

# LCB4K LCD Multimedia Player



**Configuration Guide**

## Change History

Document Version	Release Date	Description
V1.0.2	2023-12-15	Updated the document.
V1.0.0	2022-09-06	First release

# Contents

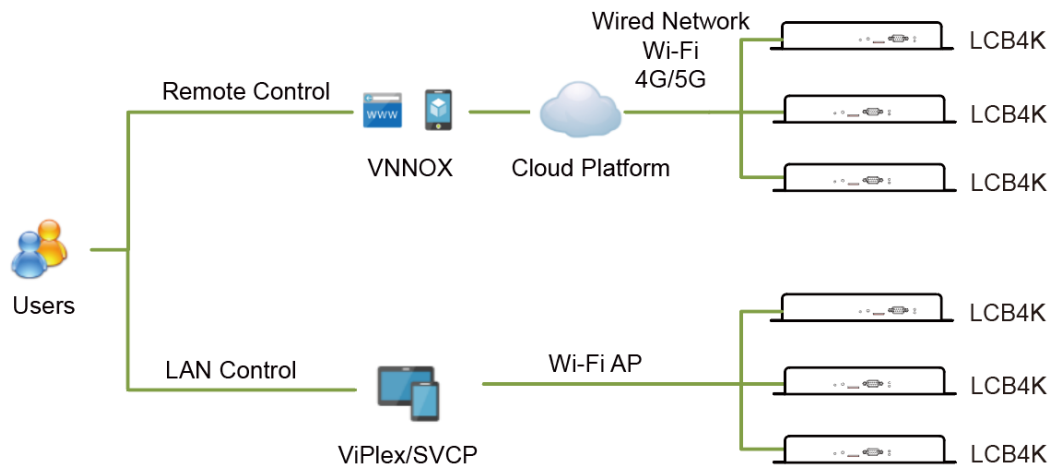
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# 1 Purpose

The LCB4K is an LCD multimedia player created by NovaStar. This document introduces the applications, configuration and content publishing of the LCB4K to help users get started with the product.

## 2 Solution Architecture

Figure 2-1 Solution architecture



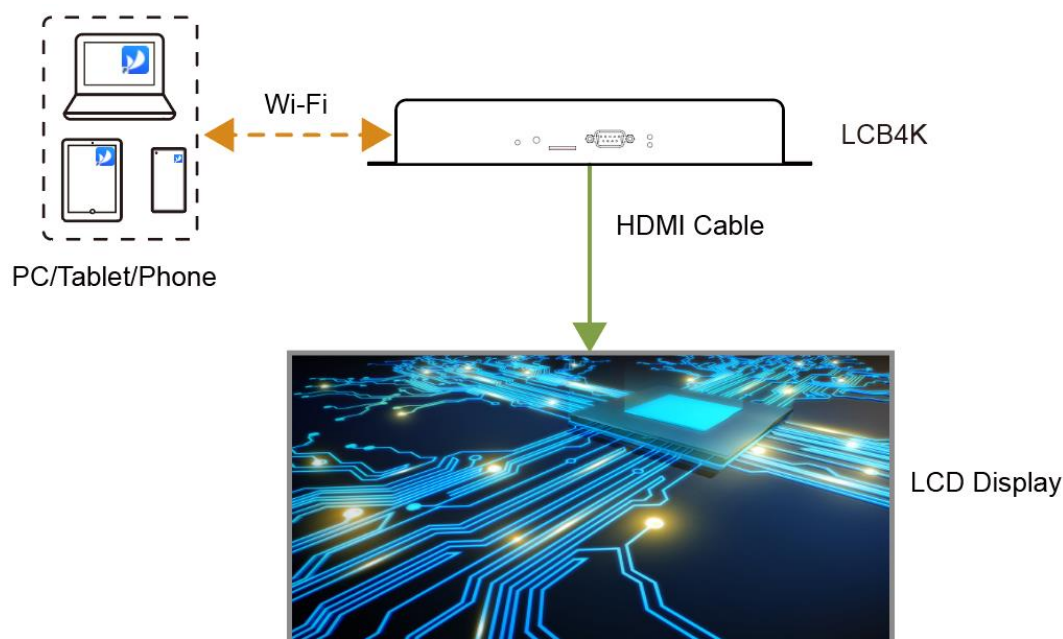
- Remote Control  
Users must have a VVNOX account. After the LCB4K is connected to the Internet, bind it to VVNOX for remote control.
- LAN Control  
The LCB4K can be connected to a PC via Ethernet cable, Wi-Fi AP, wired LAN or wireless LAN. A tablet or phone can connect to the LCB4K via Wi-Fi AP or wireless LAN.

## 3 Applications

In the following connection diagrams, connecting a PC/phone/tablet to the built-in Wi-Fi AP of the LCB4K is used as an example.

### Application 1: Connecting to a Single LCD Display

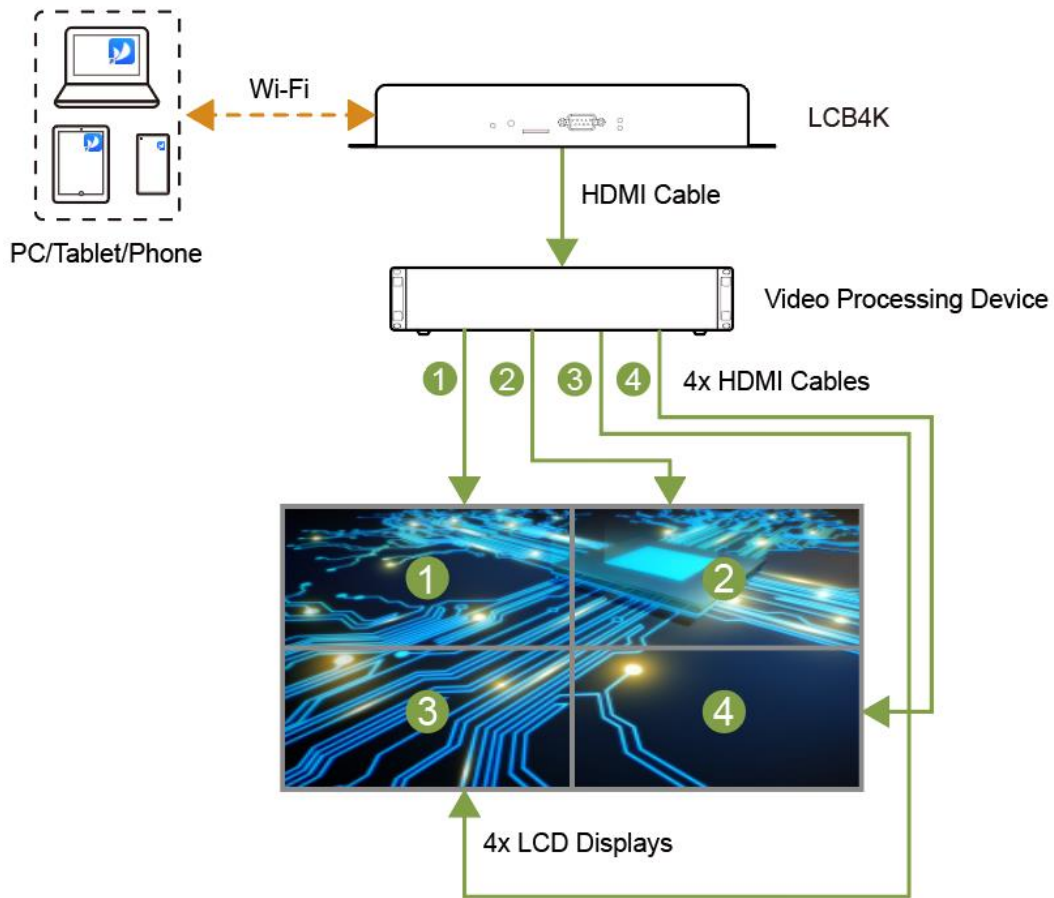
Figure 3-1 Connecting to a single LCD display



Required configuration: In VNNOX/ViPlex Express/ViPlex Handy, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.

## Application 2: Connecting to Multiple LCD Displays

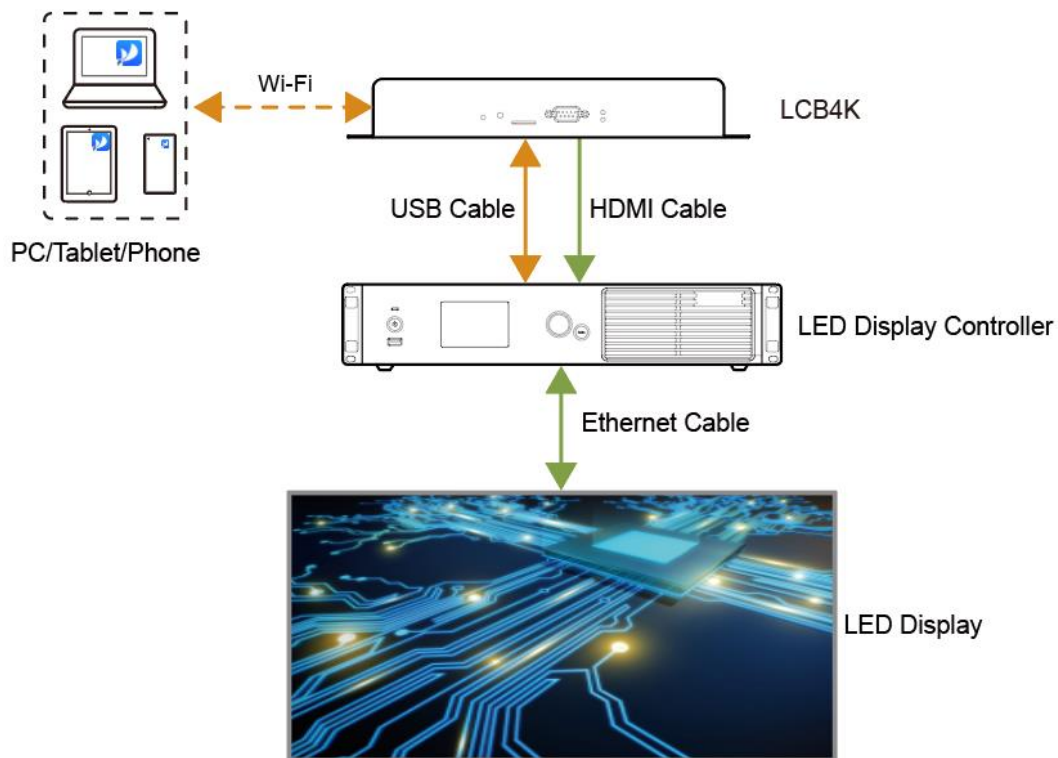
Figure 3-2 Connecting to multiple LCD displays (4 displays used for illustration)



Required configuration: In VNNOX/ViPlex Handy/ViPlex Express, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.

### Application 3: Connecting to an LED Display

Figure 3-3 Connecting to an LED display



Required configuration: In VNNOX/ViPlex Handy/ViPlex Express, set LCB4K to custom mode and set the playback window resolution.

Notes:

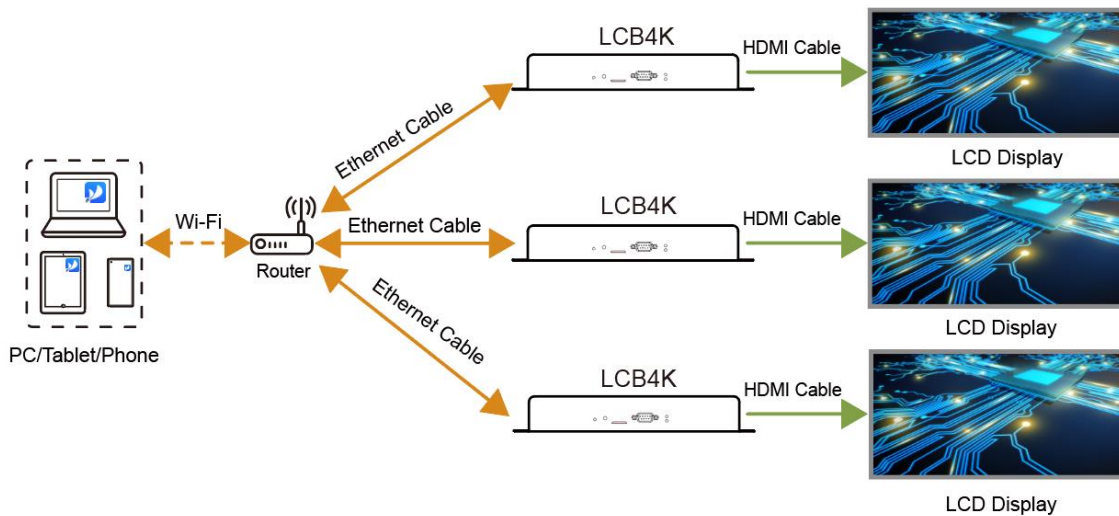
- The HDMI output connector of the LCB4K is connected to the HDMI input connector of the LED display controller for sending solution data.
- The USB (Type A) port of the LCB4K is connected to the USB (Type B) port of the LED display controller for sending control commands.

#### **Caution**

Custom mode is recommended for this application. If adaptive mode is selected, the LED screen may not display content correctly and not be controlled normally.

## Application 4: Synchronous Playback Across Multiple LCD/LED Displays

Figure 3-4 Synchronous playback across multiple LCD/LED displays (3 LCD displays used for illustration)



### Required configuration:

- LCD display
  - a. In VNNOX/ViPlex Handy/ViPlex Express, set the LCB4K to adaptive mode or custom mode. In custom mode, you also need to manually set the playback window resolution.
  - b. In VNNOX/ViPlex Handy/ViPlex Express, enable the synchronous playback function and set the time synchronization method.
- LED display
  - a. In VNNOX/ViPlex Handy/ViPlex Express, set the LCB4K to custom mode and set the playback window resolution.
  - b. In VNNOX/ViPlex Handy/ViPlex Express, enable the synchronous playback function and set the time synchronization method.

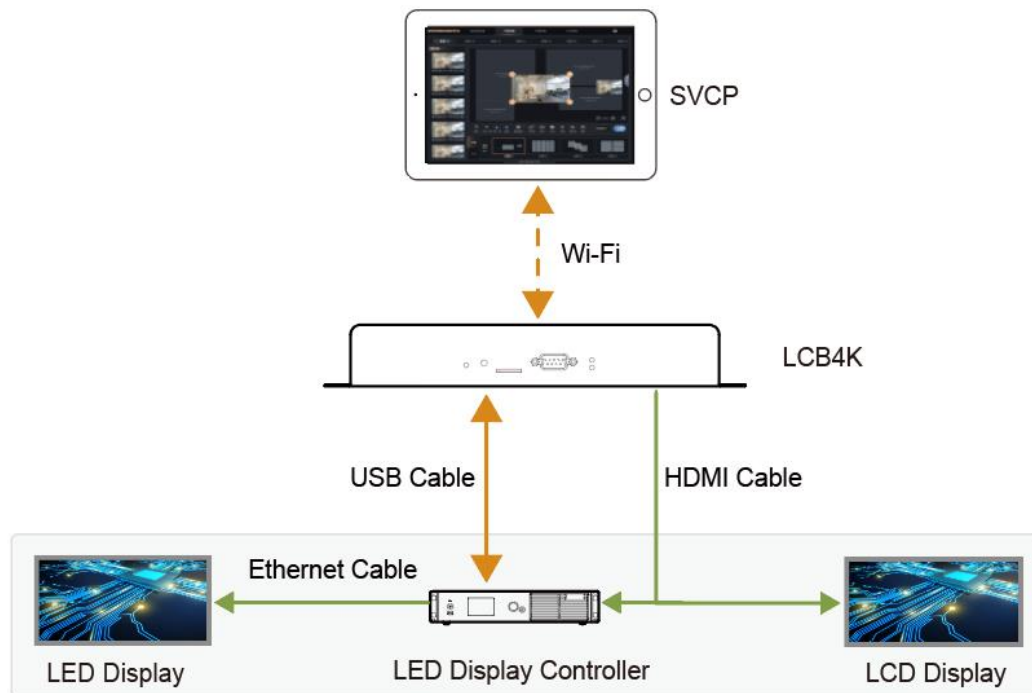
### Time synchronization methods:

- NTP time synchronization
- GPS time synchronization (A specified 4G module must be installed.)
- RF time synchronization (A specified RF module must be installed.)



## Application 5: Working with Spirit Stone Visual Control Platform (SVCP)

Figure 3-5 Working with SVCP



Required configuration:

Connect the LCB4K and SVCP to the same LAN. Connect the LCB4K to SVCP by adding the port number of the LCB4K in SVCP. After successful connection, users can control video playback.

## 4 Login

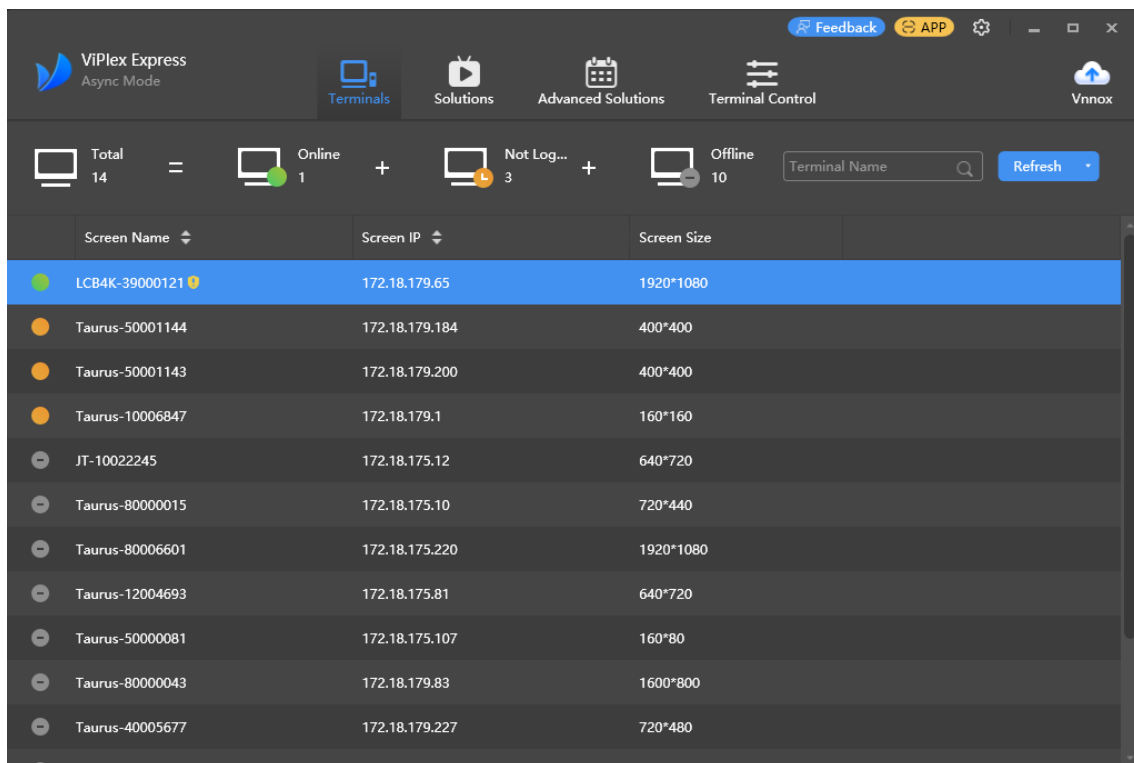
Users can log in to the LCB4K via ViPlex Express or ViPlex Handy. This chapter introduces how to log in to the LCB4K with ViPlex Express.

After the hardware device connection is done, log in to the LCB4K with ViPlex Express (V2.18.0 or later). The login user name is "admin" and the default password is "123456".

### Operating Procedure

- Step 1 Connect to the built-in Wi-Fi AP of the LCB4K.
- Step 2 Open ViPlex Express and access the async mode.

Figure 4-1 Terminal management



- Step 3 On the **Terminals** page, click **Refresh** to refresh the terminal list.

After detecting a device, ViPlex Express will try to log in to the device with the default account or the account used for the last login.

- : Denotes that the device is online and can be logged in. Go to [Step 4](#).
- : Denotes the device is offline and cannot be logged in.
- : Denotes you have successfully logged into the terminal.

- Step 4 Click **Connect** on the right of the terminal information.
- Step 5 Enter the password for the "admin" user and click **OK**.

After successful login, ViPlex Express automatically saves the account information.

## 5 Configuration

### Note

When the LCB4K works with an LED display, the MCTRL4K can be connected via the USB port to control the display.

### 5.1 Configuration List

#### 5.1.1 ViPlex Express

The configurations that the user can do for the LCB4K with ViPlex Express are shown in [Table 5-1](#). For detailed configuration methods, see the user manual of ViPlex Express.

Table 5-1 Configurations in ViPlex Express

Configuration Item	LCD Display	LED Display
Playback management	√	√
Brightness adjustment	×	√
Video source switching	√	√
Screen status control	√	√
Time synchronization management	√	√
Restart configuration	√	√
Color temperature	×	√
Monitoring	√	√
Play logs	√	√
Font management	√	√
Network settings	√	√
Server configuration	√	√
Terminal upgrade	√	√
Power control	×	√
RF management	√	√
Sensor	×	×
Terminal information	√	√

#### 5.1.2 ViPlex Handy

The configurations that the user can do for the LCB4K with ViPlex Handy are shown in [Table 5-2](#). For detailed configuration methods, see the user manual of ViPlex Handy.

Table 5-2 Configurations in ViPlex Handy

Configuration Item	LCD Display	LED Display
Quick control	Time zone	√
	Volume adjustment	√
	Color temperature	×
Bind to cloud services	√	√
Advanced settings	Time synchronization	√
	Synchronous playback	√

Configuration Item		LCD Display	LED Display
	Restart	√	√
	Clear all Media	√	√
	Restore factory settings	√	√
Screen settings	Screen status control	√	√
	Brightness control	×	√
	Scheduled restart	√	√
Network settings		√	√
Monitoring		√	√
Video control		×	×
Playback management		√	√
Device information		√	√
Multi-screen mosaic		×	×

### 5.1.3 Configurations in VNNOX

The configurations that the user can do for the LCB4K with VNNOX are shown in [Table 5-3](#). For detailed configuration methods, see the user manual of VNNOX.

Table 5-3 Configurations in VNNOX

Configuration Item	LCD Display	LED Display
Brightness adjustment	×	√
Volume adjustment	√	√
Video source switching	×	×
Player restart	√	√
Screen status control	√	√
Monitoring	√	√
Power control	×	×
Time synchronization	√	√
Synchronous playback	√	√
Playback management	√	√
Playback control	√	√
Bind players	√	√
Terminal upgrade	√	√

## 5.2 Configuration Methods

VNNOX, ViPlex Handy and ViPlex Express allow users to set the working mode for the LCB4K and set the multifunction card power.

### 5.2.1 Setting Working Mode

Users can set the working mode of the LCB4K with VNNOX, ViPlex Handy or ViPlex Express. This chapter introduces how to set the working mode with ViPlex Express.

#### Prerequisites

Hardware device connection is completed.

## Operating Procedure

Step 1 Log in to the LCB4K with ViPlex Express. For details, see 4 Login.

Step 2 Choose **Terminal Control** > **Video source**.

Step 3 Select the target terminal from the terminal list.

Step 4 In the **HDMI Output** area, do the following as required.

- Set adaptive mode

Select **Adaptive resolution** and click **Apply**. The LCB4K will automatically adjust the playback window resolution according to the EDID of the LCD display.

- Set custom mode

Select **Custom resolution**, set the playback window resolution, and click **Apply**.

- Maximum width: 4096 pixels (4096x2160@60Hz)
- Maximum height: 4096 pixels (2160x4096@60Hz)

Figure 5-1 Adaptive mode

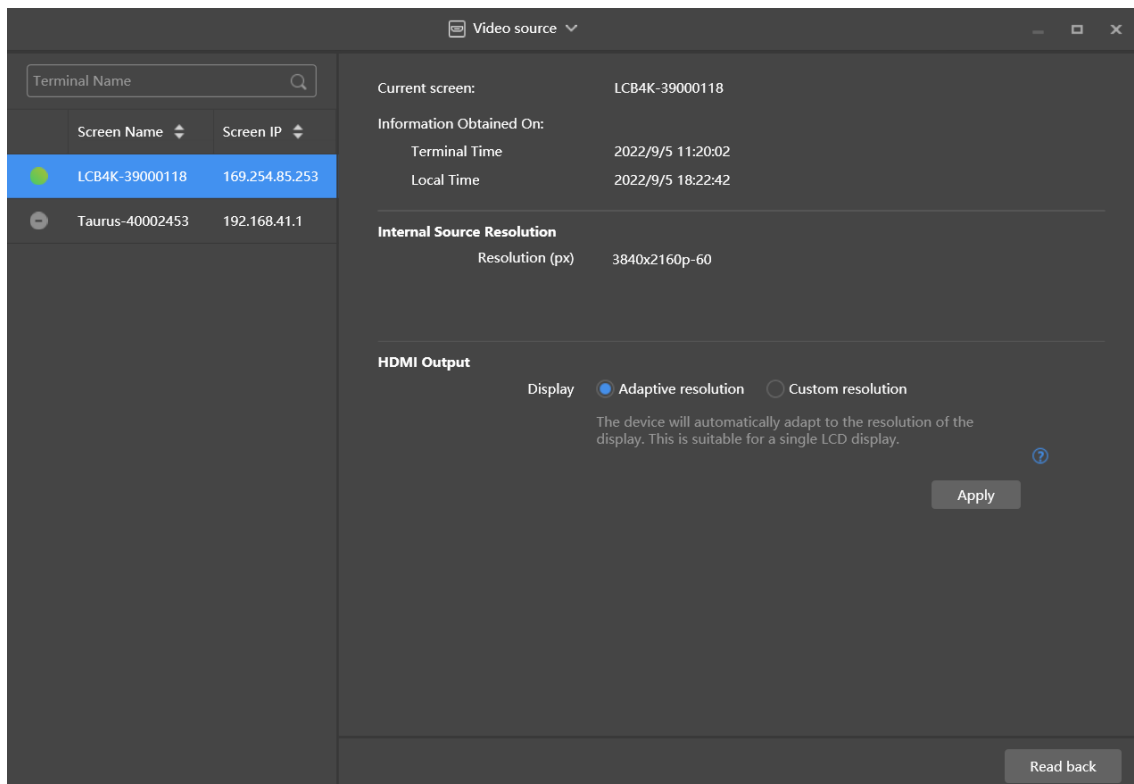
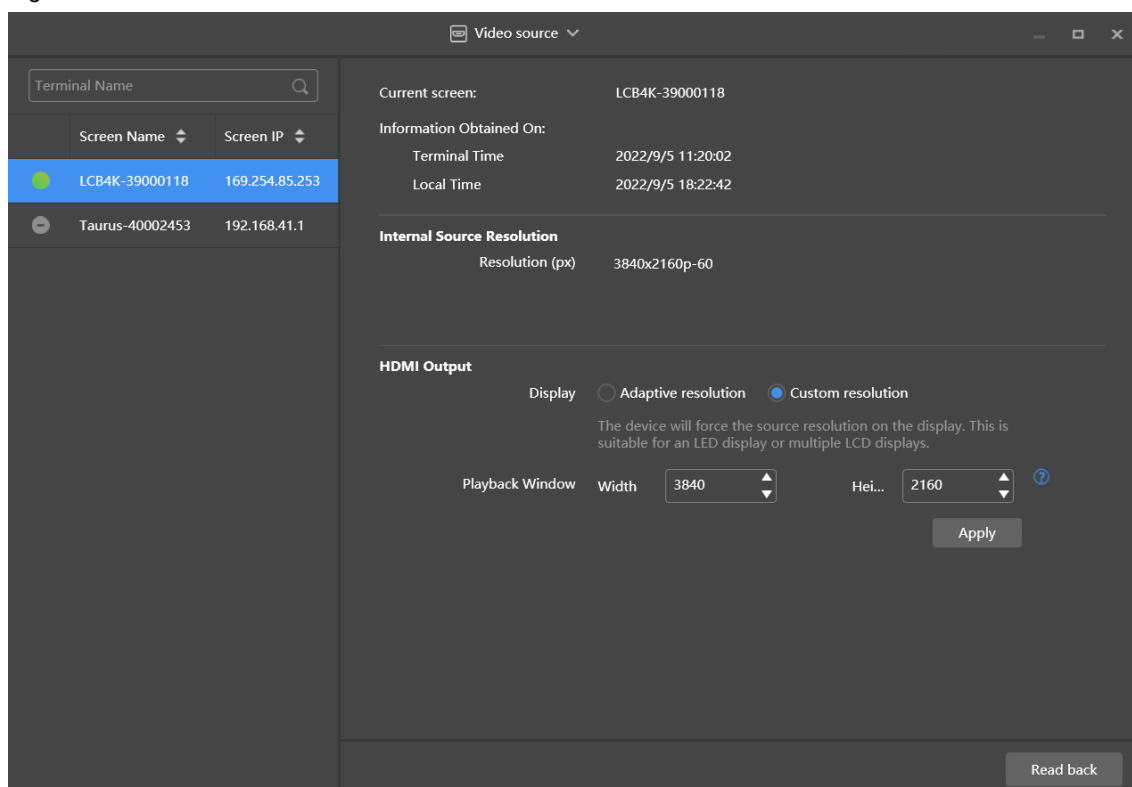


Figure 5-2 Custom mode



## 5.2.2 Setting Multifunction Card Power

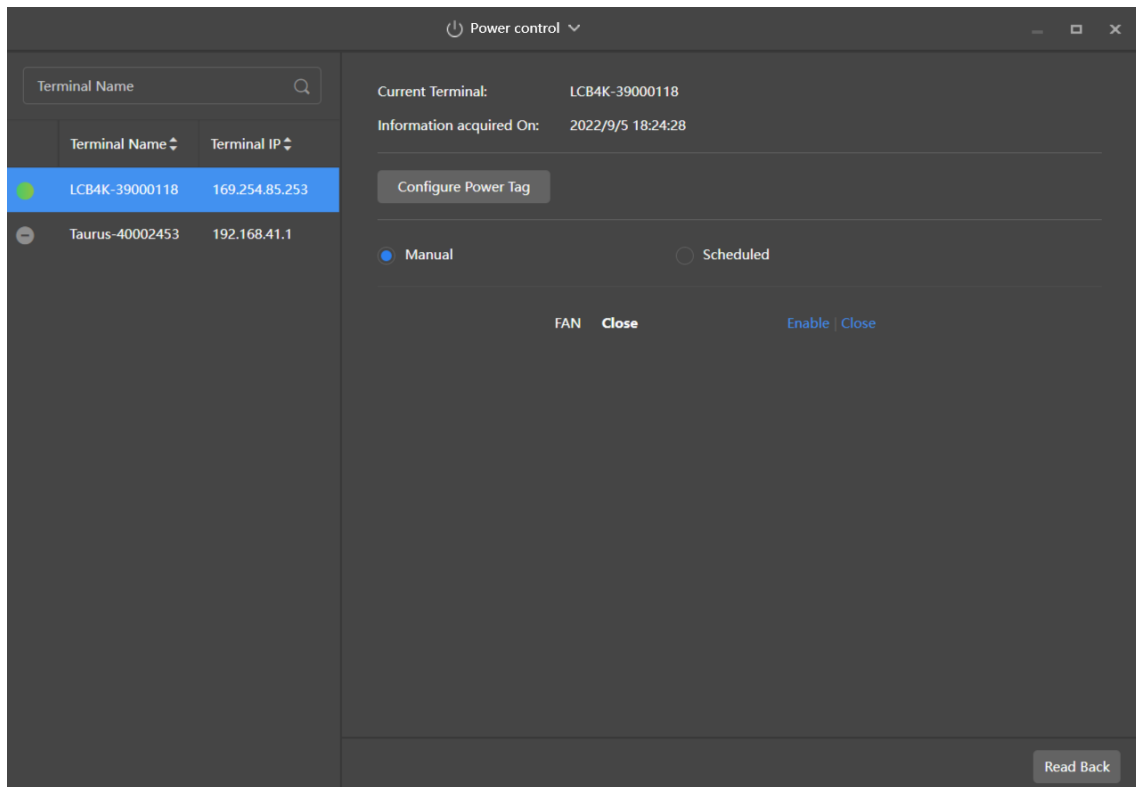
### Prerequisites

Hardware device connection is completed.

### Operating Procedure

- Step 1 Log in to LCB4K with ViPlex Express. For details, see [4 Login](#).
- Step 2 Choose **Terminal Control** > **Power control**.

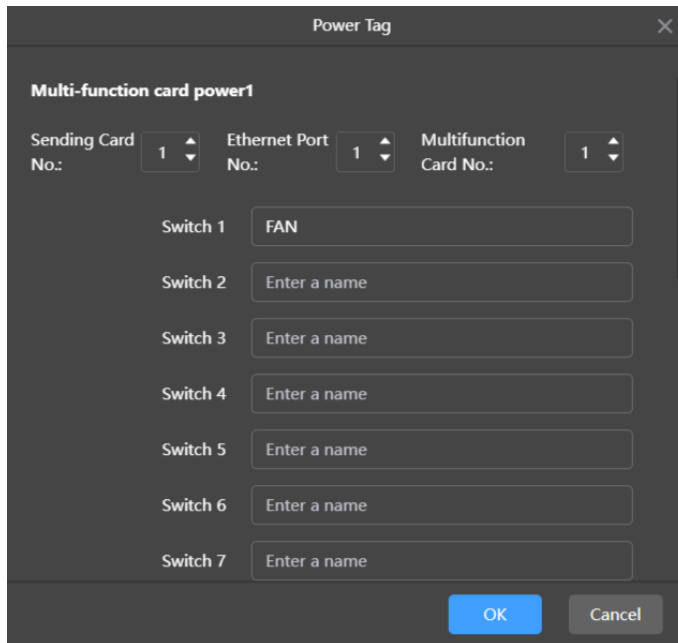
Figure 5-3 Power control



Step 3 Select the target terminal from the terminal list.

Step 4 Click **Configure Power Tag**.

Figure 5-4 Power tag




Step 5 In the **Power Tag** dialog box, set the serial numbers of the sending card, Ethernet port and multifunction card.

Step 6 Enter a power tag name and click **OK**.

Step 7 Do the following as required to turn on or off the power supply.

- Manual control
  - a. Select **Manual**.
  - b. Click **Enable** or **Close** corresponding to the power tag.

- Scheduled control
  - a. Select **Scheduled**.
  - b. Click .
  - c. In the **New** dialog box, select a power tag and set the power-on time, power-off time, repeat method, and execution date.
  - d. Click **OK**.
  - e. After the settings, close the **New** dialog box.
  - f. Click **Apply**.

After a scheduled control policy is added, you can do the following.






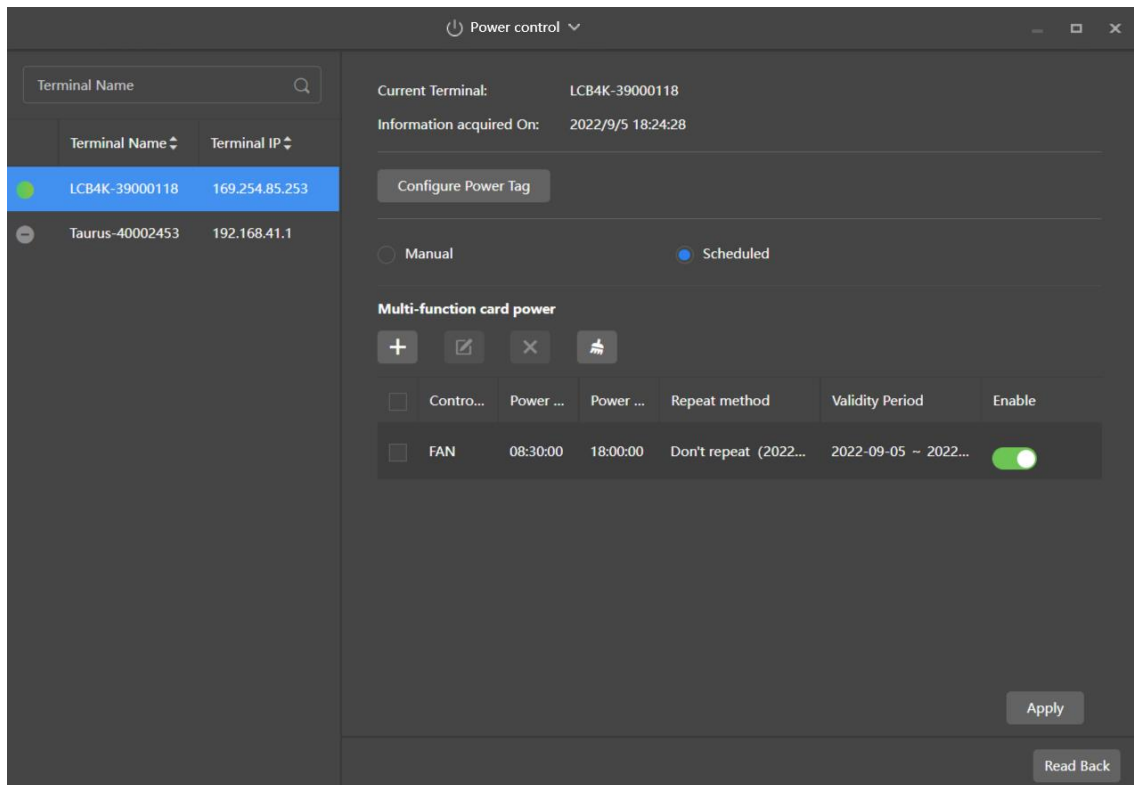
- Edit: Click .
- Delete: Click .
- Clear: Click .
- Enable: Set the toggle button in the **Enable** column to .
- Disable: Set the toggle button in the **Enable** column to .

Figure 5-5 Scheduled control





## 6 Binding to VNNOX

Users can bind the LCB4K to VNNOX for remote control and solution publishing. The LCB4K can be bound to VNNOX via ViPlex Handy or ViPlex Express. This chapter introduces how to bind the LCB4K to VNNOX via ViPlex Handy.

- Step 1 In VNNOX, obtain the authentication information.
- Step 2 On the **Local Devices** page on ViPlex Handy, tap a device to access the **Device Management** page.
- Step 3 Choose **Bind to Cloud Services > Bind to VNNOX Standard/AD**.
- Step 4 Select a server and enter the authentication information.
- Step 5 Tap **Next > Done** to bind the device to VNNOX.

## 7 Solution Publishing

Users can create solutions and publish them to the LCB4K with ViPlex Express, ViPlex Handy and VNNOX. To publish solutions with VNNOX, you need to bind the LCB4K to VNNOX first. For detailed operations, see the user manuals of the software.

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