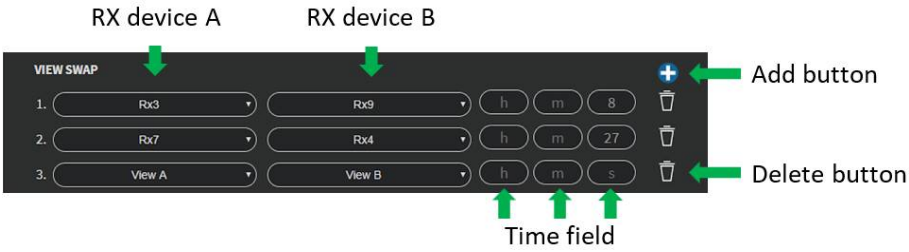



**Figure 7-38 View Swap Effect list of show**

- Audio Play Effect.

In this feature, you can configure the channel of IPS-TX/IPS-RX device to play audio and playback time. Click to add an Audio Play Effect or delete to clear settings.

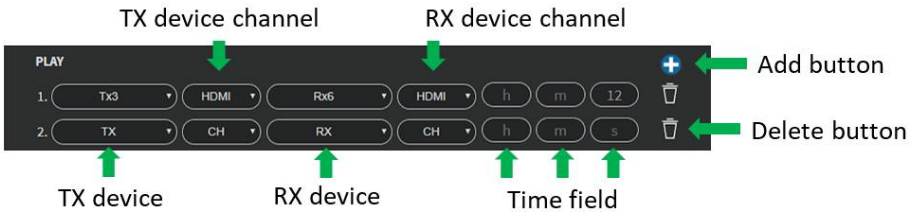



**Figure 7-39 Audio Play Effect list of show**

### 7.4.1.7 Timeline

Click and drag your mouse to configure playback time.

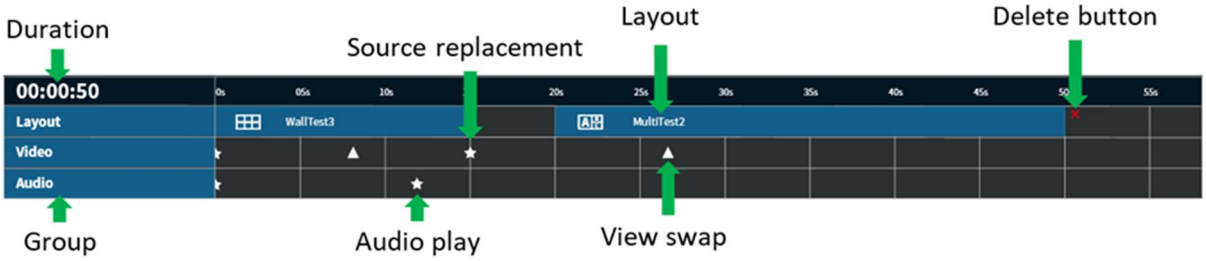



**Figure 7-40 Timeline of show**

## 7.4.2 Edit Show

Click the **Edit button** on the show list, you can **rename** and **reset** duration.

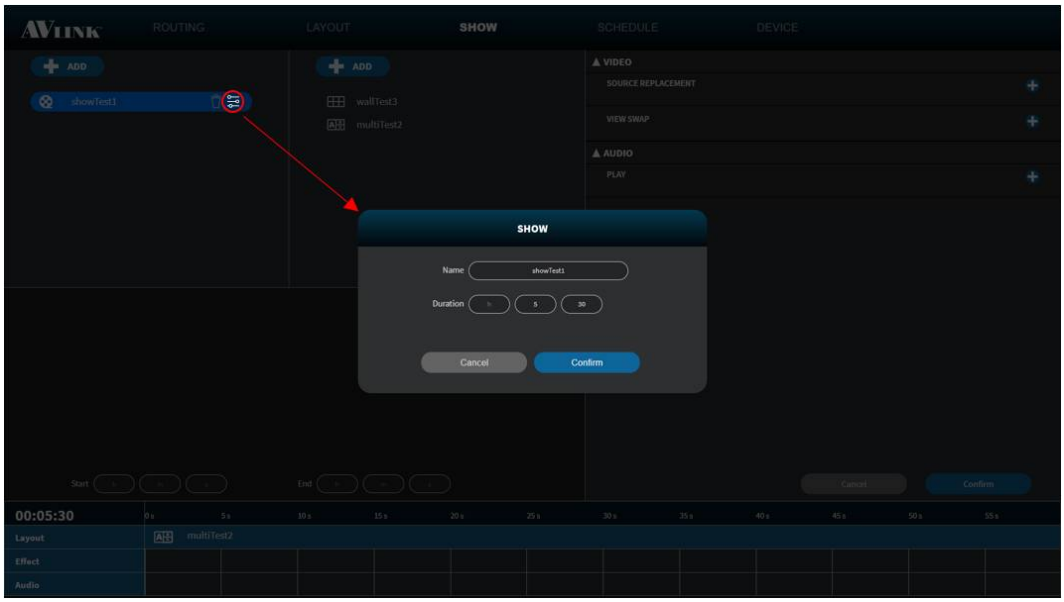



**Figure 7-41 Show edit window**

- Select timeline item (click on it), then you can move or delete it.
- Timeline item (Layout) is **resizable**, you can increase or decrease the time period. Select item in the timeline (click on it so it is selected), then drag the edges back and forth.

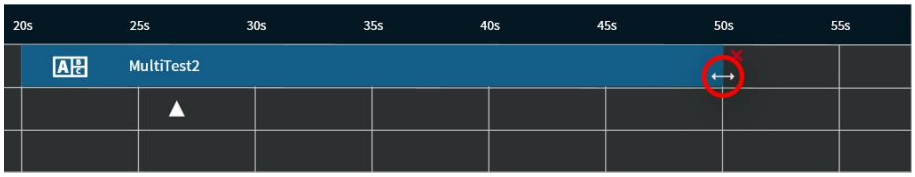



**Figure 7-42 Timeline item (Layout) resizing**

- The timeline items are **draggable**, you can drag left or right to **change** layout or effect time.


**Figure 7-43 Timeline item dragging**

- You can change the way of timeline axis display by scrolling the mouse wheel over the timeline.

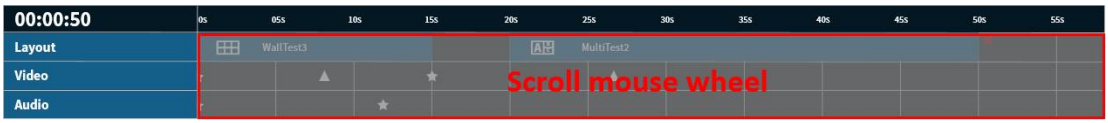



**Figure 7-44 Timeline axis display adjustment**

- Drag timeline to the left or right to view different parts of the timeline.

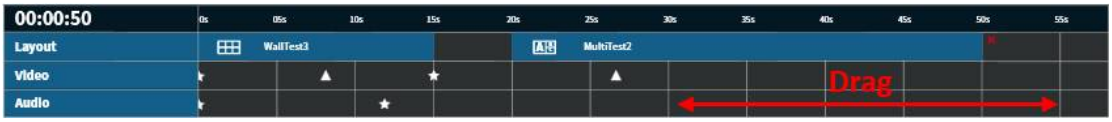



**Figure 7-45 Timeline movement**

- Click **Confirm** button to save / send.

## 7.5 Schedule

In the **SCHEDULE** configuration screen, the calendar shows you the show playback schedule. Click on **Today** on the upper left corner to quickly switch to today's schedule.

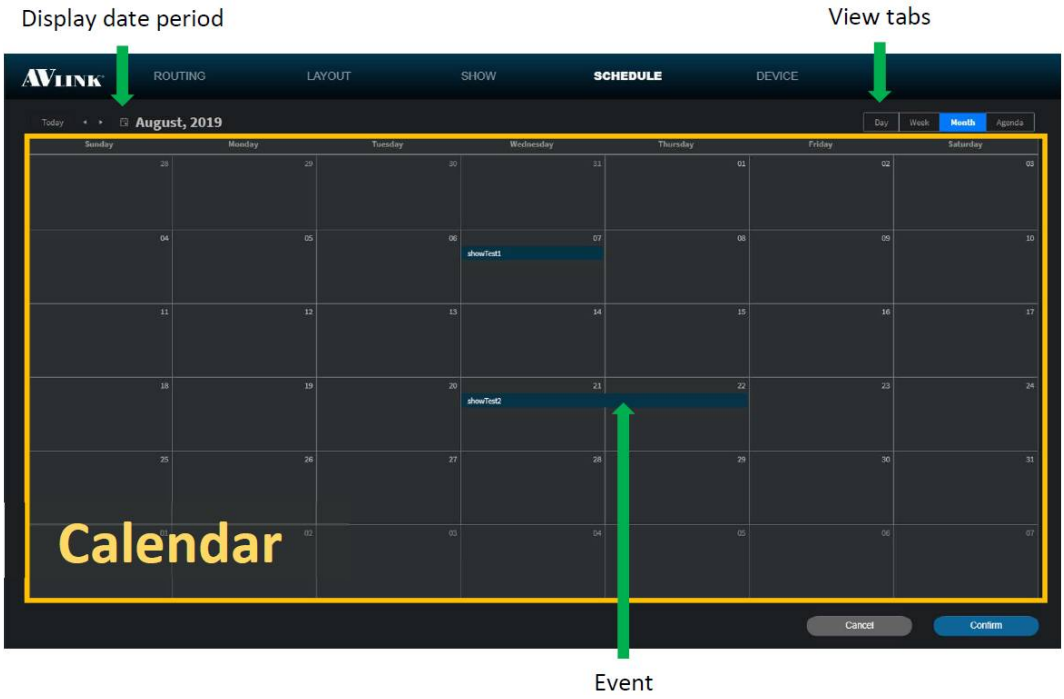
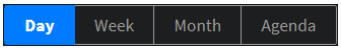



**Figure 7-46 SCHEDULE configuration**

## 7.5.1 Schedule Component

The Schedule Component includes **Day, Week, Month** and **Agenda** View.

### 7.5.1.1 Day View

Switch View tab 

to **Day** item, it will navigate to **Day View.**

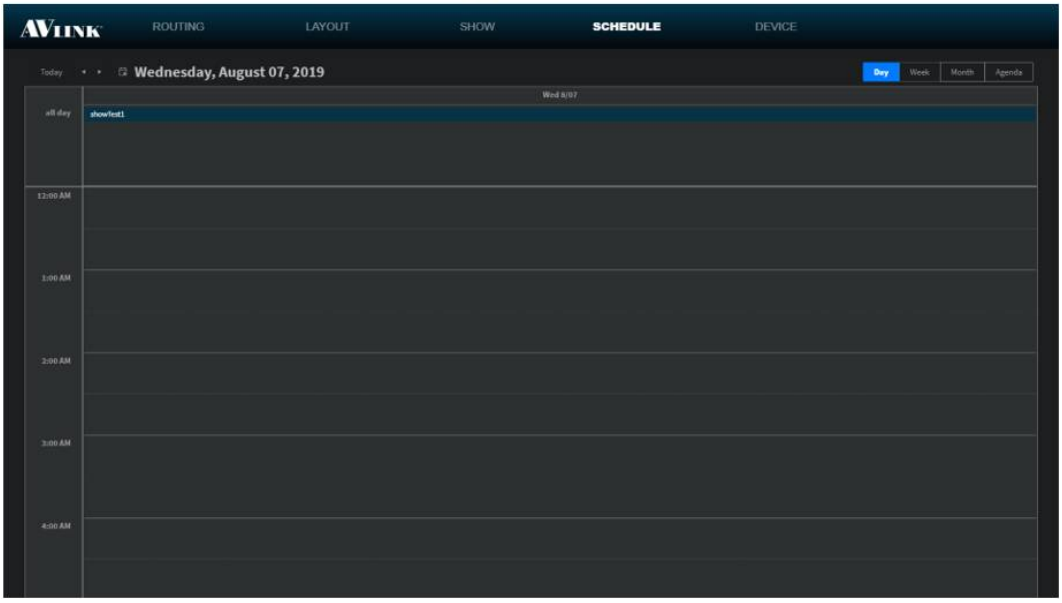
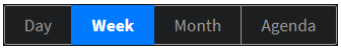



**Figure 7-47 Day View in SCHEDULE configuration**

### 7.5.1.2 Week View

Switch View tab 

to **Week** item, it will navigate to **Week View**.

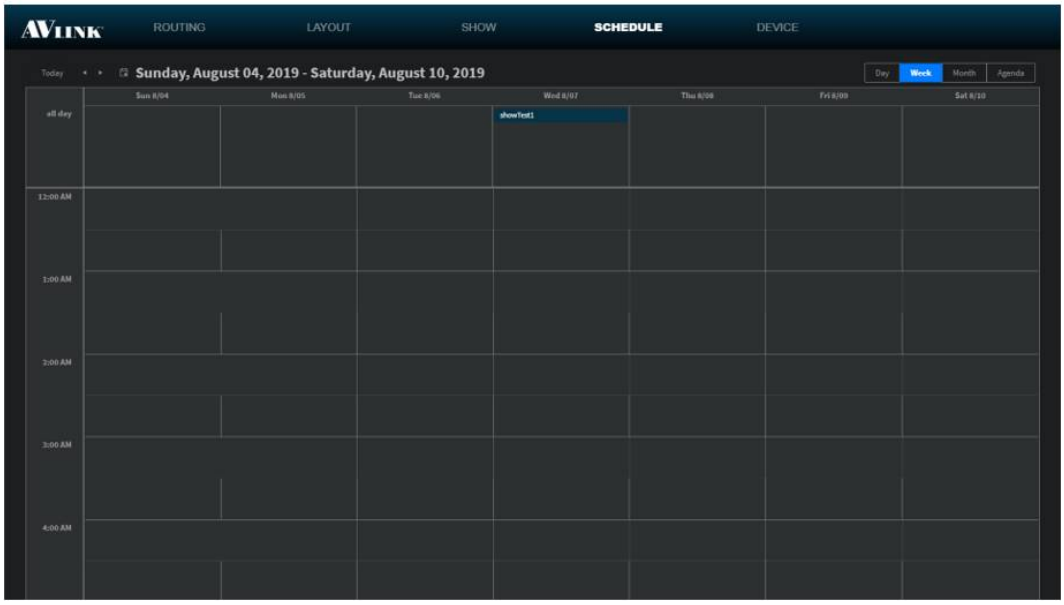



**Figure 7-48 Week View in SCHEDULE configuration**

### 7.5.1.3 Month View

Switch View tab 

to **Month** item, it will navigate to **Month View.**

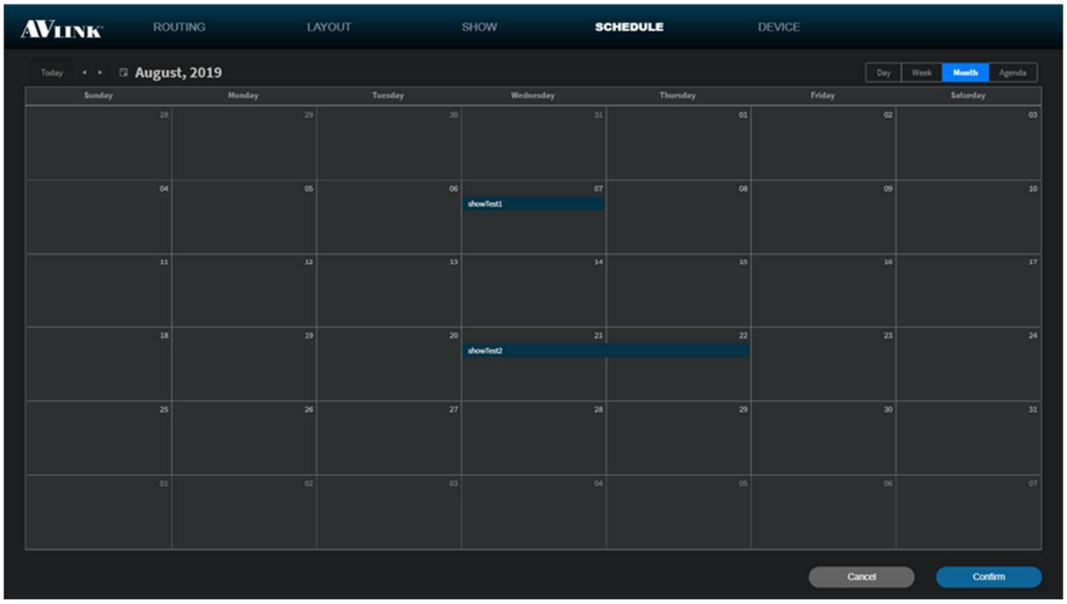
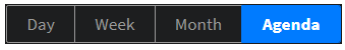



**Figure 7-49 Month View in SCHEDULE configuration**

### 7.5.1.4 Agenda View

Switch View tab 

to **Agenda** item, it will navigate to **Agenda View.**

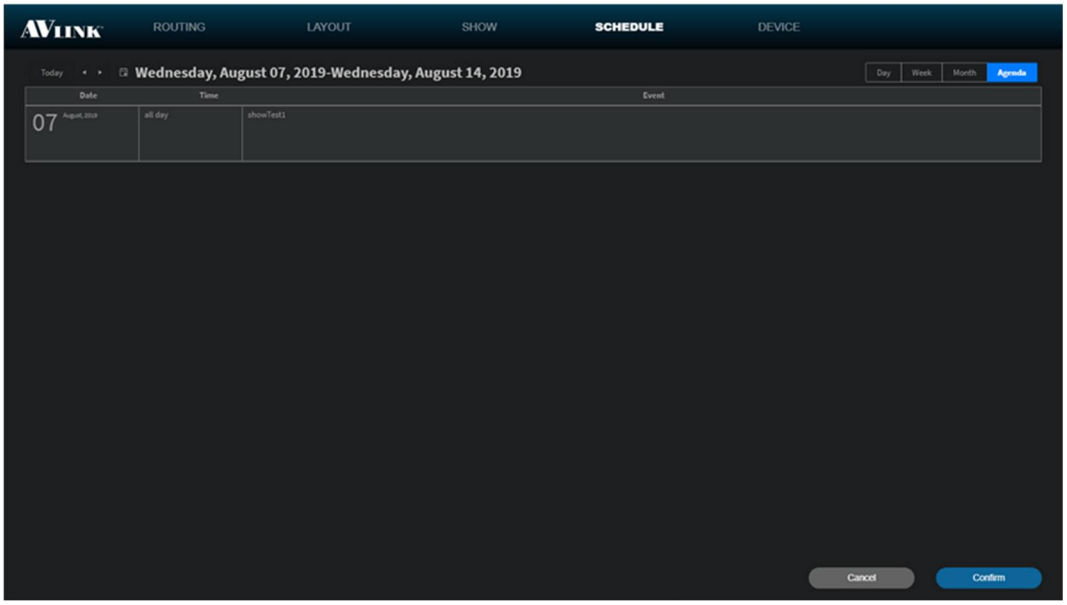



**Figure 7-50 Agenda View in SCHEDULE configuration**

### 7.5.1.5 Create Event

- In Month View - Double-click a day and it will popup **New Event** window.
- In Day or Week View - Double-click at a time or in the **All-Day** section at the top, then fill in the popup **New Event** window.

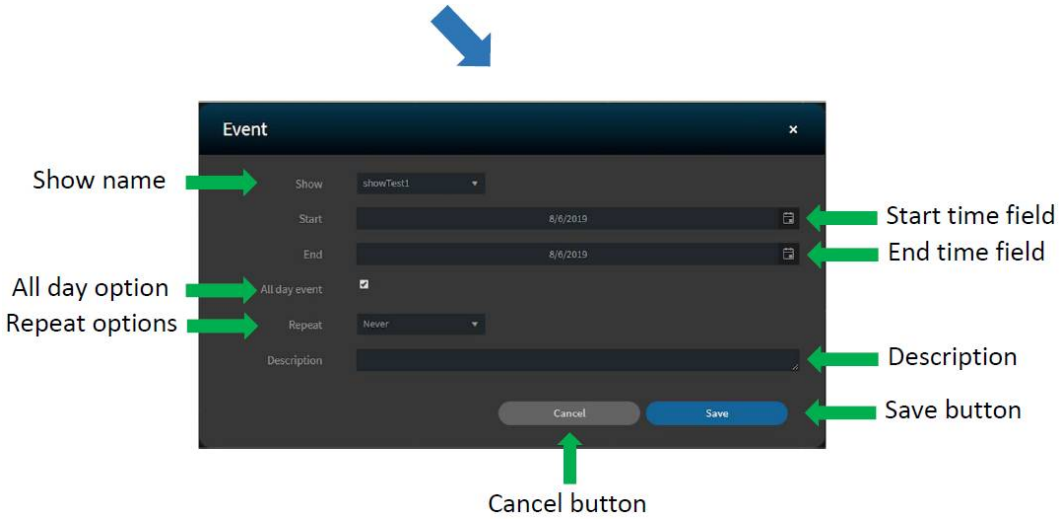



**Figure 7-51 New Event window**

- Start / End Time Field.

If the **All-day event** is **selected**, the **Start** and **End** time field will only display date picker icon.

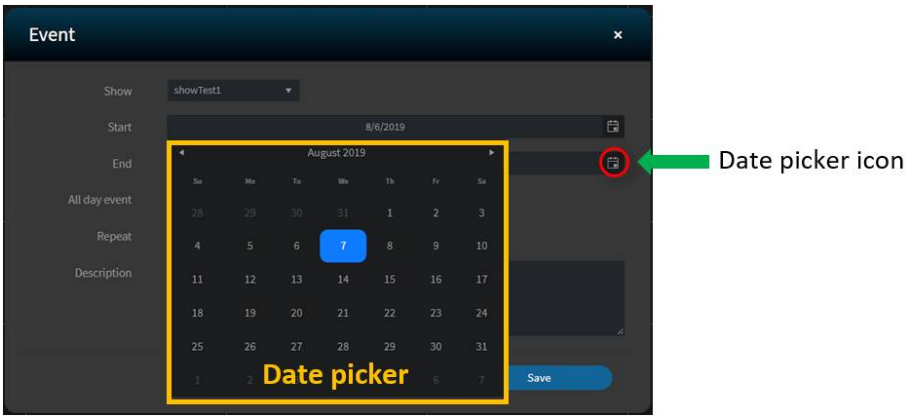



**Figure 7-52 Date picker in New Event window**

If the All-day event is **unselected**, the **Start** and **End** time field will display both **Date** and **Time** picker icons

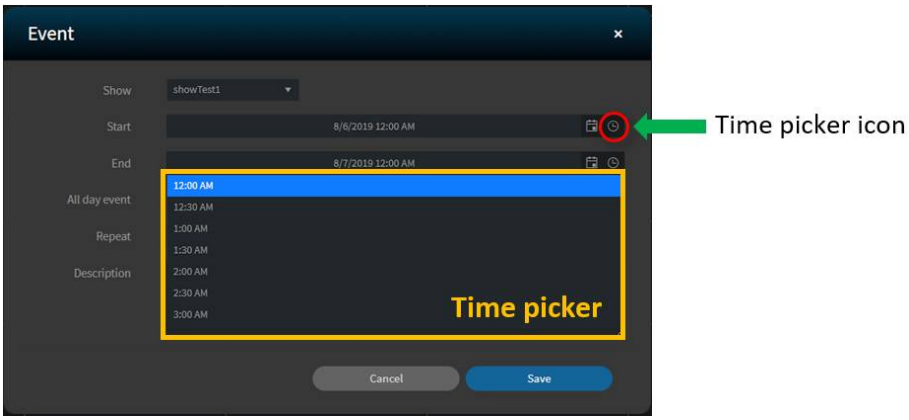



**Figure 7-53 Time picker in New Event window**

- Daily Repeat Option.

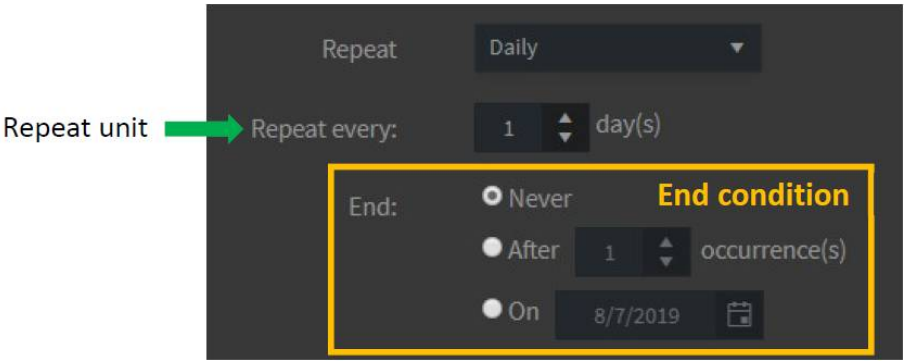



**Figure 7-54 Daily repeat option in New Event window**

- Weekly Repeat Option.

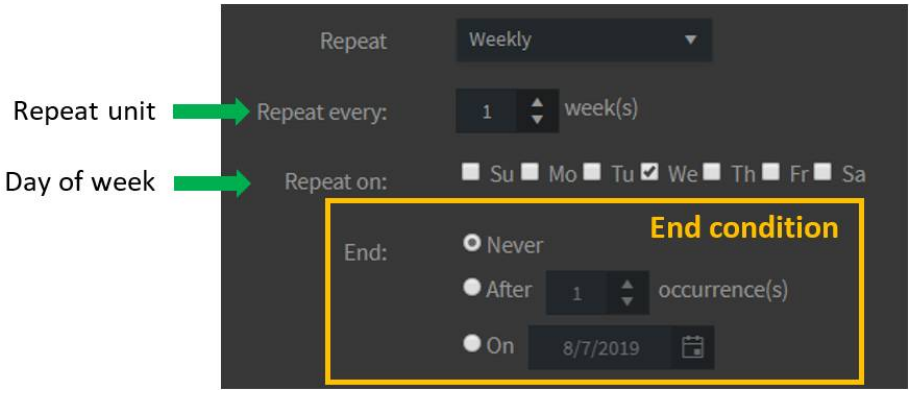



**Figure 7-55 Weekly repeat option in New Event window**

- Monthly Repeat Option.

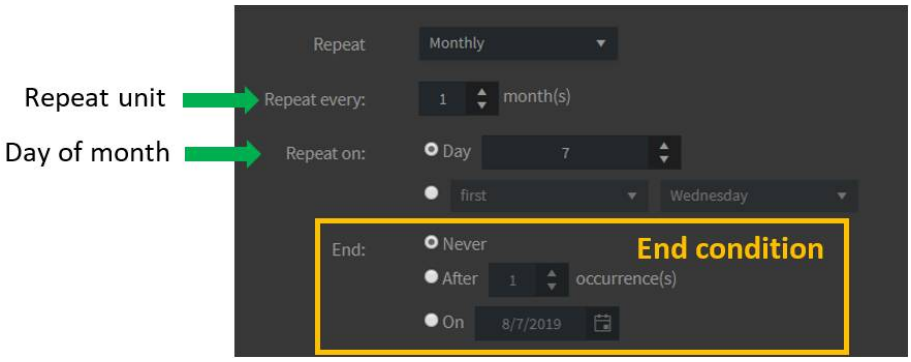



**Figure 7-56 Monthly repeat option in New Event window**

- Yearly Repeat Option

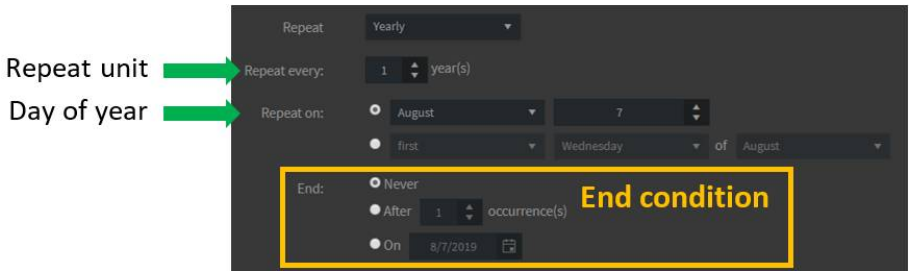



**Figure 7-57 Yearly repeat option in New Event window**

- Event Outlook

  Once event

Repeat event.


### 7.5.1.6 Edit Event

Double-click the event, it will popup **Edit Event** window allowing you to select configured show, edit start and end time, repeat setting, all day event selection and description about the show.

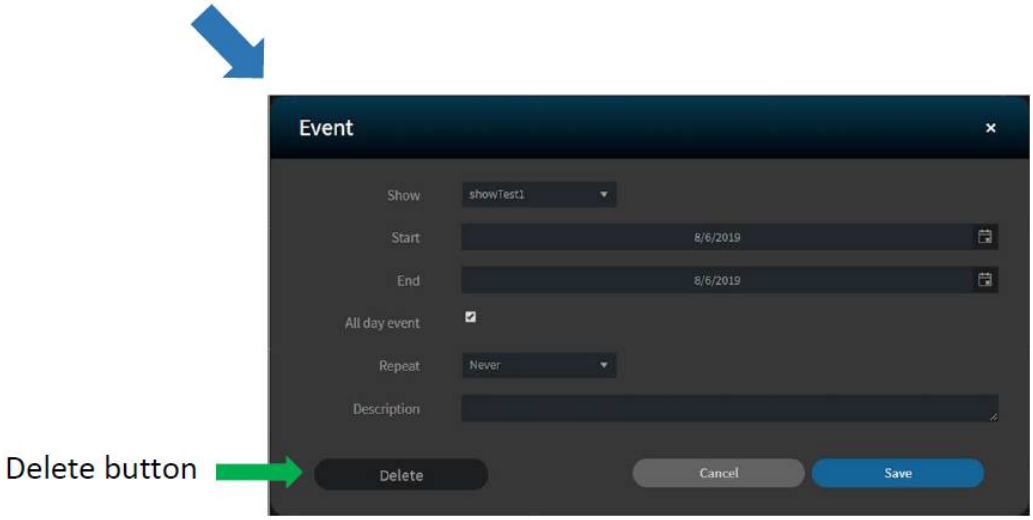



**Figure 7-58 Edit Event window**

### 7.5.1.7 Delete Event

Click **Delete** button of an event, it will popup **Delete event** message to confirm.


**Figure 7-59 Delete event window**

## 7.5.2 Edit Schedule

- Events can be dragged and resized in Calendar. You can directly change the start and end dates of the event.
- Click **Confirm** button to save / send.

# 7.6 Device

In the **DEVICE** configuration screen shows you all the information about configured devices.

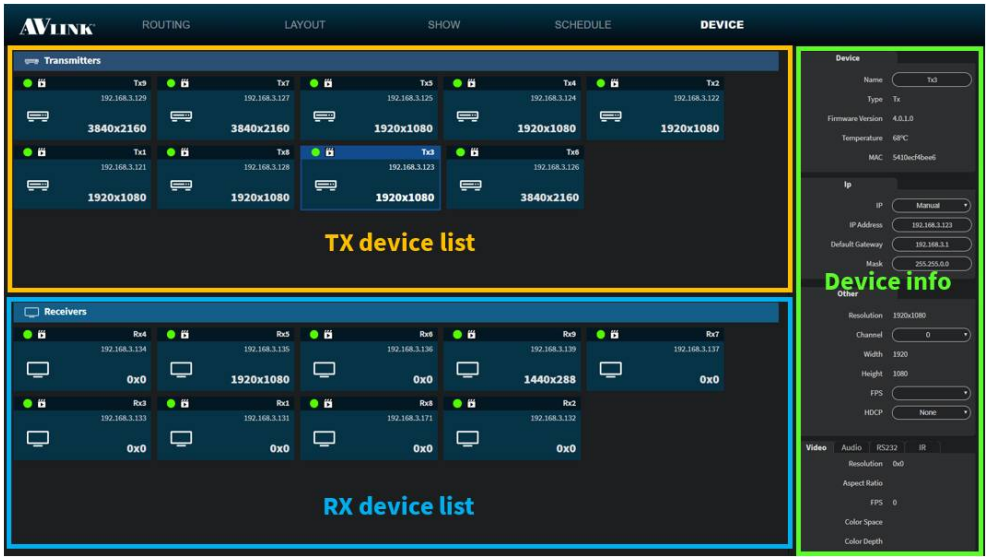



**Figure 7-60 DEVICE configuration**

## 7.6.1 Device Component

### 7.6.1.1 Device

- Edit device name here.


**Figure 7-61 Device basic information**

### 7.6.1.2 IP

- Select **DHCP** to configure IP, Gateway and Mask address automatically, or **Manual** to edit them.

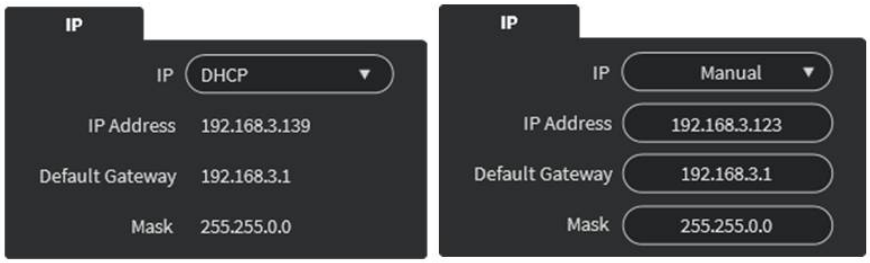



**Figure 7-62 Device network information**

### 7.6.1.3 Others

- Select IPS-TX device

Showing the source video resolution in Channel 0 and scaled video resolution in Channel 1.


**Figure 7-63 Device others information of IPS-TX**

**FPS** (Frames per second) selector

Select the number of times that the image on the screen is refreshed each second.

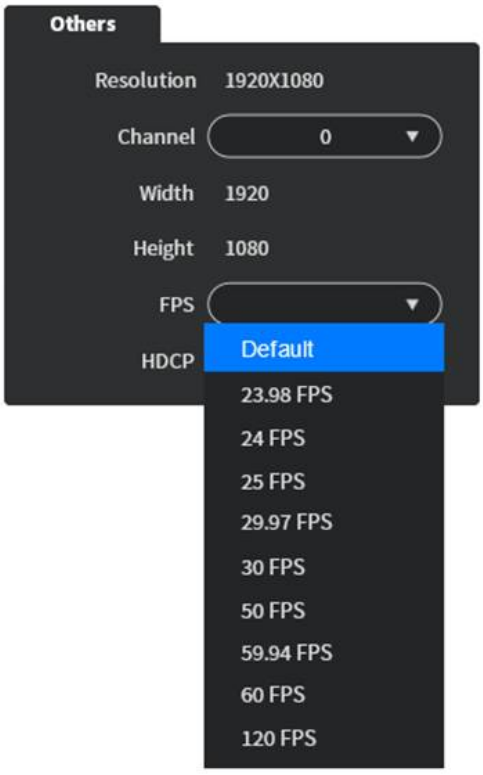



**Figure 7-64 FPS selector of IPS-TX**

**HDCP** selector

HDCP is designed to prevent theft of digital content, which is another way of saying illicit recording. According to your device, select suitable HDCP item.

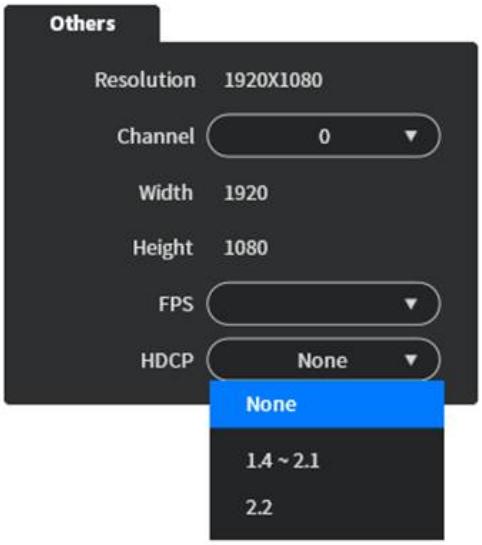



**Figure 7-65 HDCP selector of IPS-TX**

- Select IPS-RX device

Selecting the **Resolution** and **Hz** of IPS-RX device, using original or scaled video source resolution when routing video in Genlock mode, and ratio adjust method in Fast Switch mode.

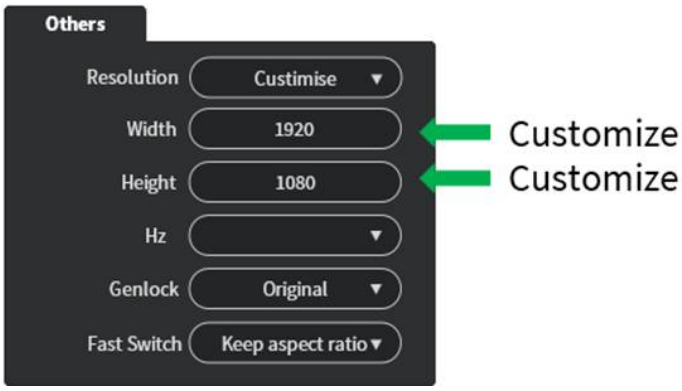



**Figure 7-66 Device others information of IPS-RX**

**Resolution** selector

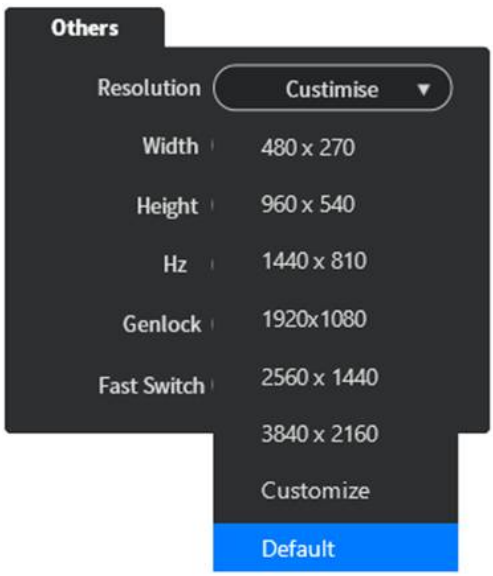



**Figure 7-67 Resolution selector of IPS-RX**

**Hz** selector

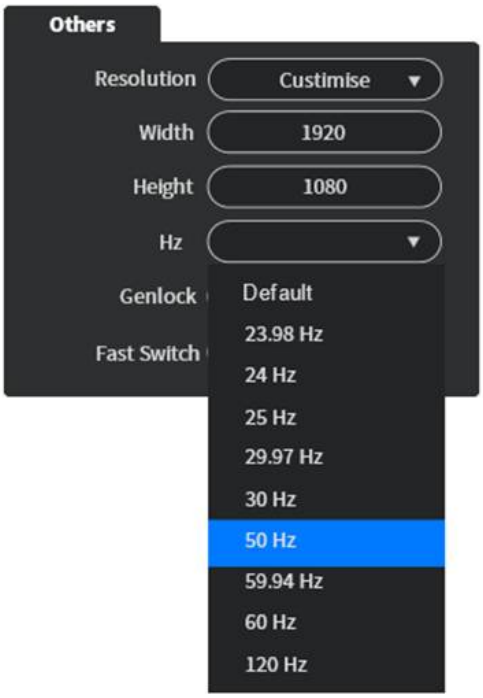



**Figure 7-68 Hz selector of IPS-RX**

**Genlock** selector


**Figure 7-69 Genlock selector of IPS-RX**

**Fast Switch** selector

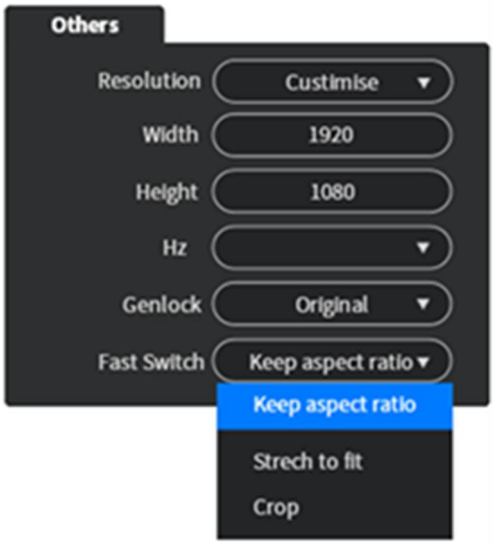



**Figure 7-70 Fast Switch selector of IPS-RX**

### 7.6.1.4 Streaming Info

Click the top tabs to get the information of each interface including **Video, Audio, RS-232, USB** and **IR**.

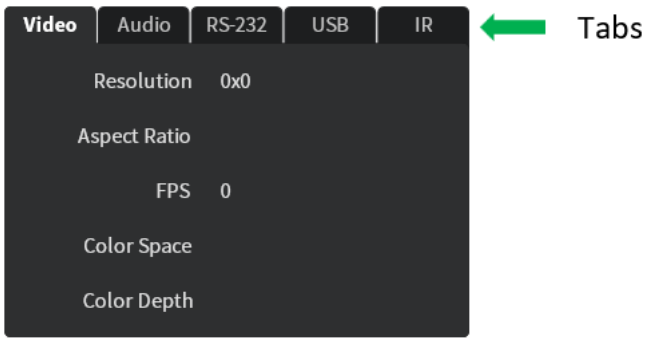



**Figure 7-71 Device Streaming info**

### 7.6.1.5 Delete / Erase Device

- Online IPS-TX / IPS-RX device card (The indicator on the upper left corner is on.) **Right-click** to **Erase** custom settings and restore to default.


**Online**

**Figure 7-72 Online device erasing**

- Offline IPS-TX / IPS-RX device card (The indicator on the upper left corner is off.)

  **Right-click** to **Delete** device from your configuration. (The device is still connected, not configured.)

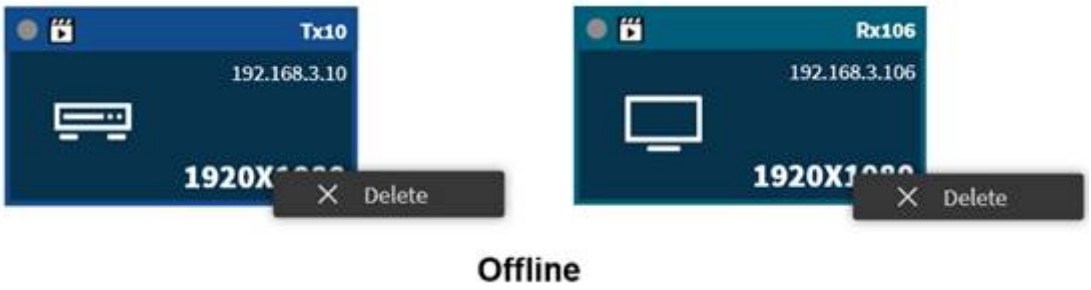



**Figure 7-73 Offline device deleting**

# CHAPTER 8 TROUBLESHOOTING

Make sure that all cables are securely attached and seated completely in their socket before solving the problems.