Network Storage 821 Series

Quick Start Guide

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Preface

Applicable Models

This manual is applicable to the models listed in the following table.

Series	Model
DS-A821XXSI	DS-A82124SI
	DS-A82148SI
	DS-A82172SI

Symbol Conventions

The symbols that may be found in this document are defined as follows.

Symbol	Description
Note	Provides additional information to emphasize or supplement important points of the main text.
Caution	Indicates a potentially hazardous situation, which if not avoided, could result in equipment damage, data loss, performance degradation, or unexpected results.
Danger	Indicates a hazard with a high level of risk, which if not avoided, will result in death or serious injury.

Safety Instructions

- Proper configuration of all passwords and other security settings is the responsibility of the installer and/or end-user.
- In the use of the product, you must be in strict compliance with the electrical safety regulations of the nation and region. Please refer to technical specifications for detailed information.
- Input voltage should meet both the SELV (Safety Extra Low Voltage) and the Limited Power Source with 100 to 240 VAC or 12 VDC according to the IEC60950-1 standard. Please refer to technical specifications for detailed information.
- Do not connect several devices to one power adapter as adapter overload may cause over-heating or a fire hazard.
- Please make sure that the plug is firmly connected to the power socket.
- If smoke, odor or noise rise from the device, turn off the power at once and unplug the power cable, and then please contact the service center.

The elements of the **instructional safeguard** shall be as follows:

- element 1a: , IEC 60417-6042 (2010-11); and

  , IEC 60417-6172 (2012-09)
- element 2: "Caution" or equivalent word or text, and "Shock hazard" or equivalent text
- element 3: optional
- element 4: "Disconnect all power sources" or equivalent text

The elements of the **instructional safeguard** shall be as follows:

- element 1a: IEC 60417-6056 (2011-05) for moving fan blades; or

  IEC 60417-6057 (2011-05) for other moving parts
- element 2: "Moving parts" or "Moving fan blade" as applicable, or equivalent text
- element 3: optional
- element 4: "Keep body parts away from moving parts" or "Keep body parts away from fan blades" or "Keep body parts out of the motion path" as applicable, or equivalent text

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Chapter 1 Equipment Installation

1.1 Check the Packing List

Please check the packing list to ensure that all items are complete.

1.2 Product Appearance Introduction

1.2.1 Front panel

The front panels of devices with different slots are shown below. The order of the HDD positions is on the left side of the chassis.

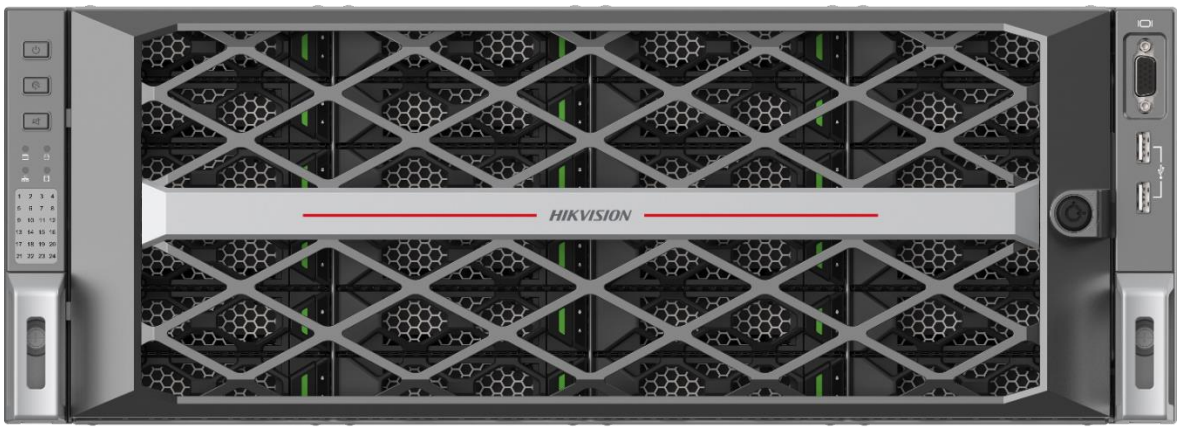

Figure 1-1 Front Panel of 24-Slot Device

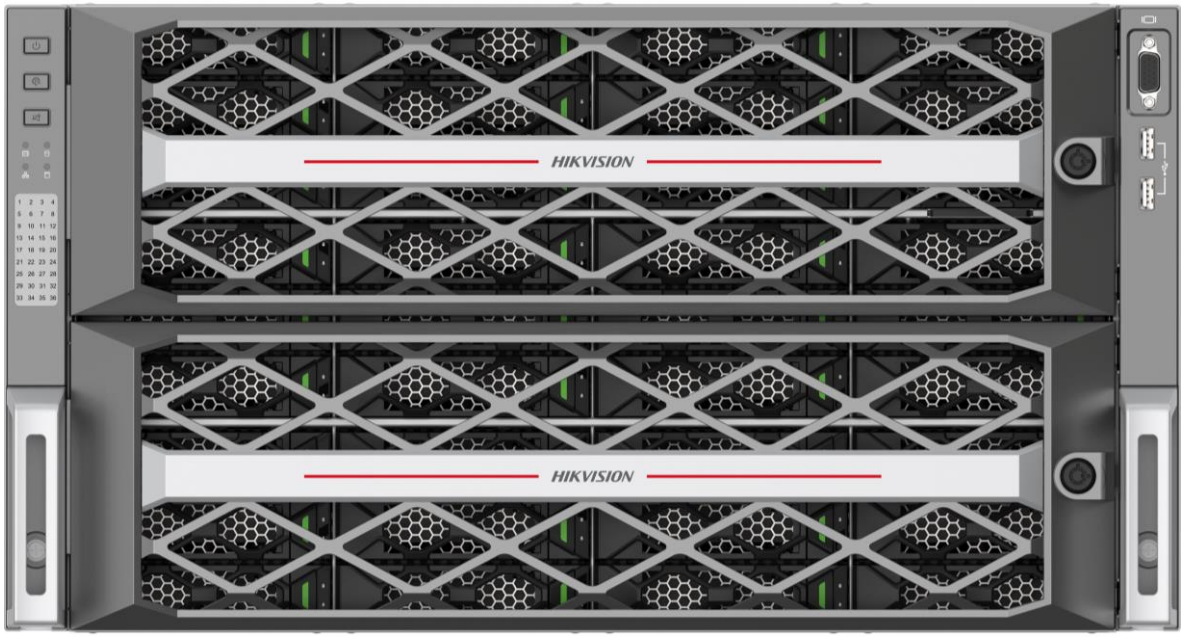

Figure 1-2 Front Panel of 48-Slot Device

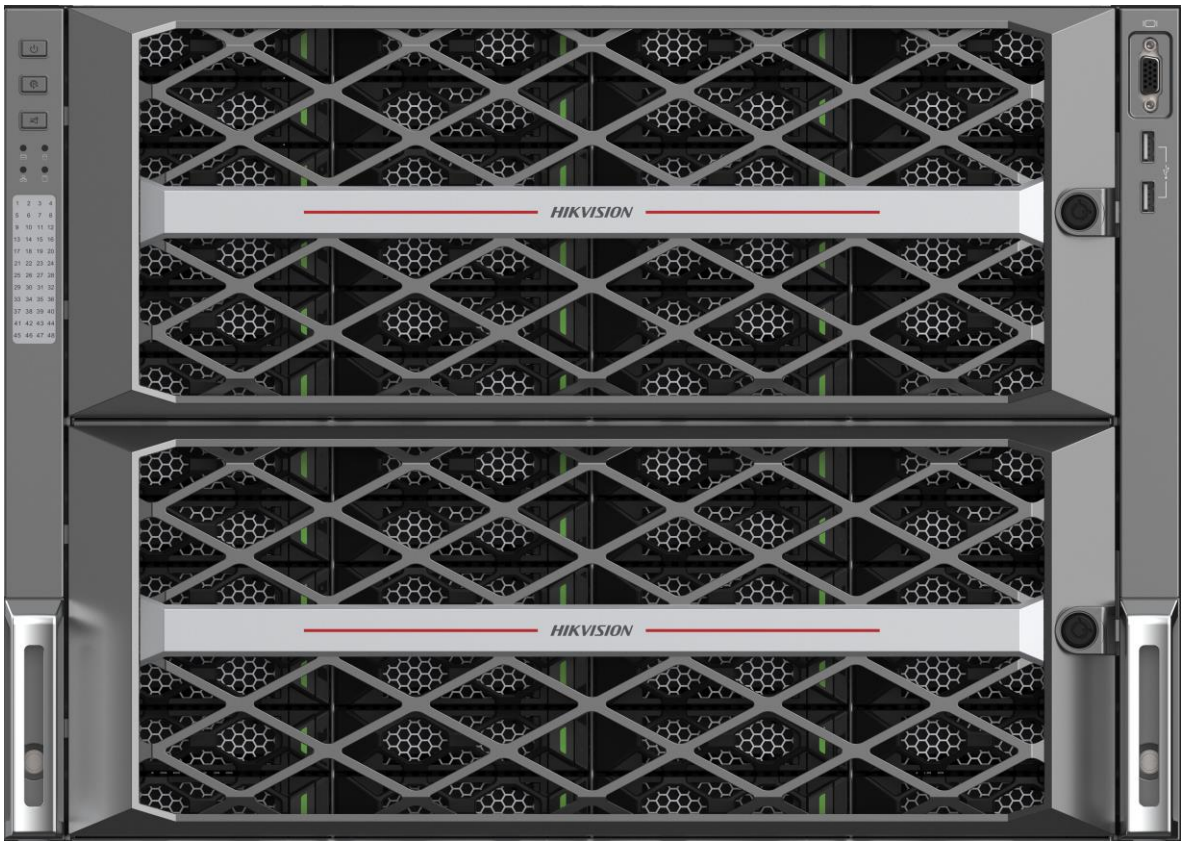

Figure 1-3 Front Panel of 72-Slot Device

Please refer to Table 1-1 for the description of the buttons and indicators.

Table 1-1 Button and Indicator Description

Icon	Name	Description
	Power button and indicator	Green light solid on: The device is on, and the power supply is working normally. Long press for 4 seconds: Shutdown. Long press for 10 seconds: Forced shutdown.
	Locate button and indicator	Blue light blinking: The device is being located. Blinking will stop after 10 minutes.
	Mute button and alarm indicator	Red light blinking with buzzing: There are alarm event(s) exist. ● Warning: Blinking 1 time per second. ● Serious: Blinking 2 times per second. ● Emergency: Blinking 4 times per second.
	Ready indicator	Red light solid on: Device is starting up. Green light solid on: Device is ready.
	HDD indicator	Green light solid on: HDD is operating normally. Red light solid on: HDD(s) are disconnected/abnormal/incompatible.
	Network indicator	Green light solid on: Network operating normally. Red light solid on: Network cable is unplugged / Network interface exception.
	System HDD status indicator	Green light solid on: System HDD is running normally. Red light solid on: Not enough storage space.
	VGA interface	/
	USB interface	Connect to mouse, keyboard or USB flash drive.

1.2.2 Rear panel

The rear panel diagrams of the 24-slot, 48-slot, and 72-slot devices are shown in Figure 1-3, Figure 1-4, and Figure 1-5 respectively, while the shared interface descriptions are provided in Table 1-2.

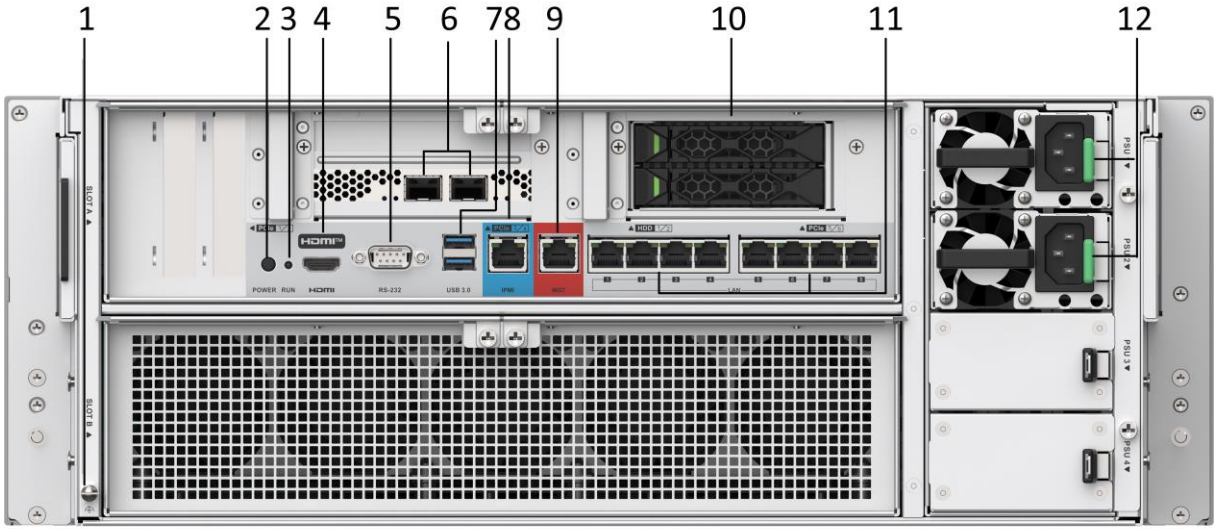

Figure 1-4 24-Slot Device Rear Panel

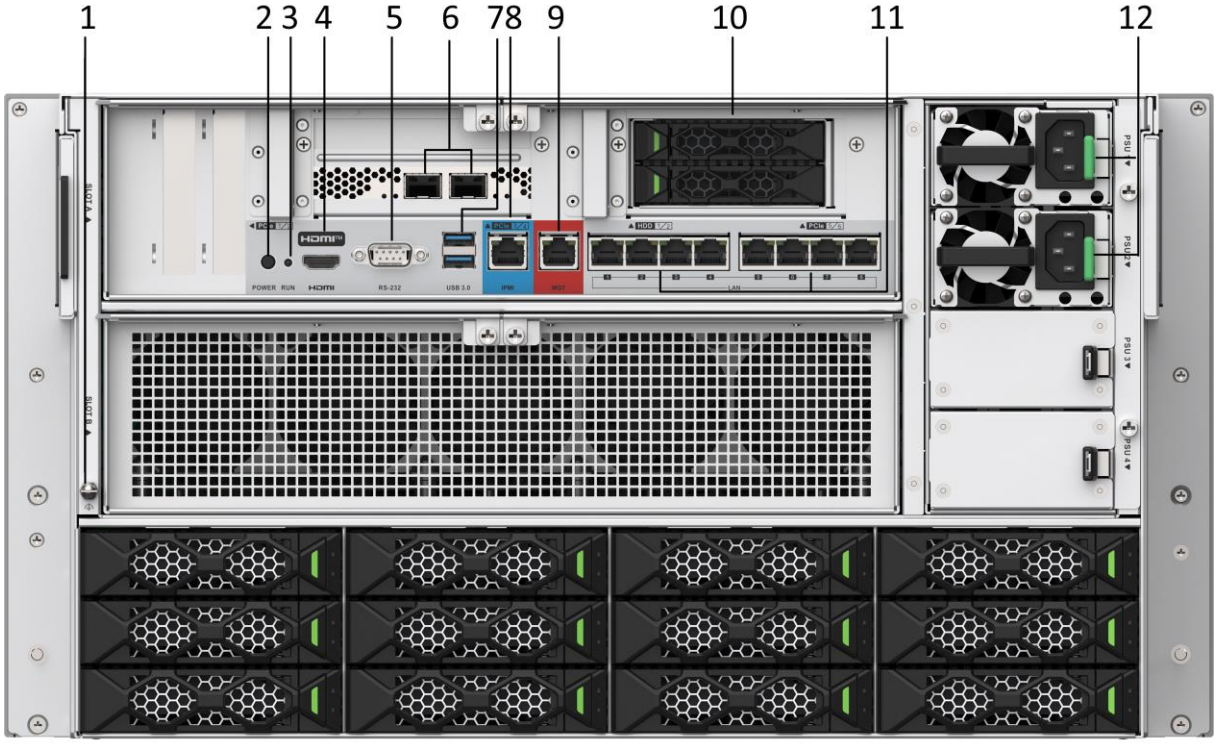

Figure 1-5 48-Slot Device Rear Panel

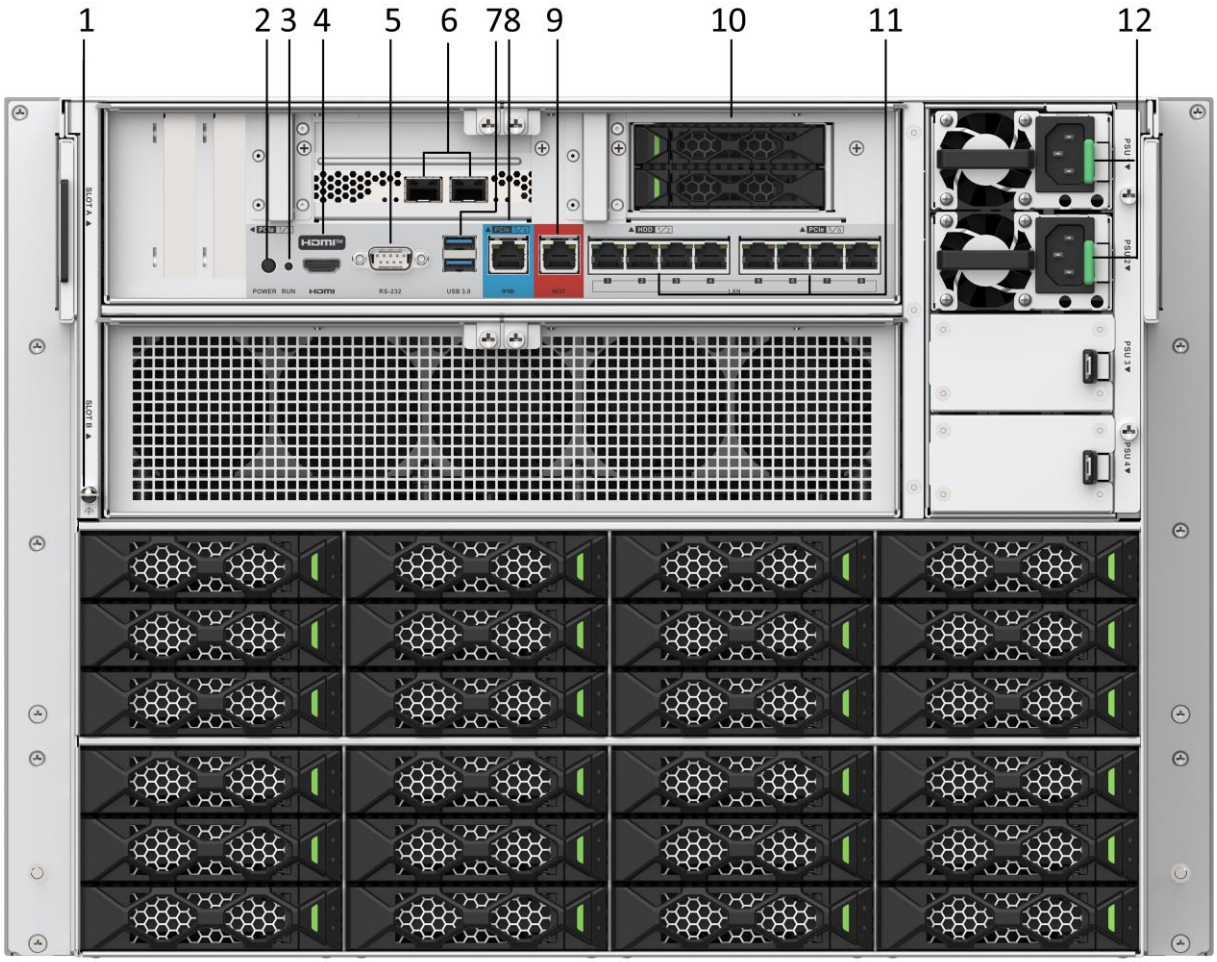

Figure 1-6 72-Slot Device Rear Panel

Table 1-2 24-Slot / 48-Slot / 72-Slot Device Rear Panel Interface Description

Number	Name	Number	Name
1	GND	7	USB 3.0 Interface
2	Power Indicator	8	IPMI Interface
3	Running Status Indicator	9	Management Network Interface
4	HDMI Interface	10	System Card
5	RS-232 Interface	11	2.5 Gb LAN Interface
6	10 Gigabit Network Interface	12	Power Supply

1.3 Installation

This chapter will explain the installation steps for HDDs.

Step 1 Use the key to unlock the panel and remove the front panel chassis.

Step 2 Pull out the side of the front panel with the panel lock at an angle less than 10°, and then slide it horizontally to the left to remove the front panel. Be careful to avoid bending or damaging the golden fingers on the right side of the front panel.

Step 3 Lift the blue spring latch on the hard drive tray to the left to pull out the handle, and then extract the hard drive tray along the guide rails from the chassis.

Step 4 Disassemble the support bracket of the HDD tray.

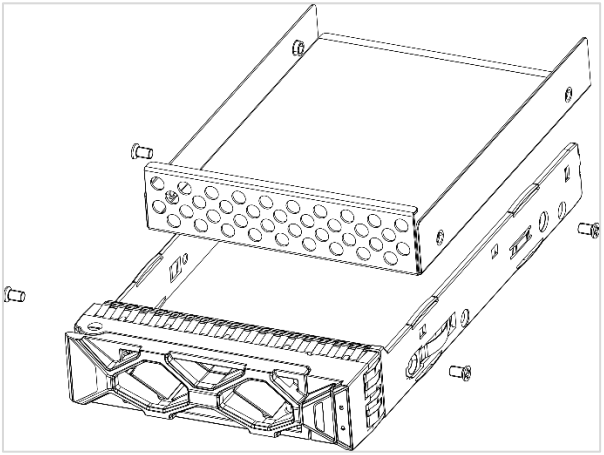

Figure 1-7 Remove the Hard Drive Tray Bracket

Step 5 Secure the HDD to the tray using 4 screws.

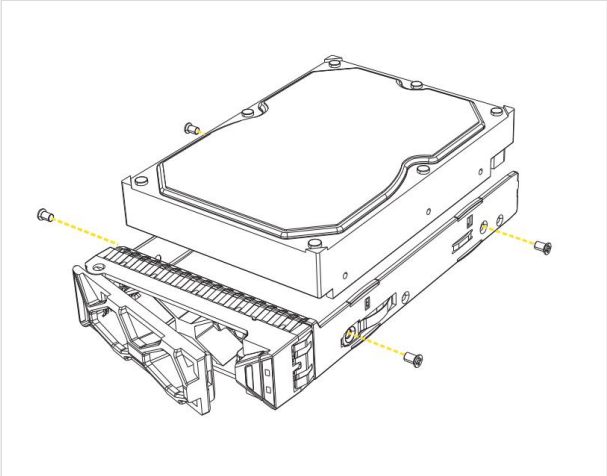

Figure 1-8 Secure the HDD to the Tray

Step 6 Insert the hard drive tray into the chassis following the direction shown in the diagram, and push it fully along the rails until it clicks into right place.

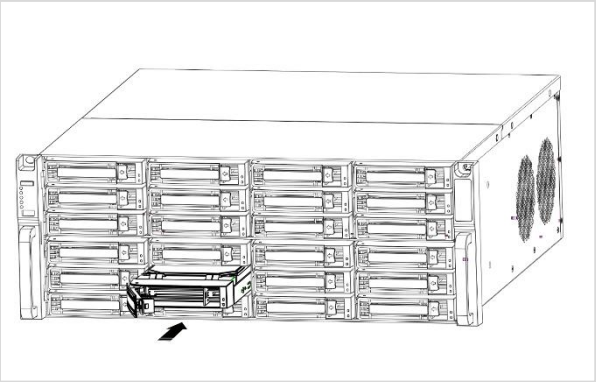

Figure 1-9 Plug in the HDDs

Step 7 Press down the handle to close the blue spring latch, and ensuring the HDDs are properly install and locked.

Note

Repeat Steps 3 to 6 to install additional HDDs.

Step 8 Reattach the front panel and lock it with the key.

Chapter 2 System Configuration

2.1 Login and Activation

Connect the network interface of the notebook to the management network port of the storage device using an Ethernet cable.

Set the IP address of the PC to be in the same subnet as the storage device management network port, with the default management port IP address being 10.254.254.254. For example, set the notebook's IP address to 10.254.254.100 and the subnet mask to 255.255.255.0.

Access the activation interface by using a browser on a laptop to visit http://10.254.254.254, and set a login password during activation. After entering the password, activate and enter the system as shown in the following figure.

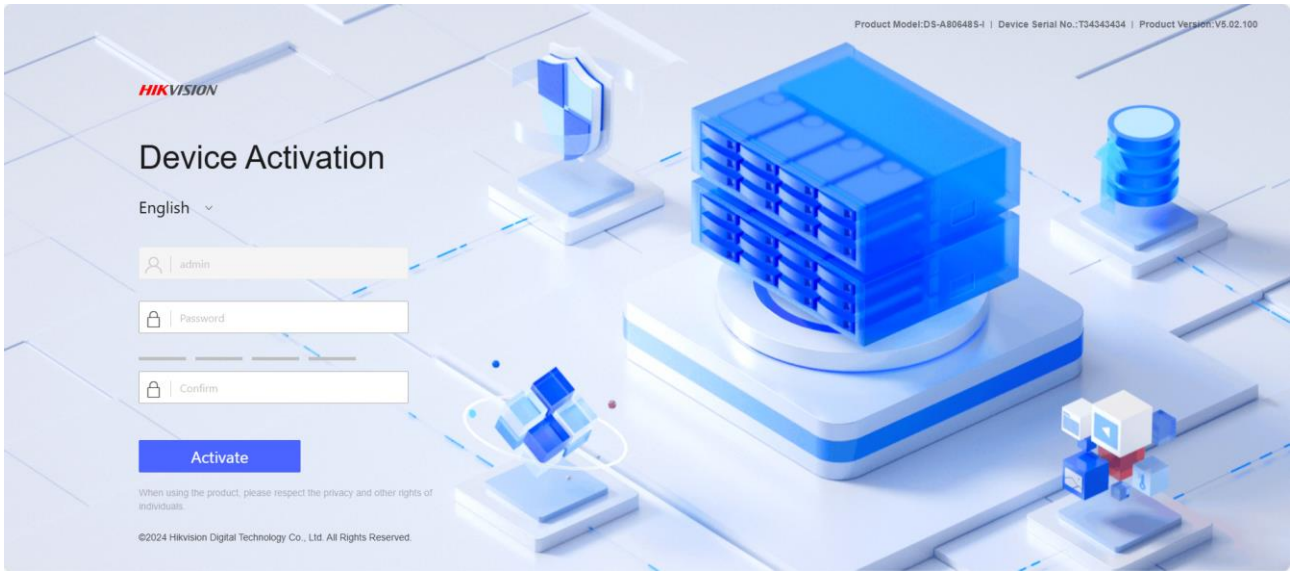

Figure 2-1 Device Activation

Set a security question for account security after creating a password.

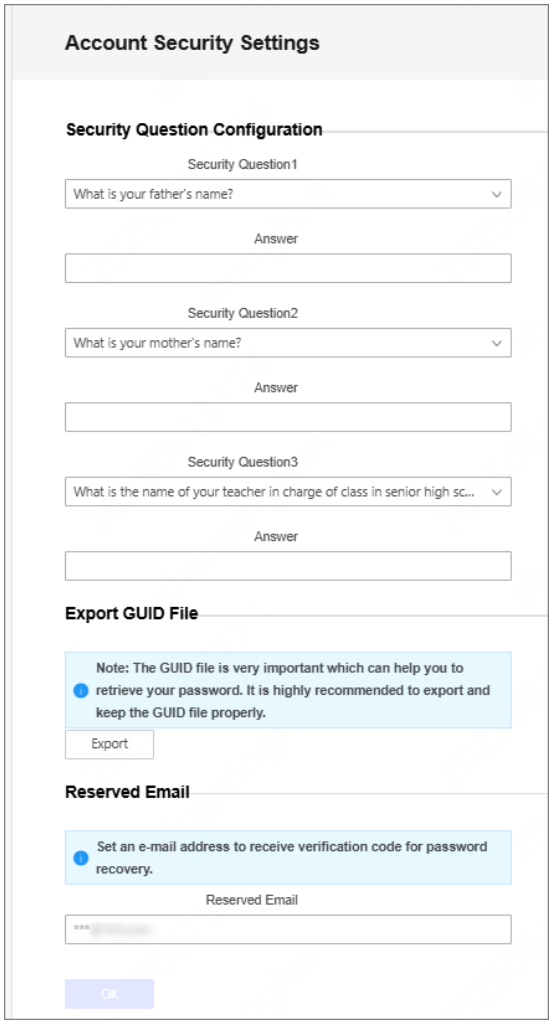

Figure 2-2 Account Security Settings

Caution

Principles your password creation should follow:

- The password should be 8 to 16 characters long. The password should contain at least 2 character types, such as digits, uppercase letters, lowercase letters, and special characters.
- Do not use risky password:
- The password should not contain user name, “123” and “admin” (case-insensitive), consecutive increasing or decreasing digits of four or more (such as 1234, 12345, 4321), four or more consecutive identical characters (such as 1111, 8888, “aaaa”) and any risky passwords in risky password list.
- After you log in to the system, if there is no operation within five minutes, for security reasons, the system will log out.
- After you forget the password, the password can be retrieved by using the device network search (SADP), GUID, answers of security questions and reserved e-mail.

2.2 Configuration Wizard

Note

Different series or versions of devices may be equipped with different functions. The actual interface prevails.

After login, the system will automatically perform environment detection and then you will enter the Wizard page, where you can configure the NIC bond, configure time and storage. Operations on the Wizard page are all optional, and you can skip them and configure the corresponding parameters later.

Step 1 View the environment detection result.

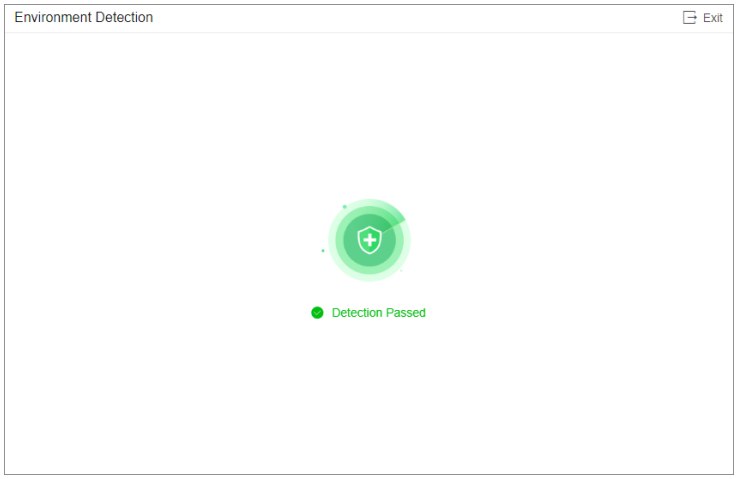

Figure 2-3 Environment Detection Passed

Note

Some of the reasons that may cause environment detection failure are as follows: the number of HDDs is less than 6, or there is one or more incompatible HDDs, or HDD capacity is insufficient. Click **Details** for the detailed failure information.

Step 2 If environment detection passed and the current HDD slots are not full, check the maximum and the current number of HDD slots on the device, and click **OK** to enter the wizard configuration page.

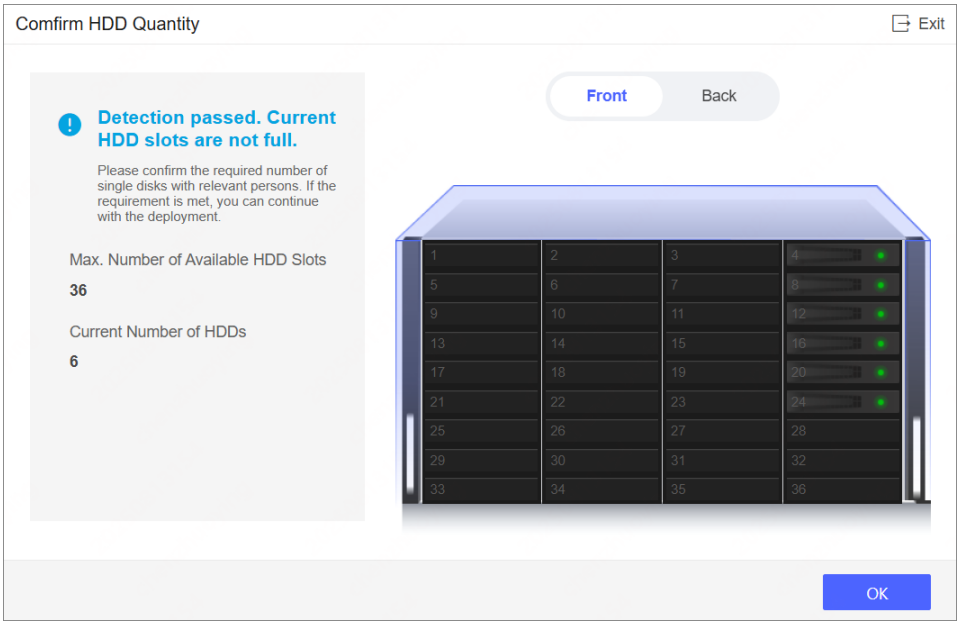

Figure 2-4 Check HDD Quantity

Note

HDD slots are not full means the number of HDDs is less than the maximum number of available HDD slots but more than 5.

Step 3 Click **Add NIC Bonding** to configure the NIC bonding, and click **Next**.

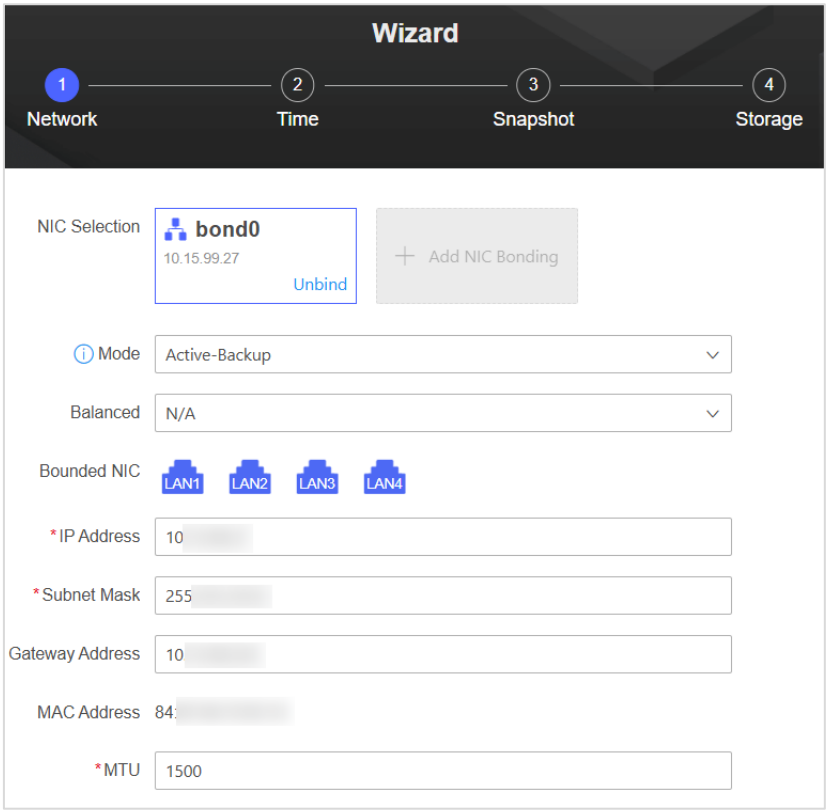

Figure 2-5 Add NIC Bonding

Step 4 Set the device time, and click **Next**.

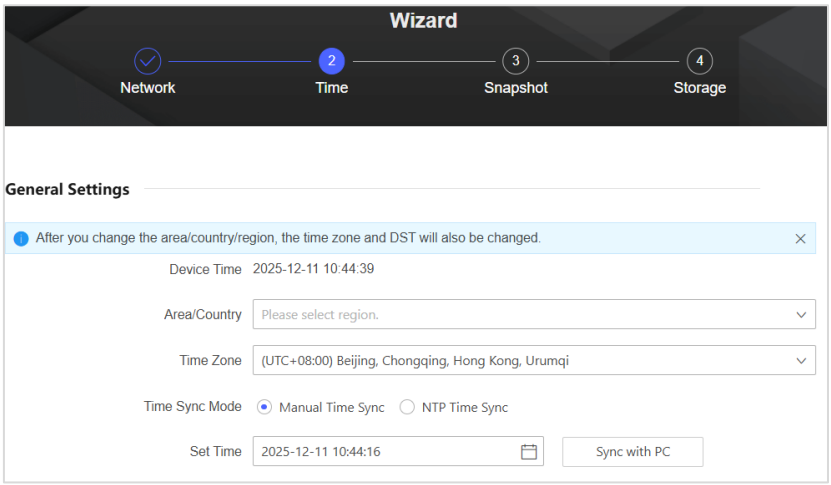

Figure 2-6 System Time

Step 5 Configure snapshot.

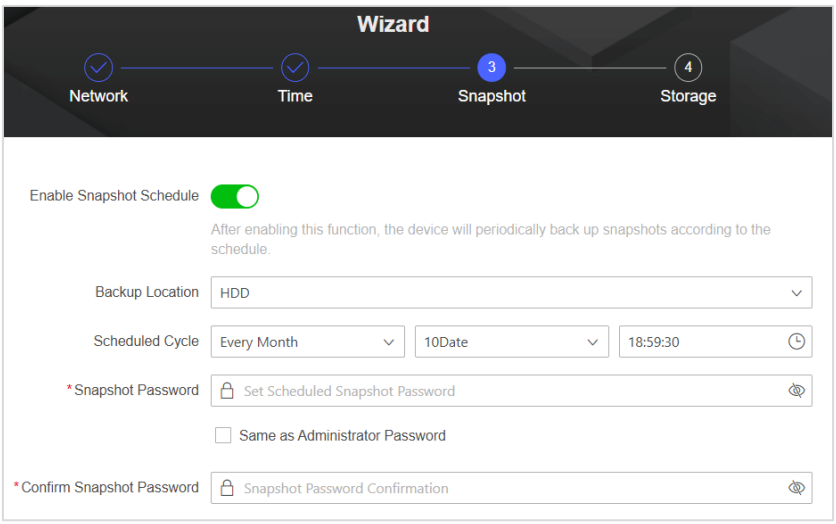

Figure 2-7 Snapshot

Step 6 Configure storage.

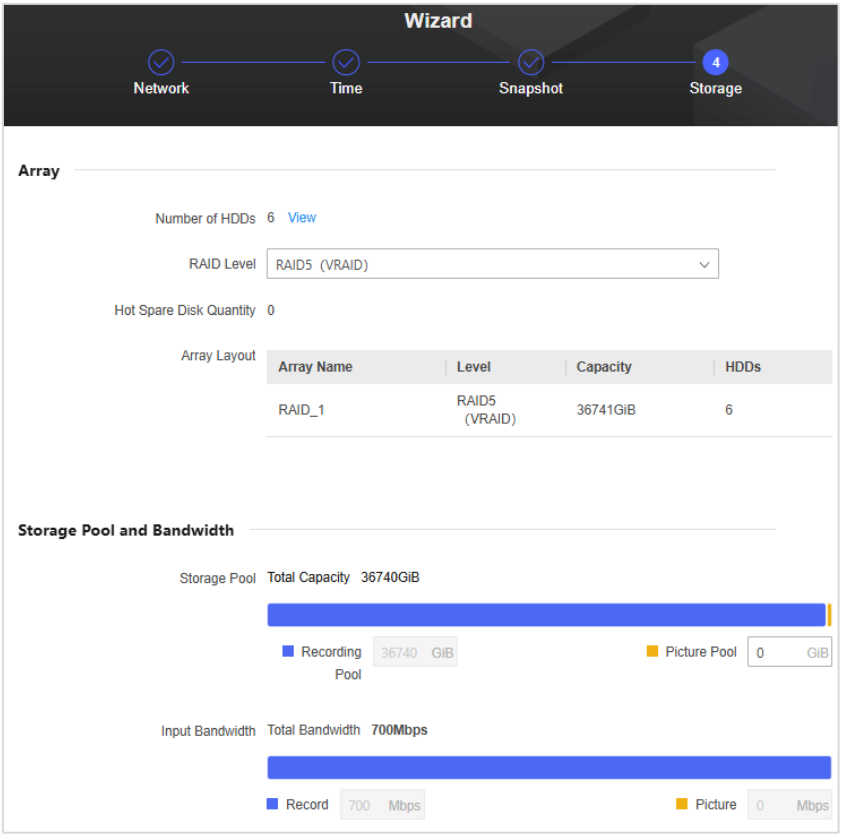

Figure 2-8 Configure Storage

Step 6 Click **Completed** in the lower-right corner of the page.

Chapter 3 Service Configuration

Before service configuration, access the system by visiting http://the IP address of the bound network port using a web browser and log in.

3.1 Add Channel

Step 1 Click **Channel Management**.

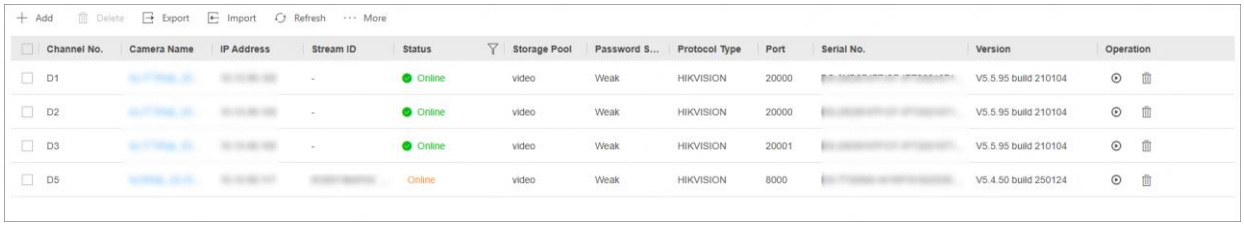

Figure 3-1 Channel List

Step 2 Click **Add**.

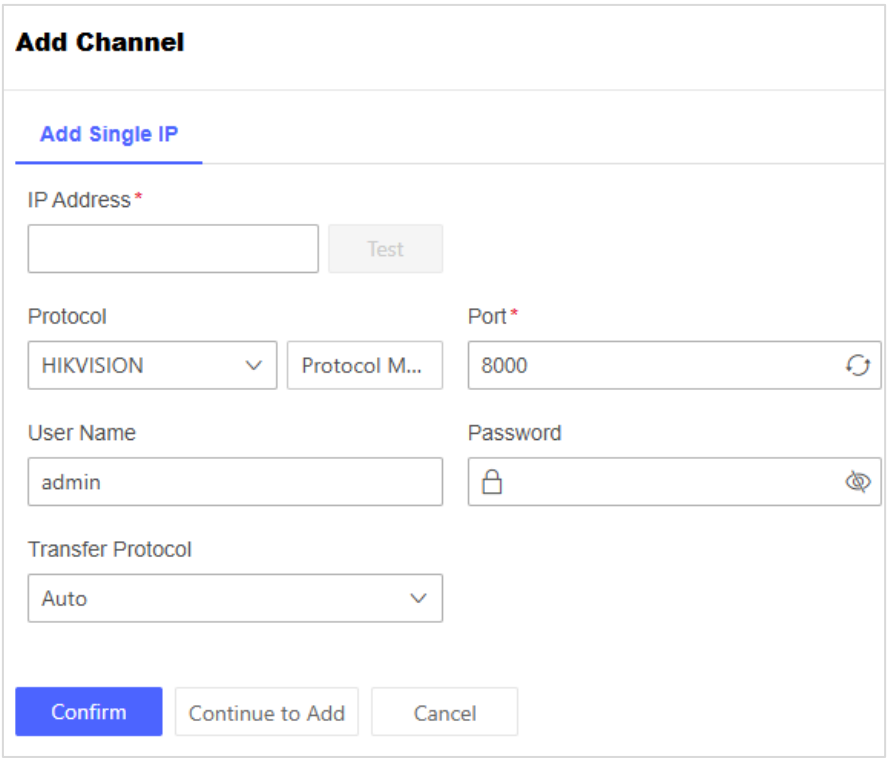

Figure 3-2 Add Channel

Step 3 Enter the IP address of the channel.

Step 4 Click **Test** to check connectivity.

Step 5 Set the following parameters.

- **Protocol**: Select from the drop-down list or set a custom protocol. For details about customizing protocols.
- **User Name & Password**: Set for later channel management.
- **Port**: Port of the channel. It is 8,000 by default and you can edit the port number. After editing, you can click to set the port number to the default value.
- **Transfer Protocol**: Data transmission protocol. Select **Auto**, **TCP** or **UDP**.

Step 6 Click **Confirm** to finish adding the channel, or click **Continue to Add** to add the channel and continue to add the next channel.

Step 7 (Optional) Perform the following after adding channels.

- **Edit Channel**: Click the camera name to enter the **Edit Channel** page and edit parameters.
- **Export Channels**: Click **Export** to export information of all channels to your local PC. Select channel(s) and click **Export** to export information of the selected channel(s) to your local PC.
- **Import Channels**: After exporting channels, enter channel information in the exported file. Click **Import**, and click to batch import channels.

3.2 Configure Storage Pool

This section includes basic operations for storage pools: adding, editing, deleting, and adjusting storage pool space. After adding a storage pool, it is necessary to associate channels with the storage pool.

3.2.1 Add Storage Pool

Step 1 Click **Storage Management** → **Storage Pool** → **Storage Pool**.

Step 2 Click **Add**.

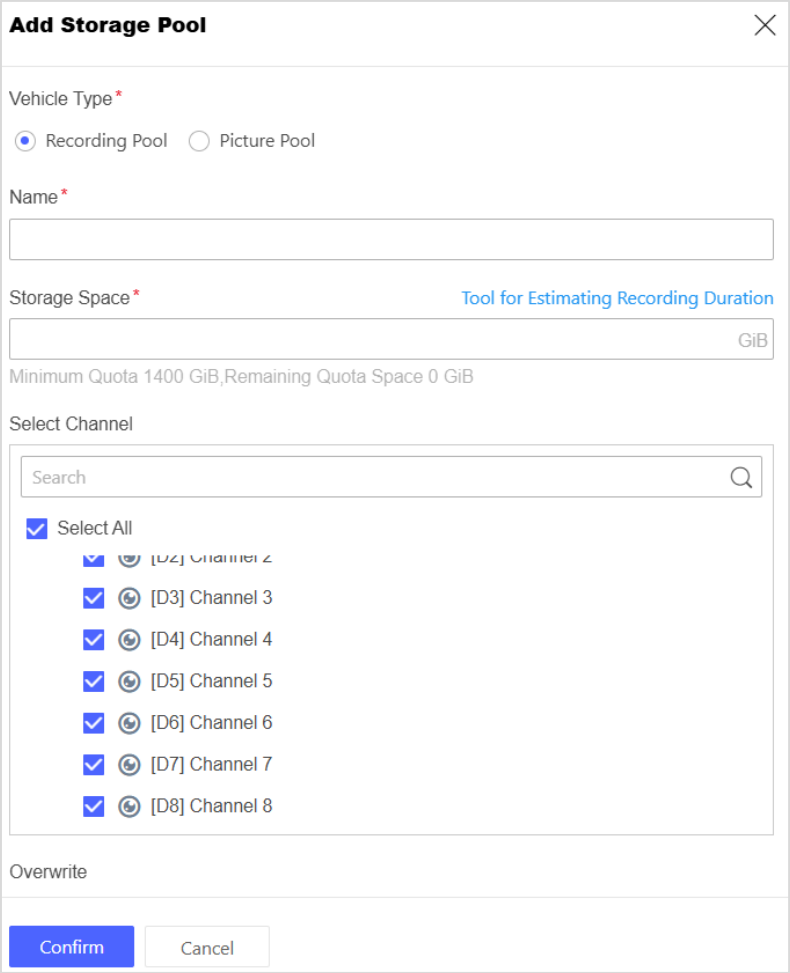

Figure 3-3 Add Storage Pool

Step 3 Configure storage pool parameters.

- **Type**: Select **Recording Pool** or **Picture Pool**.
- **Storage Space**: Enter the storage space. You can click **Tool for Estimating Recording Duration** to calculate the estimated storage space or recording period.
- **Overwrite**: Enable this function to allow overwriting of the oldest recording when storage space is insufficient. Disable this function to stop recording when storage space is insufficient.
- **Video Expired Time**: When **Custom** is selected, recordings will be stored according to the configured recording cycle. Expired recordings will be cleared and cannot be recovered.

Note

You can add up to 8 storage pools.

Step 4 Click **Confirm**.

3.2.2 Edit/Delete Storage Pool

Step 1 Click **Storage Management** → **Storage Pool** → **Storage Pool**.

Step 2 Hover around the card of the storage pool, and then click **Edit** or **Delete**.

Step 3 Edit or delete the storage pool.

Step 4 Click **Confirm** to complete the operation.

Caution

After you delete the recording pool, the linked channel(s) of this recording pool will become unable to record. Link to another storage pool promptly.

3.2.3 Adjust Storage Pool Space

Step 1 Click **Storage Management** → **Storage Pool** → **Storage Pool**.

Step 2 Click **Adjust Storage Pool Space**.

Step 3 Adjust storage pool space as needed.

- **Enter Remaining Quantity**: Allocate all the remaining capacity to the storage pool.
- **Tool for Estimating Recording Duration**: Calculate the estimated storage space or recording period.

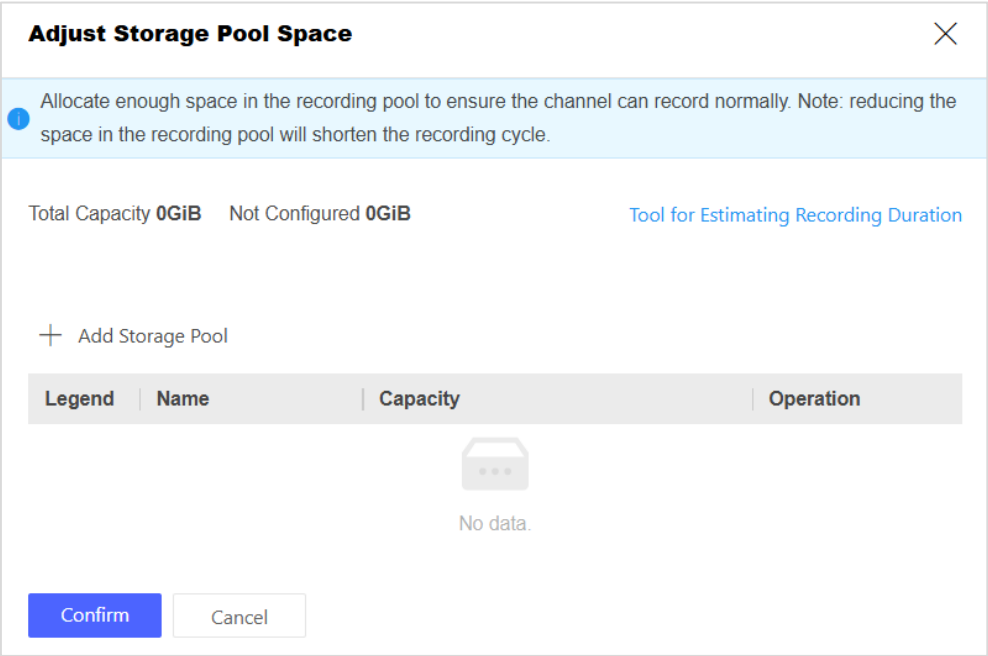

Figure 3-4 Adjust Storage Pool Space

3.2.4 Link Channel

Supports the configuration of channels associated with storage pools.

Step 1 Click **Storage Management** → **Storage Pool** → **Storage Pool**.

Step 2 Click a storage pool in the list.

Step 3 Configure linked channel(s) for the storage pool as needed.

- Linked Channel : Add linked channel.
- Move To : Move the checked channel(s) to another storage pool.

Step 1 Unlink Channel : Batch remove the checked channel(s) from the current storage pool.

- Search : Search the linked channel(s) by channel name.

3.3 Configure Recording Schedule

Step 1 Click **Storage Management** → **Recording Schedule**.

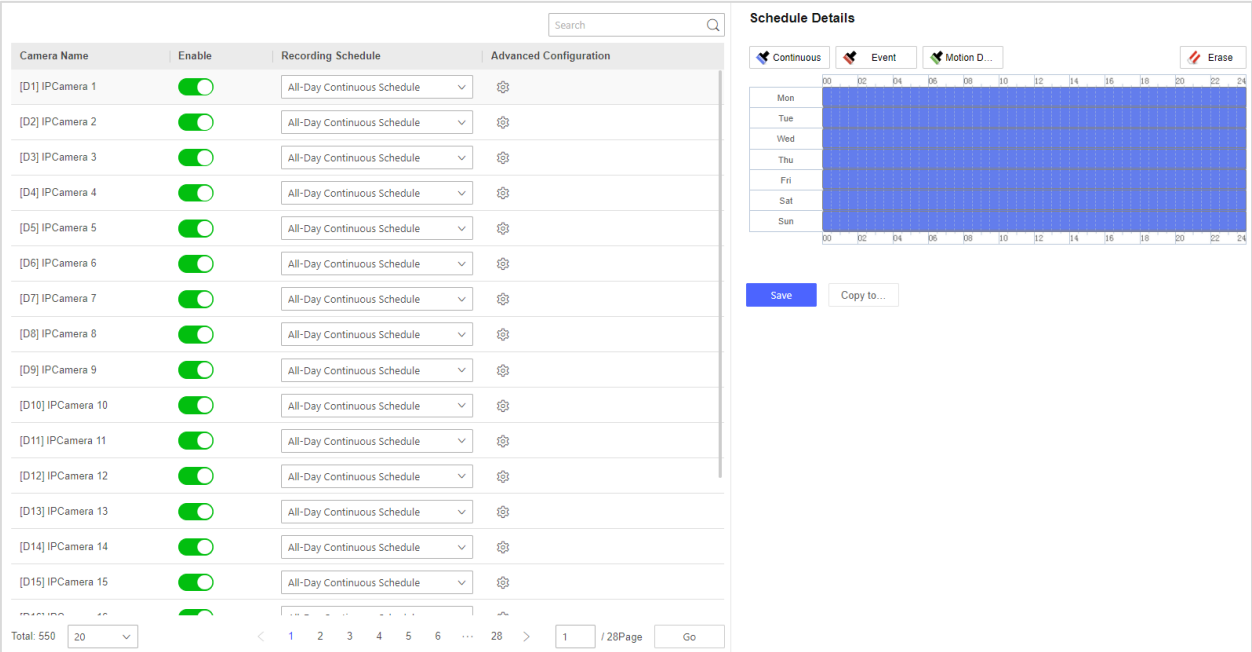

Figure 3-5 Recording Schedule

Step 2 Turn on the switch in the **Enable** column.

Note

For channels added to the device, the switch is disabled by default.

Step 3 Set the recording schedule as **All-Day Continuous Schedule**, **All-Day Event Schedule**, or **Custom**.

Step 4 (Optional) When selecting **Custom**, set the schedule details on the right side.

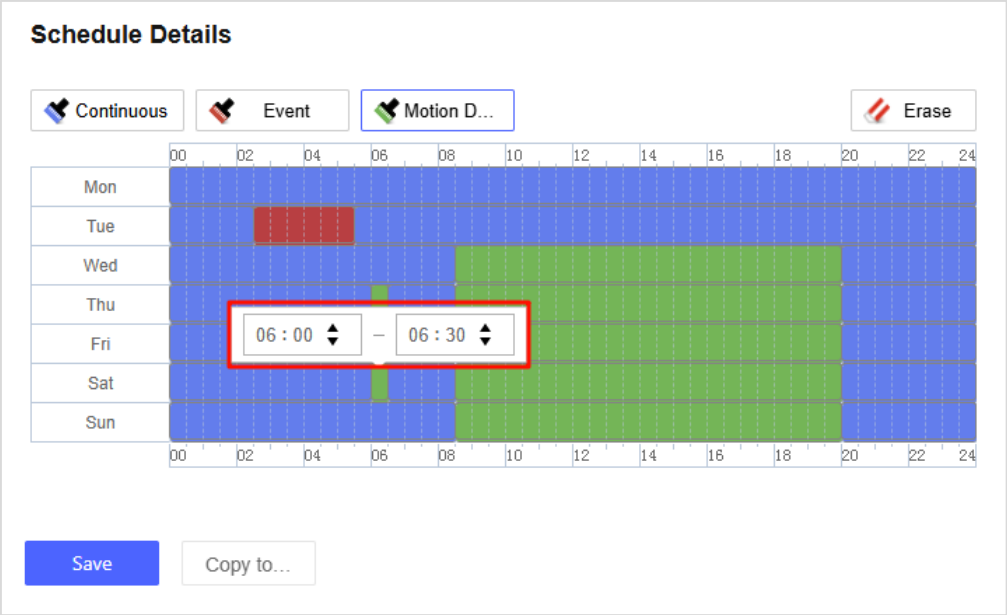

Figure 3-6 Custom Schedule Details

1) Select a schedule type, including **Continuous**, **Event** and **Motion Detection**. Drag the mouse to set the schedule period.
2) (Optional) Select **Erase** and then drag the mouse to cancel the schedule you have drawn.
3) (Optional) Hover around the time table to adjust the schedule at minute level.
4) Click **Save** to apply the schedule.
5) (Optional) Click **Copy To…**, you can copy the schedule to other channels.

Step 5 Click ⚙ in the **Advanced Configuration** column to set the corresponding parameters.

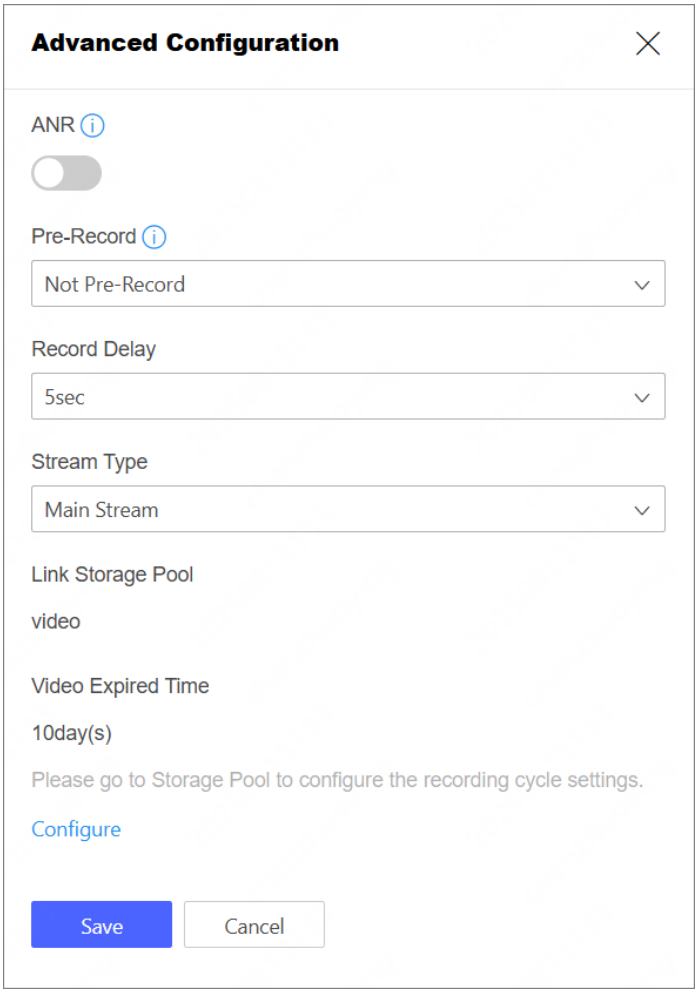

Figure 3-7 Advanced Configuration

- **ANR**: Asynchronous Node Recovery (ANR) is a fault tolerance mechanism. When it is enabled, if there is a network anomaly between the device and the camera, the camera will be used for recording storage temporarily (provided that the camera is equipped with storage media). Once the network is restored, the stored data will automatically synchronize to the device, ensuring the integrity of the recordings.
- **Pre-Record**: Record before the alarm.
- **Record Delay**: Record after the alarm.
- **Stream Type**: Supports main stream and sub stream.

Note

- Actual pre-record time may be shorter than the setting.
- After reaching the recording cycle, the outdated recordings will be deleted.
- For detailed recording cycle settings, click **Configure** to go to storage pool page.

3.4 Live View

Supports live view of channel video, and you can select the pane for the live view channel.

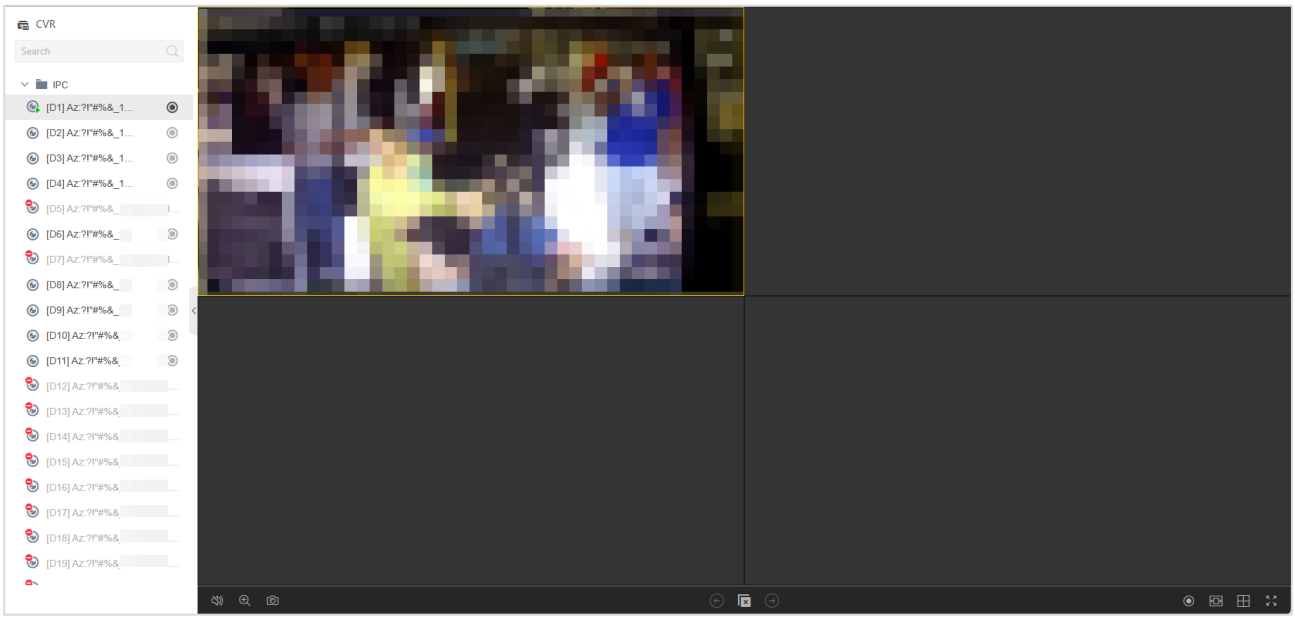

Figure 3-8 Live View

- In the live view interface, you can preview images, record videos, and capture pictures.
- The split screen mode supports 1, 4, 9, and 16.
- Detailed function key introduction is shown in the following table.

Table 3-1 Live View Interface Function Buttons

Button	Function Description
/	Start All Live View / Stop All Live View
/	Previous/Next Page The button is only available after starting all live view.
0	Mute/Volume Adjustment
	Electronic Amplification. After enabling, use the mouse scroll wheel to zoom in or out of the live view.
	Capture
	Split Screen
	Start All Recording
	Live View Ratio Supports 4:3, 16:9, Original Ratio, and Auto.
	Full-Screen

See Far, Go Further

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