



Over Speed Detection Solution Deployment Manual



Foreword

General

This manual presents the networking diagram, and introduces the functions of the over speed detection solution (hereinafter referred to as the "solution"). Read carefully before deploying the solution, and keep the manual safe for future reference.

Safety Instructions

The following categorized signal words with defined meaning might appear in the Guide.

Signal Words	Meaning
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potential risk which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 NOTE	Provides additional information as the emphasis and supplement to the text.

Revision History

Version	Revision Content	Release Time
V1.0.0	First release.	August 2024

Privacy Protection Notice

As the device user or data controller, you might collect the personal data of others such as their face, audio, fingerprints, and license plate number. You need to be in compliance with your local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures which include but are not limited: Providing clear and visible identification to inform people of the existence of the surveillance area and provide required contact information.

About the Manual

- The manual is for reference only. Slight differences might be found between the manual and the product.
- We are not liable for losses incurred due to operating the product in ways that are not in compliance with the manual.
- The manual will be updated according to the latest laws and regulations of related jurisdictions. For detailed information, see the paper user's manual, use our CD-ROM, scan the QR code or visit our official website. The manual is for reference only. Slight differences might be found between the electronic version and the paper version.

- All designs and software are subject to change without prior written notice. Product updates might result in some differences appearing between the actual product and the manual. Please contact customer service for the latest program and supplementary documentation.
- There might be errors in the print or deviations in the description of the functions, operations and technical data. If there is any doubt or dispute, we reserve the right of final explanation.
- Upgrade the reader software or try other mainstream reader software if the manual (in PDF format) cannot be opened.
- All trademarks, registered trademarks and company names in the manual are properties of their respective owners.
- Please visit our website, contact the supplier or customer service if any problems occur while using the device.
- If there is any uncertainty or controversy, we reserve the right of final explanation.

Important Safeguards and Warnings

This section introduces content covering the proper handling of the device, hazard prevention, and prevention of property damage. Read carefully before using the device, and comply with the guidelines when using it.

Transportation Requirements



- Pack the device with packaging provided by its manufacturer or packaging of the same quality before transporting it.
- Avoid heavy stress, violent vibration, and immersion during transportation.
- Transport the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the transporting temperature and humidity of the device.

Storage Requirements



- Store the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the storing temperature and humidity of the device.
- Avoid heavy stress, violent vibration, and immersion during storage.

Installation Requirements



DANGER

- Make sure that the power is off when you connect the cables, install or disassemble the device.
- For devices with earthing systems, make sure they are grounded to avoid being damaged by static electricity or induced voltage, and prevent electrocution from occurring.
- All installation and operations must conform to local electrical safety regulations.
- Use accessories suggested by the manufacturer, and installed by professionals.
- Do not block the ventilator of the device, and install the device in a well-ventilated place.
- Do not expose the device to heat sources or direct sunlight, such as radiator, heater, stove or other heating equipment, which is to avoid the risk of fire.
- Do not place the device in explosive, humid, dusty, extremely hot or cold sites with corrosive gas, strong electromagnetic radiation or unstable illumination.
- Avoid heavy stress, violent vibration, and immersion during installation.



WARNING

Safe and stable power supply is a prerequisite for proper operation of the device.

- Make sure that the ambient voltage is stable and meet the power supply requirements of the device.
- Prevent the power cord from being trampled or pressed, especially the plug, power socket and the junction from the device.
- For devices that can be powered by multiple supplies, do not connect them to two or more kinds of power supplies; otherwise, the device might be damaged.

- Refer to the specific user's manual for the power requirements of single device.



It is recommended to use the device with a lightning protector for better lightning-proof effect.

Operation Requirements



A suitable operating environment is the foundation for the device to work properly. Confirm whether the following conditions have been met before use.

- Use the device under allowed humidity and temperature conditions. Refer to the technical parameters for requirements on the operating temperature and humidity of the device.
- Use the device on a stable base.
- Do not let any liquid flow into the device to avoid damage to internal components. When liquid flows into the device, immediately disconnect the power supply, unplug all cables connected to it, and contact after-sales service.
- Do not plug or unplug RS-232, RS-485 and other ports with the power on, otherwise, the ports will be easily damaged.
- Back up data in time during deployment and use, in an effort to avoid data loss caused by abnormal operation. The company is not liable for data security.
- The company is not responsible for damages to the device or other product problems caused by excessive use or other improper use.

Maintenance Requirements.



WARNING

- Contact professionals for regular inspection and maintenance of the device. Do not disassemble or dismantle the device without a professional present.
- Use accessories suggested by the manufacturer, and maintain the device by professionals.

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1 Overview

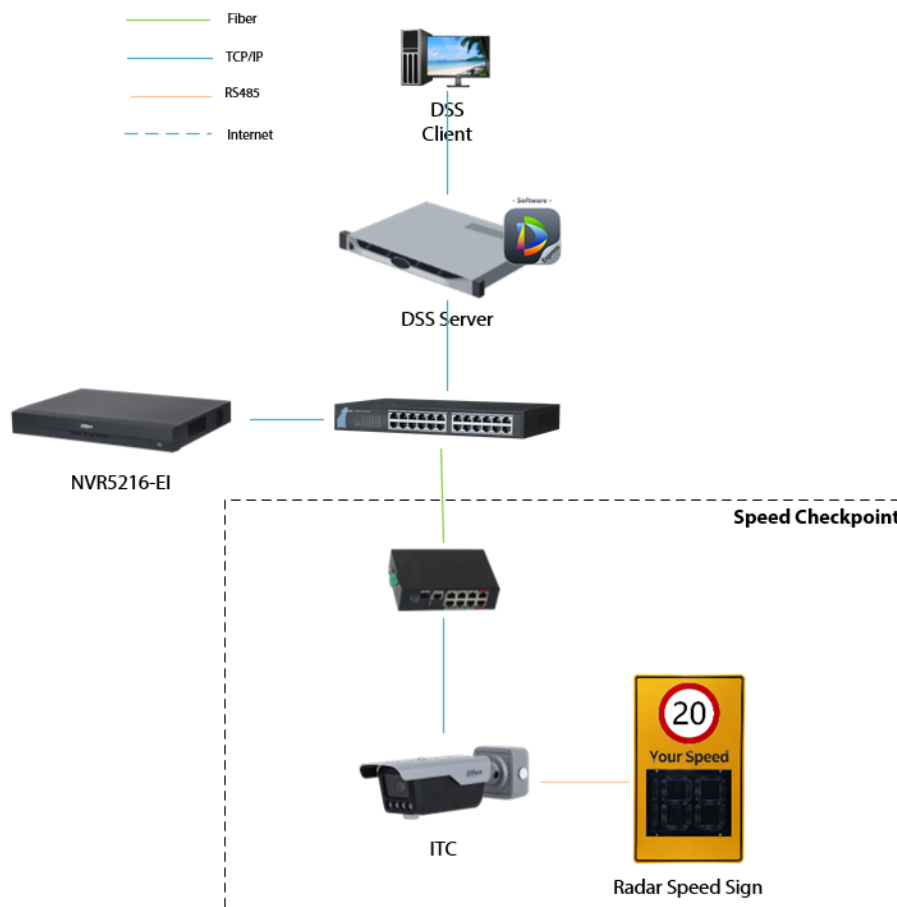
By combining ITC, radar speed sign, NVR and DSS Express, this solution helps monitor the speed of passing vehicles and display the speed on the LED screen (red speed value if exceeds the speed limit, and green speed value if within the speed limit) to make drivers aware when they are driving at speeds above the posted limits, so that slow vehicles down and enhance driving safety. The snapshots and videos can be saved to NVR and uploaded to DSS Express for further search and analysis, providing reference for safety management in the regions mentioned above.

2 Network Diagram

This solution provides the following network diagrams.

- Intelligent traffic camera ("ITC" or "camera"): Added to NVR, and then used to recognize vehicles.
- Radar speed sign: Connected to ITC. Monitors the speed of passing vehicles and displays the speed on its screen.
- NVR: Added to DSS Express. Stores snapshots and videos from cameras.
- DSS Express: Receives speed events for central management of events.

Figure 2-1 Network diagram



3 Deployment Process

Before deployment, confirm whether all the devices work properly, and then you can start deployment and configuration. You can follow the provided manual or guide to install all the devices.

You can start with confirming models and quantity, matching SN and installation position, and marking installation position by following the procedure as below.

Step 1 Confirm the device models and device quantity. For details, see the solution device list.

Step 2 Record all the device serial numbers from the packing boxes in Excel.

Figure 3-1 SN number

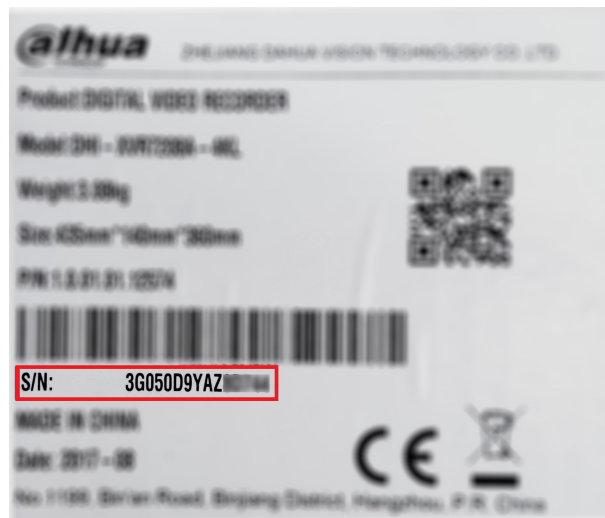


Figure 3-2 Record serial numbers

	A	B	C	D	E
1	No.	Device Name	SN	Installation Position	Note
2	1	Star Light Camera	4J04704YAGF0193		
3	2	TPC	5N757U4HAGF0196		
4	3	FR Camera	8H05774YNF019I		
5	4	Audio/Video Camera	3L05704YAKF0684		
6	5	NVR	9R05704YTGf0753		
7					
8					
9					

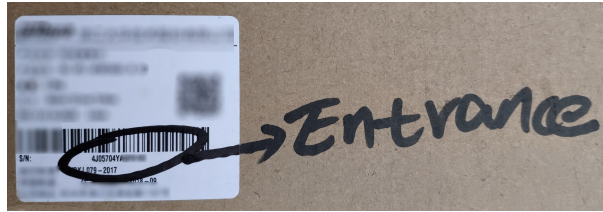
Step 3 Match all the serial numbers with the planned installation positions in the table. You can also modify the content in the table as needed.

Figure 3-3 Match installation position

	A	B	C	D	E
1	No.	Device Name	SN	Installation Position	Note
2	1	Star Light Camera	4J04704YAGF0193	Entrance	
3	2	TPC	5N757U4HAGF0196	Warehouse	
4	3	FR Camera	8H05774YNF019I	Front Door	
5	4	Audio/Video Camera	3L05704YAKF0684	concierge	
6	5	NVR	9R05704YTGf0753	CCTV Center	
7					

Step 4 Mark the installation positions on the corresponding packing boxes as planned, and then install them to proper locations.

Figure 3-4 Mark installation position



- Step 5** Make sure that all the devices are properly connected, and then power up all the devices. Initialize all the devices, and change device IP addresses.
- Step 6** After changing all the IP addresses, you can record them to the planning table too, and then you will have the matching relationship between SN number, installation position, and IP address of every device. You can then easily locate every device you need during configuration.

Figure 3-5 Match IP address

	A	B	C	D	E
1	No.	Device Name	SN	Installation Position	IP Address
2	1	Star Light Camera	4J04704YAGF0193	Entrance	192.168.1.10
3	2	TPC	5N757U4HAGF0196	Warehouse	192.168.1.11
4	3	FR Camera	8H05774YNF019I	Front Door	192.168.1.12
5	4	Audio/Video Camera	3L05704YAKF0684	concierge	192.168.1.13
6	5	NVR	9R05704YTGf0753	CCTV Center	192.168.1.14
7					

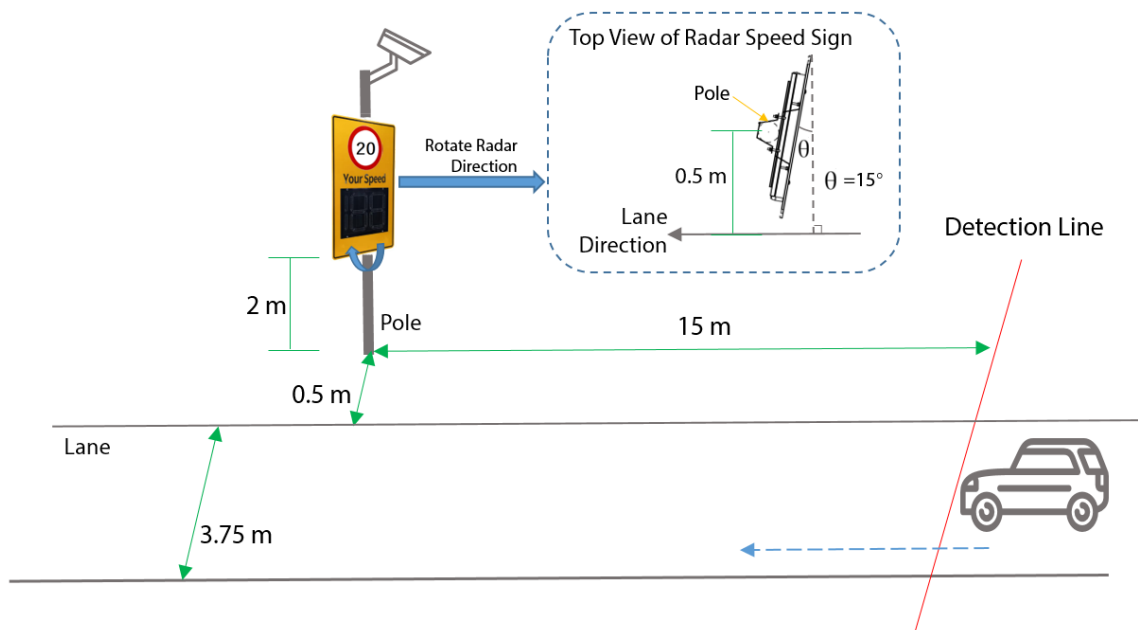
- Step 7** Configure devices and carry out commissioning.

4 Installation

4.1 Installing Camera and Radar Speed Sign

4.1.1 Installation Illustration

Figure 4-1 Installation illustration



4.1.2 Installation Preparation

Pole

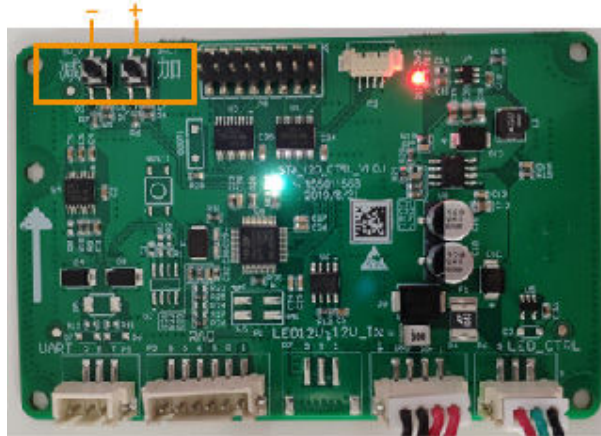
- We recommend installing the pole 0.5 m–1 m away from the edge of the road.
- Diameter of pole: 120 mm±10.
- Installation height: 3.5 m–5 m.
- The pole should be capable of bearing at least 30 kg.

Radar Speed Sign

1. Unpack and power on the screen of the radar speed sign to check whether it works. If yes, the LED will light one by one.
2. Power on and debug.
 - a. Power on the radar speed sign.
 - b. Adjust the speed limit value.
 - Use the key to open the case.

- Press the up and down buttons on the radar PCB board to adjust the speed limit value, which will be displayed on the LED screen in real time. You can adjust the value between 5 km/h and 199 km/h.

Figure 4-2 Buttons for adjusting speed



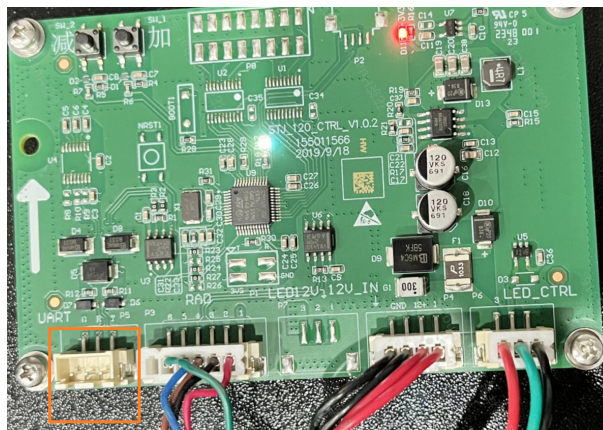
- After setting the value, make no operations for 2 seconds, and your settings take effective. The defined speed limit value will not be invalidated after you power on the radar speed sign again.



Green numbers for normal speed, and red numbers for speeding.

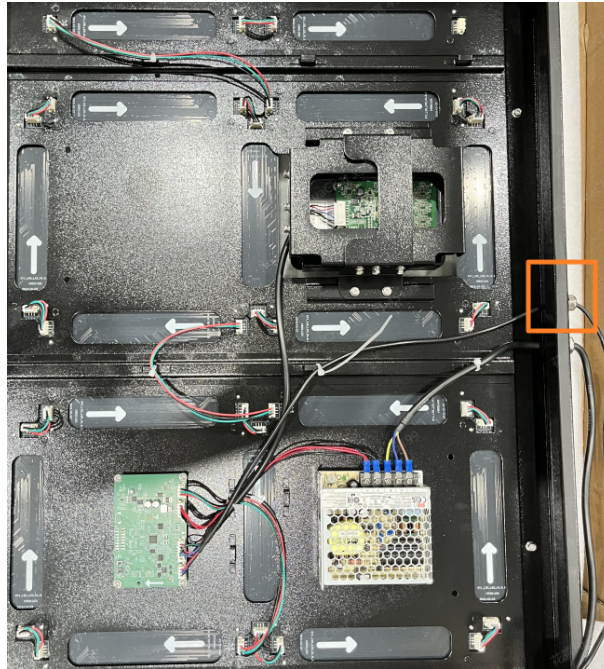
3. Connect one side of the RS-485 wire to the board of the screen.

Figure 4-3 Connect the RS-485 wire to the board of the screen



4. Use the waterproof connector in the package to waterproof the wire.

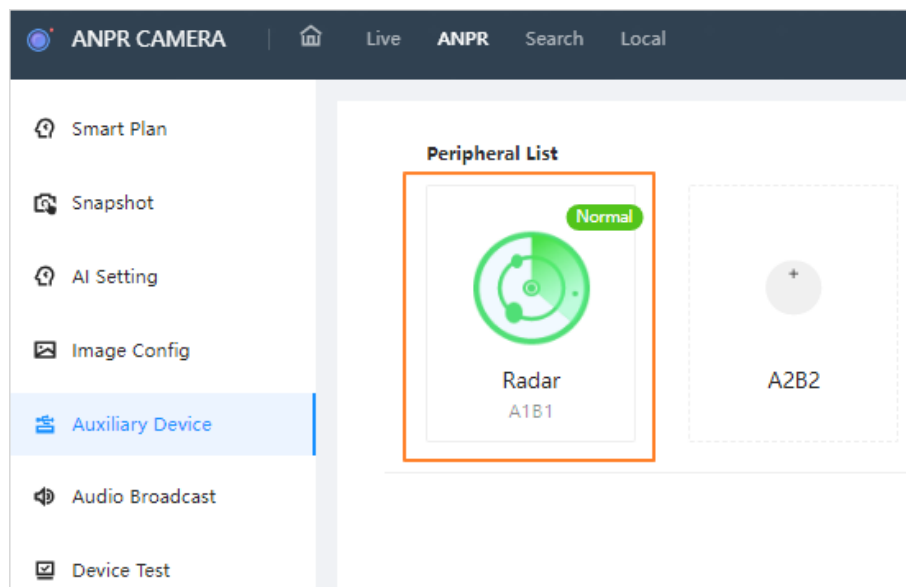
Figure 4-4 Waterproof the wire



5. Connect the other side of the RS-485 wire to RS-485 A1 and B1 pins of ITC.
6. Log in to the webpage of ITC, and then select **ANPR** > **Auxiliary Device** to check whether the radar connection is normal.

The following figure shows that the radar is normal.

Figure 4-5 Check radar connection status



7. Take the devices to the installation site, and proceed the installation.

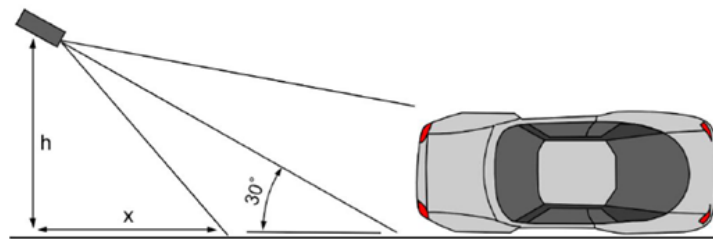
4.1.3 Installing Camera

Installation Requirements

The following are the technical requirements to ensure that the camera can correctly recognize vehicles and license plates. In special scenes, you can adjust the angle and zoom level accordingly.

- We recommend installing the camera at a height of 3.5 meters.
- When installing cameras, you need to consider the lens angle, license plate angle, and license plate pixels.
- For side mount, the angle between the camera lens and the lane line should be less than 30°. If the distance between the camera and the farthest lane line of the monitoring lane is h , and the capture distance is x , and their relationship must be $x \geq 1.7h$. Otherwise, the algorithm recognition will be affected.

Figure 4-6 Side mount



The license plate angle must not be larger than 5°.

Figure 4-7 Angle



The pixels of license plate must meet the requirement of algorithm: A single-layer license plate is not less than 140 pixels; a double-layer license plate is not less than 80 pixels.

Table 4-1 Recommended installation scenarios (for ITC413-PW4D-(I)Z3 series)

Product Series	Installation Height (m)	Capture Distance (m)	Detection Width (m)
ITC413-PW4D-(I)Z3	2	6–10	3–4
	2.5	6–12	
	3	6–15	
	3.5	6–17	
	4	7–19.5	
	4.5	8–20	

Product Series	Installation Height (m)	Capture Distance (m)	Detection Width (m)
	5	8.5–20	
	5.5	9.5–20	
	6	10–20	
	3	12–15	7
	3.5	12–17	

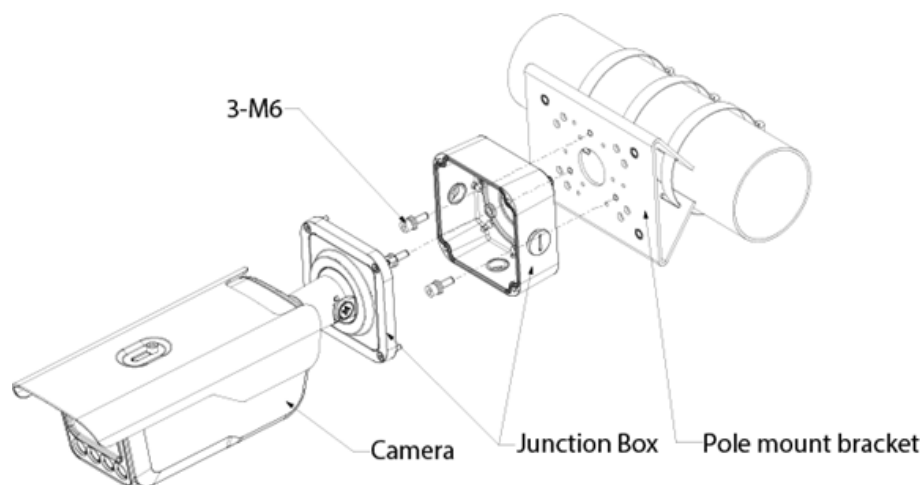


The ambient brightness must be 10 lux or more. In night, cloudy, and other scenarios with insufficient light, you need to add illuminators. If the license plate does not reflect light, we recommend you use white light. The license plate should not be less than 140 pixels. Otherwise, the recognition effect might be affected.

Pole Mount

1. Fix the pole mount bracket (sold separately) to the pole.
2. Use 3 M6 screws to fix the junction box to the pole mount bracket.
3. Tighten the screws on the end of the camera to fix it to the junction box.

Figure 4-8 Pole mount



4.1.4 Installing Radar Speed Sign

4.1.4.1 Wiring



Supply power to the radar speed sign 24 hours a day. Before you start wiring, make sure that all-day power supply is available.

220 VAC power is required. Leave cable of a certain length to facilitate connecting to the power supply.

Exposed wiring and concealed wiring are available, depending on the actual situation.

- Exposed wiring: Thread the cable through a waterproof tube, and then fix the tube to the pole with a hoop.
 - ◇ Advantages: Easy and convenient for wiring and installation.
 - ◇ Disadvantages: Exposed wiring might be damaged after long-time use and cause harm to passers-by.

Figure 4-9 Exposed wiring (mm [inch])

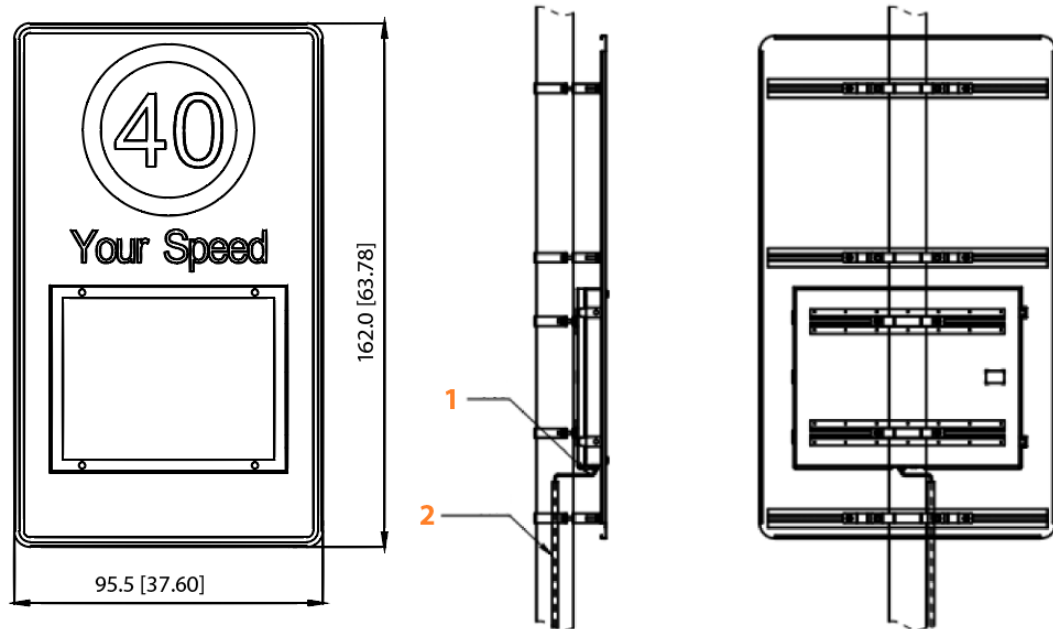


Table 4-2 Structure description

No.	Description
1	Cable.
2	PVC tube. Thread the cable through the tube, and then fix the tube to the pole with a hoop.

- Concealed wiring: Drill holes on the pole, and then thread the cable through the pole, followed by connecting the cable to the power source.
 - ◇ Advantages: Reliable wiring, low maintenance requirements, not prone to be damaged, and no harm to passers-by even being damaged.
 - ◇ Disadvantages: Drilling holes increases installation difficulty and time; inconvenient wiring when there are many cables inside the pole.

Figure 4-10 Concealed wiring (mm [inch])

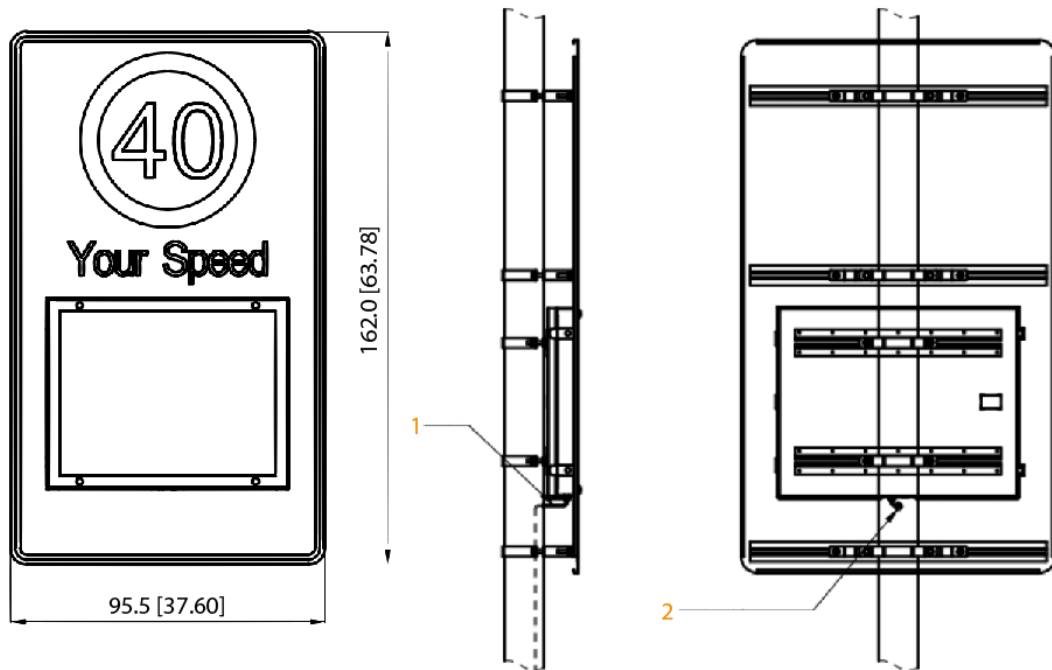


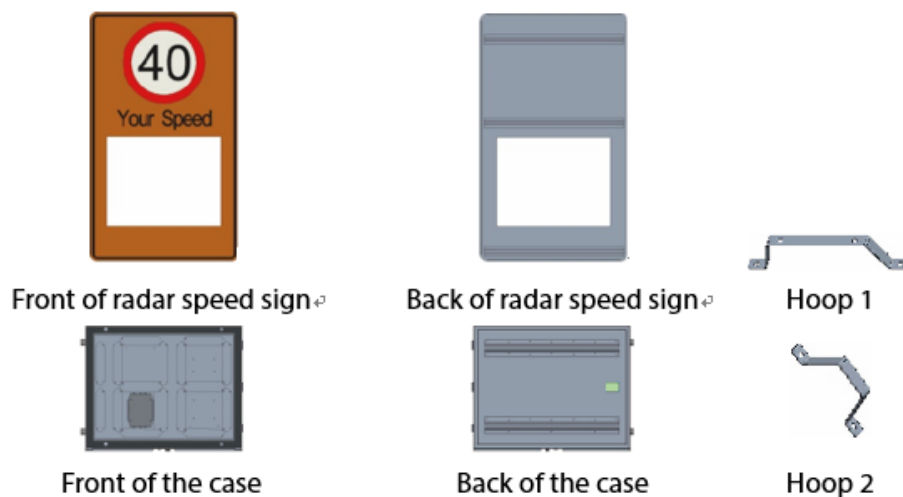
Table 4-3 Concealed wiring description

No.	Description
1	Cable.
2	Drill holes on the pole, and then thread the cable through the pole, followed by connecting the cable to the power source.

4.1.4.2 Installation Details

Components

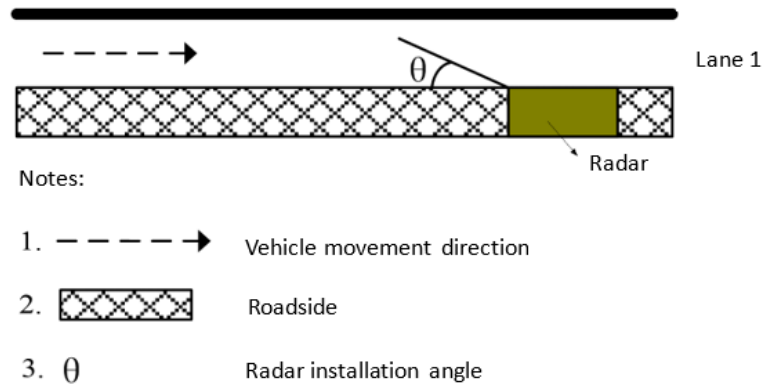
Figure 4-11 Components description



Installation Requirements

- Installation method: Install the radar speed sign at the right (for regions driving on the right) or left (for regions driving on the left) side of road.
- Installation height: About 2 m (6.56 ft), adjustable between 1.5 m (4.92 ft) and 3 m (9.84 ft).
- Installation angle: $\theta = 15^\circ$. θ is the angle between the radar normal line and the road horizontal line. The angle can be adjusted.

Figure 4-12 Installation diagram (1)



Installation Steps

Figure 4-13 Installation diagram (2)

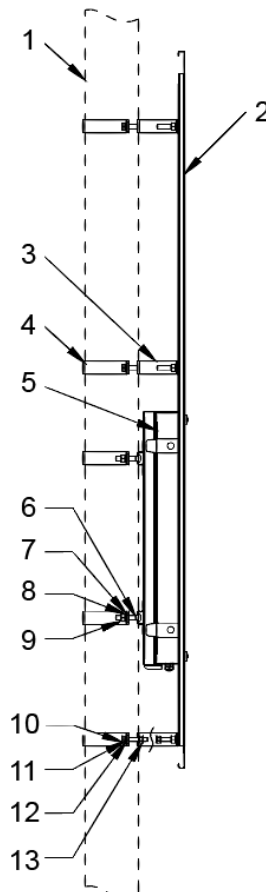


Table 4-4 Parts description

No.	Description	No.	Description
1	Pole	8	M10-spring washer
2	Speed sign	9	M10-nut
3	Hoop 1	10	M10×50-hexagonal head bolt
4	Hoop 2	11	M10-plain washer
5	Case	12	M10-spring washer
6	M10×50-step bolt	13	M10-nut
7	M10-plain washer	—	—

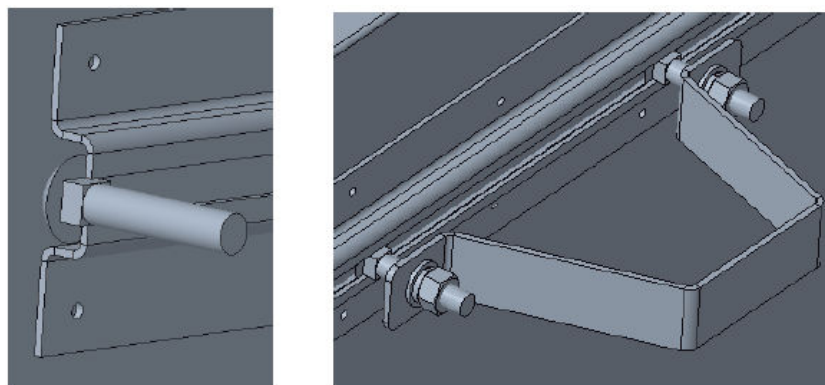
1. Adjust radar.

The radar is installed inside the case. Adjust the screws on the radar bracket to make the radar aim at the center of the road where speed measurement is required. Adjust the radar angle by observing the speed measurement result when vehicles pass. After properly adjusting the radar, fasten the screws and lock the case.

2. Install the case.

The back side of the case is designed with two slots. Attach the center position of the back side to the pole, select an appropriate height, and thread the M10 step bolts through the slots, and finally fix the bolts with hoop 2 (see Figure 4-13). See the following figure.

Figure 4-14 Install the case



3. Install speed sign.

The back side of the speed sign is designed with 3 slots, and the middle part is reserved for installing the case. Fix hoop 1 (see Figure 4-13) to the middle of the slot with M10 hexagonal head bolt, and attach the speed sign to the case, followed by fastening the radar speed sign to the pole with hoop 1 and hoop 2. See the following 2 figures.

Figure 4-15 Install the speed sign

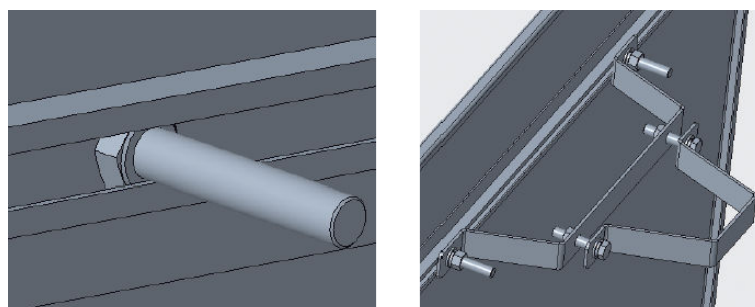
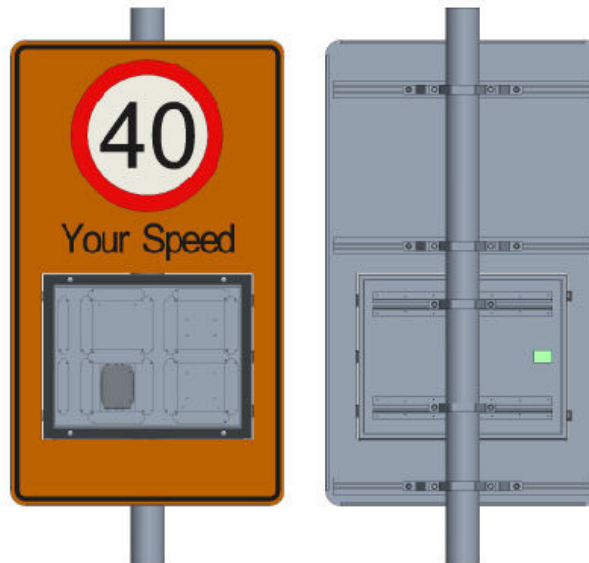


Figure 4-16 Illustration of successful installation



4.2 Installing NVR

Install the NVR in the office or other proper place, so you can conveniently view the live video or any alarm message.

4.2.1 Checking Unpacked NVR

When you receive the NVR, check against the following checklist. If any of the items are missing or damaged, contact the local retailer or after-sales service immediately.

Table 4-5 Checklist

Sequence	Item		Description
1	Overall packaging	Appearance	No obvious damage.
		Package	Not distorted or broken.
		Accessories	Nothing missing.
2	The Device	Appearance	No obvious damage.
		Model	The model description is consistent with the contract.
		Label	Not torn up.  Keep the label well. You need to provide the serial number on the label when calling the after-sales service.

4.2.2 HDD Installation

HDD disks are used to store snapshots and videos from ANPR cameras. For details, see the corresponding HDD installation guide.

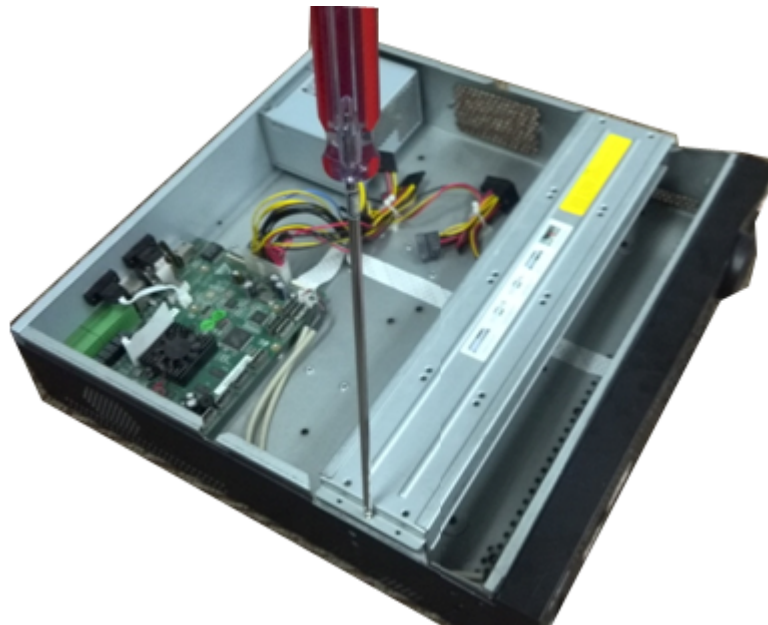
4.2.3 Installing CD-ROM

If you need to store data on CDs instead of HDD disks, you need to install a CD-ROM to the NVR.

Procedure

Step 1 Open the top cover and then remove the HDD bracket.

Figure 4-17 Open the top cover



Step 2 Take off the bottom of the HDD bracket and CD-ROM bracket.

Figure 4-18 Take out HDD bracket



Figure 4-19 Take out CD-ROM bracket



Step 3 Fix the CD-ROM bracket at the HDD bracket.

Figure 4-20 Fix bracket



Step 4 Install a pair of the CD-ROM bracket. Please make sure that the reverse side is secure too.

Figure 4-21 Install bracket

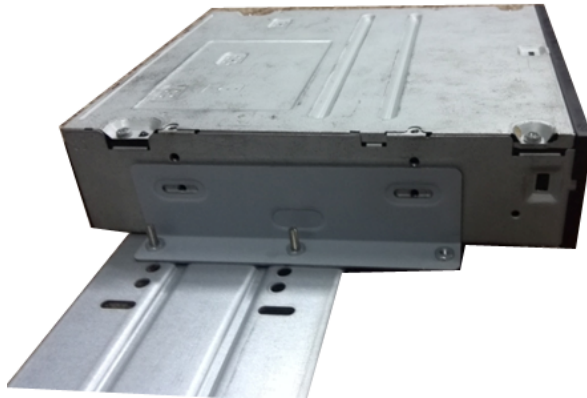


Figure 4-22 Install bracket (reverse side)



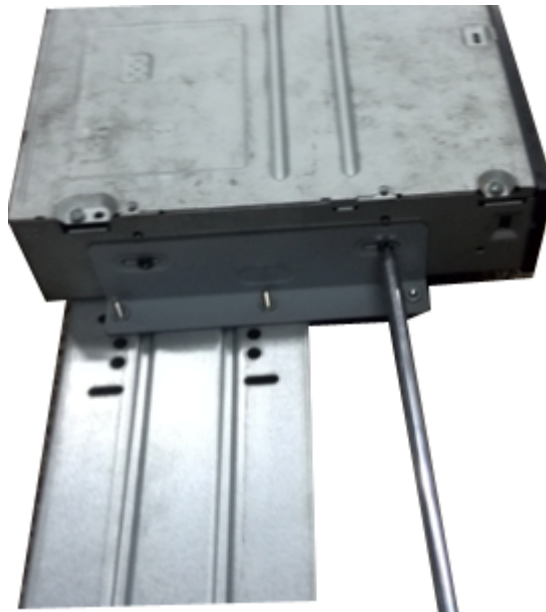
Step 5 Install SATA burner. Line up the SATA burner to the hole positions.

Figure 4-23 Install SATA burner



Step 6 Use screw driver to fix the screws.

Figure 4-24 Fasten screws



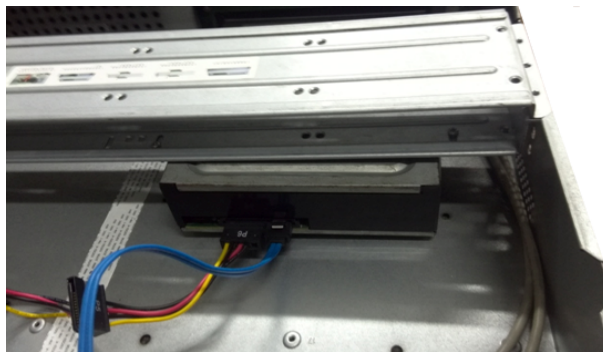
Step 7 Put the bracket back. Please adjust the CD-ROM to the proper position so that the button of the front panel is directly facing the pop-up button of the CD-ROM.

Figure 4-25 Put bracket back



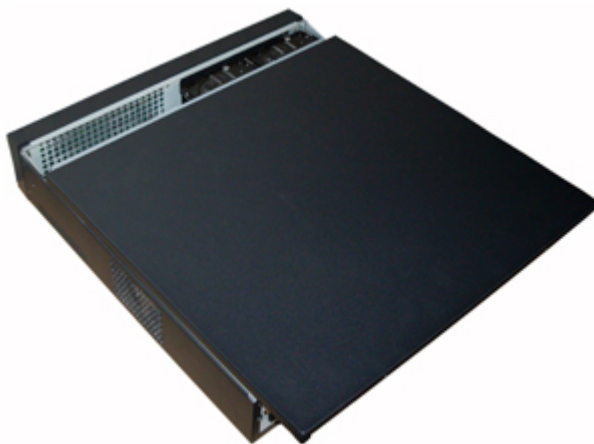
Step 8 Connect the SATA cable and power wire.

Figure 4-26 Connect cables



Step 9 Secure the HDD bracket and put the top cover back.

Figure 4-27 Put cover back



4.3 Installing DSS Express

4.3.1 Server Requirements

Table 4-6 DSS Express hardware requirements

Parameter	Hardware Requirement	Operating System
Recommended requirements	• CPU: Intel® Core(TM) I7-9700K CPU@3.60 GHZ • RAM: 8 GB • Network card: 1 × Ethernet port @ 1000 Mbps • Hard drive type: 7200 RPM Enterprise Class HDD 1 TB • DSS installation directory space: 500 GB	• Microsoft® Windows 10 20H2 Pro (32-bit) • Microsoft® Windows 10 20H2 Pro (64-bit) • Microsoft® Windows 11 21H2 Pro (64-bit)
Minimum requirements	• CPU: Intel® Core(TM) I5-9400 CPU@2.90 GHZ • RAM: 8 GB • Network card: 1 × Ethernet port @ 1000 Mbps • Hard drive type: 7200 RPM Enterprise Class HDD 1 TB • DSS installation directory space: 200 GB	



- Face recognition images, videos, and files cannot be stored on the system disk and DSS installation disk. We recommend you store these files on a separate local disk.
- For best performance, we recommend adding additional hard drives to store pictures.

4.3.2 Installing Management Tool

Prerequisites

- You have downloaded the installation package from the official website or received it from our sales or technical support.
- You have prepared a server that meets the hardware requirements.

Procedure

Step 1 Double-click the DSS installer .



The name of the installer includes version number and date, confirm before installation.

Step 2 Click **the software license agreement**, and then read the agreement.

Step 3 Select the check box to accept the agreement, and then click **Next**.

Step 4 Click **Browse**, and then select an installation path.

If the **Install** button is gray, check whether the installation path and space required meet the requirements. The total space required is displayed on the page.



We do not recommend installing the management tool on disk C, because features such as face recognition require higher disk performance.

Step 5 Click **Install**.



The installation process takes about 4 to 8 minutes. Do not cut off the power or close the program.

Step 6 Click **Run** after the installation completes.

Step 7 Configure the network parameters.

1. Configure the IP address of the network card.



- **Dual NIC** will be available if the server has 2 network cards. This is useful when you need to access devices on 2 different network segments.
- The platform supports using a maximum of 2 network cards at the same time. You can either use 1 network card for accessing devices on a local area network, and 1 network card for services on the Internet; or use both network cards for accessing devices on a local area network, and then map one of them to the Internet.

2. (Optional) Enable **WAN Mode**, enter a WAN IP address or a domain name, and then click **Next**.



If the platform is in a local network, use this function to connect it to the Internet so that you can access it from outside the local network.

3. Configure the TLS version, and then click **Finish**.

TLS1.2 is selected by default and cannot be changed. We do not recommend using TLS1.0 and TLS1.1 because they have serious security vulnerabilities.



If the available RAM of the server is less than 2 GB, you can only use basic functions related to video. If it is less than 1.5 GB, you cannot use any function.

Related Operations

- To uninstall the platform, log in to the server, go to "..\DSS\DSS Server\Uninstall", double-click uninst.exe, and then follow the on-screen instructions to uninstall the program.
- To update the system, directly install the new program. The system supports in-place update. Follow the steps above to install the program.

4.3.3 Configuring Server IP Address

Change the server IP address as you planned. Make sure that the server IP can access the devices in your system. For details, see the manual of the server.



After changing the IP address of the server, you need to update it in the management tool. See the following section.

4.3.4 Management Tool

The management tool allows you to view status of services, start or stop services, change service ports, and more.



On the server, double-click

Figure 4-28 Management tool

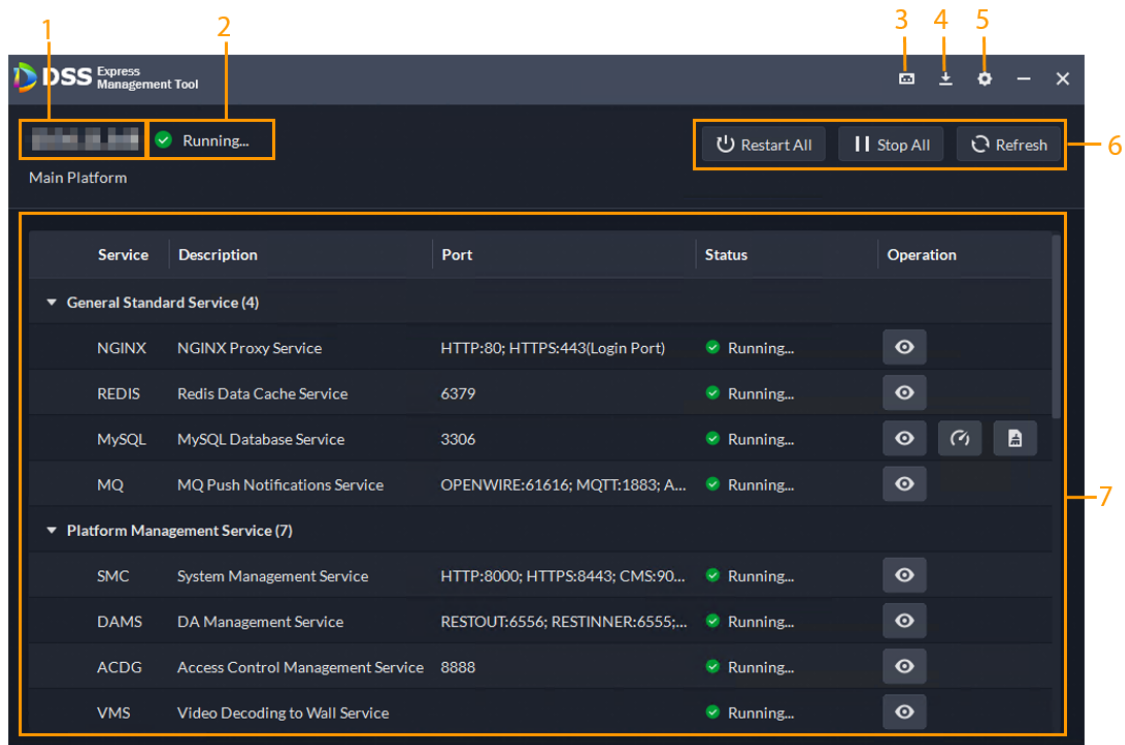


Table 4-7 Interface description

No.	Function	Description
1	Server information	Displays the IP address and type of the platform.
2	Status of services	There are 5 statuses of services, including starting, unavailable, stopping, running, and stopped. - The unavailable status only depends on the status of the SMC service. If the SMC service is not properly running, the overall status will be unavailable. - Running means that all services are running normally.
3	Information for port mapping	Displays the ports that you need to map for various functions. Select one or more functions, the ports you must map will be displayed on the right. Click  to export them to your computer so that you can check on them easily.
4	Download clients and logs	- Client: Displays how to download the PC client and App. - Logs: Download the operation logs of the management tool.

No.	Function	Description
5	Configurations and view information of the platform	• Network: Configure the network card mode, IP address, and the WAN mode. If the server has two network cards, you can select Dual NIC mode, configure two IP addresses, and then the platform will be able to connect to two networks and access the devices on each one. If the platform is in a local network and the devices are on the internet, or you need to access the platform that is in a local network from the Internet, you can enable WAN Mode and map the IP address of the platform to a WAN IP address or a domain name. • Security: Select a TLS protocol version when you access the webpage of the platform through a browser. TLS1.2 is selected by default and cannot be disabled. There are security vulnerabilities to TLS1.0 and 1.1. We strongly recommend you disable it to avoid security risks. After configuration, follow the on-screen instructions to configure the TLS protocol version in the IE browser so that you can access the webpage of the platform normally. • Language: Select the language of the management tool. Multiple languages are supported. • Port Self-adaption: If a port is occupied, the platform will change it automatically. After turning on or off this function, you must restart the server for it to be effective. • User manual: View the user manual of the platform. • About: View the software version information, software license agreement, and more.
6	Service management	• Click Restart All to restart all services.  When starting the platform, if the available memory of the server does not reach 2 GB, only the basic video services can be enabled. If the server has less than 1.5 GB of available memory, no services are available. • Click Stop All to stop all services. • Click Refresh to refresh services.
7	Services	Displays all services, and their status and port numbers. Click  to change the port number of a service, and then the services will restart automatically after modification.

No.	Function	Description
	Database repair	If you cannot log in to the client because the database is abnormal, you can try to repair it manually. Click  of the MySQL service, and follow the instructions. Based on the items checked, the platform will determine whether repair or restoration is needed. If repair fails, you can try restoring the database. During restoration, the platform will back up the database. Please make sure that there is enough space. Otherwise, restoration will fail. Click  to view all backup files. You can delete them as needed.  To restore the database, the platform needs to use port 3306. If a process is using the port, you need to terminate it first.

4.3.5 Installing and Logging into DSS Client

Install the DSS client before licensing it.

4.3.5.1 Installing DSS Client

You can visit the system through the DSS Client for remote monitoring.

4.3.5.1.1 DSS Client Requirements



Press the Windows key, and type **dxdiag**, and then click . On the **System** page, the information of your computer is displayed.

To install DSS Client, prepare a computer in accordance with the following requirements.

Table 4-8 Hardware requirements

Parameters	Description
Recommended system requirements	● CPU: Intel® Core i7-11700 @ 2.50 GHz ● Memory: 16 GB and above ● Graphics: NVIDIA® GeForce® RTX 3060 ● Network Card: 1000 Mbps ● HDD: Make sure that at least 100 GB is reserved for the client.
Minimum system requirements	● CPU: Intel® Core i5-9500 @ 3.00 GHz ● Memory: 16 GB ● Graphics: Intel® UHD Graphics 630 ● Network Card: 1000 Mbps ● DSS client installation space: Make sure that at least 50 GB is reserved for DSS client.

4.3.5.1.2 Downloading and Installing DSS Client

Procedure

Step 1 Go to <https://IP address of the platform> in the browser.

Step 2 Click **PC**, and then **Download**.

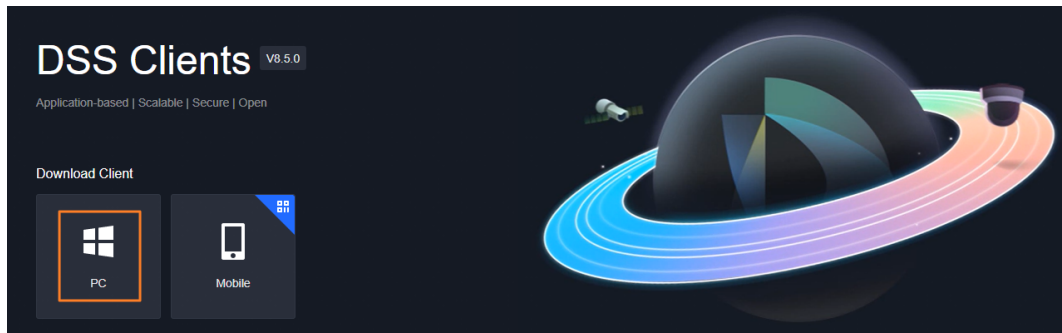


The platform also supports installation by MSI package. Visit <https://software.dahuasecurity.com/en/download/> and download the MSI package of the platform version you need. Please be advised that you cannot overwrite the PC client installed with an exe package, and vice versa. Also, the PC client installed with an MSI package does not support automatic update. You must download the package of the new version and install it manually.

If you save the program, go to Step 3.

If you run the program, go to Step 4.

Figure 4-29 Download DSS Client



Step 3 Double-click the DSS Client program.

Step 4 Select the checkbox of **I have read and agree to the DSS agreement** and then click **Next**.

Step 5 Select a path for installation, and then click **Install**.

The installation progress is displayed. It takes about 5 minutes to complete.

4.3.5.2 Logging in to DSS Client

Procedure

Step 1 Double-click  on the desktop.

Step 2 Select a language.

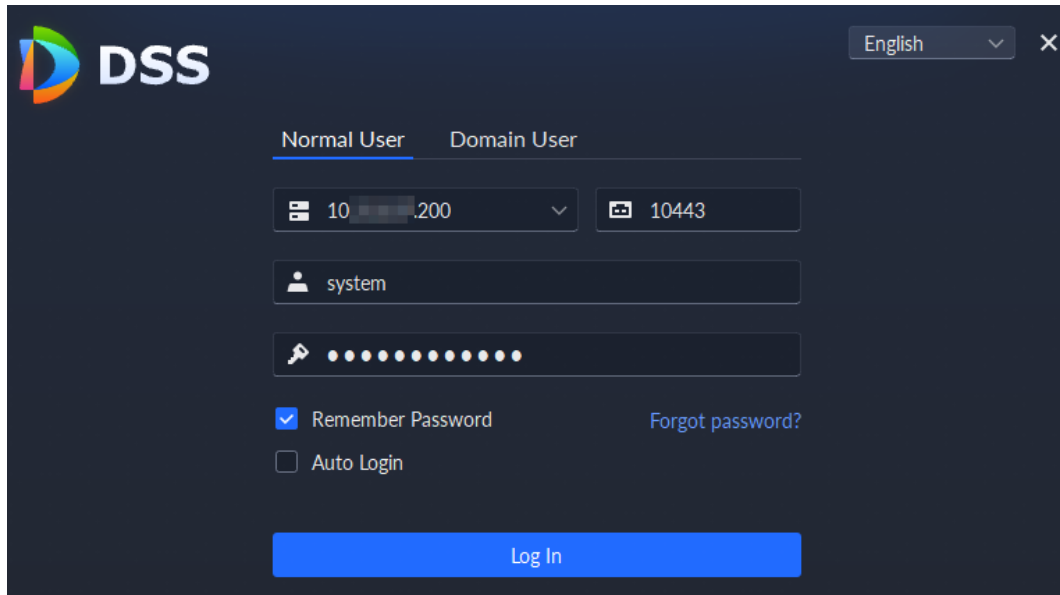
Step 3 Enter the IP address or domain name, and port number of the platform.

On the drop-down list, platforms that are in the same network as your computer will be shown.



- If you want to log in to the platform using a domain name, you must link its IP address to a domain name first. For details, .
- If you log in by localhost, the platform will automatically change it to 127.0.0.1.

Figure 4-30 Login



Step 4 Click anywhere else on the page to start initializing the platform.

For first-time login, you will be automatically directed to the initialization process.

If you are not logging in for the first time, enter the IP address or domain name, port number of the platform, username, and password, and then click **Login**.

1. The default user is system. Enter and confirm the password, and then click **Next**.

The password must consist of 8 to 32 non-blank characters and contain at least two types of characters: Uppercase, lowercase, number, and special character (excluding ' " ; : &).

2. Select your security questions and enter their answers, and then click **OK**.

The client will automatically log in to the platform by using the password you just set.



Please keep the security questions and answers properly. Otherwise, your password cannot be recovered if you forget it.

4.3.5.3 Homepage of DSS Client

Figure 4-31 Homepage

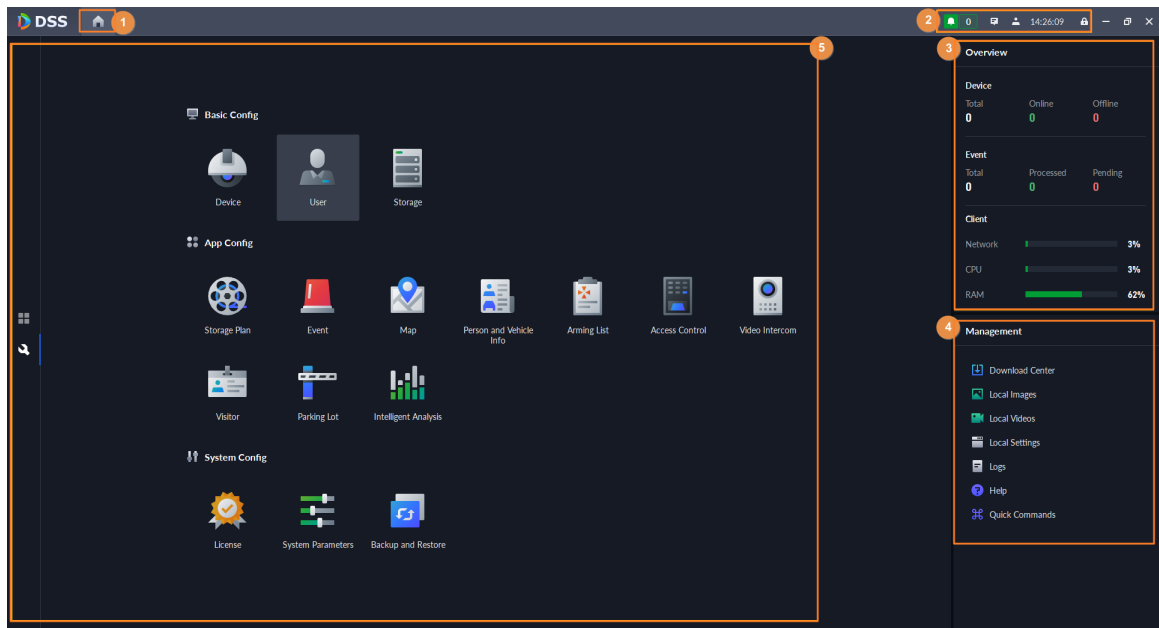


Table 4-9 Parameter description

No.	Name	Function
1	Tab	Displays the names of all tabs that are opened.
2	System settings	• : Enable or disable alarm audio. • : Displays number of alarms. Click the icon to go to Event Center. • Click  to view system messages, such as the information of a device was edited or deleted. The permissions of a user will determine what messages can be seen. For example, if user A does not have the permission of device A, then user A will not get the message when device A is deleted. • : User information: Click the icon, and then you can log in to the web page by clicking system IP address, change password, lock client and log out. ◇ Click platform IP address to go to the Web page. ◇ Click Change Password to change user password. ◇ Click About to view version information. ◇ Click Sign Out to exit client. • Click  to lock client.
3	Overview	• The number of devices in total, offline and online. • The number of total, processed and pending events. • The client network, CPU and RAM usage.

No.	Name	Function
4	Management	• Download videos. • Check local pictures and videos. • Settings for video, snapshot, video wall, alarm, security and shortcut keys. • View and manage logs. • View user manual. • Customize quick HTTP commands. For details, .
5	Applications	•  Application options including monitoring center, access management, intelligent analysis and vehicle entrance control. •  Configuration options.

4.3.6 Licensing

You can upgrade your license for more features and increased capacity.

This section introduces license capacity, how to apply for a license, how to use the license to activate the platform, and how to renew your license.

4.3.6.1 Applying for a License

A license is used to confirm the features and number of channels you purchased. To get a formal license, contact our sales personnel. To apply for a trial license, visit our website and find DSS Express, scroll to the bottom, click **Apply**, and then follow the instructions. You can only use a trial license on a server once.

4.3.6.2 Activating License



The following images of the page might slightly differ from the actual pages.

4.3.6.2.1 Online Activation

Prerequisites

- You have received your license.

A license is used to confirm the features and number of channels you purchased. To get a formal license, contact our sales personnel. To apply for a trial license, visit our website and find DSS Express, and then follow the application instructions.

- The platform server can access the Internet.

Procedure

- Step 1 On the **Home** page, click , and then in **System Config**, select **License**.
- Step 2 Click **Activate License** , Select **Online Activate License**, then click **OK**.
- Step 3 Enter your new **Activation Code**.
- Step 4 Click **Activate Now**.
- Step 5 On the **License** page, view your license details.

4.3.6.2.2 Offline Activation

Prerequisites

You have received your license.

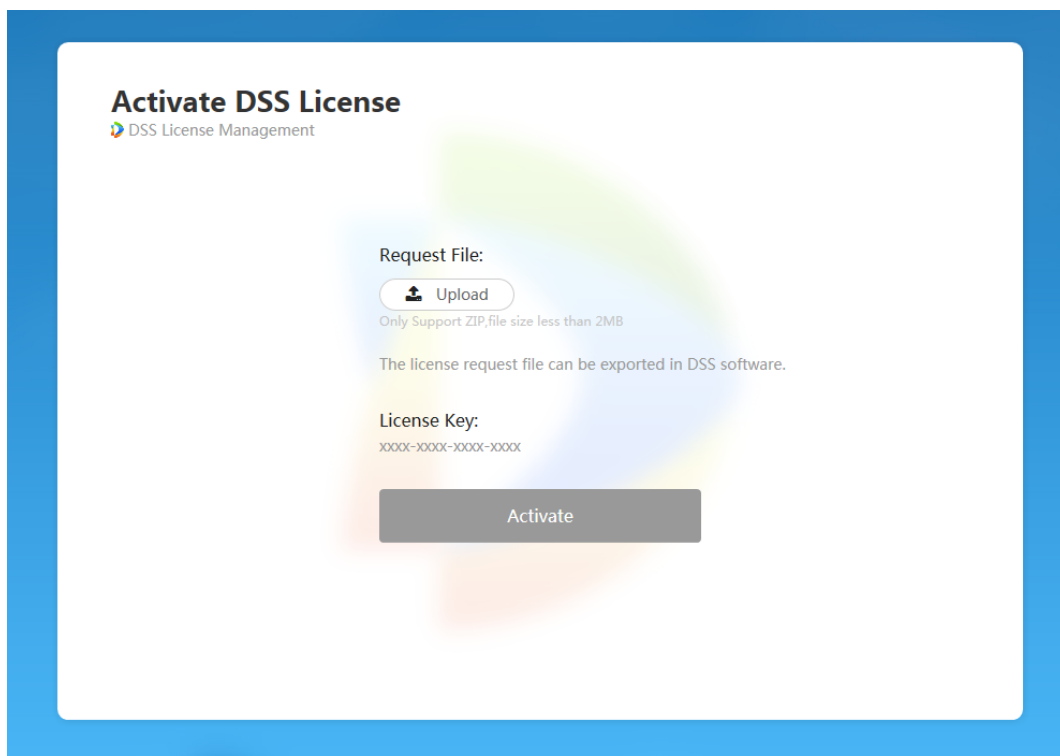
A license is used to confirm the features and number of channels you purchased. To get a formal license, contact our sales personnel. To apply for a trial license, visit our website and find DSS Express, and then follow the application instructions.

Procedure

- Step 1 On the **Home** page, click , and then in **System Config**, select **License**.
- Step 2 Click **Offline Activate License**, select **Offline Activate License**, then click **OK**.
- Step 3 Click **Export** to export the license request file.
- Step 4 Generate license file.
 1. Move the request file to a computer with Internet access.
 2. On that computer, open the system email that contains your license, and then click the attached web page address or **Click to go to DSS License Management** to go to the license management page.
 3. Click **Activate License**.
 4. Click **Upload**, select the license request file, and then when you are prompted **uploaded successfully**, click **Activate**.

The success page is displayed, where a download prompt is displayed asking you to save the license activation file.

Figure 4-32 Upload license request file



5. On the success page, click **Save** to save the file, and then move the file back to the computer where you exported the license request file.
6. On the **Offline Activate License** page, click **Import**, and then follow the on-screen instructions to import the license activation file.

Step 5 On the **License** page, view your license details.

5 Configuration and Commissioning

5.1 Configuring Camera

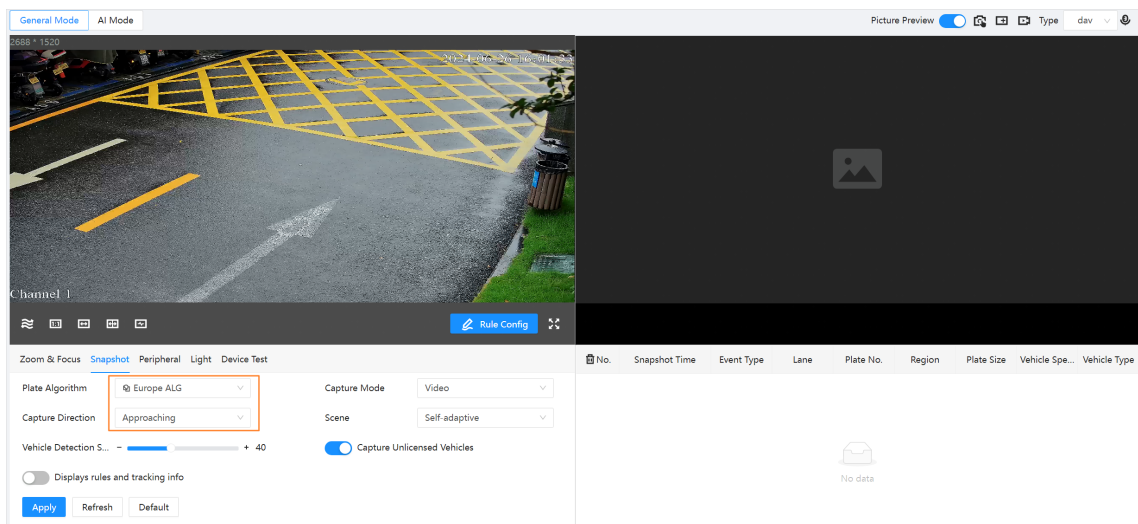
5.1.1 Configuring Plate Algorithm

Switch the plate algorithm to your country to get better detection results, and configure other detection parameters such as capture direction and vehicle detection sensitivity.

Step 1 Log in to the webpage of the camera, and then select **Live** > **Snapshot**.

Step 2 Set **Plate Algorithm** to your country to get better results.

Figure 5-1 Plate algorithm switch



Step 3 Click **Apply**.

Step 4 Click **Add** corresponding to **Shield Area Box**, and then draw an area on the video image. This area will not trigger snapshots.

5.1.2 Configuring Detection Lines and Speed Limit

Step 1 Log in to the webpage of the camera, and then select **ANPR** > **Smart Plan**.

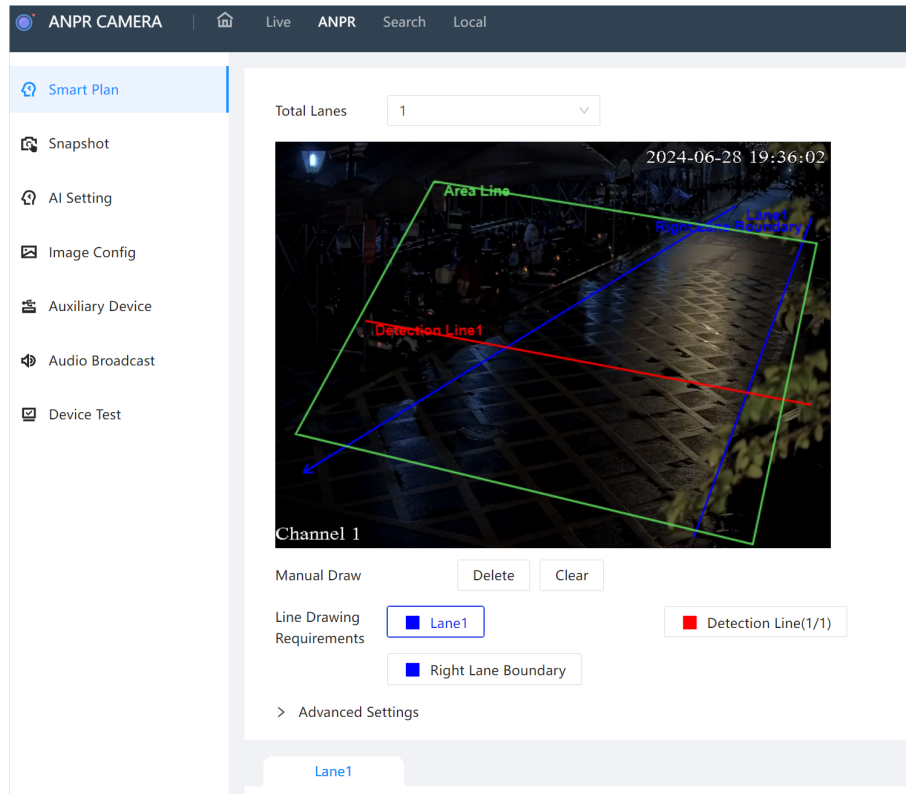
Step 2 Configure the lines for lanes.

In the **Line Drawing Requirements** section, you can draw lane line, right lane boundary and detection line for the lane.

- Detection line: When a vehicle crosses the line, snapshots will be taken. It would be best if the line were a little below the center of the screen.
- Lane: When the central point of a vehicle is in the middle of 2 lane lines, snapshots will be taken.
- Area line: Only vehicles that appear in the area line will be detected.

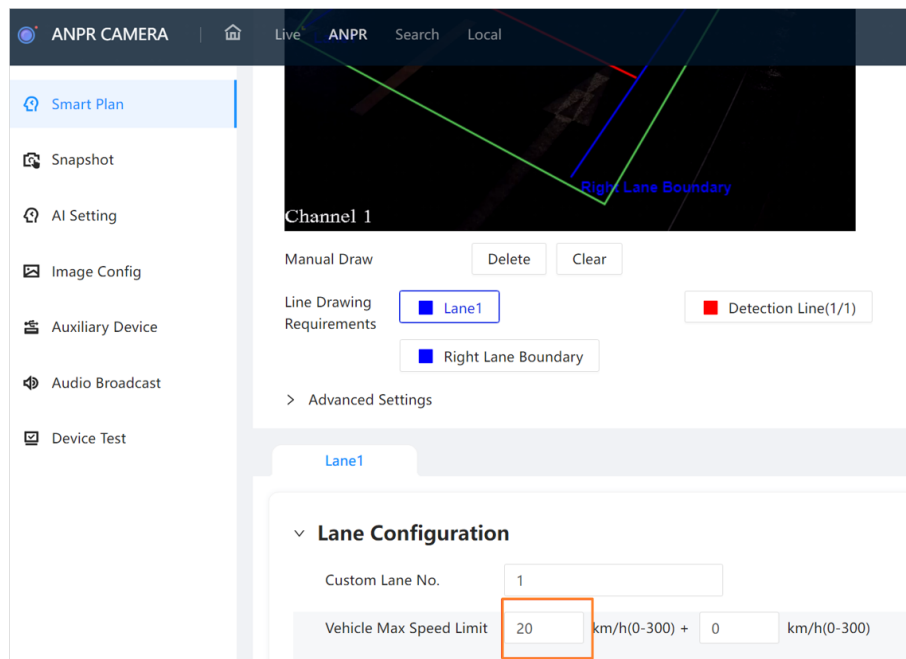
Step 3 Click **Advanced Settings**, select **Area Line**, and then draw the detection area.

Figure 5-2 Configure the lines



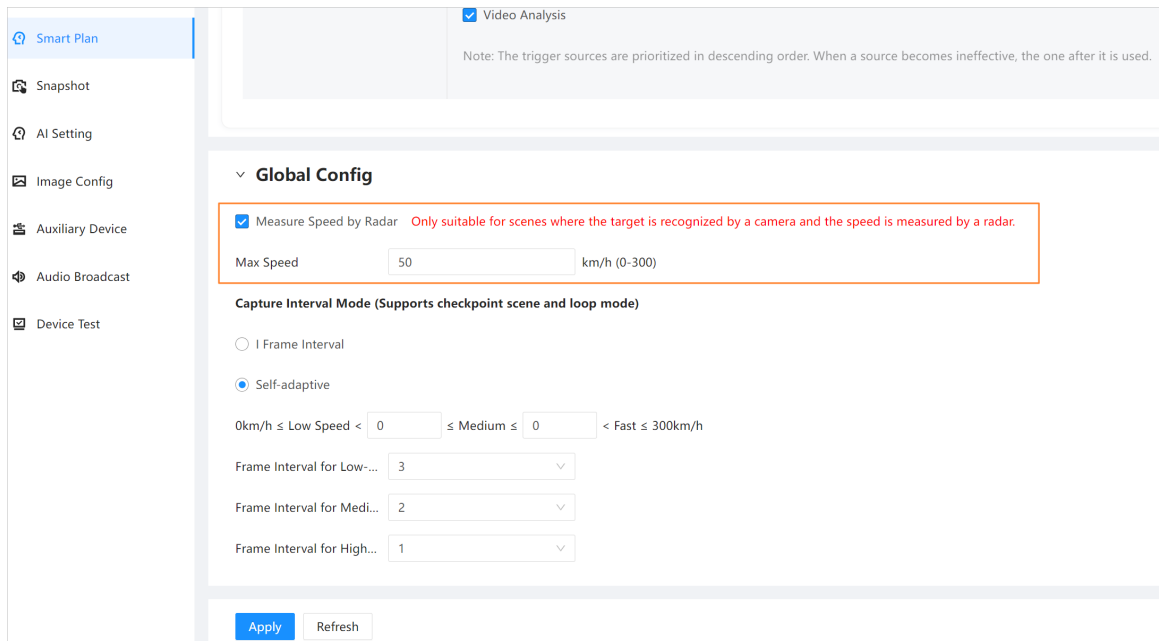
Step 4 Configure maximum speed limit. A speeding event will be generated when the speed of a vehicle exceeds the limit.

Figure 5-3 Configure speed limit



Step 5 In the **Global Config** section, set the max speed. If the vehicle speed exceeds the defined max speed, a speeding event will be generated based on the defined max speed, and this speed will be displayed on the OSD overlay of the captured image.

Figure 5-4 Global configuration



☒ Video Analysis

Note: The trigger sources are prioritized in descending order. When a source becomes ineffective, the one after it is used.

▼ **Global Config**

☒ Measure Speed by Radar Only suitable for scenes where the target is recognized by a camera and the speed is measured by a radar.

Max Speed km/h (0-300)

Capture Interval Mode (Supports checkpoint scene and loop mode)

☐ I Frame Interval

☒ Self-adaptive

0km/h ≤ Low Speed < ≤ Medium ≤ < Fast ≤ 300km/h

Frame Interval for Low-... ▼

Frame Interval for Medi... ▼

Frame Interval for High... ▼

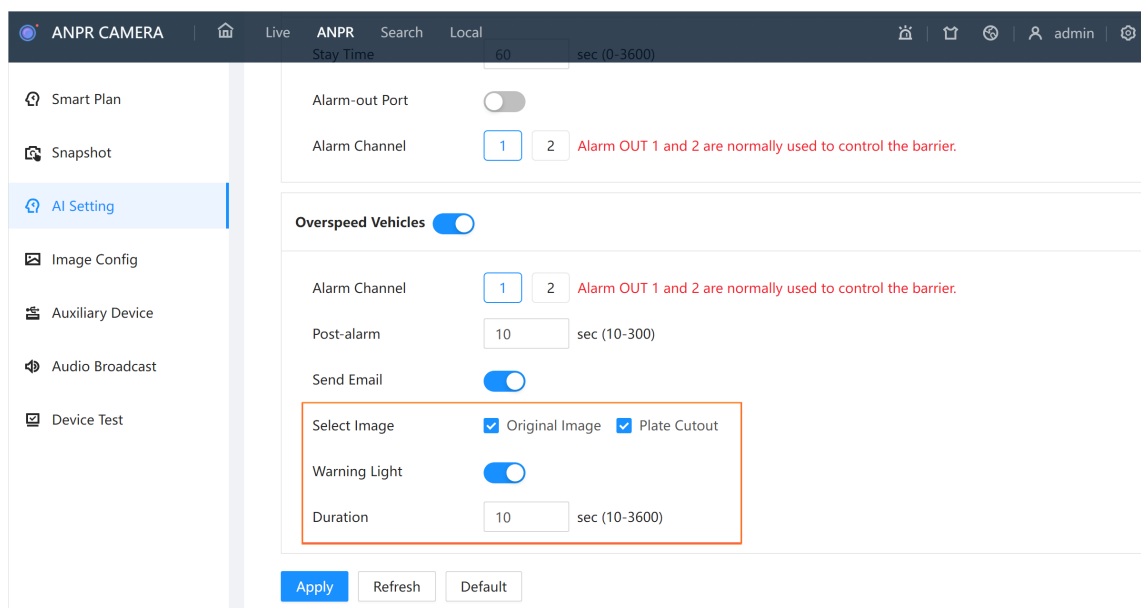
Step 6 Click **Apply**.

5.1.3 Configuring AI Setting

Step 1 Log in to the webpage of the camera, and then select **ANPR** > **AI Setting**.

Step 2 Enable **Original Image**, **Plate Cutout**, and **Warning Light**, and then set the duration that the warning light lasts when speeding event is detected.

Figure 5-5 Enable capturing original image and plate cutout



ANPR CAMERA | Live | ANPR | Search | Local

Stay Time sec (0-3600)

Alarm-out Port ☐

Alarm Channel Alarm OUT 1 and 2 are normally used to control the barrier.

Overspeed Vehicles ☒

Alarm Channel Alarm OUT 1 and 2 are normally used to control the barrier.

Post-alarm sec (10-300)

Send Email ☒

Select Image ☒ Original Image ☒ Plate Cutout

Warning Light ☒

Duration sec (10-3600)

Step 3 Click **Apply**.

5.1.4 Configuring OSD

Select the field that you want to display on the video image. In this solution, you need to select **Vehicle Speed** at least.

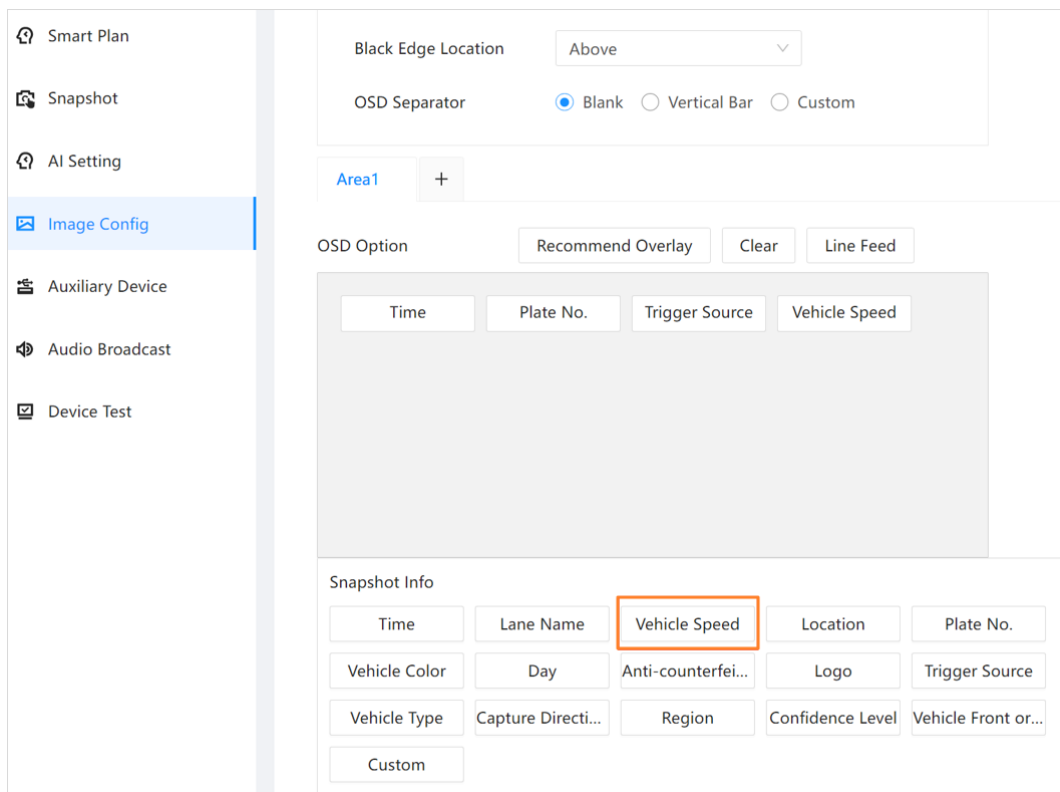
Step 1 Select **ANPR > Image Config**.

Step 2 Configure OSD black edge position and OSD separator.

Step 3 Select **Vehicle Speed**, and other OSD information if needed.

- **Line Feed** : To start a new line after a certain OSD option, click the OSD option, and then click **Line Feed**.
- **Clear** : Delete all the selected OSD options.
- Hover the mouse over the OSD options selected, and then click  to delete the option.
- Click a selected OSD option, and then configure the prefix, suffix and delimiter quantity of the OSD option.

Figure 5-6 Configure OSD



The screenshot shows the 'Image Config' interface. On the left is a sidebar with navigation options: Smart Plan, Snapshot, AI Setting, Image Config (selected), Auxiliary Device, Audio Broadcast, and Device Test. The main area is divided into sections. The top section has 'Black Edge Location' set to 'Above' and 'OSD Separator' with radio buttons for 'Blank' (selected), 'Vertical Bar', and 'Custom'. Below this is a section for 'Area1' with a '+' button. The 'OSD Option' section contains buttons for 'Recommend Overlay', 'Clear', and 'Line Feed'. Below these are four buttons: 'Time', 'Plate No.', 'Trigger Source', and 'Vehicle Speed'. The 'Snapshot Info' section at the bottom contains a grid of buttons: Time, Lane Name, Vehicle Speed (highlighted with an orange border), Location, Plate No., Vehicle Color, Day, Anti-counterfeiting, Logo, Trigger Source, Vehicle Type, Capture Direction, Region, Confidence Level, and Vehicle Front or Rear. A 'Custom' button is at the bottom of this grid.

Step 4 Click **Apply**.

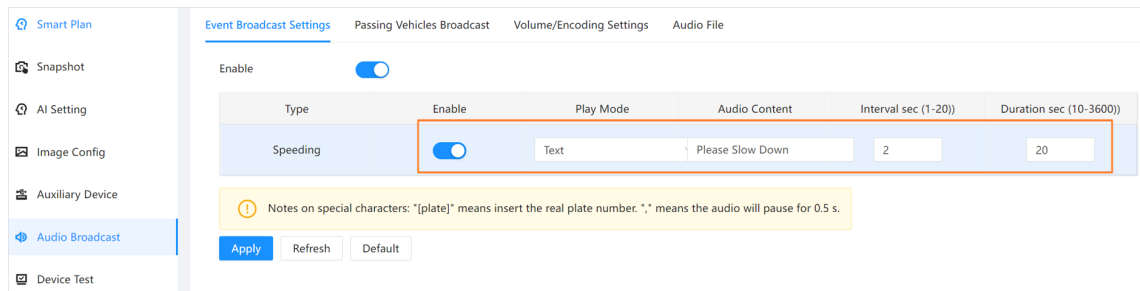
5.1.5 Configuring Audio Broadcast

Configure the audio that will be played when speeding event is detected.

Step 1 Log in to the webpage of the camera, and then select **ANPR > Audio Broadcast > Event Broadcast Settings**.

Step 2 Enable event broadcast, and then select the broadcast parameters, which include play mode (how to play the broadcast), audio content (the content to be played), interval (play the audio every defined seconds) and duration (how long the play lasts).

Figure 5-7 Audio broadcast



Step 3 Click **Apply**.

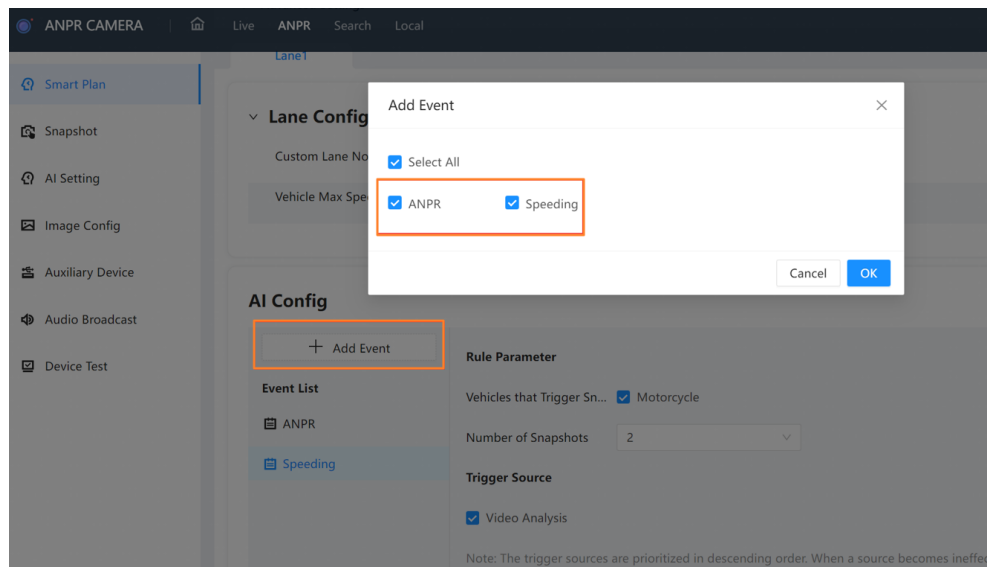
5.1.6 Enabling ANPR and Speeding Events

Step 1 Log in to the webpage of the camera, and then select **ITC** > **Smart Plan**.

Step 2 Configure events for lanes.

1. Select a lane.
2. Click **Add Event**.

Figure 5-8 Add event



3. Select **ANPR** and **Speeding**, and then click **OK**.

5.1.7 Viewing Speed on Radar Speed Sign

After successfully installing and configuring the devices, you can view the speed of the approaching vehicles on the radar speed sign. It shows green value when the vehicle speed is normal, and red when the vehicle is speeding.

Figure 5-9 Speed is normal



Figure 5-10 Speeding



5.2 Configuring NVR

Here uses web operations as the example. For local operations, see the user's manual of NVR.

5.2.1 Adding Cameras

5.2.1.1 Adding Cameras from Search

Search for the remote devices that are on the same network with the NVR, and then add the remote devices from the search results.



We recommend this method when you do not know the specific IP address of the remote device.

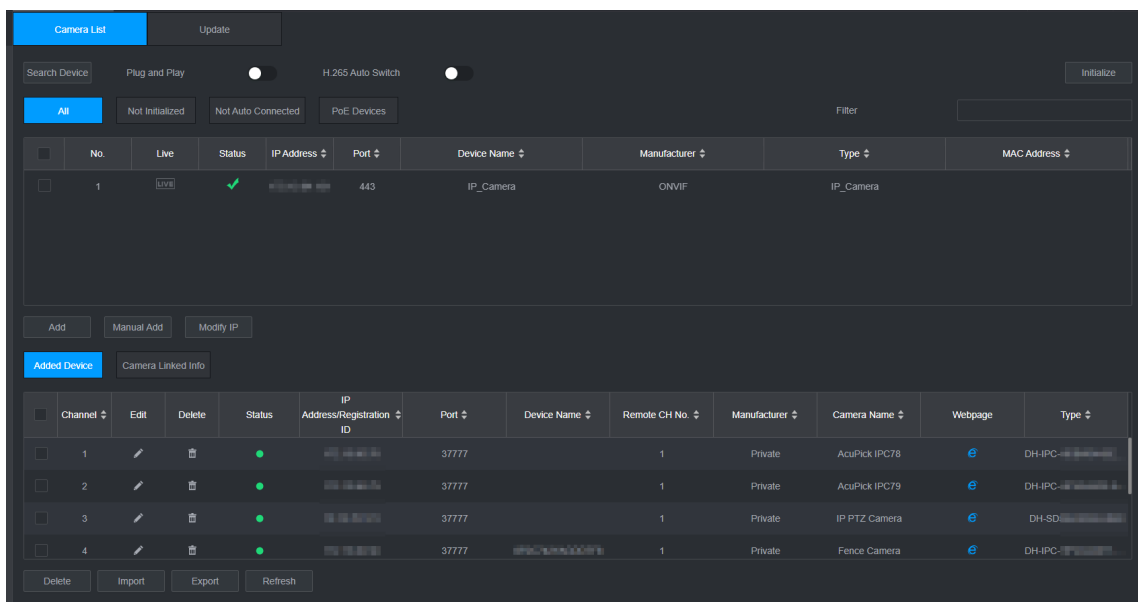
Step 1 Open the browser, enter the IP address of the Device, and then press Enter.

Step 2 In the home page, click **CAMERA**.

Step 3 Click **Search Device**.

The remote devices found are displayed at the upper pane. Devices already added are not included in the searched results.

Figure 5-11 Search device



The screenshot shows the NVR web interface. The top section is 'Camera List' with a search bar and filters. Below it is a table of search results. The bottom section is 'Added Device' with a table of registered devices.

No.	Live	Status	IP Address	Port	Device Name	Manufacturer	Type	MAC Address
1			192.168.1.100	443	IP_Camera	ONVIF	IP_Camera	

Channel	Edit	Delete	Status	IP Address/Registration ID	Port	Device Name	Remote CH No.	Manufacturer	Camera Name	Webpage	Type
1				192.168.1.100	3777		1	Private	AcuPick IPC78		DH-IPC-78
2				192.168.1.101	3777		1	Private	AcuPick IPC79		DH-IPC-79
3				192.168.1.102	3777		1	Private	IP PTZ Camera		DH-SD-PTZ
4				192.168.1.103	3777		1	Private	Fence Camera		DH-IPC-78

Step 4 (Optional) Enable **Plug and Play**.

When **Plug and Play** is enabled, the NVR automatically adds remote devices on the same subnet.



For uninitialized remote devices, the NVR automatically initializes them before adding them.

Step 5 (Optional) Enable **H.265 Auto Switch**.



When **H.265 Auto Switch** is enabled, the video compression standard of added remote devices is switched to H.265 automatically.

Step 6 Double-click a remote device, or select a remote device and then click **Add** to register it to the **Added Device** list.

5.2.1.2 Adding Cameras Manually

Configure the IP address, username, password and other information of the remote device manually to add to the NVR.



We recommend this method when you want to add only a few remote devices and know their IP addresses, usernames and passwords.

Step 1 Open the browser, enter the IP address of the Device, and then press Enter.

Step 2 In the home page, click **CAMERA**.

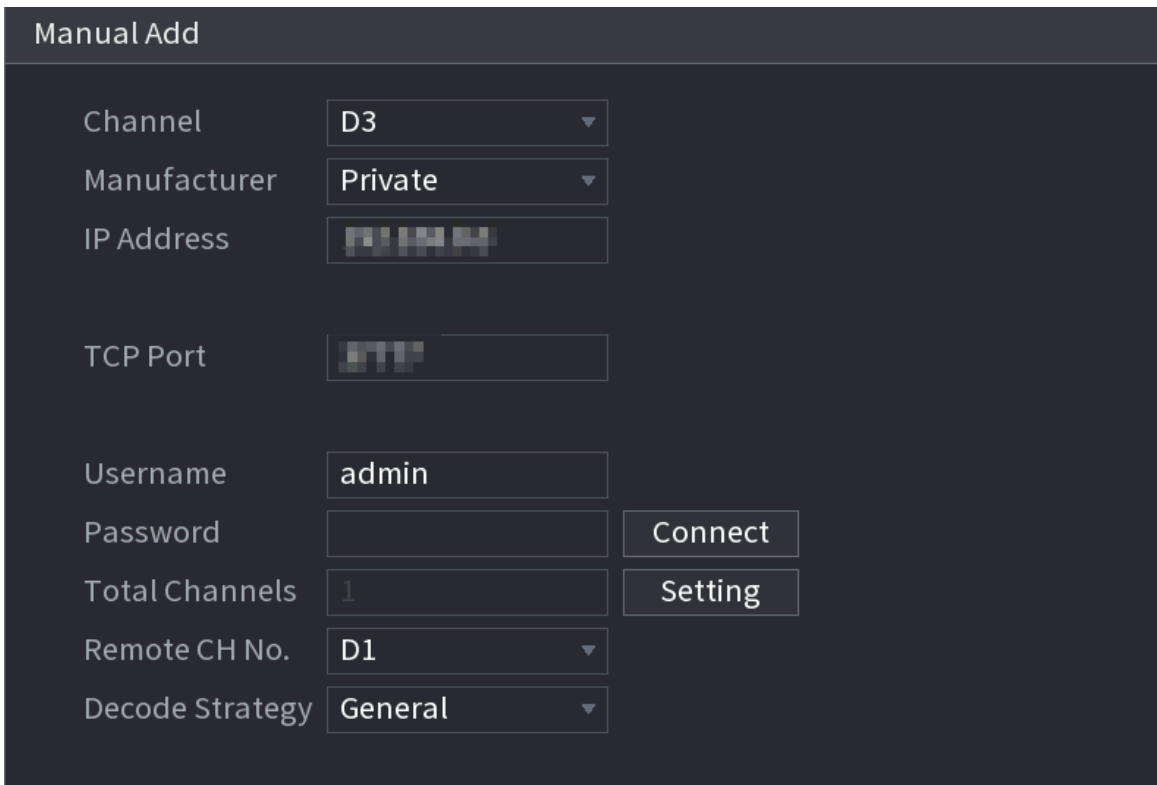
Step 3 (Optional) Enable **H.265 Auto Switch**.



When **H.265 Auto Switch** is enabled, the video compression standard of added remote devices is switched to H.265 automatically.

Step 4 Click **Manual Add**.

Figure 5-12 Manual add



Manual Add	
Channel	D3
Manufacturer	Private
IP Address	192.168.1.1
TCP Port	8080
Username	admin
Password	
Total Channels	1
Remote CH No.	D1
Decode Strategy	General
Connect Setting	

Step 5 Configure the parameters.



The parameters might vary depending on the manufacturer that you select.

Step 6 Click **OK**.

5.2.1.3 Importing Cameras

You can import remote devices in batches.



We recommend this method when you want to add lots of remote devices whose IP addresses, usernames and passwords are not the same.

Step 1 Open the browser, enter the IP address of the Device, and then press Enter.

Step 2 In the home page, click **CAMERA**.

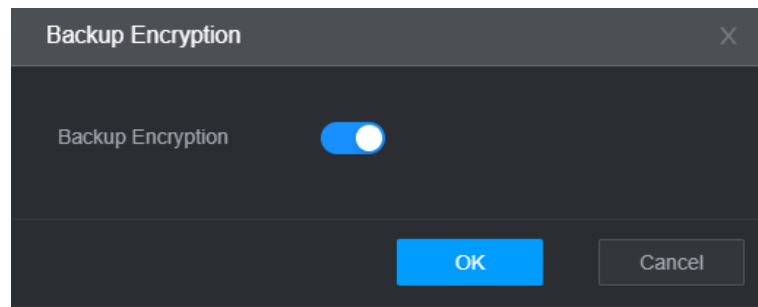
Step 3 Export the template.



The exported template includes the information of the added remote device. Pay attention to your data security.

1. Click **Export**.

Figure 5-13 Backup encryption



2. Enable or disable the backup encryption as needed, and then click **OK**.



- If **Backup Encryption** is enabled, the file format is .backup.
- If **Backup Encryption** is disabled, the file format is .csv. Keep unencrypted files well to avoid data leakage.

3. Select the storage path and then click **Save**.

- The template file is named RemoteConfig_20220222191255.csv. 20220222191255 represents the export time.
- The template includes the IP address, port, remote channel No., manufacturer, username, password and other information.

Step 4 Fill in the template and then save the file.



Do not change the file extension of the template. Otherwise, the template cannot be imported.

Step 5 Click **Import**, select the template file and then open it.

The remote devices in the template are added to the NVR. If the remote device in the template has been added, the system will prompt you whether to replace the existing one on the device list.

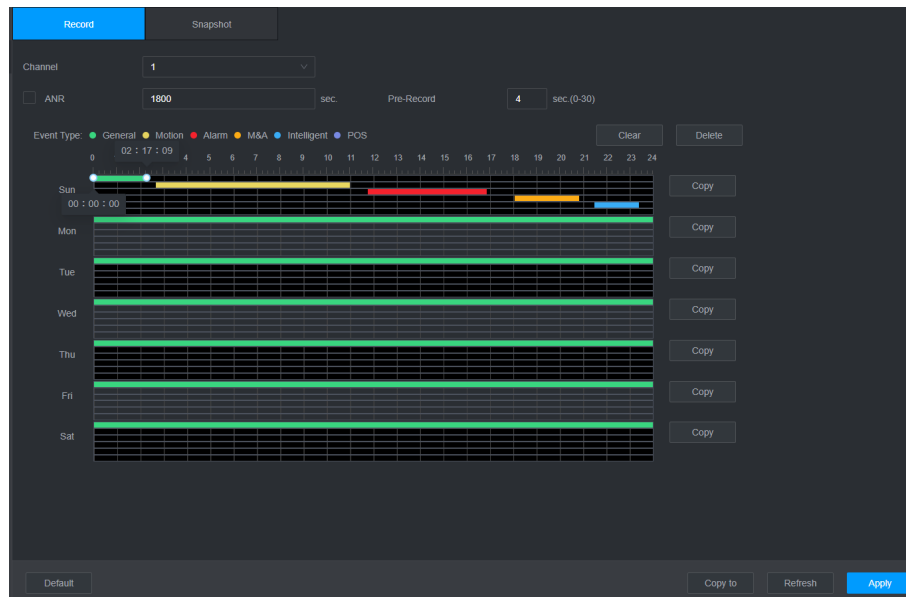
- If you select **Yes**, the system deletes the existing one and import the device again.
- If you select **No**, the system retains the existing one and add the device to another unoccupied channel.

5.2.2 Configuring the Record Plan

5.2.2.1 Saving Videos on NVR

Step 1 Log in to the NVR webpage, and then select **SETTING** > **STORAGE** > **Schedule** > **Record**.

Figure 5-14 Record



Step 2 Select the **Channel** that you need to record, and then configure the event type.



- Click **Copy** to copy the settings to other dates.
- Click **Copy to** to copy the settings to other channels.

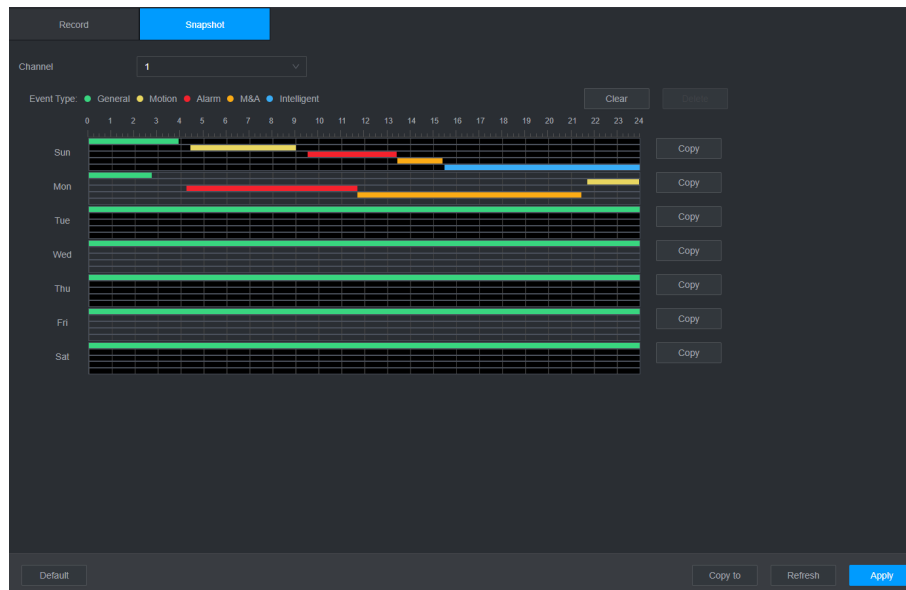
Step 3 Configure **Pre-record** duration, and then the system saves videos before any event as well. For example, if the value is 4, then the system saves videos from 4 seconds before any event starts.

Step 4 Click **Apply**.

5.2.2.2 Saving Snapshots on NVR

Step 1 Log in to the NVR webpage, and then select **SETTING** > **STORAGE** > **Schedule** > **Snapshot**.

Figure 5-15 Snapshot



Step 2 Select the **Channel** that you need to take snapshot, and then configure the event type.



- Click **Copy** to copy the settings to other dates.
- Click **Copy to** to copy the settings to other channels.

Step 3 Click **Apply**.

5.2.3 Configuring Speeding Alarm

Customize the name of speeding, configure corresponding rules, and when the device detects speeding, the system triggers the alarm linkage action.

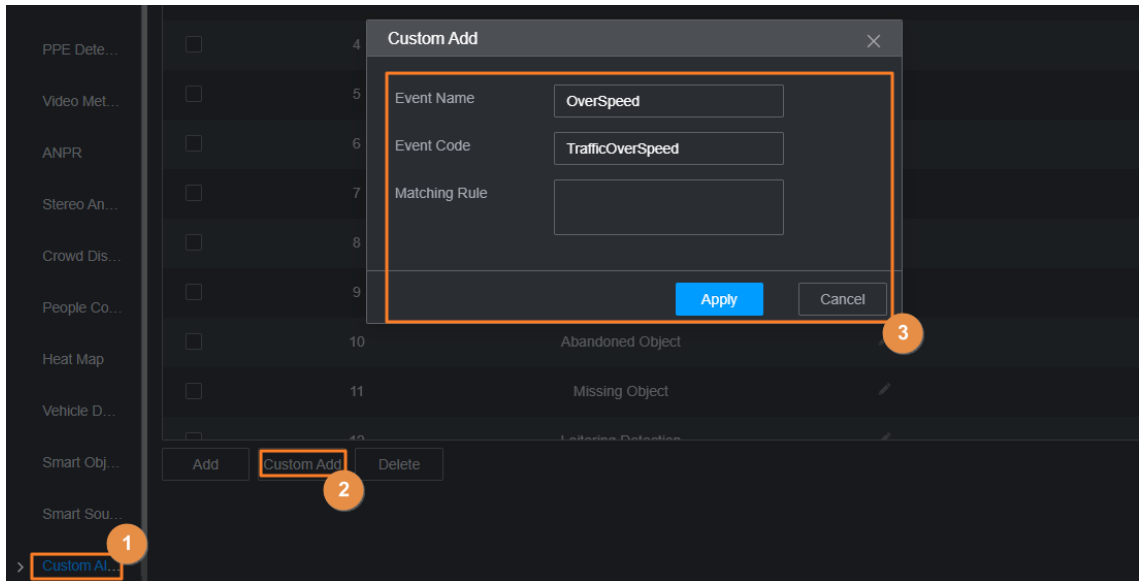
Step 1 Log in to the webpage of NVR, and then select **Main Menu > EVENT > AI Settings > Custom Alarm**.

Step 2 Click **Add** to select an event and then click **OK**.

Step 3 Click **Custom Add**, configure event name, event code and matching rule and then click **OK**.

- **Event Name**: Customize the name of speeding.
- **Event Code**: It must be **TrafficOverSpeed**.
- **Matching Rule**: Leave it blank.

Figure 5-16 Configure custom add



5.2.4 Viewing Alarm Details

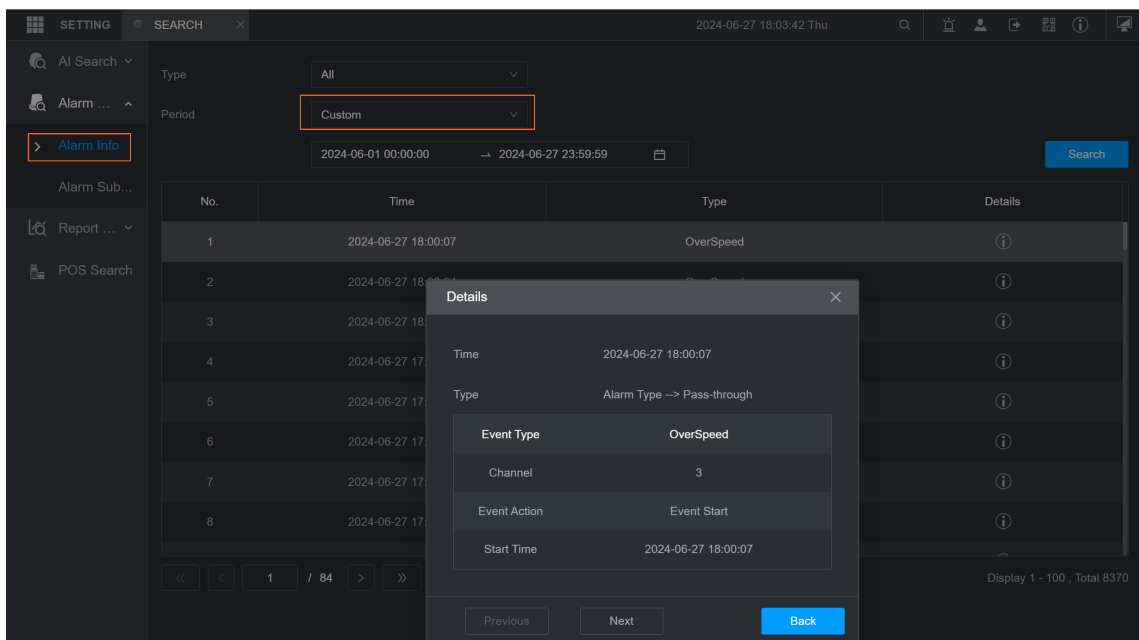
You can search for and view alarm details on the NVR.

Step 1 Log in to the webpage of NVR, and then select **Main Menu** > **SEARCH** > **Alarm Info**.

Step 2 Set the search conditions, including event type and period, and then click **Search**.

Step 3 Click  to view alarm details.

Figure 5-17 Search alarms

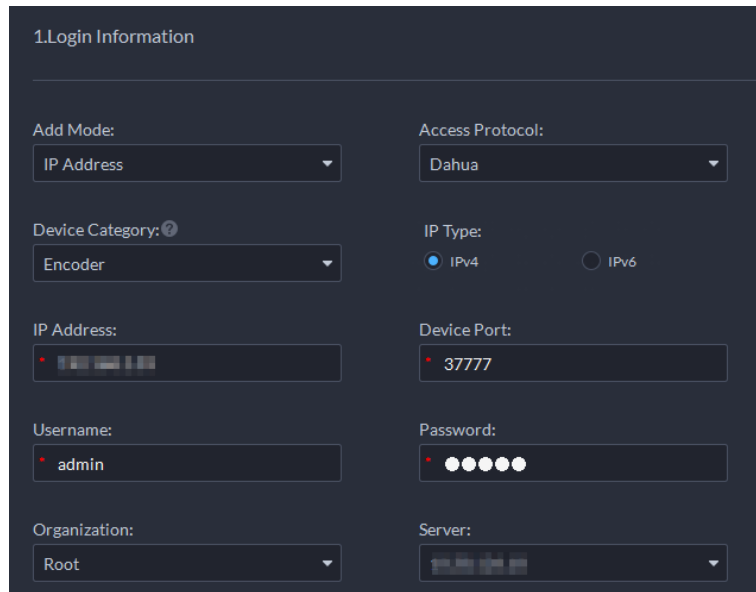


5.3 Configuring DSS Express

5.3.1 Adding NVR

- Step 1** Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.
- Step 2** Click .
- Step 3** Click **Add**.
- Step 4** Enter device login information, and then click **Next Step**.
Select **IP Address** and **Encoder** when adding NVR.

Figure 5-18 Add NVR



1.Login Information

Add Mode: IP Address

Access Protocol: Dahua

Device Category: Encoder

IP Type: ☒ IPv4 ☐ IPv6

IP Address: [Redacted]

Device Port: 3777

Username: admin

Password: [Redacted]

Organization: Root

Server: [Redacted]

- Step 5** Enter the device information.
- Step 6** Click **OK**.
- To add more devices, click **Continue to add**.
 - To go to the NVR webpage, click .

5.3.2 Modifying Features of NVR Channel

Procedure

- Step 1** Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Device**.
- Step 2** Click .
- Step 3** Click  of NVR, and then edit device information.
Click **Get Info** and the system will synchronize device information.

Figure 5-19 Basic information

← All Devices

Basic Info

Video Channel

Alarm Input Channel

Alarm Output Channel

Basic Info

Access Protocol

Dahua

Manufacturer

Dahua

Organization

Current Site

Server

* IP Address

* Device Port

37777

Modify Device Login Info

Device Details

* Device Name

Device Model

Device Type

IVSS/IVD

Device SN

Time Zone

(UTC-12:00) International Date Line West

Details

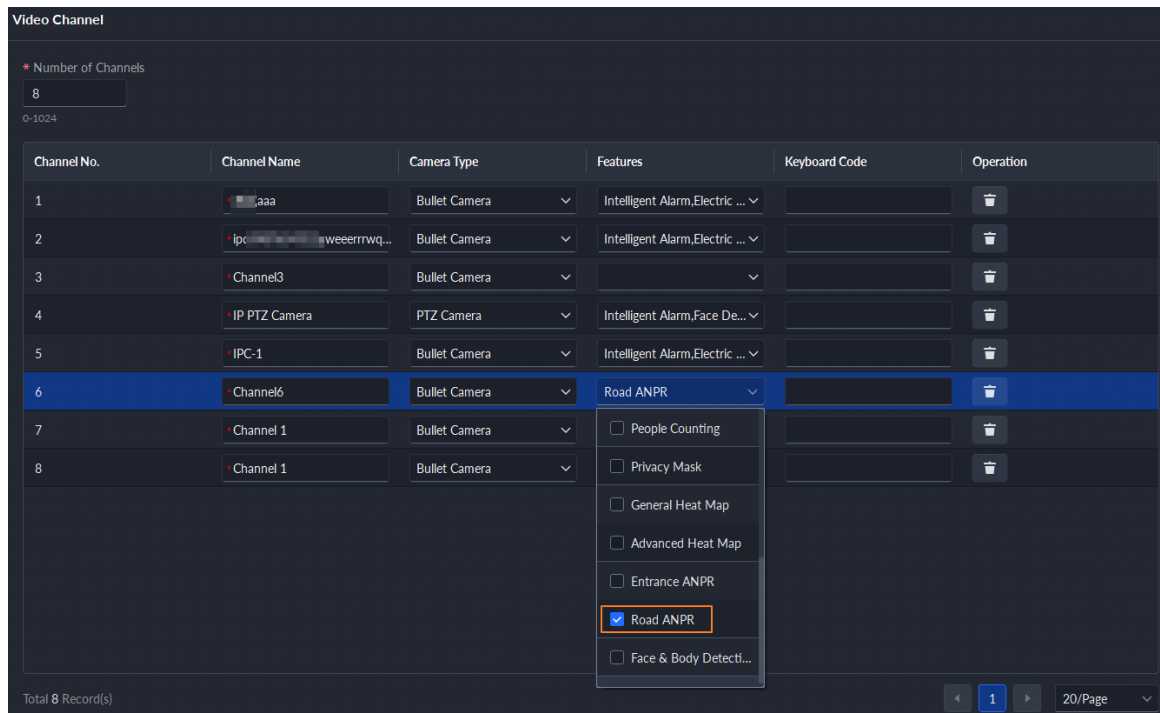
Get Info

OK

Cancel

Step 4 Click **Video Channel**, and then configure the channel name and channel features.
Set the **Features** of ANPR channel to **Road ANPR**.

Figure 5-20 Configure features of NVR channel



Step 5 Click **OK**.

5.3.3 Time Synchronization

Synchronize the system time of all connected devices, PC client, and the server. Otherwise the system might malfunction. For example, video search might fail. The platform supports synchronizing the time of multiple devices, which have the same time zone as the platform. You can synchronize the time manually or automatically.

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **System Config** section, select **System Parameters**.

Step 2 Click the **Time Sync** tab, enable the sync methods, and then set parameters.

Figure 5-21 Enable time synchronization

- **Scheduled Time Sync:** Enable the function, enter the start time in time sync for each day, and the interval.
- **Sync Time When Device Comes Online:** Syncs device time when the device goes online.
- **NTP Time Sync:** If there is an NTP server in the system, you can enable this function so that the system can synchronize its time with the NTP server.

Step 3 Click **Save**.

Step 4 (Optional) Enable time synchronization on DSS Client.

1. Log in to the DSS Client, and then in the **Management** section, click **Local Settings**.
2. Click the **General** tab, select the check box next to **Time Sync**, and then click **Save**.



The system immediately synchronizes the time after you restart the client to keep the time of the server and the PC client the same.

Figure 5-22 Enable time sync

3. Restart the client for the configuration to take effect.

5.3.4 Configuring Server Disk

Configure local disk to store different types of files, including videos, images, and normal files. In addition to the local disks, you can also connect an external disk to the platform server, but you have to format the external disk before using it.



Do not use a USB drive as a server disk. It usually does not have the performance and stability required by the platform, which might result in data lost.



- To set up local storage, you need a physical disk with only one volume or any volume of one physical disk. Back up the data of the disk or volume before setting its disk type, which will format and erase all data from it.
- One physical disk with only one volume or any volume of one physical disk can only store one type of files. If you need to store more than one type of files, you need more than one physical disks or volumes, but it cannot be the one where you installed the operating system of the server or the management tool.

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then in the **Basic Config** section, select **Storage**.

Step 2 Select .

Step 3 Format a disk to set a storage type.

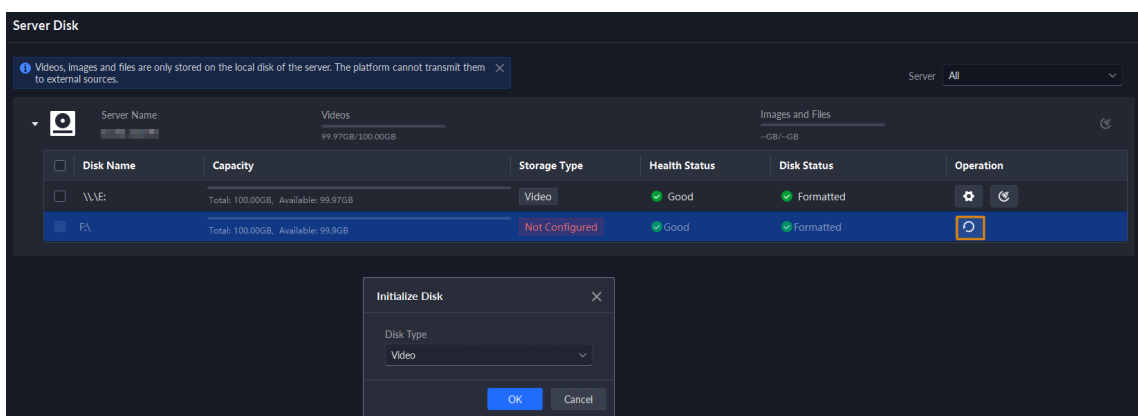
1. Select user volume, and then click .
2. Select storage type, and then click **OK**.

- **Video** : Stores videos.
- **Images and Files** : Stores all types of images and temporary files.



If you do not set up one or more disk types, you will not be able to properly use corresponding functions. For example, if you do not set up an **Image and File** disk, you will not see images in all alarms.

Figure 5-23 Format a disk



Step 4 Manage local disks.

- To configure disk type: Click .
- To format a disk: Select a disk or user volume, click .

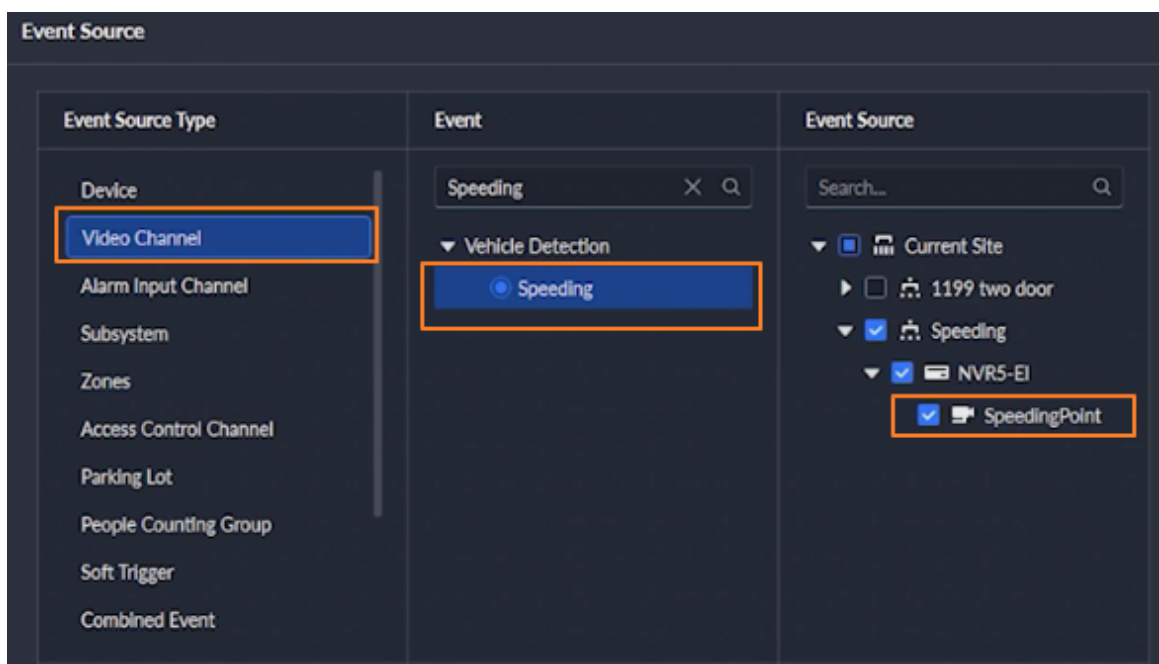
5.3.5 Configuring Speeding Event Linkage

Configure the speeding event source, and the linked actions. When the speeding event is triggered, the platform will perform the actions you defined, such as taking a snapshot or recording a video.

Procedure

- Step 1** Log in to the DSS Client. On the **Home** page, click , and then in the **App Config** section, select **Event** > **Event Config**.
- Step 2** Click **Add**.
- Step 3** Configure the event source. Select **Video Channel** and **Speeding**, and then select the event sources.

Figure 5-24 Configure speeding event source



- Step 4** Configure the priority, when the event can be triggered, and other information.

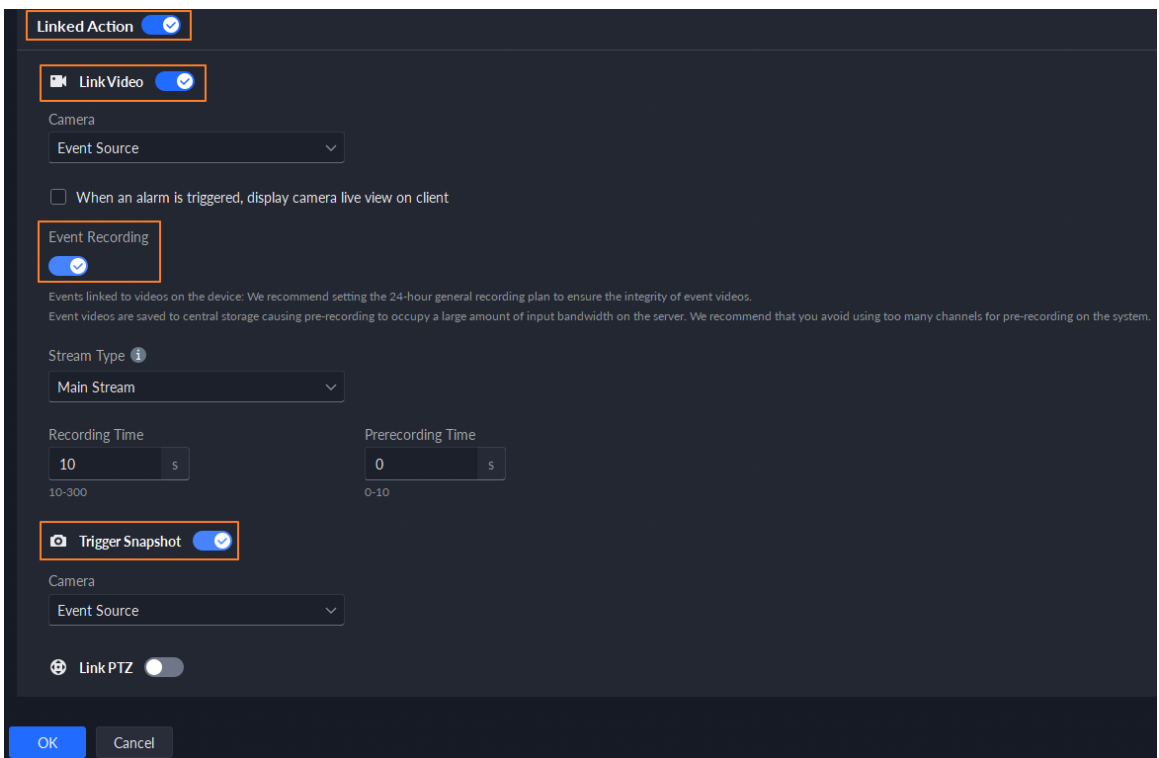
Table 5-1 Parameter description

Parameter	Description
Scheme Name	Enter a name for the scheme.
Priority	The priority level is used to quickly know the urgency of the event when it is triggered.
Time Template	Select a time template for when the event can be triggered.

Parameter	Description
Holiday Template	If the time template and holiday template overlap, only the holiday template will be effective. During the defined periods, events will be received by the platform normally. Outside of the defined periods, events will not be received by the platform. To create a new template, follow the steps below. 1. In the drop-down box, click Create Custom Holiday Template. 2. Enter a name for the template. 3. Click Add, and then add a period and adjust the time. You can add up to 6 periods. 4. (Optional) If there are other holiday templates, you can select Copy From, and then select a template to copy its periods. 5. Click OK.
Alarm Storm Config	After enabled, if certain alarms are frequently triggered, you can configure an interval during which they can only be triggered once. For example, a tripwire alarm can only be triggered once in 10 seconds. This function is only available to event sources selected in the previous step. The configurations here enjoy higher priority if alarm storm for the same event is configured from Event > Alarm Config > Alarm Storm Config.
Remarks	Enter remarks on events.

Step 5 Configure alarm linkage actions.

Figure 5-25 Alarm linkage actions



Linked Action ☒

Link Video ☒

Camera

Event Source

☐ When an alarm is triggered, display camera live view on client

Event Recording ☒

Events linked to videos on the device. We recommend setting the 24-hour general recording plan to ensure the integrity of event videos. Event videos are saved to central storage causing pre-recording to occupy a large amount of input bandwidth on the server. We recommend that you avoid using too many channels for pre-recording on the system.

Stream Type *i*

Main Stream

Recording Time: 10 s (Range: 10-300)

Prerecording Time: 0 s (Range: 0-10)

Trigger Snapshot ☒

Camera

Event Source

☒ Link PTZ

OK Cancel

- To link video, enable **Linked Action > Link Video**, and then configure the parameters.

Table 5-2 Parameter description

Parameter	Description
Camera	◇ Event source: The camera of the alarm itself is linked when the alarm occurs. ◇ Bound camera: If the channel is bound to one or more video channels, you can view the real-time videos of the bound channel when an alarm is triggered. ◇ Select camera: Select a camera so that you can view the camera video when the associated alarm is triggered.
When an alarm is triggered, display camera live view on client	Enable this parameter, and then the platform will open the real-time video of the channel where an alarm is triggered, and play it in the defined stream type.  After the event is configured, select Local Settings > Alarm, enable Open Alarm Linkage Video and set how the video will be opened, As Pop-up or Open in Live View.
Event Recording	The platform will record videos when an alarm is triggered. It will be saved to the video disk of the platform.
Stream Type	Define the stream type of the recorded video. If you select main stream, the recorded video will be in higher quality than sub stream, but it requires more storage.
Recording Time	The duration of the recorded video.
Prerecording Time	When there is recorded video that is stored on the device or platform before the alarm is triggered, the platform will take the defined duration of that video, and then add it to the alarm video. For example, when the prerecording time is set to 10 s, then the platform will add 10 s of video before the alarm is triggered to the alarm video.  ◇ If the alarm video is stored on the device, we recommend you configure a 24-hour recording plan to make sure that there is prerecorded content to add to the alarm video. ◇ If the alarm video is stored on the platform, the platform will record videos and use certain input bandwidth continuously. ◇ This parameter is not applicable to alarms in parking lots.

- To trigger a snapshot, enable **Trigger Snapshot**. The platform takes 1 snapshot, and save them to the Image and File disk.

Select a video channel, and then it will take a snapshot when an alarm is triggered.

Step 6 Select users or user groups who will receive the notification when an alarm is triggered.

The users will only receive notifications when they are logged in.



If the page becomes too long because you need to configure many parameters, you can use the pane on the right to quickly go to different positions.

Step 7 Click **OK**.

5.3.6 Commissioning

5.3.6.1 Viewing Live Video

View the live video of connected devices.

Step 1 Log in to the DSS Client. On the **Home** page, click , and then click **Monitoring Center** > **Monitoring**.

Step 2 Click **Live View** tab.

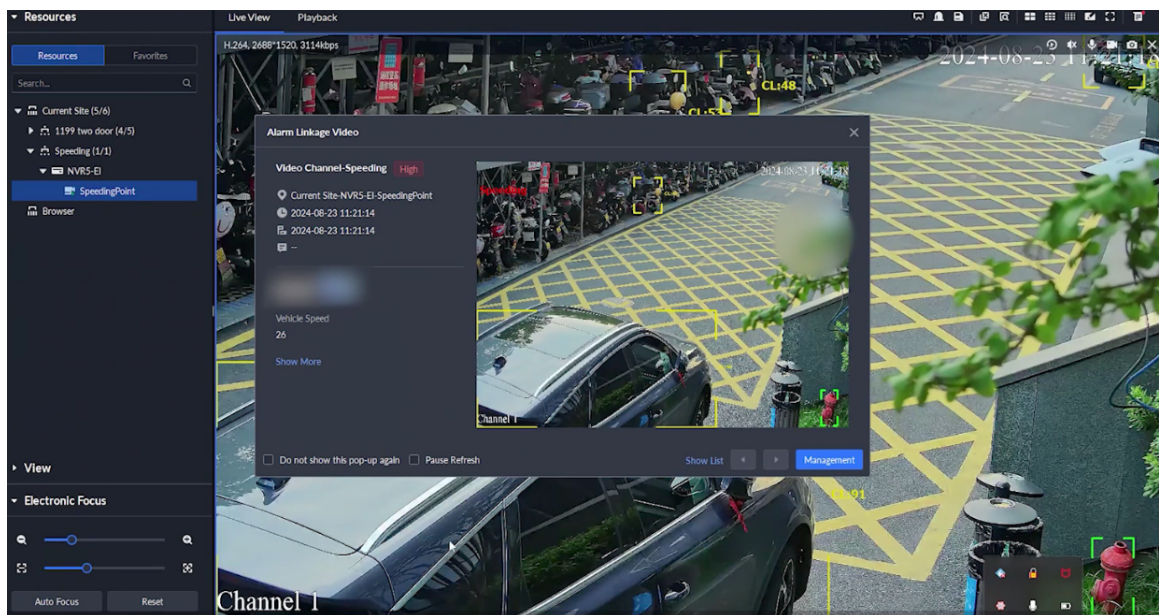
Step 3 View real-time video.

You can view live video in the following ways:

- Double-click a channel or drag the channel from the device list on the left to one window on the right.
- Double-click a device to view all channels under the device.

When a speeding event is triggered, the alarm linkage video pop-up will appear, and you can view the alarm details.

Figure 5-26 View live video



Step 4 Click **Management**, and then you can go to the **Real-time Event** page to view and process the alarm. For details, see "5.3.6.3 Real-time Alarms".

5.3.6.2 Playing Back Video

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Monitoring Center**.

Step 2 Click the **Playback** tab.

Step 3 Double-click or drag a channel to a window on the right.

Step 4 Select the storage path of recorded video from **Stored on Device**, and then click  to select the date.



- Dates with blue dots means there are videos.
- After selecting a date, the platform will search for videos on that date from other channels. If you switch to the **Live View** page, or close the page or the PC client, the date will be reset.

Step 5 Click  to play the video.

Step 6 Hover over the video, and then the icons appear. You can perform the following actions.

Table 5-3 Function description

Icon	Name	Description
	Take a recording on the device	Click this icon to start recording. The recorded video is stored locally. The saving path is C:\DSS\DSS Client\Record\ by default.
	Take a snapshot on the device	Take a snapshot of the current image and save it locally. The saving path is C:\DSS\DSS Client\Picture\by default.
	Close	Close the window.
	Map location	If the device has been marked on the map, click the icon to open the map in a new window to display map location of the device.
	Search by snapshot	Capture the target in the playback window. Click  to select the search method, and then the system goes to the page with search results. More operations: • Place the mouse on the selected area, and then drag to move the selection area. • Place the mouse to the upper-left, upper-right, and lower-left corner of the selected area, drag to adjust the size of the selection area. • Right-click to exit search by snapshot.
	Tag	Tag the videos of interest for easy search in the future.

5.3.6.3 Real-time Alarms

View and process real-time alarms.

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click , and then select **Event Center**.

Step 2 Click **Real-time Event**.

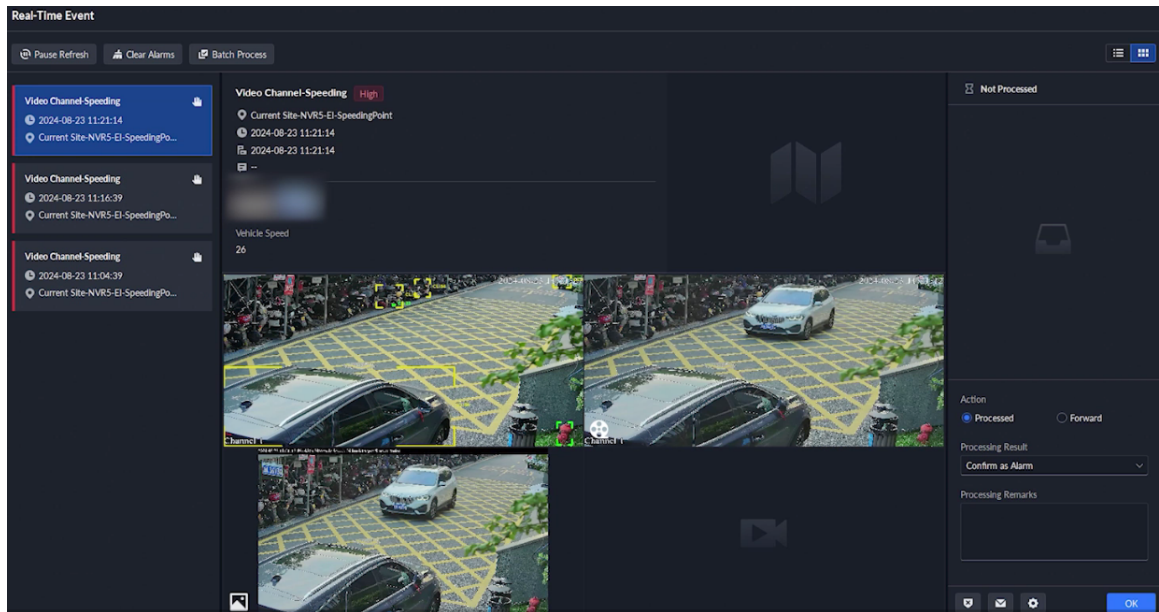


The alarm list is refreshed in real time. To stop refreshing, click **Pause Refresh**. To continue receiving alarms, click **Start Refresh**.

Step 3 Click  to claim an alarm.

After an alarm has been claimed, the username of your account will be displayed under the **Processed by** column.

Figure 5-27 Real-time event



Step 4 Process alarms.



You can use the up and down arrow keys on the keyboard to quickly select other alarms.

1. Click or double-click the alarm.
2. On the right side, select how to process the alarm, enter some comments, and then click **OK**.

Forward allows you to forward the alarm to another user who will process it.

3. Click and configure the parameters related to the processing comments, and then click **OK**.
 - **Require Processing Remarks to be Entered** : After enabled, users must enter some content in the processing comments to successfully process alarms.
 - **Pre-processing Remarks** : Configure the predefined comments for each processing status. The content will be automatically filled in when users select different status for alarms.

Related Operations

- The platform also supports processing alarms in batches. Click **Batch Process**, select multiple alarms, and then you can process them in batches.
- When viewing the recorded videos, you can select a target manually, and then search for it in DeepXplore.

5.3.6.4 History Alarms

Search for and process history alarms.

Procedure

Step 1 Log in to the DSS Client. On the **Home** page, click and then select **Event Center**.

Step 2 Click **Event History**.

Step 3 Set search conditions, including time, source type, event, and event source, and then click **Search**.



In the **Processing Remarks** section, you can search for events by entering remarks that are defined when processing or forwarding the event.

Figure 5-28 View history alarms

No.	Alarm Time	Alarm Category	Alarm Type	Alarm Source	Priority
1	2024-08-23 11:21:14	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
2	2024-08-23 11:16:39	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
3	2024-08-23 11:12:21	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
4	2024-08-23 11:04:41	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
5	2024-08-23 11:04:39	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
6	2024-08-23 10:59:14	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
7	2024-08-23 10:59:13	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High
8	2024-08-23 10:55:02	Video Channel	Speeding	NVR5-EI-SpeedingPo...	High

Step 4 Double-click an event record to view the event details. You can click the **Info**, **Snapshot**, **Recording**, or **Map** tab to view the event details, and snapshots, play the video or map information.

Step 5 Claim and process alarms. For details, see "5.3.6.3 Real-time Alarms".



You can use the up and down arrow keys on the keyboard to quickly select other alarms.

Related Operations

When viewing the recorded videos and snapshots, you can select a target manually, and then search for it in DeepXplore.

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