



Network Camera User Manual

4G Solar-powered ANPR Parking Camera

4G Solar-powered ANPR Road Traffic Camera

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Chapter 1. Introduction

Thank you for purchasing our product. If there is any question or request, please do not hesitate to contact your dealer.

This manual may contain technical inaccuracies or typographical errors, and the content is subject to change without notice. The updates will be added into the new version of this manual. We will readily improve or update the products or procedures described in the manual.

This Manual explains how to use and manage Milesight 4G Solar-powered ANPR Camera. Please read this manual carefully before the operation and retain it for future reference.

1.1 Copyright Statement

This manual may not be reproduced in any form or by any means to create any derivative such as translation, transformation, or adaptation without the prior written permission of Xiamen Milesight IoT Co., Ltd (Hereinafter referred to as Milesight).



reserves the right to change this manual and the specifications without prior notice.

The latest specifications and user documentation for all Milesight products are available on our official website <https://www.milesight.com/security/>

1.2 Safety Instructions

These instructions are intended to ensure that user can use the product correctly to avoid danger or property loss. The precaution measures are divided into “Warnings” and “Cautions”.

Warnings: Serious injury or death may be caused if any of these warnings is neglected.

- This installation must be conducted by a qualified service person and should strictly comply with the electrical safety regulations of the local region
- To avoid risk of fire and electric shock, do keep the product away from rain and moisture before installed.
- Do not touch components such as heat sinks, power regulators, and processors, which may be hot
- Please make sure the plug is firmly inserted into the power socket
- If the product does not work properly, please contact your dealer. Never attempt to disassemble the camera by yourself

Cautions: Injury or equipment damage may be caused if any of these cautions are neglected.

- Make sure that the power supply voltage is correct before using the camera

- Do not store or install the device in extremely hot or cold temperatures, dusty or damp locations, and do not expose it to high electromagnetic radiation
- Only use components and parts recommended by manufacturer
- Do not drop the camera or subject it to physical shock
- To prevent heat accumulation, do not block air circulation around the camera
- Laser beams may damage image sensors. The surface of image sensors should not be exposed to where a laser beam equipment is used
- Use a blower to remove dust from the lens cover
- Use a soft, dry cloth to clean the surface of the camera. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry
- Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface finishes
- Save the package to ensure availability of shipping containers for future transportation

1.3 Revision History

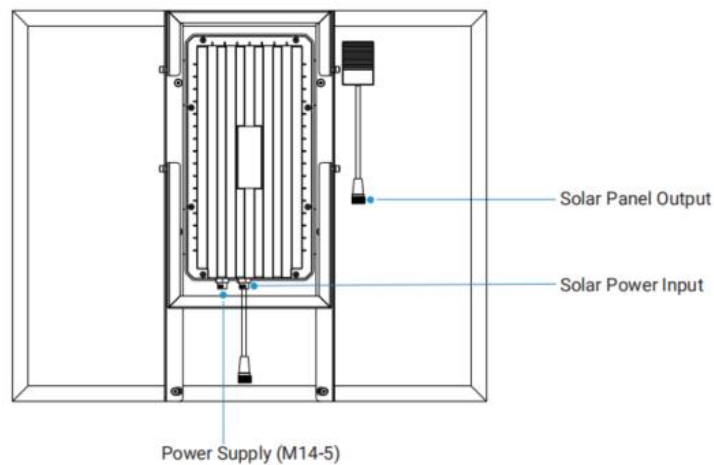
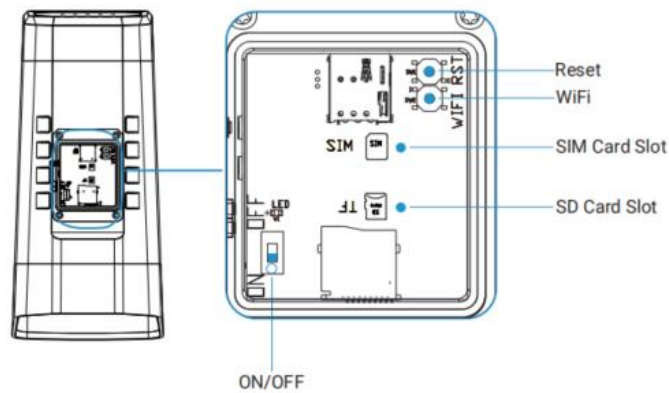
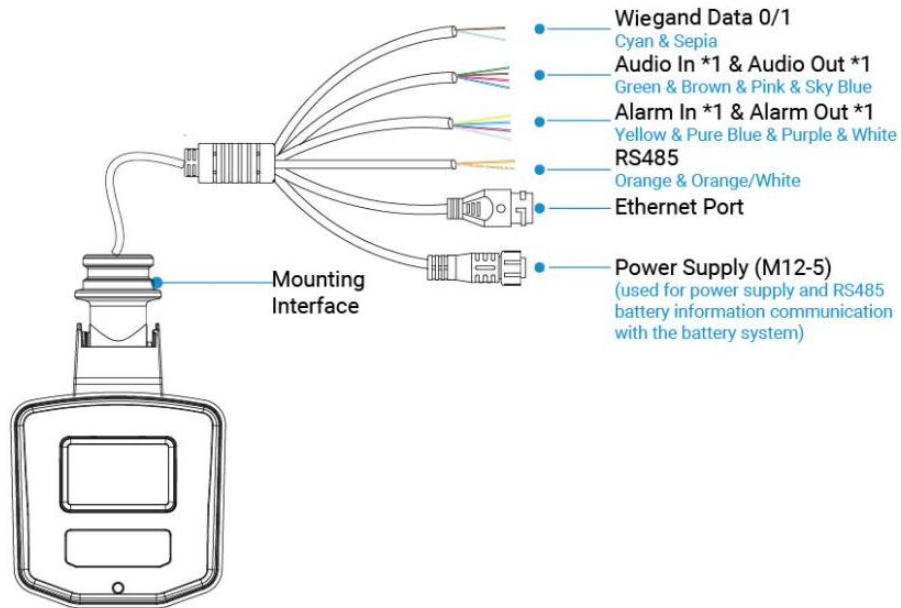
Version	Revision Content	Release Date
V1.0	First release	Aug 31, 2026

1.4 Related Resources

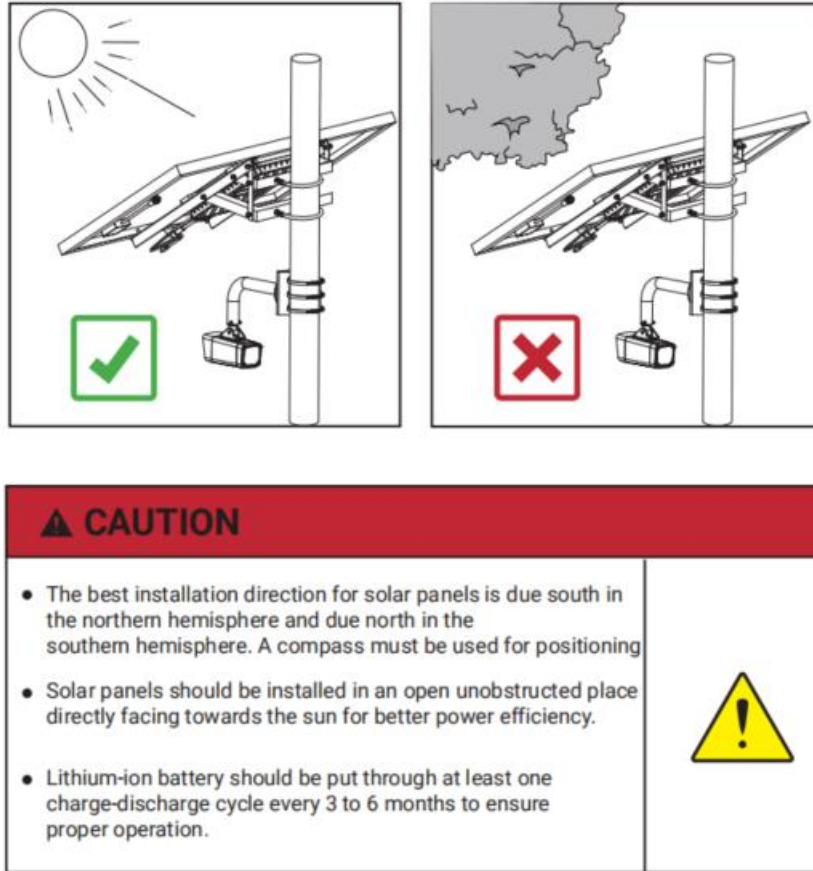
4G Solar-powered ANPR Camera	
Resource Type	Link
Datasheet - Road Traffic	https://resource.milesight.com/milesight/security/document/datasheet/ipc/Solar-powered-series/milesight-4g-solar-powered-anpr-road-traffic-camera-datasheet.pdf
Datasheet - Parking	https://resource.milesight.com/milesight/security/document/datasheet/ipc/Solar-powered-series/milesight-4g-solar-powered-anpr-parking-camera-datasheet.pdf
Quick Start Guide	https://resource.milesight.com/milesight/security/document/user-manual/ipc/milesight-4g-solar-powered-camera-kit-quick-start-guide.pdf
Installation Guide	https://resource.milesight.com/milesight/security/document/user-manual/ipc/Solar-powered-series/milesight-4g-solar-powered-anpr-cameras-installation-guide.pdf

Chapter 2. Product Introduction

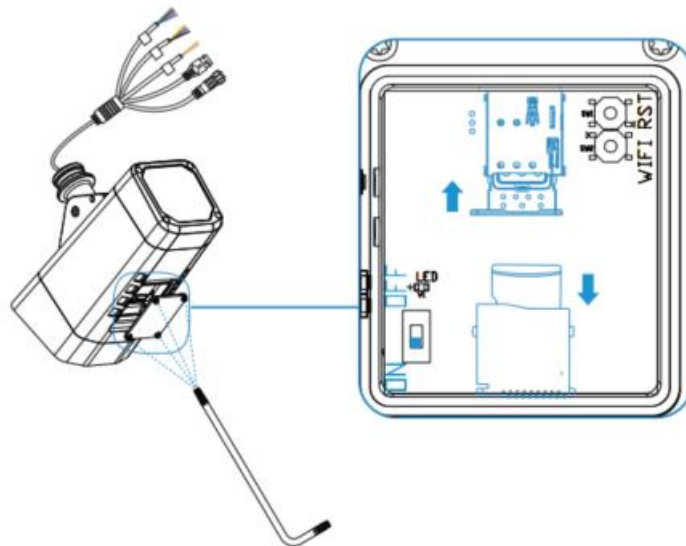
2.1 Hardware Overview



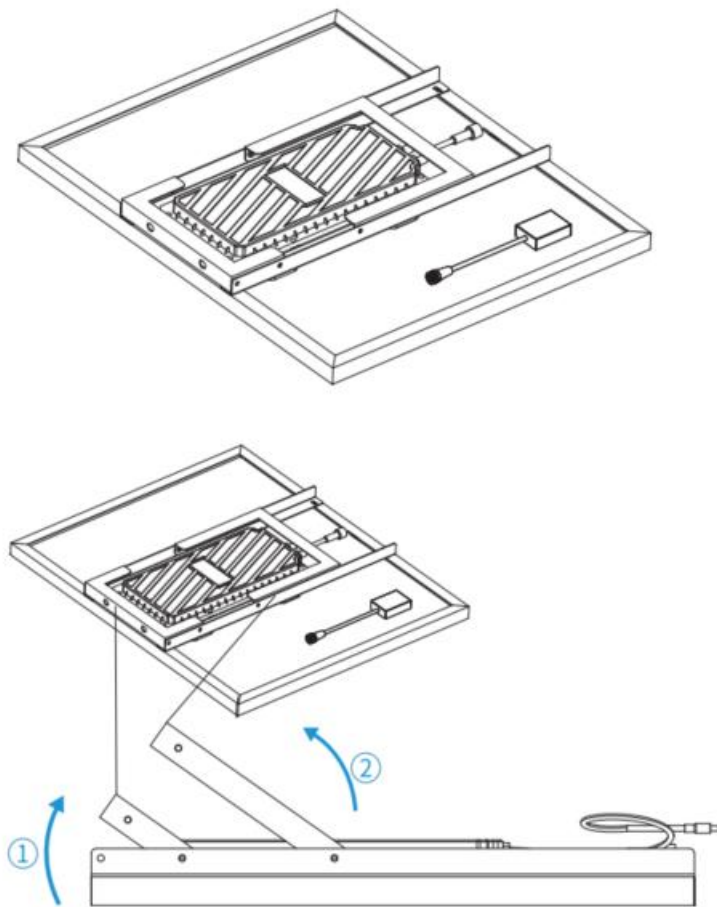
2.2 Installation



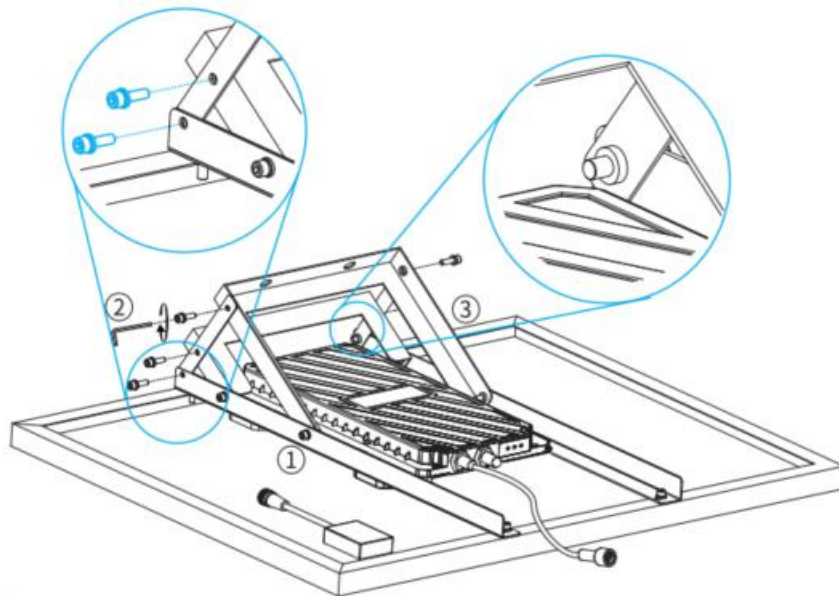
Step 1: Use a screwdriver to remove the back cover at the bottom of the camera. Insert the SD card and SIM card.



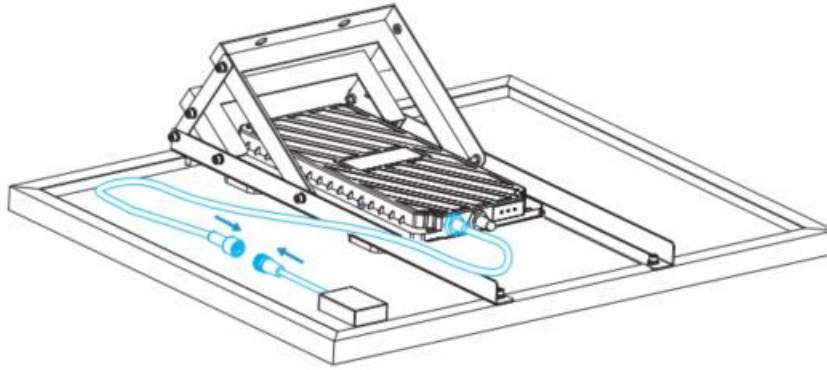
Step 2: Place the solar panel kit horizontally



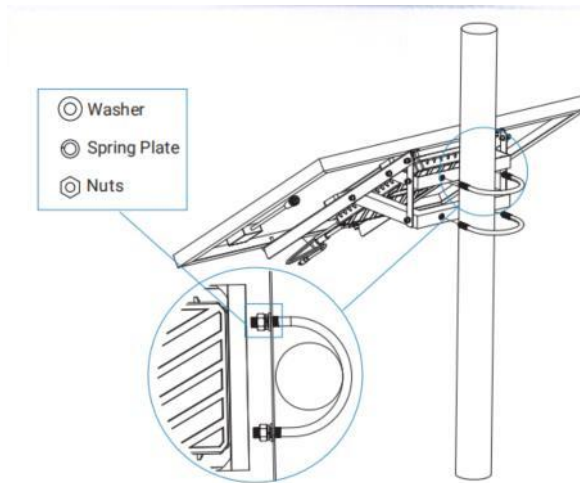
Step 3: Fasten the brackets on both sides. Make sure the screw holes on the top plate line up with the bracket's inner holes.



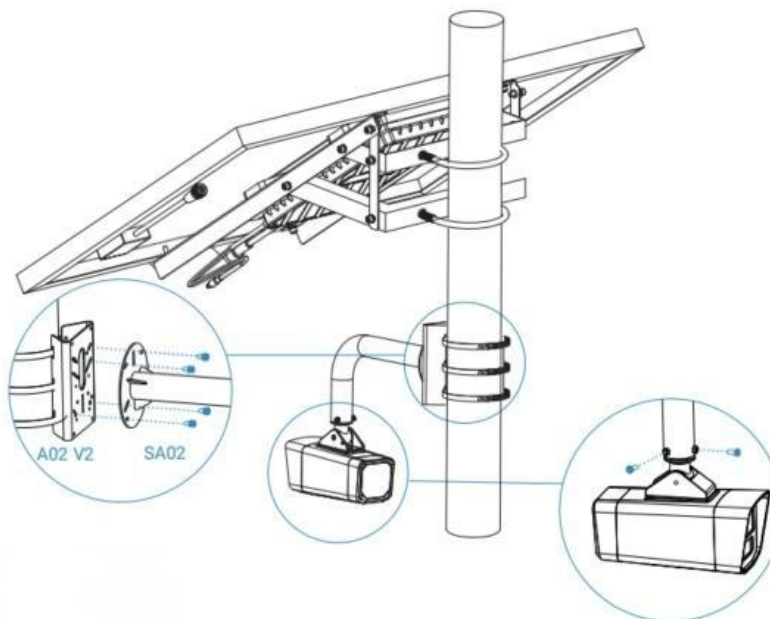
Step 4: Connect the Solar Panel Output to the Solar Power Input on the battery.



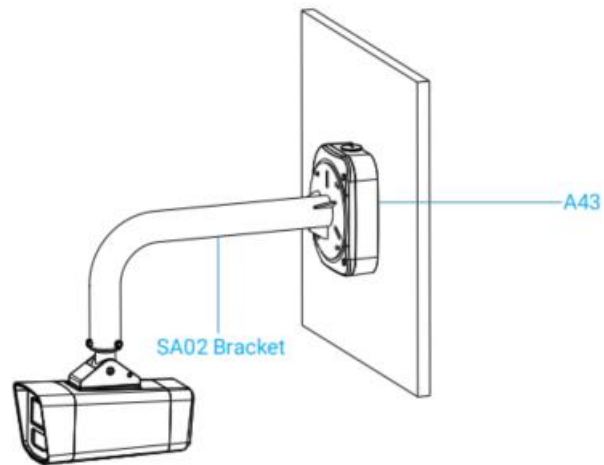
Step 5: Secure the equipment onto a vertical pole (diameter 80mm–114mm) using U-type hoops and the provided fastener sets (including nuts, washers, and spring washers).



Pole Installation

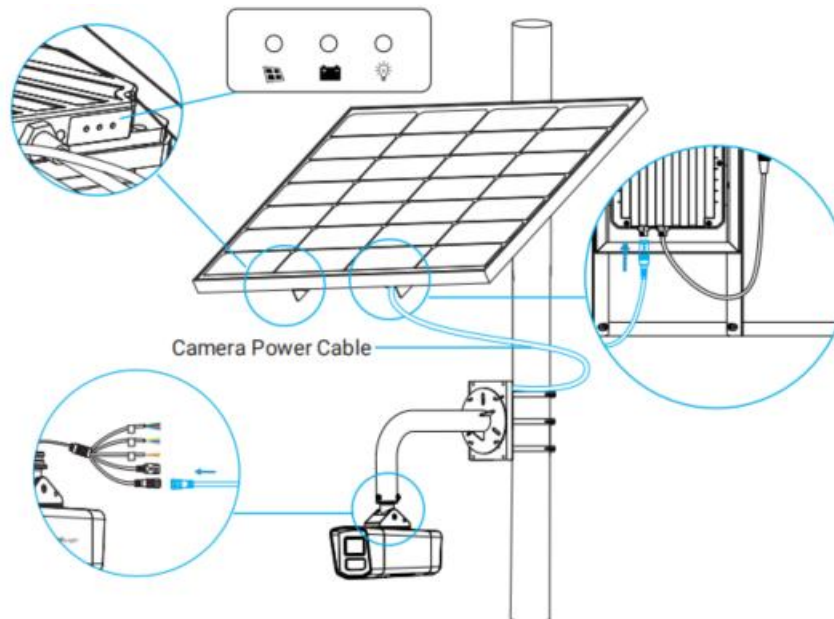


Wall Installation



Step 6:

Connect the power output interface of the solar panel to the Camera Power Cable, and then connect the other end of the cable to the camera. After installing and securing the camera, check the status of the indicator lights.



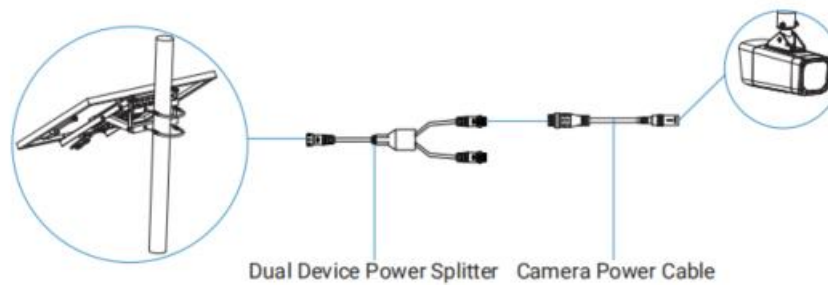
Indicator Light Status:

Indicator	Colour	Status
 Solar panel indicator		ON: Solar energy is charging the battery OFF: Solar energy did not charge the battery Flashing: Battery capacity exceeds 95% and the battery is fully charged
 Battery indicator		ON: Battery voltage is normal Slow Flashing: Insufficient battery voltage, indicator flickers once every 4 seconds Quick Flashing: Low battery voltage protection activated, indicator flashes once every 1 second
 Load indicator		ON: There is voltage output at the output terminal OFF: There is no voltage output at the output terminal

Cable Connection

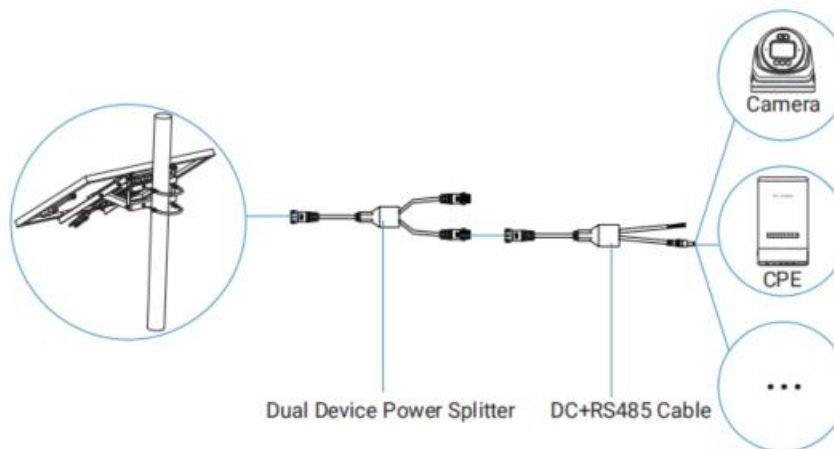
1. Dual Device Power Splitter

A 1-to-2 power cable. Used to simultaneously power two devices (e.g., a network bridge and a camera) from a single solar output.



2. Bridge Data & Power Cable

Supports various DC-powered devices (cameras, network bridges, etc.). Features RS485 data transmission for solar system status monitoring.



Chapter 3. Accessing and Activating the Device

This chapter describes how to activate and access the SP112 camera for the first time, including device activation methods, Web login, AP configuration, and the setup wizard.

3.1 Device Activation

SP112 supports three activation methods:

- Method 1: Wired network via Smart Tools or Web browser. Connect the camera to the network via Ethernet cable. Use Smart Tools to discover and activate the device, or access the camera's IP address(192.168.5.190) directly via a Web browser to complete activation.
- Method 2: Wi-Fi AP mode. Power on the camera and connect your PC to the camera's default Wi-Fi AP (SSID printed on the device label). Open a browser and navigate to the default AP IP address(192.168.1.1) to access the activation page.
- Method 3: Milesight Device Portal. For enterprise deployments, the camera can be activated remotely through the Milesight Device Portal.

Password Requirements:

Parameter	Requirement
Password Length	8-63 characters
Character Requirements	Must include uppercase, lowercase, numbers, and special characters
Password Strength	Weak/Medium: Not allowed to save. Strong (4 character types): Allowed to save
Format Prompt	Password must be between 8-63 characters and include uppercase, lowercase, numbers, and special characters.

 Note: To obtain a Strong-strength password (required for saving), the password must contain all four character sets: uppercase letters, lowercase letters, numerals, and special characters.

3.1.1 Accessing and Activating the Device via Ethernet

The Network Camera must be assigned an IP address to be accessible. The default IP address of Milesight network cameras is **192.168.5.190**.

You can either change the IP address of the camera via Smart Tools or browser. Connect the camera in the same LAN of your computer first.

3.1.1.1 Via Smart Tools

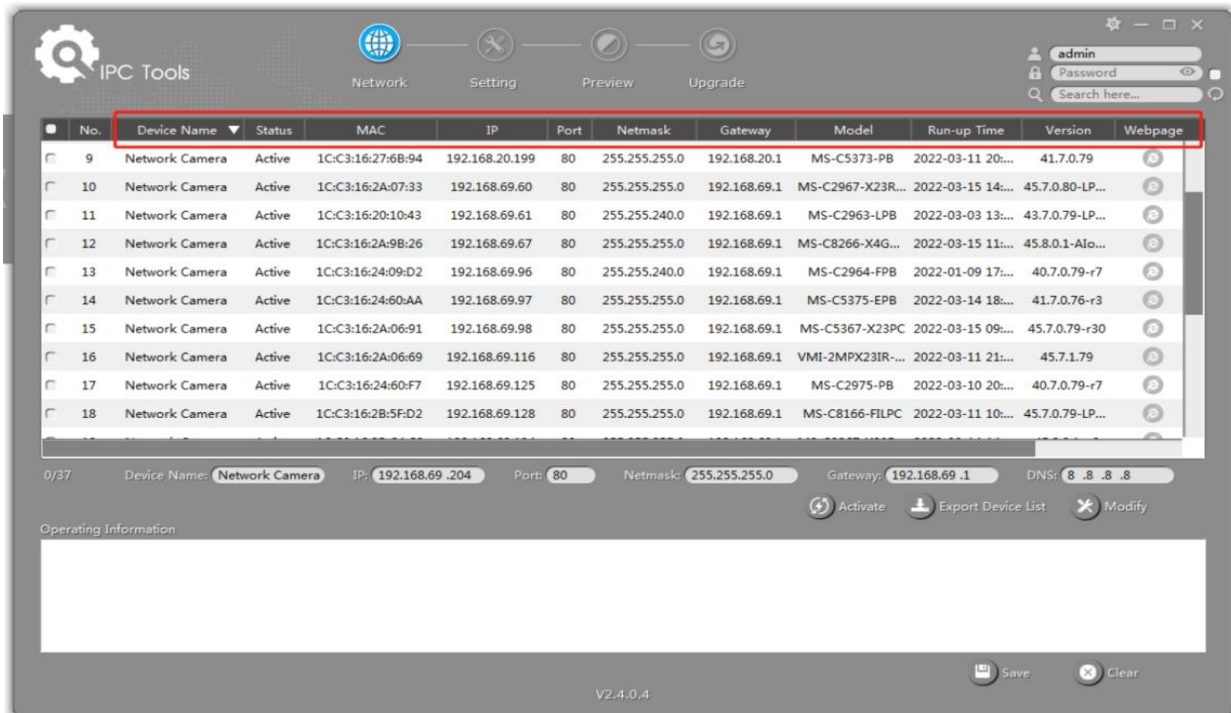
Smart Tools is a utility that automatically detects online Milesight network cameras within the local area network. It supports IP configuration and firmware upgrade management and is recommended for bulk-camera deployment.

You can refer to the following steps to assign an IP address via Smart Tools.

Step1: Install Smart Tools from the official website.

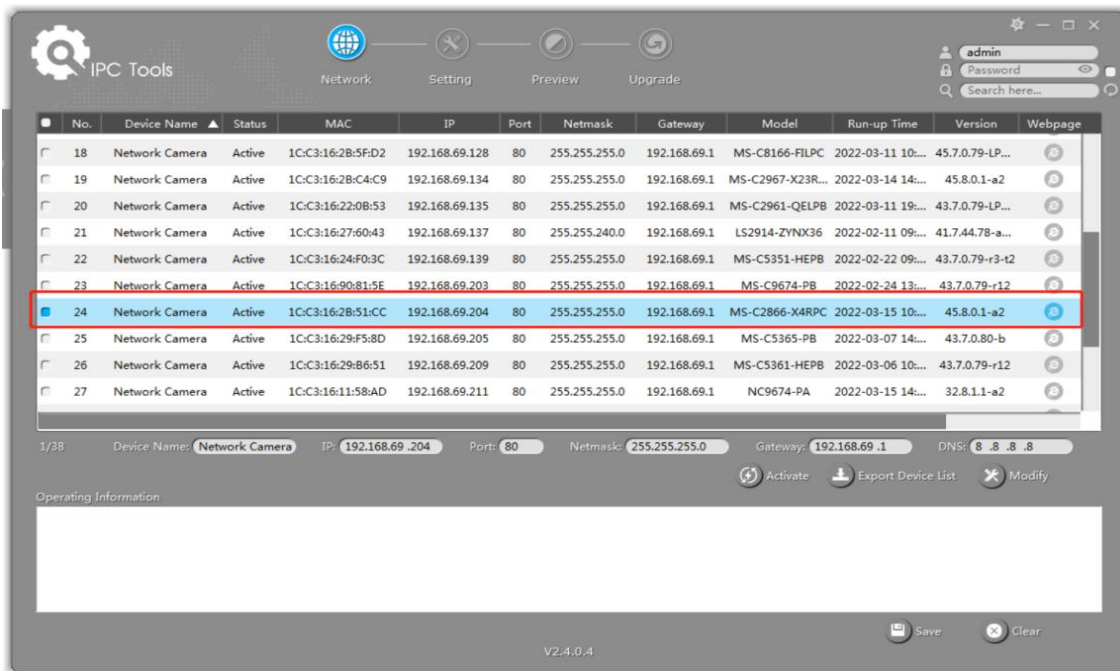
Step2: Start Smart Tools, choose the IPC Tools page, and enter the device information,

such as IP address, MAC address, Status, Port number, Netmask, and Gateway. All related Milesight network cameras in the same network will be displayed. Details are shown as the figure below.

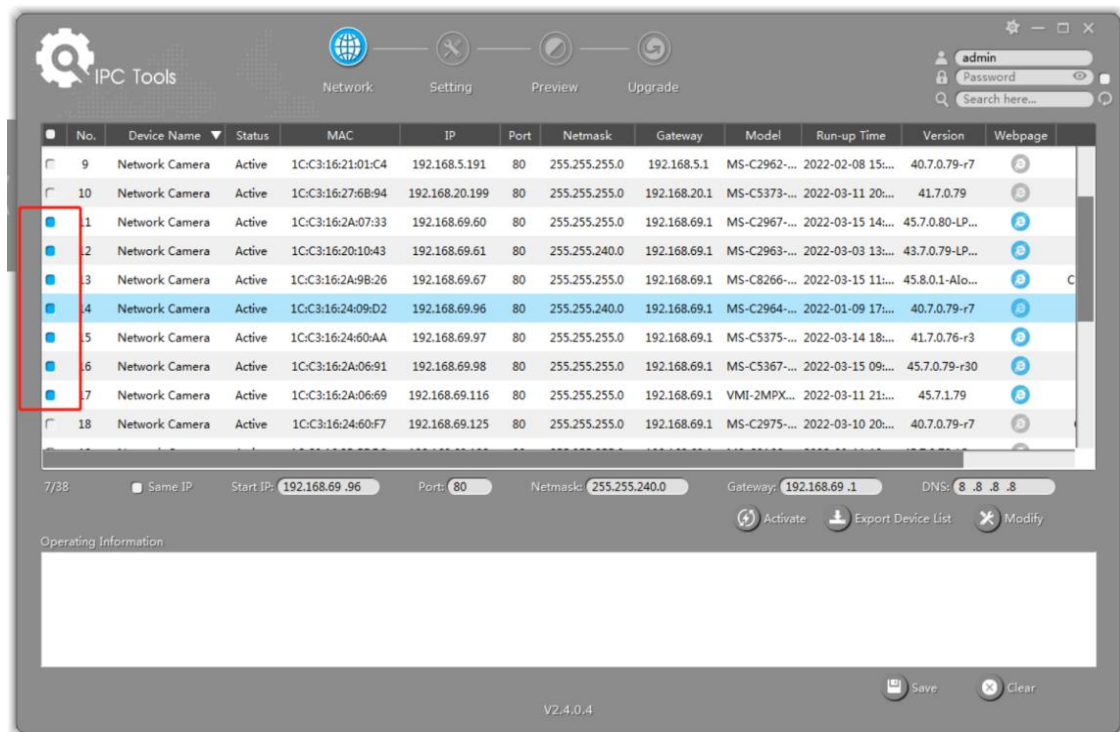


Step3: Select one or more cameras according to the MAC addresses.

Select a single camera:



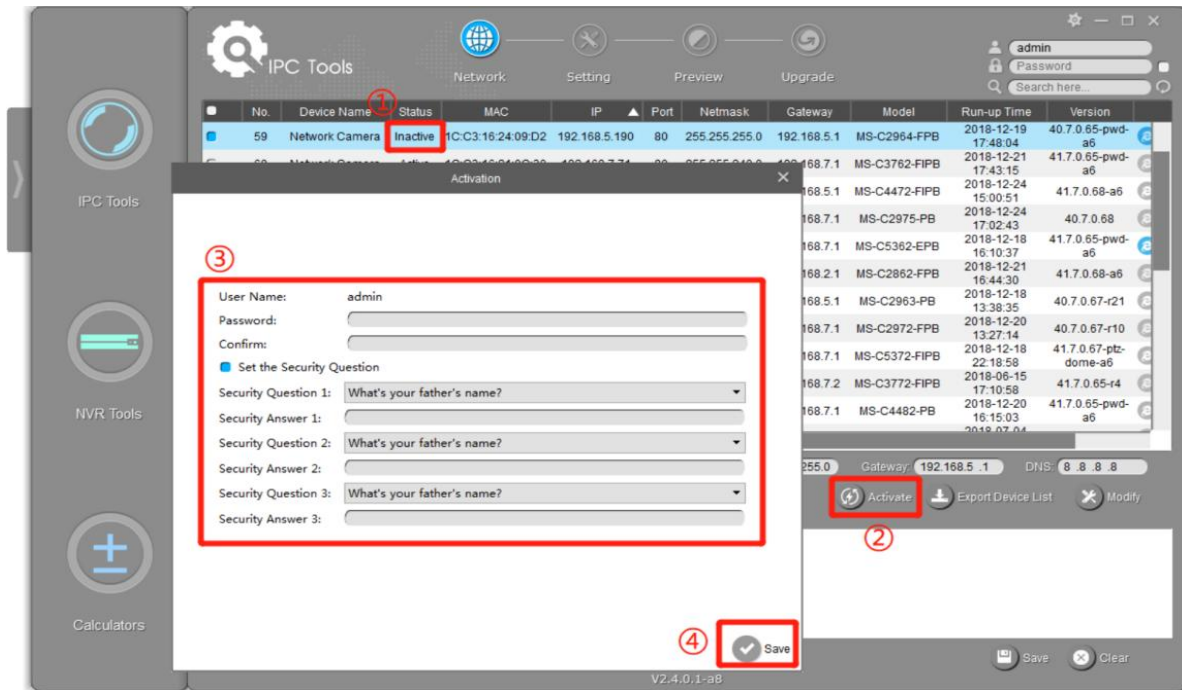
Select multiple cameras:



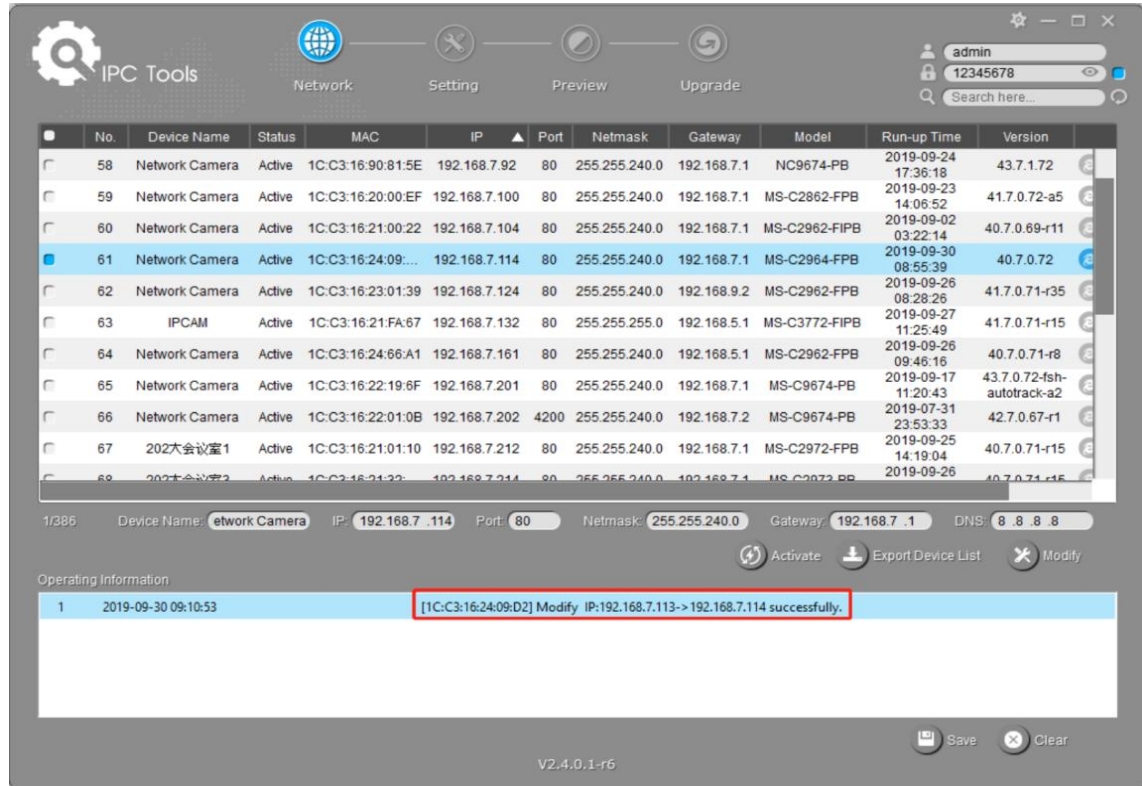
Step4: If the selected cameras show **Inactive** in the status bar, click **Activate** to set the password when using them for the first time. You can also set the security questions when activating the camera in case that you forget the password (You can reset the password by answering three security questions correctly). Click **Save** and it will show that the activation was successful.

 Note:

- Upgrade the Smart Tools version to V2.4.0.1 or above to activate the camera.



Step5: After activation, you can change the IP address or other network values, and then click **Modify** button.



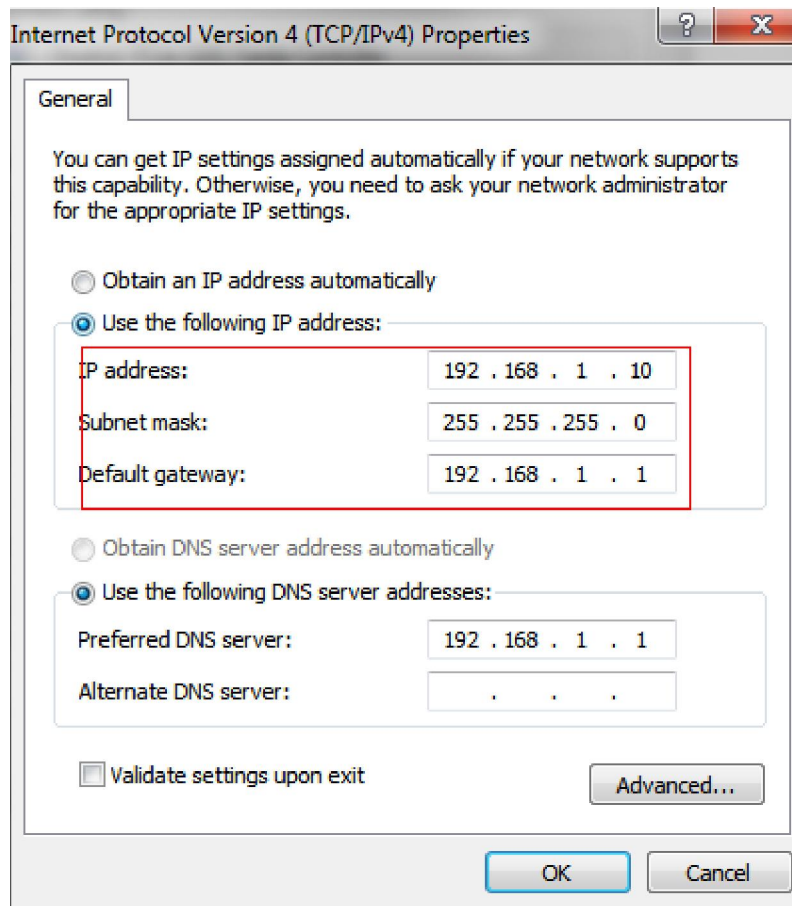
For more usage details about Smart Tools, refer to the **Smart Tools User Manual**.

3.1.1.2 Via Browser

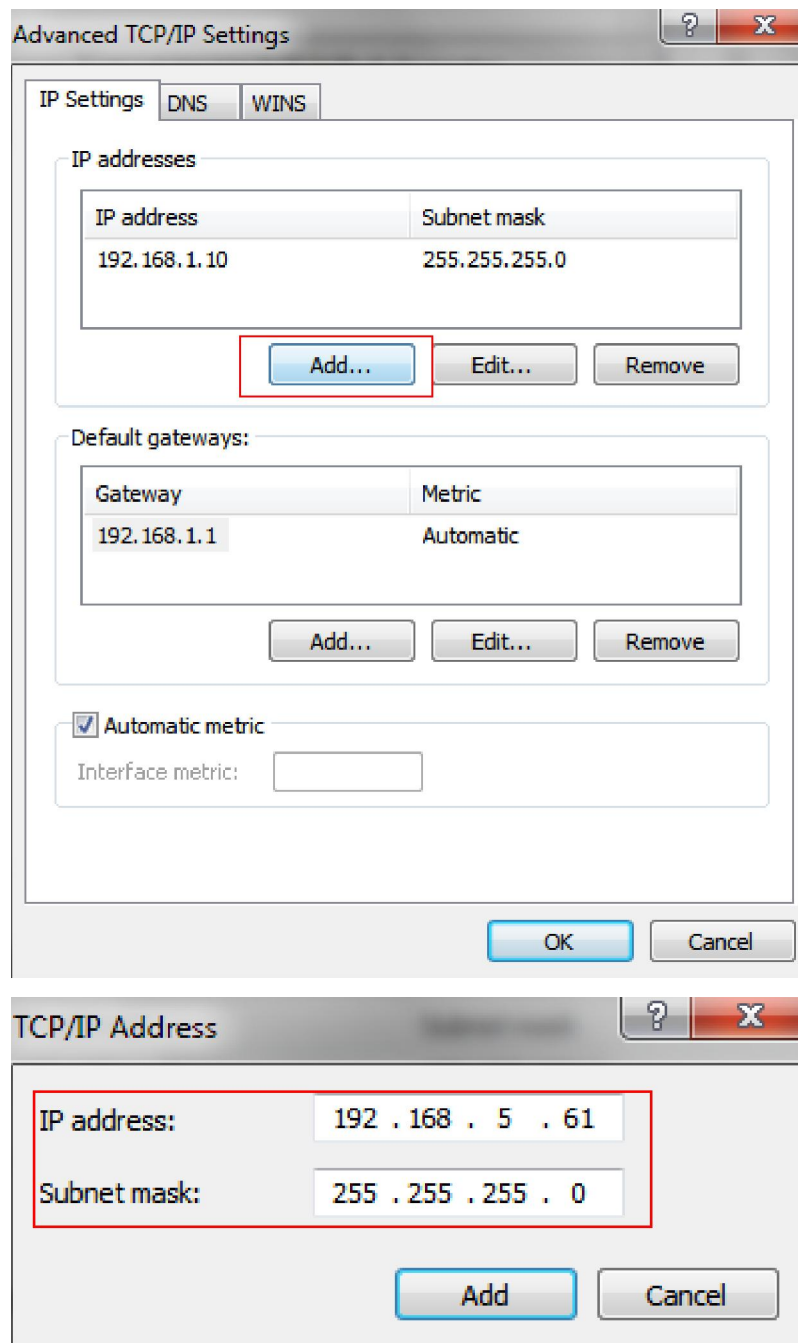
If the network segment of the computer and that of the camera are different, follow the steps to change the IP address:

Step1: Change the IP address of computer to 192.168.5.0 segment, there are two ways as below:

a. Choose **Start > Control Panel > Network and Internet Connection > Network Connection > Local Area Connection**, and double click it.



b. Click **Advanced** and choose **IP settings > IP address > Add**. In the pop-up window, enter an IP address that in the same segment with Milesight network camera (e.g. 192.168.5.61, but please note that this IP address shall not conflict with the IP address on the existing network).



Step2: Open your browser and enter the default IP address of the camera (<http://192.168.5.190>) in the address bar. On first login, you will be prompted to set a password to activate the device.

3.1.2 Accessing and Activating the Device via Wi-Fi AP

Step 1: Press the camera's Wi-Fi button to turn on the Wi-Fi.

Step 2: Use mobile devices or laptop to connect to the device's Wi-Fi.

The Wi-Fi name is SP112_xxxxxx (xxxxxx is the last six bits of the MAC address).



 **Note:** When the device is powered on, the indicator light will slowly flash green until the device is fully booted, at which point it will remain solid green. The Wi-Fi of device is automatically enabled when the device is powered on.

Step 3: Enter the IP address 192.168.1.1 in your browser. You will be prompted to set a password to activate the device upon first login.

3.1.3 Accessing and Activating the Device via Milesight Device Portal

Procedure

1. Log in to [Milesight Device Portal](#).
2. On the top bar, select the **Device** tab.



3. Click **Add**.
4. In the pop-up window, fill in the basic information.

Add Device

* SN/DevEUI
4056

Product
AI TrueColor Dome Network Camera M

* Name
SP112

Description

i Inactive devices: Set an admin username and password for device activation and platform connection authentication.
Activated devices: Provide current device credentials to authenticate platform access.

* Admin Account
admin

* Password
.....

Project
[None]

Tag

Cancel Confirm

- a. In the **SN/DevEUI** field, enter the device's SN (Serial Number) or EUI (Extended Unique Identifier).

If the SN/EUI is correct, the system automatically detects the device type.

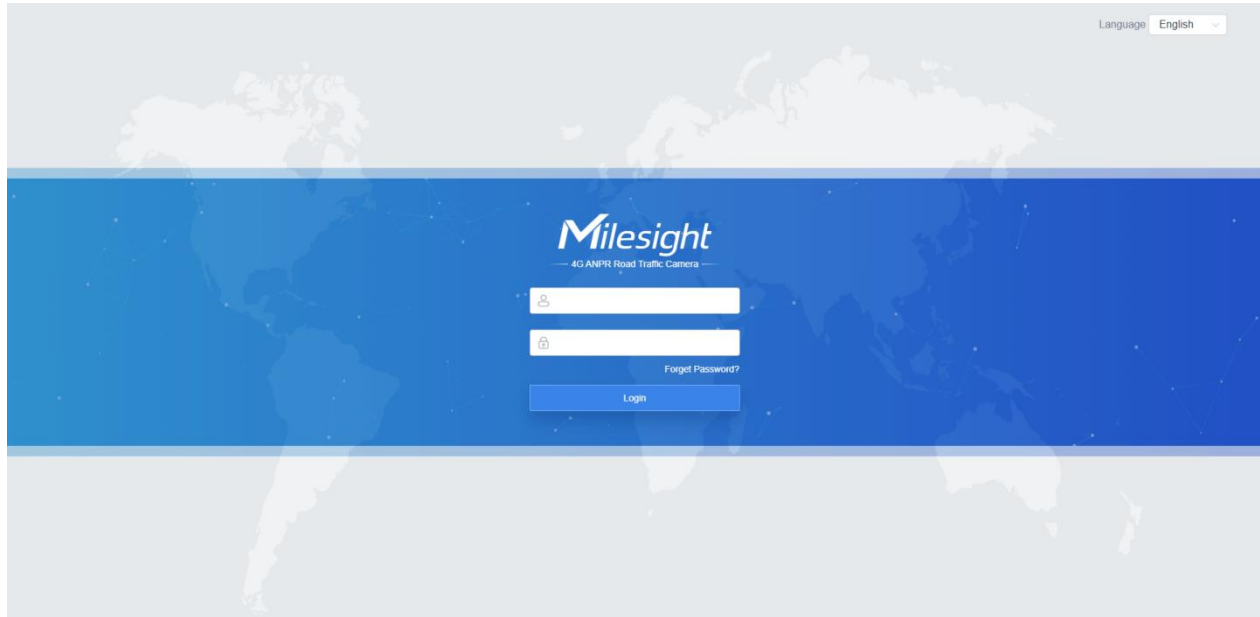
- b. In the **Name** field, specify a name to help you identify this device.
- c. **Optional:** Enter the device description.
- d. In the **Admin Account** and **Password** field, enter the admin username and password for adding the device.

- If the device has not been activated, the admin username and password are setting for device activation and platform connection authentication.
- If the device has been activated, the admin username and password are used to provide current device credentials to authenticate platform access.

 Note: For more detailed information, please refer to the [Milesight Device Portal User Manual](#).

3.2 Web Login

After device activation and AP configuration, access the camera's Web interface using a browser.



The login page provides the following features:

3.2.1 Login Page

Step 1: Open a Web browser (Chrome 120+, Edge 120+, or Firefox 120+ recommended) and enter the camera's IP address in the address bar.

Step 2: Enter the admin username and password configured during activation.

Step 3: Click Login to access the Web interface.

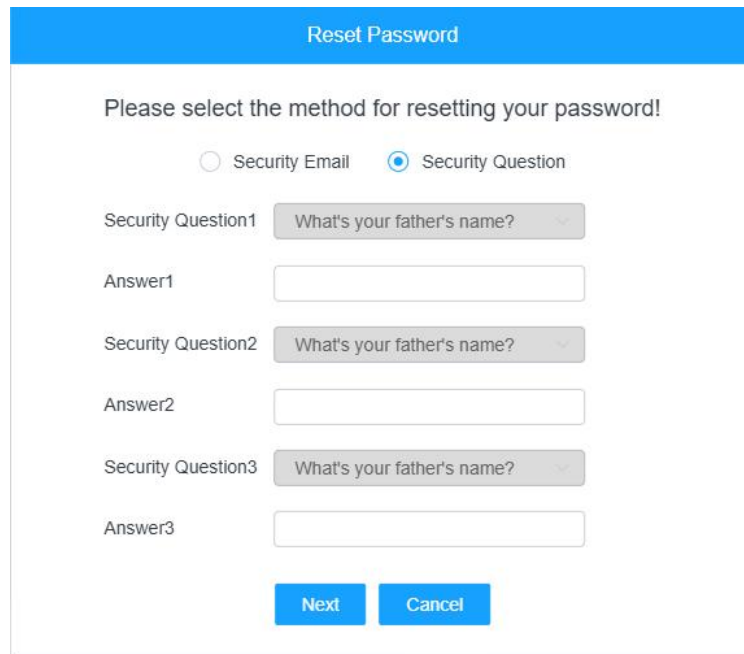
Password Lockout Policy:

- After 5 consecutive failed login attempts, the account will be locked for 10 minutes.

3.2.2 Password Reset

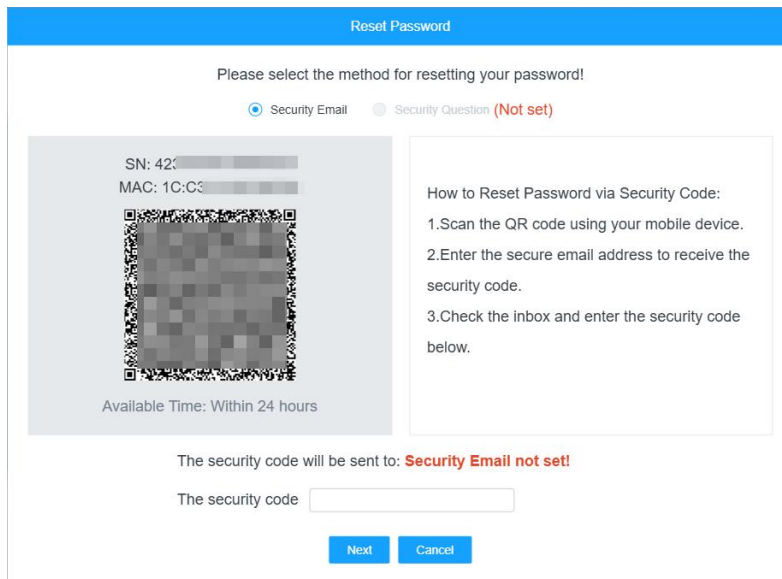
SP112 supports two password reset methods:

- **Security Question:** If a security question was configured, click "Forgot Password" on the login page, answer the security question correctly, and set a new password.



The screenshot shows a web form titled "Reset Password". At the top, it says "Please select the method for resetting your password!". There are two radio buttons: "Security Email" (unselected) and "Security Question" (selected). Below this, there are three sets of questions. Each set consists of a "Security Question" dropdown menu (all showing "What's your father's name?") and an "Answer" text input field. At the bottom, there are two blue buttons: "Next" and "Cancel".

- **Security Email:** If a security email was configured, click "Forgot Password", enter the registered email address, and a password reset link will be sent to the email. Follow the link to set a new password.



The screenshot shows the "Reset Password" form with "Security Email" selected. It displays device information: "SN: 423..." and "MAC: 1C:C3...". A QR code is shown with the text "Available Time: Within 24 hours" below it. To the right, a box titled "How to Reset Password via Security Code:" contains three steps: 1. Scan the QR code using your mobile device. 2. Enter the secure email address to receive the security code. 3. Check the inbox and enter the security code below. Below the QR code, it says "The security code will be sent to: Security Email not set!". At the bottom, there is a text input field for "The security code" and two blue buttons: "Next" and "Cancel".

 **Note:** At least one password recovery method (security question or security email) must be configured to enable password reset. It is strongly recommended to configure both methods for account security.

3.2.3 AP Configuration

After successful activation and login, the system checks whether the AP (Access Point) has been configured with a password. If not, the AP Settings dialog will automatically appear. Users must complete the AP configuration before accessing the Web interface.

Parameter	Description	Notes
SSID	Wi-Fi network name broadcast by the camera	Configurable, max 32 characters
Radio Type	Wireless radio standard (802.11g/n)	Auto-detected based on hardware
Bandwidth	Channel bandwidth (20MHz/40MHz)	20MHz recommended for stability
Channel	Wi-Fi channel number	Auto or manual selection
Encryption Mode	Wi-Fi security encryption	Fixed to WPA2-PSK
Cipher	Encryption algorithm	Fixed to AES

Key (AP Password): The AP password must be 8-63 characters and include uppercase, lowercase, numbers, and special characters. This password is required for wireless clients to connect to the camera's AP. The format validation is identical to the admin password requirements. If the AP password is not set or does not meet the requirements, the system will continue to display the AP Settings dialog on every Web access until properly configured.

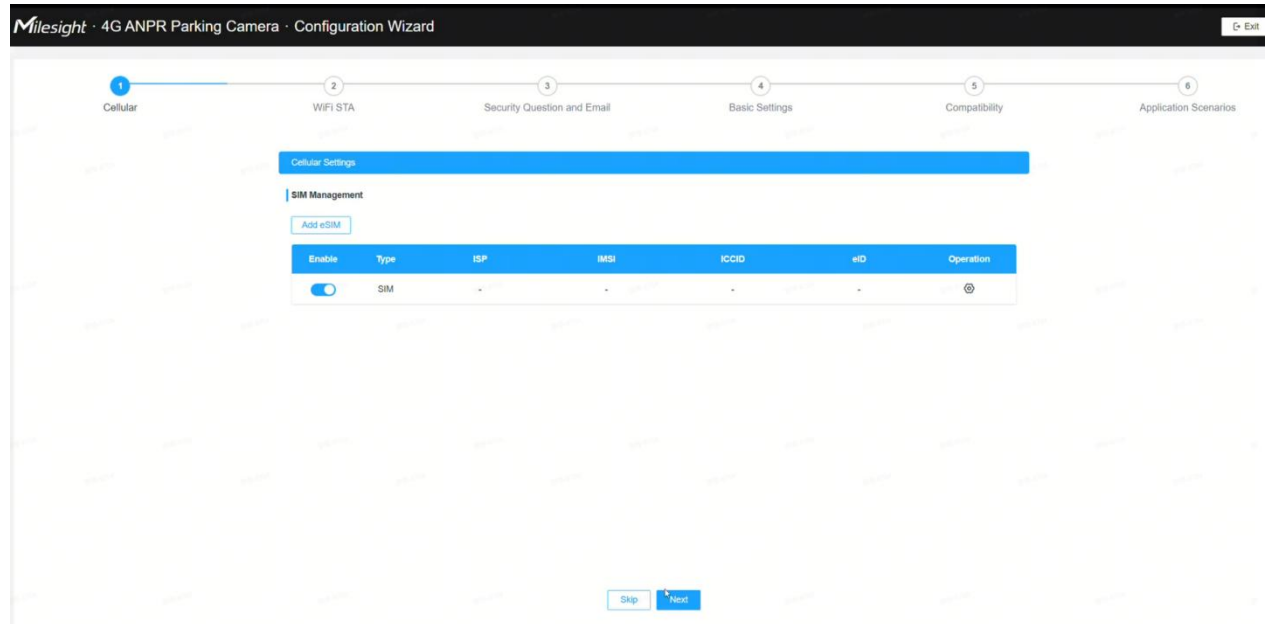
Step 1: After activation login, if the AP Settings dialog appears, configure the above parameters and the Key fields.

Step 2: Click Save. The system will display: "Wait for the device's Wi-Fi to restart, then reconnect and refresh the interface."

Step 3: Wait for the Wi-Fi to restart, then reconnect to the camera and refresh the browser.

3.2.4 Configuration Wizard

After first-time login, the Configuration Wizard automatically launches to guide users through essential device setup. The wizard consists of six steps, with all settings saved together on the final page (not individually per step).



Step	Content	Description
Step 1	Cellular	Configure Cellular settings (4G/5G network connection)
Step 2	Wi- Fi STA	Configure Wi- Fi client mode (connect camera to existing Wi- Fi network)
Step 3	Security Question/Email	Set security question and/or security email for password recovery
Step 4	Basic Settings	Configure device name, date/time, system language, and admin password
Step 5	Compatibility	Enable ONVIF and other protocol compatibility settings
Step 6	Application Scenarios	Select Work Mode(Performance/Power Saving/Standby Mode) and AI Application Options(Entrance&Exit/Parking/Occupancy/Parking Violation Detection)  Note: AI Application Option is only for ANPR Parking models.

Wizard Trigger Conditions:

- The wizard auto-launches after the first successful login following activation.
- The wizard also appears after factory reset when the user first logs in.

- Users can manually launch the wizard at any time by clicking the Wizard button in the top navigation bar.
- If the wizard was skipped during initial setup, it will not auto-appear on subsequent logins. Use the manual launch method instead.

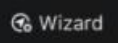
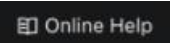
Chapter 4. Live View

Live Video

After logging in the network camera web GUI successfully, user is allowed to view live video as follows.



Table 1. Description of the buttons

No.	Parameter	Description
Navigation Bar	 Wizard	After initial setup, users can manually launch the 6-step Configuration Wizard at any time to reconfigure multiple settings through a guided interface. Clicking the Wizard button opens the wizard from Step 1, with existing settings pre-filled.
	 Online Help	Access online help documentation
	 Plugin Download	To enhance video preview quality, download and install the Mplayer browser plugin, which provides smoother and more reliable video playback. The plugin installation package is hosted on a cloud server; clicking the "Plugin Download" button will automatically download the latest compatible version. Please ensure your device is connected to the internet. If the device is offline, contact technical support to obtain the installation package.

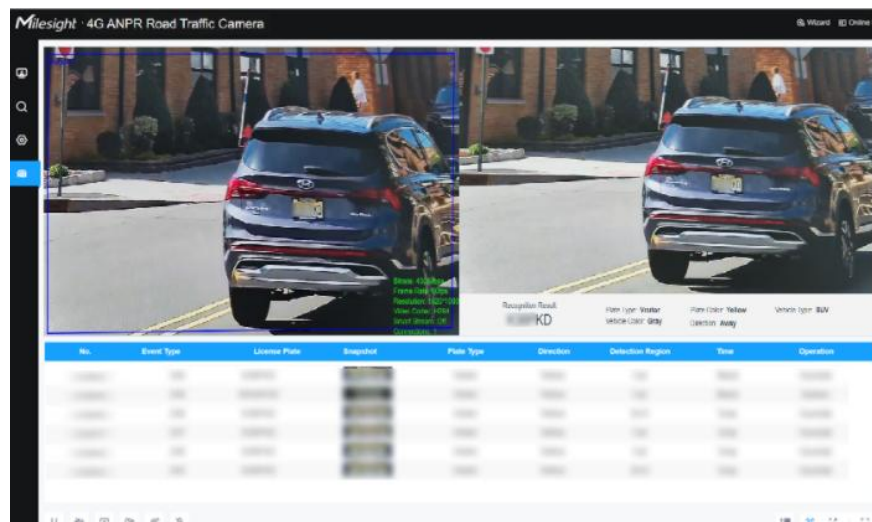
No.	Parameter	Description
		 Note: This plugin is only compatible with Windows systems.
	 English ▾ Language	Interface language selection
	 admin ▾ Logout	Display the user name and click to logout.
	 Live Video	Click to access the live view page.
	 Playback	Click to access the playback page.
	 Settings	Click to access the configuration page.
General	Protocol HTTP ▾ Play Performance Least Delay ▾ Stream Type Primary Stream ▾ Manual Output Start	Protocol: Choose either UDP, TCP, or HTTP based on your specific needs and network conditions.  Note: This option appears only if the plugin is installed.
		Play Performance: Choose either Least Delay , Balanced , or Best Fluency based on your specific needs and network conditions.  Note: This option appears only if the plugin is installed.
		Stream Type: Choose the stream (Primary/Secondary) to show on the current video window.
		Manual Output: Manually trigger Camera Alarm Output.

No.	Parameter	Description
Lens	 Lens initialization	Resets the lens to its default calibration state and re-initializes all lens control parameters.
	 Lock/Unlock	Click to enable or disable zoom and focus, and other lens configuration functions.
	 Zoom-/Zoom+	Adjust lens magnification for telephoto(Zoom+) and wide- angle(Zoom-) viewing respectively.
	 Focus-/Focus+	Adjust the lens focus to make the image clearer. Press Focus + or Focus - to fine-tune the sharpness until the target object is clearly visible.
	 Auxiliary Focus	Assists in achieving precise focus with a single click. When manual focus adjustment fails to produce a clear image, click this button to automatically fine-tune the focus to the sharpest position.
	 Iris-/Iris+/Auto Iris	Adjust the Iris. This model can only support to enable Auto Iris.
Image		Brightness: Adjust the Brightness of the scene.
		Contrast: Adjust the color and light contrast.
		Sharpness: Adjust the Sharpness of image. Higher Sharpness sharpens the pixel boundary and makes the image looks “more clear”.
	 Stop/Play	Stop/Play live view.
	 Snapshot	Click to capture the current image and save to the configured path.
	 Start/Stop Recording	Click to Start Recording video and save to the configured path. Click again to Stop Recording .

No.	Parameter	Description
Toolbar	 Digital Zoom	When enabled, you can zoom in a specific area of video image with your mouse wheel.
	 License Plate Character	By clicking to enable the License Plate Character function, you can either input the pixel value or draw on the live view to measure the License Plate's size.
	 Auto-Original Ratio	This setting maintains the original aspect ratio of the video feed. The video will be displayed in its native dimensions without any distortion.
	 Auto-Resize	This setting automatically resizes the video to fit the display window while attempting to maintain the aspect ratio. It may introduce slight adjustments to ensure the video fits well within the available space.
	 100%	This setting displays the video at its actual size (100% scale) without any resizing. The video will appear in its true pixel dimensions.
	 Full Screen	Click to display images at full-screen.

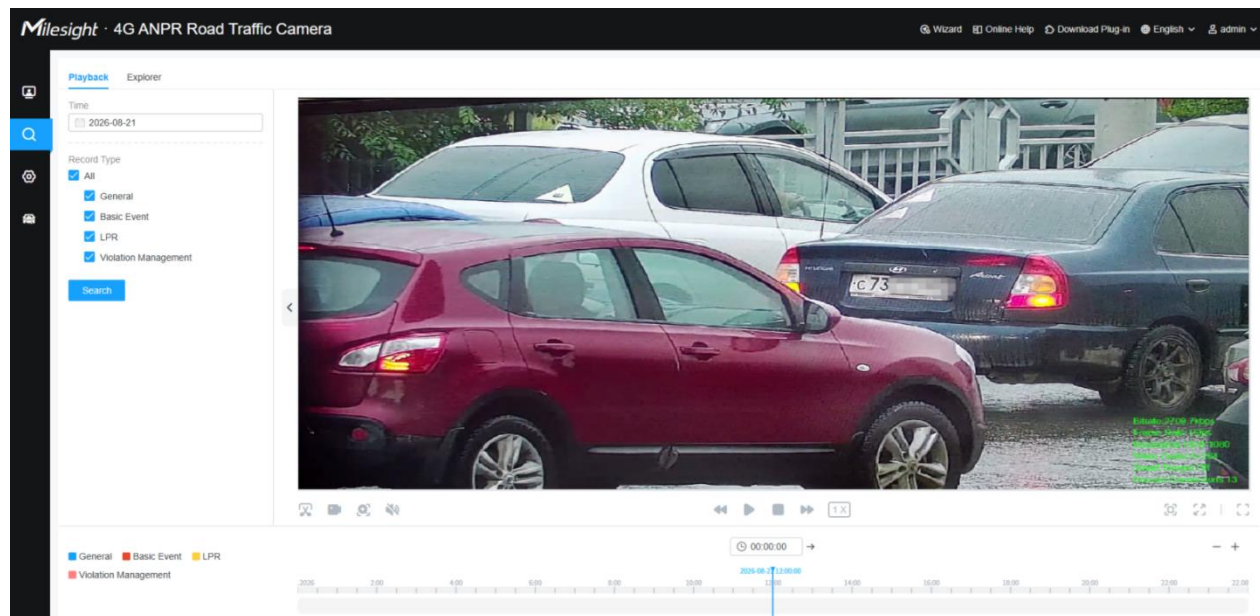
LPR Mode

The Milesight ANPR Camera features a dedicated ANPR live-view interface. It displays real-time license-plate recognition results and snapshots of detected plates for standalone ANPR deployment.



Chapter 5. Search

5.1 Playback



Click  to enter playback interface. In this part, you can search and playback the recorded video files stored in SD cards or NAS. The Playback interface is as below:

Step1: Click the “**Search**” button, select the date and record type when the window pops up.

Step2: The timeline displays the video files for the day and show different colors according to selected record type. Drag the progress bar with the mouse to locate the exact playback point as needed.

 **Note:** You can also input the time and click  to locate the playback point in the

 field. You can also click  to zoom out/in the progress bar.

Step3: Click  to play the video files found on this date. The toolbar on the bottom of playback interface can be used to control playing progress.

Table 2. Description of the buttons

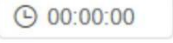
No.	Parameter	Description
	Time 2026-08-21 Record Type ☒ All ☒ General ☒ Basic Event ☒ LPR ☒ Violation Management Search	Search the recorded videos by record type (All/General/Basic Event/LPR/Violation Management). The timeline will show different colors according to selected record type as below: ■ General ■ Basic Event ■ LPR ■ Violation Management
1	 Speed Down/Speed Up/Speed	Adjust the speed of video playback. Speed Down: Includes 0.5X and 0.25X for Play. Speed Up: Includes 2X and 4X for Play. Speed: The default playback speed is 1X
2	 Play/Pause	Play/Pause the video.
3	 Stop	Stop the video.
4	 Search Time	Select the time that want to locate.
5	 Jump	Go To.

Table 3. Description of the buttons

No.	Parameter	Description
1	 Mute	Click to enable the audio.
2	 Snapshot	Click to take a snapshot.

No.	Parameter	Description
3	 Start/Stop recording	Click to start/stop recording.
4	 Digital Zoom	Click to zoom on/off .
5	 Auto-Original Ratio	Maintains the original aspect ratio of the video feed.
6	 Auto-Resize	Resizes the video to fit the display window while attempting to maintain the aspect ratio.
7	 Full Screen	Full Screen.
8	 Time Expand/Narrow	Time narrow/expand.

5.2 Explorer

Files will be seen on this page when they are configured to save into SD card or NAS. You can set time schedule every day for recording videos and save video files to your desired location.



Note: Files are visible once SD card is inserted. Don't insert or pull out SD card when power on

Video files are arranged by date. Set file type and start/end time to search out files. Each day files will be displayed under the corresponding date, from here you can copy and delete files etc. You can visit the files in SD card by ftp, for example, ftp://username:password@192.168.5.190 (username and password are the same as the camera account and the IP followed is the IP of your device).

Milesight Network Camera

Download Plug-in English admin

Playback Explorer

Main Type: Record File Type: All Start Time: 2024-11-21 00:00:00 End Time: 2024-11-21 23:59:59 Search

	File Name	Start Time	End Time	Type	Size	Download Progress
☐	20241121180048_BasicEvent.mp4	2024-11-21 18:00:48	2024-11-21 18:00:52	Basic Event	765.04K	
☐	20241121180054_BasicEvent.mp4	2024-11-21 18:00:54	2024-11-21 18:00:58	Basic Event	363.98K	
☐	20241121180342_BasicEvent.mp4	2024-11-21 18:03:42	2024-11-21 18:03:47	Basic Event	1.62M	
☐	20241121180348_BasicEvent.mp4	2024-11-21 18:03:48	2024-11-21 18:03:53	Basic Event	481.04K	
☐	20241121180400_BasicEvent.mp4	2024-11-21 18:04:00	2024-11-21 18:04:05	Basic Event	629.96K	
☐	20241121180406_BasicEvent.mp4	2024-11-21 18:04:06	2024-11-21 18:04:11	Basic Event	626.21K	
☐	20241121180434_BasicEvent.mp4	2024-11-21 18:04:34	2024-11-21 18:04:39	Basic Event	614.34K	
☐	20241121180452_BasicEvent.mp4	2024-11-21 18:04:52	2024-11-21 18:04:57	Basic Event	638.11K	
☐	20241121180458_BasicEvent.mp4	2024-11-21 18:04:58	2024-11-21 18:05:03	Basic Event	597.07K	
☐	20241121180608_BasicEvent.mp4	2024-11-21 18:06:08	2024-11-21 18:06:13	Basic Event	662.87K	
☐	20241121180900_BasicEvent.mp4	2024-11-21 18:09:00	2024-11-21 18:09:05	Basic Event	629.89K	

Total 34 1 2 30page Go to 1

Download Stop Downloading

Chapter 6. Media

6.1 Video

[Primary Stream]:

The screenshot shows the Milesight 4G ANPR Road Traffic Camera web interface. The top navigation bar includes links for Wizard, Online Help, Download Plug-in, English, and admin. The left sidebar contains a menu with icons for Media, Image, Audio, Network, Storage, Event, Traffic, Data Transmission, and System. The 'Media' section is expanded, showing 'Video' as the selected option. The 'Primary Stream' tab is active, displaying the following configuration options:

- Video Codec: H.265
- Frame Size: 2688*1520
- Maximum Frame Rate: 25 fps
- Bit Rate: 4096 kbps
- Smart Stream: Off
- Bit Rate Control: VBR
- Image Quality: Medium
- Profile: Main
- I-frame Interval: 50 frame (1-120)

A 'Save' button is located at the bottom of the configuration area.

[Secondary Stream]:

The screenshot shows the Milesight 4G ANPR Road Traffic Camera web interface. The top navigation bar includes links for Wizard, Online Help, Download Plug-in, English, and admin. The left sidebar contains a menu with icons for Media, Image, Audio, Network, Storage, Event, Traffic, Data Transmission, and System. The 'Media' section is expanded, showing 'Video' as the selected option. The 'Secondary Stream' tab is active, displaying the following configuration options:

- Enable: ☒
- Video Codec: H.265
- Frame Size: 1280*720
- Maximum Frame Rate: 25 fps
- Bit Rate: 1024 kbps
- Smart Stream: Off
- Bit Rate Control: VBR
- Image Quality: Medium
- Profile: Main
- I-frame Interval: 50 frame (1-120)

A 'Save' button is located at the bottom of the configuration area.

Table 4. Description of the buttons

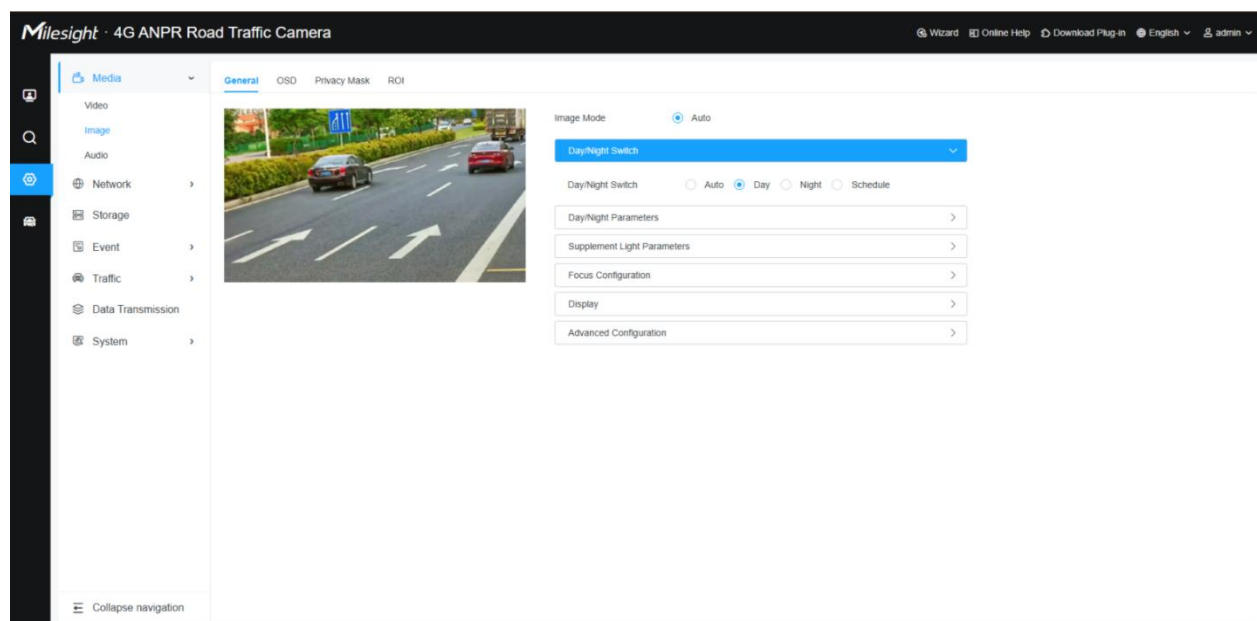
Parameters		Function Introduction
Secondary Stream	Enable	Click the "Enable" checkbox to activate the secondary stream.
Video Codec		H.265/H.264 are available.
Frame Size		Choose a proper stream resolution. The higher the resolution is, the more details the image has.
Maximum Frame Rate		Maximum refresh rate per second. When Power Line Frequency is set to 50Hz, the supported range is 1-25 frames per second (fps). When Power Line Frequency is set to 60Hz, the supported range is 1-30 frames per second (fps).  Note: You can change the Power Line Frequency in Image - General - Display - Power Line Frequency.
Bit Rate		Transmitting bits of data per second. Set the bitrate to 16~8192 Kbps. The higher value corresponds to the higher video quality, and the higher bandwidth is required as well.
Smart Stream		Optional to turn On/Off Smart Stream mode. Smart Stream mode remarkably reduces the bandwidth and the data storage requirements for network cameras while ensuring the high quality of images, and it is a 10-level adjustable codec. Level: Level 1~10 are available as needed.
Bit Rate Control		CBR: Constant Bitrate. The rate of CBR output is constant.
		VBR: Variable Bitrate. VBR files vary the amount of output data per time segment.
Image Quality		Low/Medium/High are available, this item is optional only if you select VBR.
Profile		The option is for H.264, Main/High/Base can be selected as needed.

Parameters	Function Introduction
I-frame Interval	Set the I-frame interval to 1~120. The number must be a multiple of the number of frames.

6.2 Image

General image settings can be configured in this module, such as Day/Night Parameters, Supplement Light Parameters, Focus Configuration, Display and Advanced Configuration. You can also set OSD (On-Screen Display) content, Privacy Masks, and ROI (Region of Interest) areas.

6.2.1 General



[Day/Night Switch]

Day/Night Switch
▼

Day/Night Switch

☒ Auto
 ☐ Day
 ☐ Night
 ☐ Schedule

Day to Night Value

36

Reset

Night to Day Value

82

Reset

There are 4 modes for Day/Night Switch, including Night, Day, Auto and Schedule.

Table 5. Description of the options

Parameters		Function Introduction
Day/Night Switch	Night	Switch to Night Mode according to the parameters of night mode.  Note: Night Mode parameters can be set in [Day/Night Parameters]
	Day	Switch to Day Mode according to the parameters of day mode.  Note: Day Mode parameters can be set in [Day/Night Parameters]
	Auto	Select this option to automatically switch the Day/Night Mode based on the image. • Day to Night Value: You can set the sensitivity for switching Day Mode to Night Mode. When IR Light Sensor Current Value is lower than this value, it will switch Day Mode to Night Mode. You can click Reset button to reset to default value. • Night to Day Value: This is the sensitivity for switching Night Mode to Day Mode. When IR Light Sensor Current Value is higher than this value, it will switch Night Mode to Day Mode. You can click Reset button to reset to default value.
	Schedule	Select this option to customize the Start/End Time of Night on a monthly basis. • Month: You can set Start/End Time of Night on a monthly basis. • Start Time of Night: You can set the time to start the Night Mode. • End Time of Night: You can set the time to start the Day Mode.

[Day/Night Parameters]

Day/Night Parameters 

 Day
  Night

Target Brightness

Maximum Shutter

Limit Gain Level

Reset

Reset

ms

Table 6. Description of the buttons

Parameters	Function Introduction
Target Brightness	Move the slider to the left to decrease the brightness or to the right to increase the brightness. Adjust the slider until the desired brightness level is achieved for your specific environment.  Note: It is recommended to test the brightness setting under different lighting conditions to find the optimal setting that provides clear and detailed images both during the day and at night.
Maximum Shutter	Maximum Shutter is the same as Minimum Exposure Time.  Note: Maximum Shutter range differs with selected AI Application Option for ANPR Parking Cameras.
Limit Gain Level	Set the Limit Gain Level to 1~100.

[Supplement Light Parameters]

Supplement Light Parameters 

Smart IR Mode ☐ Auto ☒ Customize

Near View IR Level 50  

Far View IR Level 50  

IR Strength Value Near:50 Far:50 

Table 7. Description of the buttons

Parameters	Function Introduction
Auto Mode	The camera will adjust the IR brightness according to the zoom ratio automatically.
Customize Mode	You can set the Near View IR Level and Far View IR Level manually.  Note: Near View IR Level Plus Far View IR Level within 120.
IR Strength Value Near:100 Far:20 	Current IR strength.

[Focus Configuration]

Focus Configuration 

Focus Mode

Auto 

Regional Focus

Edit

Table 8. Description of the buttons

Parameters	Function Introduction
Auto	Autofocus will be triggered during zoom adjustment or when image conditions change (e.g. light- level variation, day- night switchover). Manual focus adjustment is not available.
Semi-Auto	Autofocus is triggered after zoom operation, and manual focus adjustment is supported.
Manual	Only manual focus adjustment is available; autofocus is not supported.

[Display]

Display 

Power Line Frequency

☒ 50Hz ☐ 60Hz

Table 9. Description of the buttons

Parameters	Function Introduction
Power Line Frequency	60Hz and 50Hz are available.

[Advanced Configuration]

Advanced Configuration ▼

Wide Dynamic Range On ▼

Level 5 —————○—————

Table 10. Description of the buttons

Parameters	Function Introduction
Wide Dynamic Range	Off: Turn off WDR On/Level: Turn on WDR, and adjust the WDR level

6.2.2 OSD

Table 11. Description of the buttons

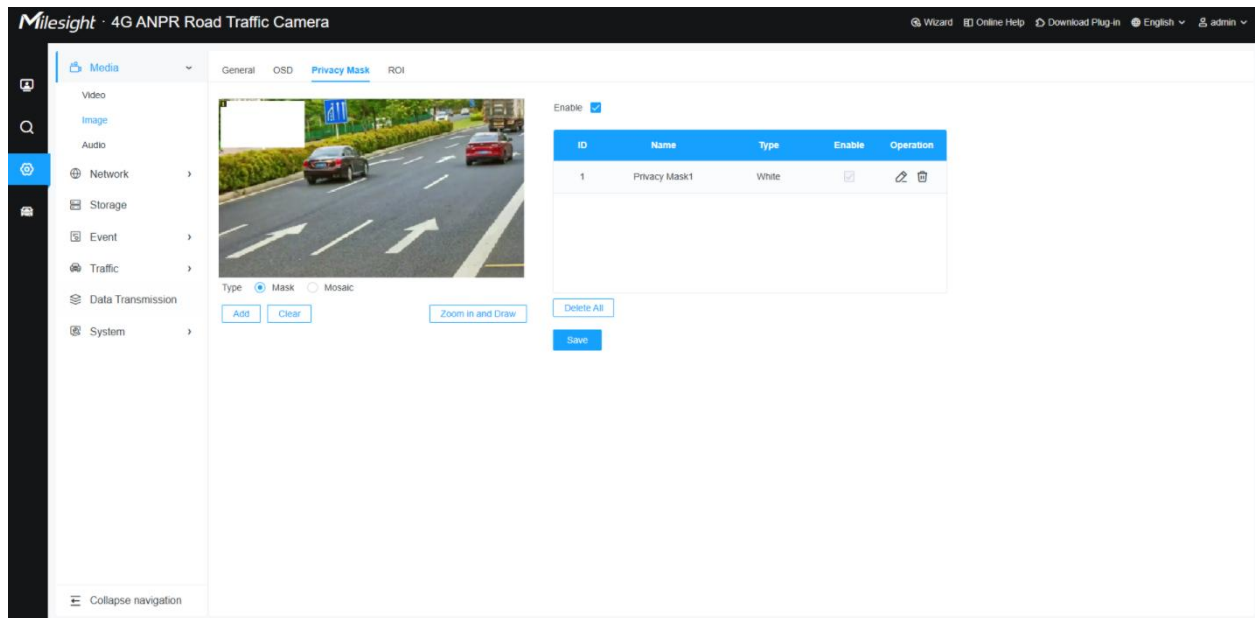
Parameters	Function Introduction
Video Stream	Enable to set OSD for primary stream and secondary stream.
Font Size	Smallest/Small/Medium/Large/Largest/Auto are available for title and date.
Font Color	Enable to set different color for title and date.

Parameters	Function Introduction
Background Color	Enable to set different colors for display information background on screen. You can set different colors for font and background of image.
Show Video Title	Check the check box to show video title.
Video Title	Customize the OSD content.
Text Position	OSD display position on the image.
Zoom Status	Zoom status. 2s , 5s , 10s , Always Open , and Always Close are available.
Show Timestamp	Check the checkbox to display date on the image.
Date Position	Date display position on the image.
Date Format	The format of date.
Show Data Usage This Month	Click to display data usage for this month, signal strength, and battery level, and set the display position to top left, bottom left, top right, or bottom right.
Show Signal Strength	
Show Battery Level	
Position	
Copy to Other Streams	Copy the settings to other streams.

6.2.3 Privacy Mask

Privacy mask enables to cover certain areas on the live video to prevent certain spots in the surveillance area from being viewed and recorded.

Up to 8 mask areas are supported.



You can select the color to use for the cover certain areas on the live video.

Table 12. Description of the buttons

Parameters	Function Introduction	
Enable	Check the check box to enable the Privacy Mask function.	
Type	Select the type to use for the privacy areas, there are two types available: Mask and Mosaic. Select the color to use for the privacy areas, there are eight colors available: White, Black, Blue, Yellow, Green, Brown, Red and Purple. When the privacy type is set to Mask, you can select a color for the privacy areas, eight colors are available: White, Black, Blue, Yellow, Green, Brown, Red and Purple. The Mosaic type is also available as an alternative privacy option.	
	Draw a privacy area on the live video as needed.	
	By clicking the ' Zoom in and Draw ' button, you can activate a full-screen pop-up window to draw more accurate detection areas.	
Operation		Enable/disable the selected mask areas.
Operation		Change the color of Mask area, there are eight colors available: White, Black, Blue, Yellow, Green, Brown, Red and Purple
		Delete the privacy mask area

Parameters	Function Introduction
	Clear the area you drew on the live video.
	Clear all areas you drew before.

6.2.4 ROI

The Region of Interest (ROI) is a specific subset of a scene that is selected for focused analysis or monitoring. Users can select up to 8 key regions within a scene for attention, making the selected areas the focus of image analysis and further processing.

By using Milesight's ROI technology, more than 50% of the bit rate can be saved, significantly reducing bandwidth demands and storage usage. This allows you to set a lower bit rate while maintaining high resolution for the selected regions.



Note: For more details about how to set ROI, please refer to <https://milesight.freshdesk.com/a/solutions/articles/69000643441>.

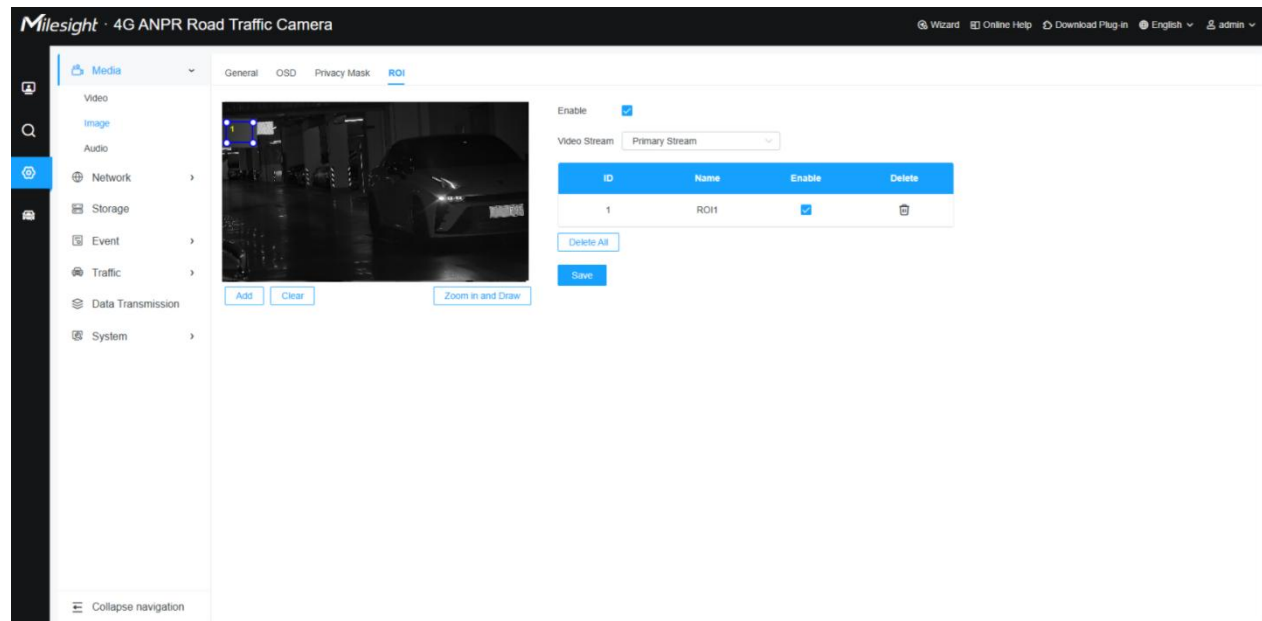
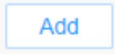
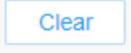


Table 13. Description of the buttons

Parameters	Function Introduction
Enable	Check the checkbox to enable the ROI function.
Video Stream	Choose the video stream. Primary Stream and Secondary Stream are supported.

Parameters	Function Introduction	
ROI		Enable/disable the selected ROI areas.
		Delete the selected ROI areas.
	Drew a ROI area on the live video as needed.	
	Clear the area you drew on the live video.	
	By clicking the ' Zoom in and Draw ' button, you can activate a full-screen pop-up window to draw more accurate detection areas.	
	Clear all areas you drew before.	

 Note: You can set a low bit rate. For example, you can set a bit rate with 512Kbps and a resolution with 1080P, then you can see the image quality of ROI is more clear and fluent than the other region.

6.3 Audio

6.3.1 Audio

This audio function allows you to hear the sound from the camera or transmit your sound to the camera side. A two-way communication is also possible to be achieved with this feature. Alarm can be triggered when the audio input is above a certain alarm level you set, and configured audio can be played when an alarm occurs.

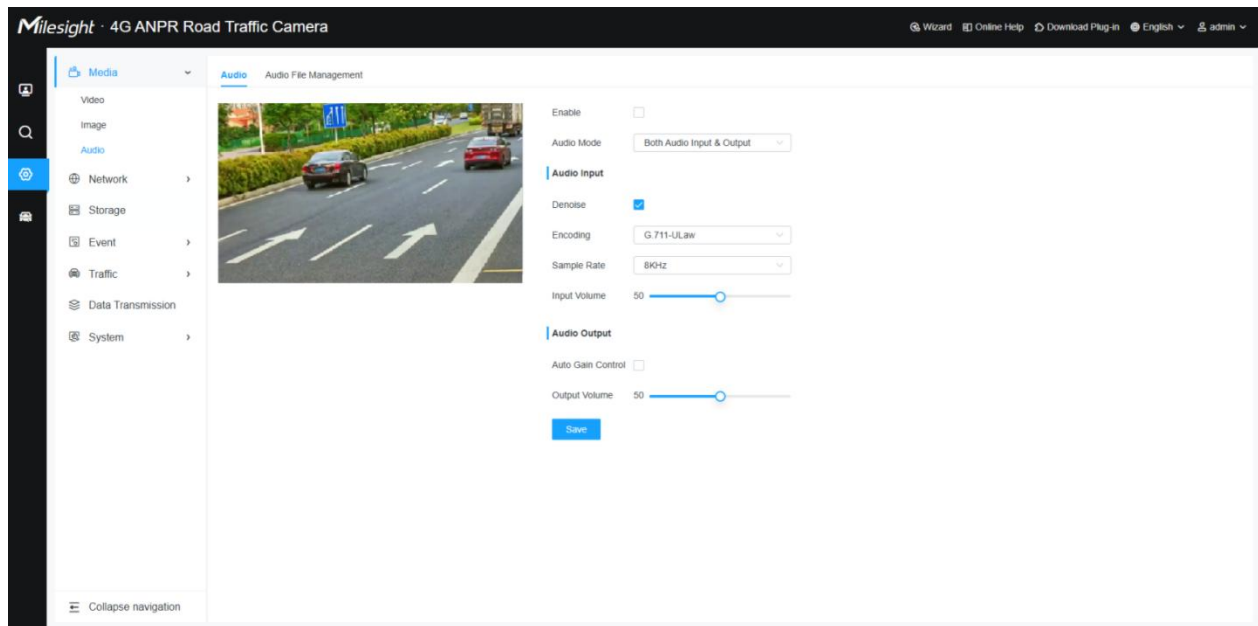
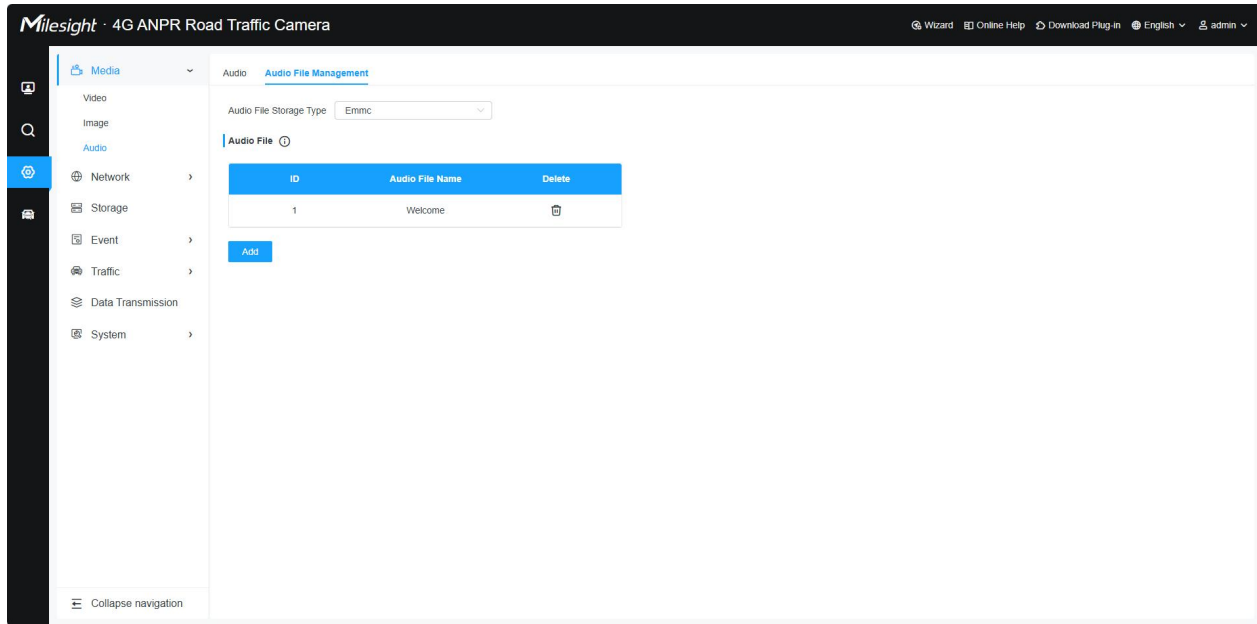


Table 14. Description of the buttons

Parameters	Function Introduction
Enable	Check on the checkbox to enable audio feature.
Audio Mode	Audio Input/Audio Output/Both Audio Input & Output are optional.
Audio Input	Denoise: Set it as On/Off. When you set the function on, the noise detected can be filtered. Encoding: G.711-ULaw, G.711-ALaw, AAC LC, G.722 and G.726 are available Audio Bit Rate: The function is available only for AAC LC, and supports up to 48kbps. Sample Rate: 8KHz, 16KHz, 32KHz, 44.1KHz and 48KHz are available. Input Volume: Adjust volume of input.
Audio Output	Auto Gain Control: This function is only for H.265 series, improve the quality of audio. Output Volume: Adjust volume of output.

6.3.2 Audio File Management

You can upload up to 5 audio files manually to Emmc or SD Card on the Audio web page and you can also edit the audio file's name when upload.



 Note: Only support '.wav' audio files with codec type PCM/PCMU/PCMA, 64kbps or 128 kbps and no more than 500k.

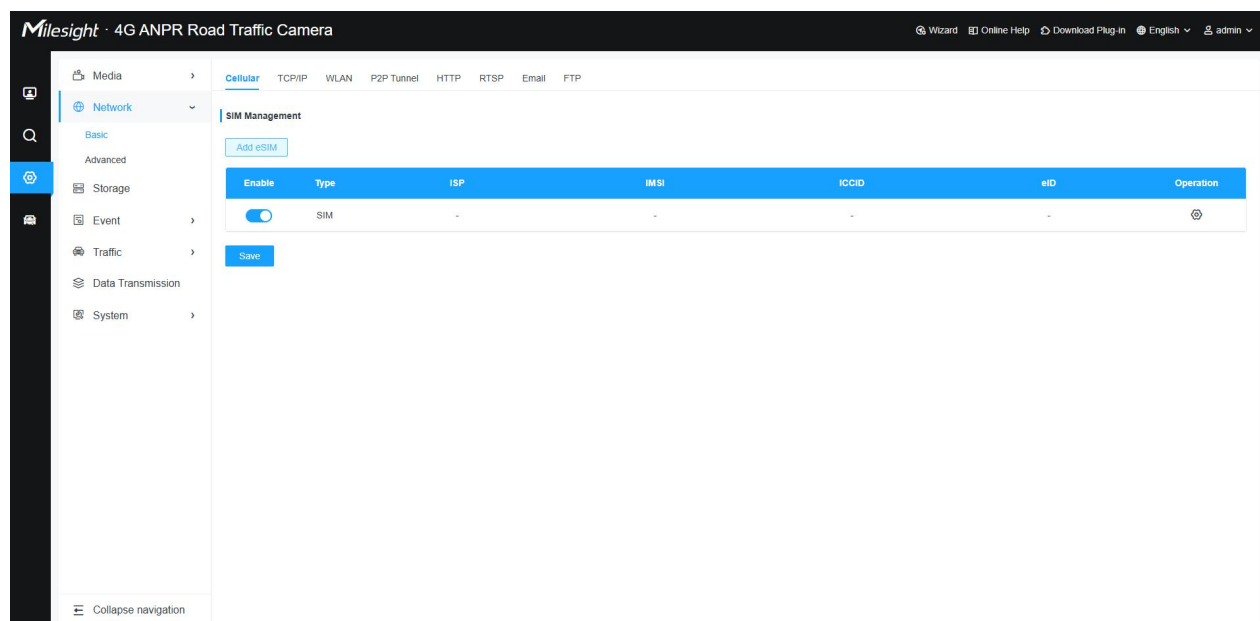
Chapter 7. Network

7.1 Basic

7.1.1 Cellular

The Cellular module manages mobile network connectivity for the SP112 device. It supports both physical SIM cards and eSIM profiles, allowing flexible cellular network access for remote locations where Ethernet or Wi-Fi is unavailable.

SP112 supports dual-SIM functionality with one physical SIM card slot and one built-in eSIM (embedded SIM). this system only one SIM/eSIM profile can be active at a time for data transmission.



7.1.1.1 SIM Management

The SIM Management section provides a centralized interface for managing all available SIM and eSIM profiles. Users can view, enable, disable, and switch between different SIM sources.

SIM List

The SIM List displays all available SIM/eSIM profiles in the system. Each entry shows:

Parameter	Description
Status	Enabled or Disabled — only one SIM can be enabled at a time
Type	Physical SIM or eSIM
ISP	Show the network provider which the SIM card registers on.

Parameter	Description
	 Note: It will display "-" when the SIM card is not inserted or not recognized.
IMSI	International Mobile Subscriber Identity
ICCID	Integrated Circuit Card Identifier
eID	eSIM Identifier (displayed for eSIM profiles only)

Enable/Disable SIM

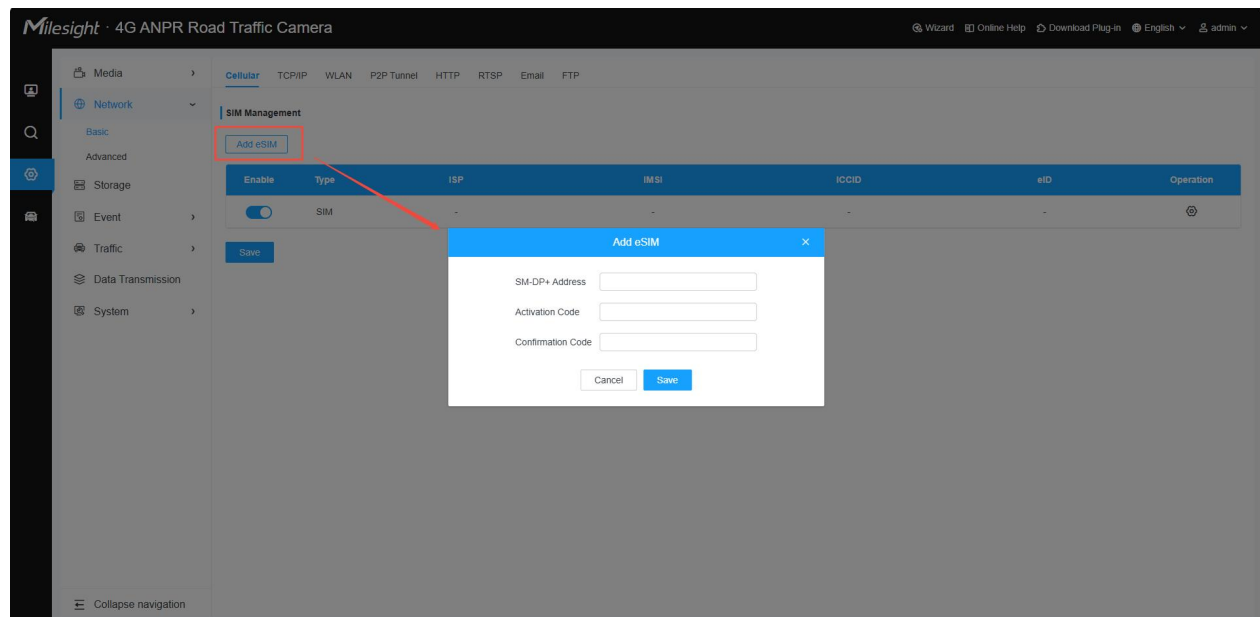
Users can manually enable or disable a SIM/eSIM profile. When enabling a SIM, the system will automatically disable the currently active SIM.

Note:

1. Only one SIM profile can be enabled. Please disable the other profile before enabling this one.
2. Switching between SIMs will interrupt the current network connection. Ensure no critical data transmission is in progress before switching.

Add eSIM

The eSIM Profile Management interface allows users to add, delete, and manage eSIM profiles downloaded from remote SIM provisioning servers.



Add eSIM Profile:

0. Click "Add Profile" button in the eSIM management area.
1. Enter the Activation Code provided by your eSIM carrier (SM-DP+ server address and Activation Code ID). According to the GSMA eSIM specification (SGP.22), the activation code format is:
1<SMDP+Address><SMDP+Address><activation code>.

For example, as shown in the following figure, if the customer receives an activation code like this, then t-mobile.idemia.io is the SMDP+ address, the string after the second "\$" is the activation code, and the leading "1" indicates the version.

activation code: 1\$t-mobile.idemia.io\$[REDACTED]

2. Click "Save" to initiate the eSIM profile download process.
3. Wait for the profile download and installation to complete.
4. The new profile will appear in the SIM List after successful installation.

Delete eSIM Profile:

5. Select the eSIM profile you want to remove from the SIM List.
6. Click "Delete" button.
7. Confirm the deletion in the confirmation dialog.

Warning:

1. Up to 4 eSIM profiles storage and management.
2. Deleting an eSIM profile is irreversible. The profile cannot be recovered once deleted. You will need to obtain a new activation code from your carrier to reinstall.

7.1.1.2 Cellular Status

Click  icon in the SIM list. The Cellular Status area displays real-time information about the current cellular connection.

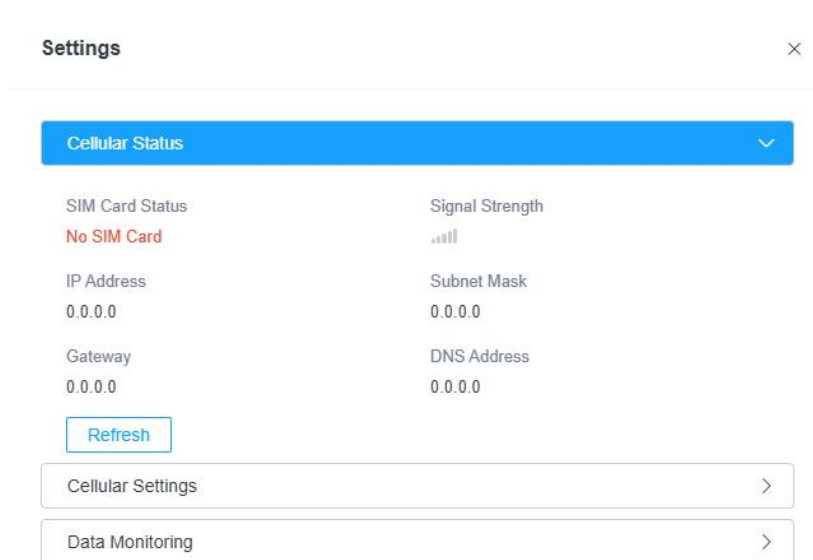


Table 15. Description of the buttons

Parameters	Function Introduction
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Parameters	Function Introduction
SIM Card Status	Display the connection status of SIM card. No SIM Card: The system cannot detect a SIM card. (Applicable only to physical SIM cards) Not Enabled: This eSIM is not enabled. (Applicable only to eSIM cards) SIM PIN Code Required: The PIN code is missing or incorrect. SIM PUK Code Required: The SIM card is locked due to multiple incorrect PIN attempts; the user must contact the carrier to unlock it. SIM Card Error: The SIM card is abnormal (e.g., incompatible, damaged, or unreadable). SIM Card Ready (Searching): The SIM card is functioning normally and is searching for a network. SIM Card Ready (Connected): The SIM card is functioning normally and has successfully registered on the network. SIM Card Ready (No Service): The SIM card is functioning normally but failed to register on the network.
Signal Strength	Display the current signal strength of the network.
IP Address	Display the IP Address, Subnet Mask, Gateway and DNS Address of the current network. If the SIM card is not inserted or not recognized, it will display 0.0.0.0.
Subnet Mask	
Gateway	Display the IP Address, Subnet Mask, Gateway and DNS Address of the current network. If the SIM card is not inserted or not recognized, it will display 0.0.0.0.
DNS Address	
	Click this button to manually refresh the above status.

7.1.1.3 Cellular Settings

Click  icon in the SIM list. The Cellular Settings section provides configuration options for the active SIM/eSIM connection.

The screenshot shows a 'Settings' window with a close button (X) in the top right corner. Below the title bar, there are two expandable sections: 'Cellular Status' and 'Cellular Settings'. The 'Cellular Settings' section is currently expanded, revealing several configuration fields:

- APN:** A text input field.
- User Name:** A text input field.
- Password:** A text input field.
- PIN Code:** A text input field.
- Authentication:** A dropdown menu with 'None' selected.
- Network Type:** A dropdown menu with 'Auto' selected.
- MTU:** A text input field containing '1420', with a label 'Bytes (1200 ~ 1500)' to its right.
- Billing Day:** A section containing a 'Day' dropdown menu with '1' selected, followed by the text 'Of The Month'.

At the bottom of the 'Cellular Settings' section is a 'Data Monitoring' section, which is currently collapsed and indicated by a right-pointing arrow.

Table 16. Description of the buttons

Parameters	Function Introduction
APN	Enter the Access Point Name for cellular dial-up connection provided by local ISP.
User name	Enter the user name for cellular dial-up connection provided by local ISP.
Password	Enter the password for cellular dial-up connection provided by local ISP.
PIN Code	Enter a 4-8 characters PIN code to unlock the SIM.
Authentication	Select the Authentication Type. There are three options: None , PAP and CHAP , to match different Internet Service Providers. The default option is None .
Network Type	Select the network type of cellular network. There are three options including Auto, 4G and 3G. Auto: connect to the network with the strongest signal automatically.
MTU	Selectable 1200~1500 Bytes. MTU stands for Maximum Transmission Unit. It specifies the maximum size (in bytes) of each data packet that can be sent over the network.
Billing Day	Select the date for clearing the data each month. Users can choose from 1st to 31st, and the system will clear the data on the date you set

Parameters	Function Introduction
	each month.

7.1.1.4 Data Monitoring

.Click  icon in the SIM list. SP112 provides per-SIM data usage monitoring to help users track cellular data consumption.

Settings

Cellular Status

Cellular Settings

Data Monitoring

Data Usage

Data Usage Today 0.00 KB

Data Usage This Month 0.00 KB

Data Usage This Year 0.00 KB

Refresh Clear

Data Pre-Alarm Action

Enable ☒

Plan Type Monthly

Data Plan 1.000000 GB

Pre-Alarm Threshold 90 %

Alarm Action ☐ Send Email ☐ HTTP Notification

Table 17. Description of the buttons

Parameters	Function Introduction
Data Usage	Displays the total amount of cellular data used by the camera today/this month/this year. Refresh: Refresh Data. Clear: Clear all data usage, this action is irreversible.

Parameters	Function Introduction
Data Pre-Alarm Action	The Data Pre-Alarm Action feature allows you to set predefined actions that the camera will take when data usage approaches a specified limit. This helps in preventing data overages and managing data costs effectively. Plan Type: Select the data usage reporting range. Options available are Daily, Monthly, and Annually. Data Plan: Enter the total data plan allowance, ranging from 0.01 to 1024 GB. Pre-Alarm Threshold: Can be set between 50% and 99%. Enter the alarm threshold, used in conjunction with the Data Plan. An alarm is triggered when data usage exceeds Data Plan * Pre-Alarm Threshold. Alarm Action: Selectable alarm notification methods: Email or HTTP Notification.
Save	Click this button to manually refresh the above status.

7.1.2 TCP/IP

Milesight · 4G ANPR Road Traffic Camera

Wizard Online Help Download Plug-in English admin

Media Cellular **TCP/IP** WLAN P2P Tunnel HTTP RTSP Email FTP

Network

Basic Advanced Storage Event Traffic Data Transmission System

IPv4

Type ☒ Static ☐ DHCP

IP Address

IPv4 Subnet Mask

IPv4 Default Gateway

Preferred DNS Server

IPv6

IPv6 Mode

IPv6 Address

IPv6 Prefix (0-128)

IPv6 Default Gateway

MTU

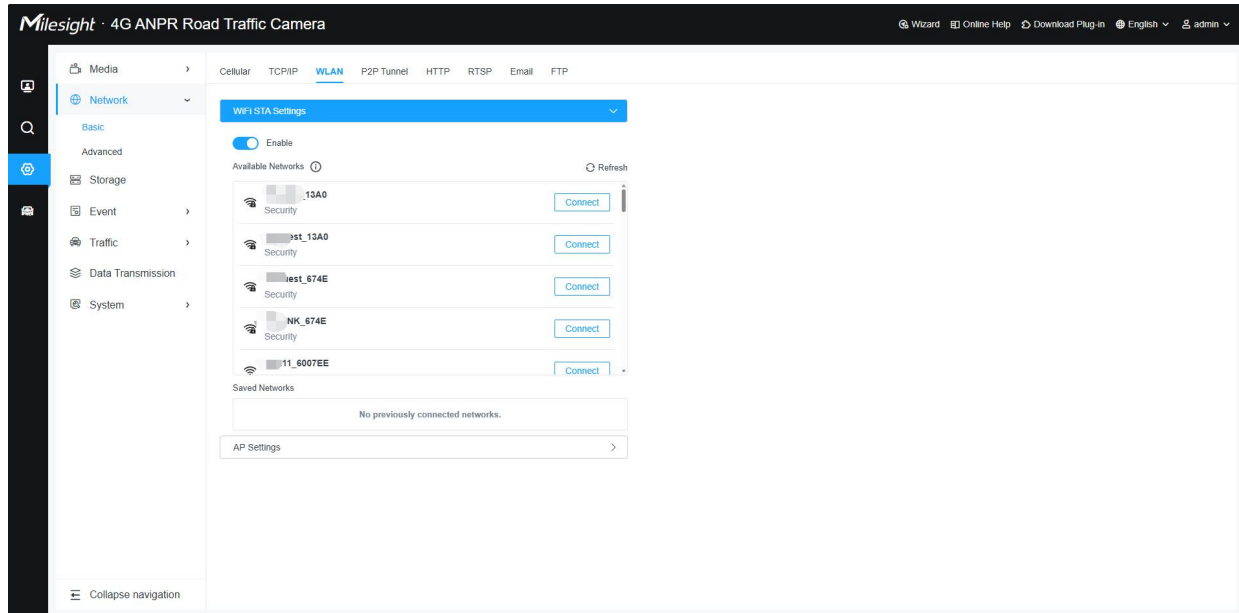
MTU Bytes (1200-1500)

Collapse navigation

Table 18. Description of the buttons

Parameters	Function Introduction
IPv4	Type: You can choose between Static and DHCP types to obtain the IPv4 address. • DHCP: The camera automatically obtains an IP address from the DHCP server . • Static: Allows you to manually assign a fixed IP address to the camera. IPv4 Address: An address that used to identify a network camera on the network.  Note: The Test button is used to test if the IP is conflicting. IPv4 Subnet Mask: It is used to identify the subnet where the network camera is located. IPv4 Default Gateway: The default router address. Preferred DNS Server: The DNS Server translates the domain name to IP address.
IPv6	IPv6 Mode: Choose different modes for IPv6: Manual/Route Advertisement/ DHCPv6. IPv6 Address: IPv6 Address used to identify a network camera on the network. IPv6 Prefix: Define the prefix length of IPv6 address: 0 to 128. IPv6 Default Gateway: The default router IPv6 address.
MTU	Maximum Transmission Unit. Enter a value from 1200 to 1500 as needed. The default value is 1500.
Save	Save the configurations.

7.1.3 WLAN



[Wi-Fi STA Settings] Wi-Fi Station (STA) mode allows the camera to connect to an external Wi-Fi network for internet access and platform communication.

Enable Wi-Fi: Toggle this switch to turn the Wi-Fi client function on or off. **(Default: Enabled).** When enabled, the camera will automatically scan for nearby signals.

Available Networks: This section lists all detectable Wi-Fi networks in the vicinity.

Table 19. Description of the buttons

Parameters	Function Introduction
SSID	Displays the names of available Wi-Fi networks.
Signal Strength	Represented by an icon showing the current reception quality.
Security Status	Indicates whether the network is encrypted (Padlock icon).
Connect	Click to initiate a connection to the selected network. A pop-up will appear requesting the Wi-Fi Password if the network is secured.

Connection Details (Status & Configuration)

Once the camera is successfully connected to a Wi-Fi network, the following information will be displayed for monitoring and advanced network configuration:

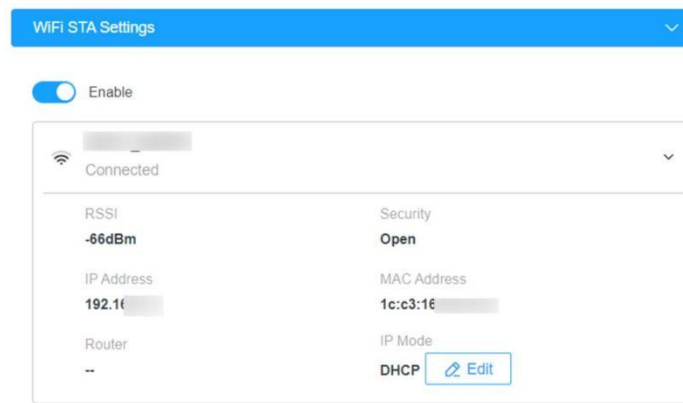


Table 20. Description of the buttons

Parameters	Function Introduction
RSSI	Displays the received signal strength indicator.
IP Address	The current IP assigned to the camera.
Router	The gateway or router index the device is connected to.
Security	Displays the encryption type of the current connection.
MAC Address	The unique hardware address of the Wi-Fi module.
IP Mode	You can switch between these modes: • DHCP: Automatically obtains an IP from the router. • Static: Allows you to manually assign a fixed IP address to the camera.

Saved Networks: This list displays networks that the camera has previously connected to or that have been manually added.

1. **Automatic Reconnection:** The camera will prioritize connecting to networks in this list if they are available.
2. **Management:** You can view the status of saved networks or click **[Delete]** to remove a network's credentials from the device memory.

[AP Settings]

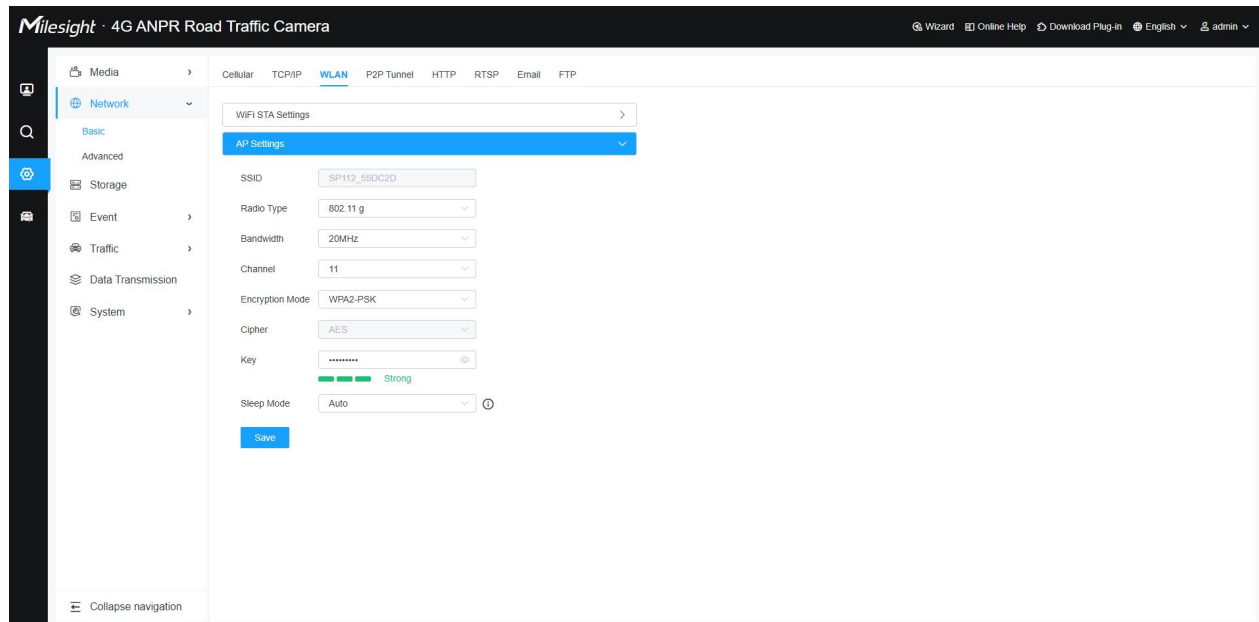


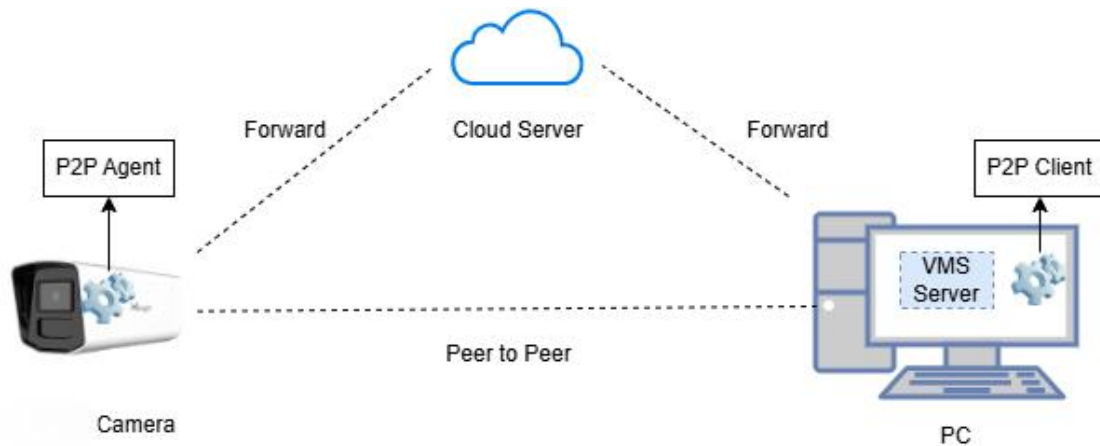
Table 21. Description of the buttons

Parameters	Function Introduction
SSID	Configure the wireless network name, default is SC411_XXXXXX (last six digits of the MAC address), not editable.
Radio Type	Select the radio type for Wi-Fi connection. Available options are 802.11n and 802.11g.
Bandwidth	Select the bandwidth for Wi-Fi connection. If Radio Type is set to 802.11n: 20MHz, 40MHz. If Radio Type is set to 802.11g: 20MHz.
Channel	Select the channel for Wi-Fi connection.
Encryption Mode	Fixed to WPA2-PSK (Required for GDPR compliance).
Cipher	Fixed to AES .
Key	8–63 characters . Must include uppercase, lowercase, numbers, and special characters. Must reach Strong status to save.
Sleep Mode	Configure the Wi-Fi module to enter sleep mode, selectable options are Auto/Never.  Note: Recommend selecting the 'Auto' mode, where the Wi-Fi will enter sleep mode after five minutes of inactivity between the device and the external environment. Choosing 'Never' mode will result in higher device power consumption.

Parameters	Function Introduction
Save	Click this button to manually refresh the above status.

7.1.4 P2P Tunnel

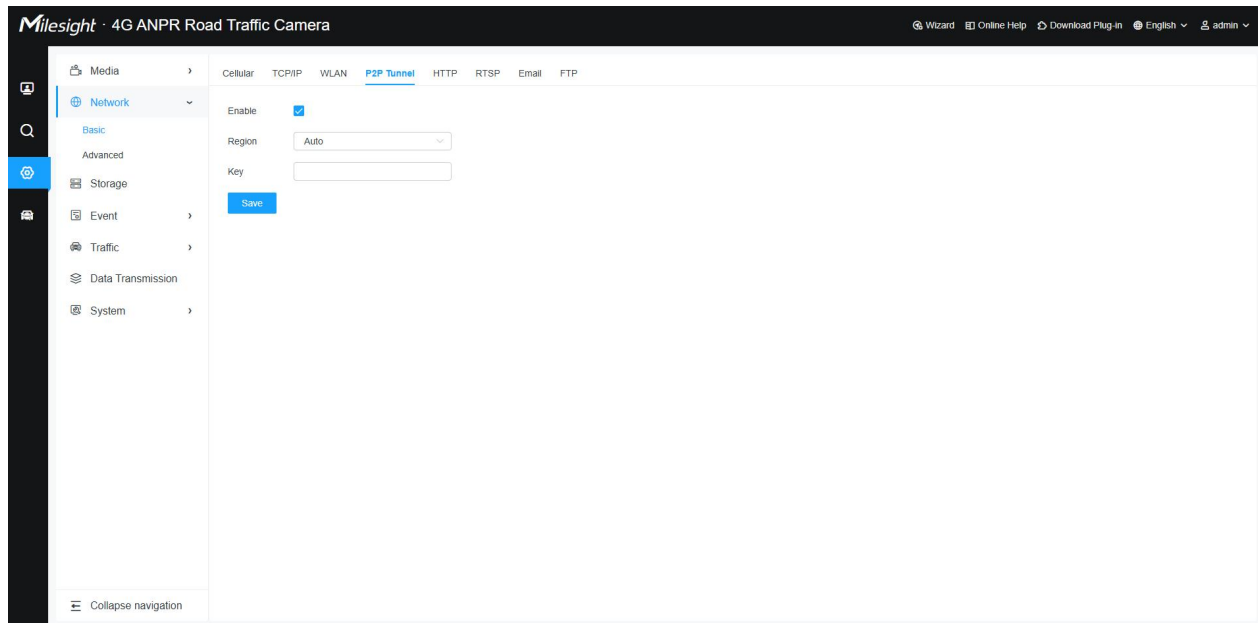
The Milesight P2P Tunnel solution allows you to connect your Solar-powered (SP111/SP112) cameras to your Video Management Software (VMS) through a secure, peer-to-peer (P2P) connection, even if the camera is on a private network or behind a firewall.



Note: Data transmission is prioritized through peer-to-peer communication. If this link fails, data will be forwarded via the cloud server. (Depending on network conditions)

Component	Location	Role
P2P Tunnel Agent	Camera	A client pre-installed on the camera by default.
P2P Tunnel Client	VMS Server/PC	A client that needs to be manually installed on the same server or PC as the VMS.
UID & Key	Both	Unique identifier (UID) and optional security passphrase (Key) for device pairing.

7.1.4.1 P2P Configuration



Enable

Toggle the P2P Tunnel function on or off. When enabled, the camera will automatically contact the cloud server (using its MAC address) to check the license status and perform activation if necessary.

 **Note:** Enabling P2P Tunnel requires an active internet connection (Ethernet or Cellular).

Region

You can select Africa, America, Asia, Europe, Middle East, Oceania, or choose Auto. When set to Auto, the system automatically detects and connects to the nearest available server for optimal performance. Auto is recommended.

Status

The Status field displays the current P2P tunnel connection state:

Status	Description
Offline	P2P Tunnel is disabled or not connected
Connecting	Attempting to establish P2P tunnel
Online	P2P tunnel is active and ready for remote access
Error	P2P tunnel connection failed (check network settings)

UID (Unique Identifier)

The UID is a unique device identifier assigned by the service. This identifier is used to establish P2P connections from remote clients.

The UID is auto-generated when P2P Tunnel is first enabled and cannot be modified.

Key (Optional)

The Key is the authentication credential used to verify remote access requests. It works together with the UID to ensure secure P2P connections. It must be entered when adding the device on the P2P Tunnel Client for verification.

Important: Keep your UID and Key confidential. Anyone with access to these credentials can attempt to connect to your device remotely.

7.1.4.2 Milesight P2P Tunnel Client Setup (on VMS Server)

The P2P Tunnel Client software must be installed on the server where your VMS is running.

Supported Operating Systems

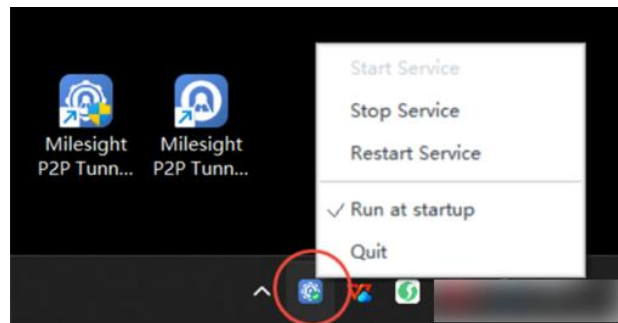
OS	Supported Versions
Windows	Windows 10, Windows 10 Enterprise, Windows 11, Windows Server 2016 (v1607), Windows Server 2019, Windows Server 2022
Linux	Ubuntu LTS 18.04, 20.04, 22.04, 24.04 (64-bit / amd64 only)

Installation and Access

Windows

After installation, use the Milesight P2P Tunnel Service shortcut to ensure the service is running.

Access the management interface via the Milesight P2P Tunnel Web Client shortcut.



Linux

Install the client using the following command:

```
dpkg -i p2pTunnel_amd64_V1.0.1.deb
```

Once installed, the service starts automatically on boot. Use the following commands to manage the service:

Action	Command
Check service status	systemctl status p2pTunnel.service
Start service	systemctl start p2pTunnel.service
Stop service	systemctl stop p2pTunnel.service
Restart service	systemctl restart p2pTunnel.service

Action	Command
Uninstall	<code>dpkg -P p2ptunnel</code>

Access Address: The default access is <http://127.0.0.1:18080/>.

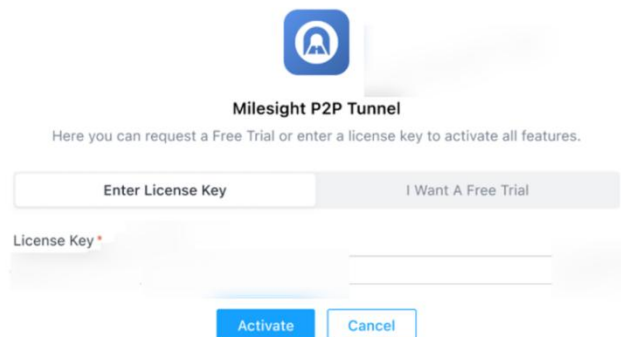


Security Note:

The web interface is accessible from the local machine only. The interface and operations are identical on both Windows and Linux.

License Management

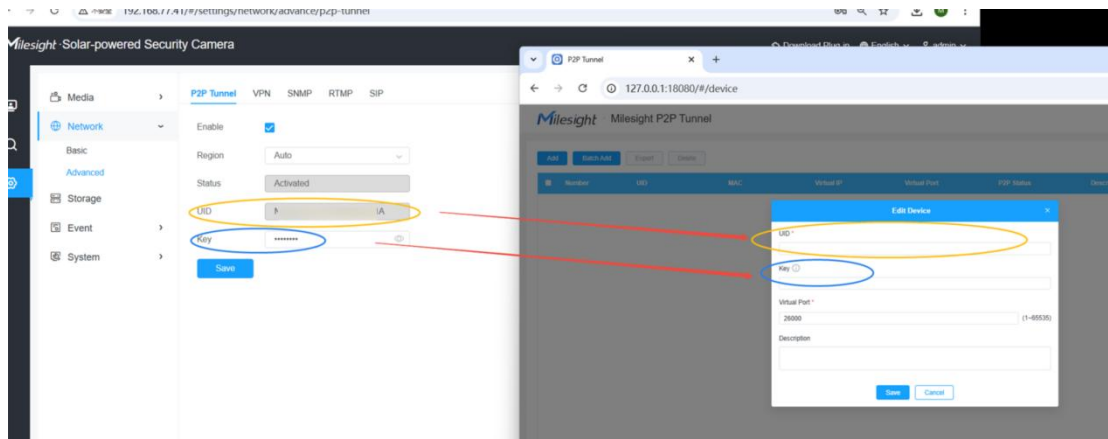
The client supports a 30-day Free Trial or Purchased Licenses (provided by the After-Sales team).



Trial Expiry: If the trial expires or the license is invalid, the P2P Tunnel functionality (like video forwarding) will stop. Re-enter the valid license in the System menu to restore service.

Adding the Device

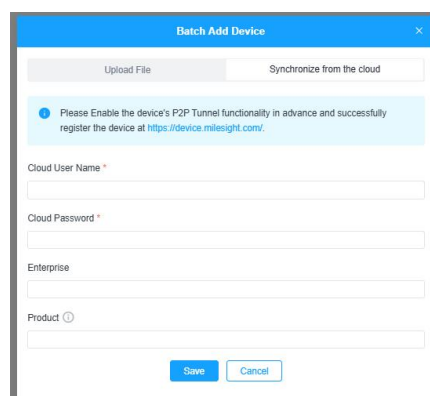
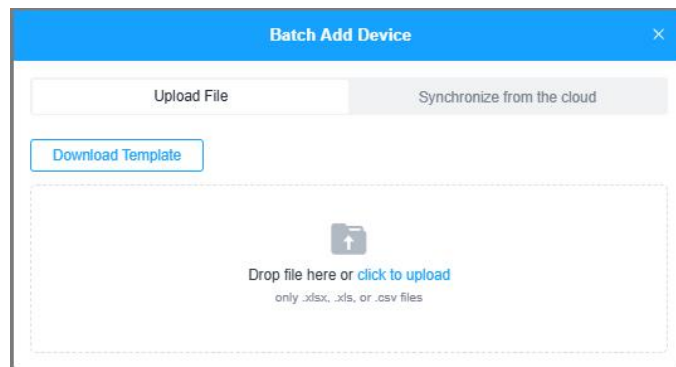
You can add devices one-by-one or in bulk:



Method	Description
Single Add	Click Add and enter the device details.
Batch Add (File)	Select Batch Add Device → Upload File.
Batch Add (Sync)	Select Batch Add Device → Synchronize from CCTV Management Platform. (Requires Cloud Platform v11.15)

Device Input

- ① Enter the camera's unique UID.
- ② Enter the Key (if you set one on the camera).
- ③ The client will assign a unique Virtual Port Number to this device.



7.1.4.3 Connecting the Camera to Your VMS

Once the device is added successfully to the Milesight P2P Tunnel Client, the camera is now accessible locally via the generated Virtual Port.

VMS Connection Format

When adding the camera to your VMS, use the following details:

IP Address: 127.0.0.1 (The local host IP address)

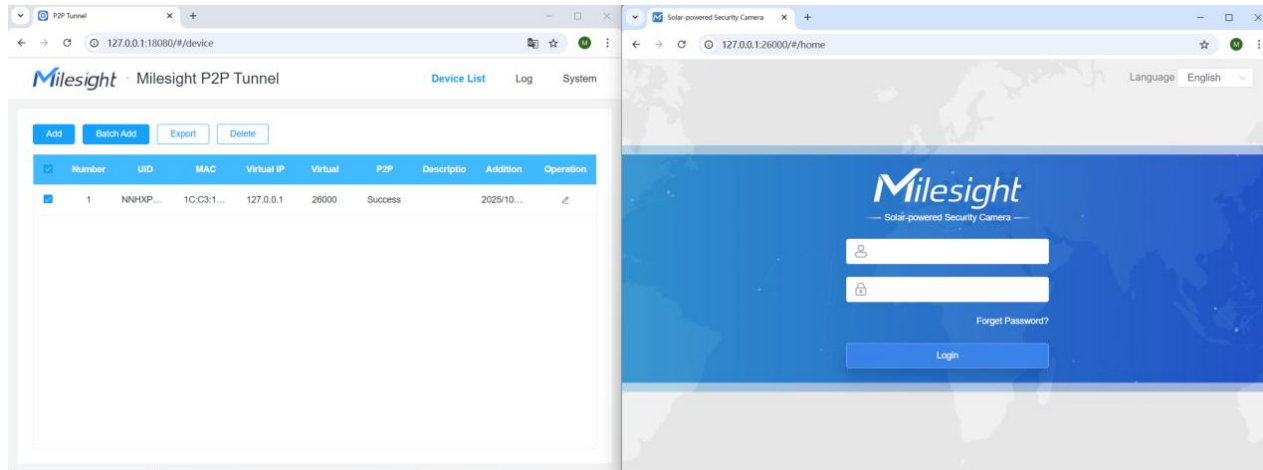
Port Number: [The Unique Virtual Port Number assigned by the Client]

Example: If the client assigns Virtual Port 55001, you add the camera to the VMS as 127.0.0.1:55001.

ONVIF: This local virtual port acts as the ONVIF port. The VMS will use the ONVIF protocol via this virtual port to automatically discover other stream ports (like the RTSP port).

Final Result

By connecting to 127.0.0.1:[Virtual Port], the camera can be managed and viewed in your VMS just like a standard, locally-wired camera.



7.1.5 HTTP

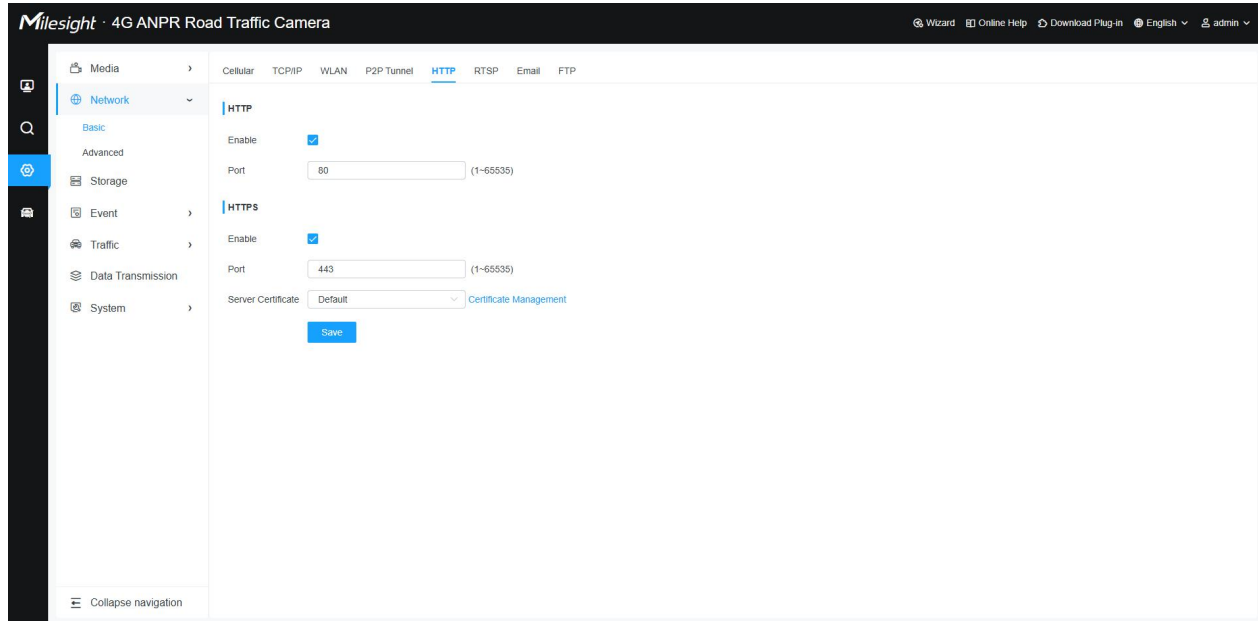


Table 22. Description of the buttons

Parameters	Function Introduction
HTTP	Enable: Start or stop using HTTP. Port: Enter a Web GUI login port from 1 to 65535. The default is 80, same with ONVIF port.
HTTPS	Enable: Start or stop using HTTPS. Port: Enter a Web GUI login port via HTTPS from 1 to 65535. The default is 443.  Note: For more details about how to enable HTTPS access, see https://milesight.freshdesk.com/a/solutions/articles/69000797384.
Server Certificate	You can select the certificates created in Certificate Management .
	Save the configurations.

Table 23. HTTP URL are as below:

Stream	URL
Main Stream	https://username:password@IP:port/ipcam/mjpeg.cgi
Secondary Stream	https://username:password@IP:port/ipcam/mjpegcif.cgi

7.1.6 RTSP

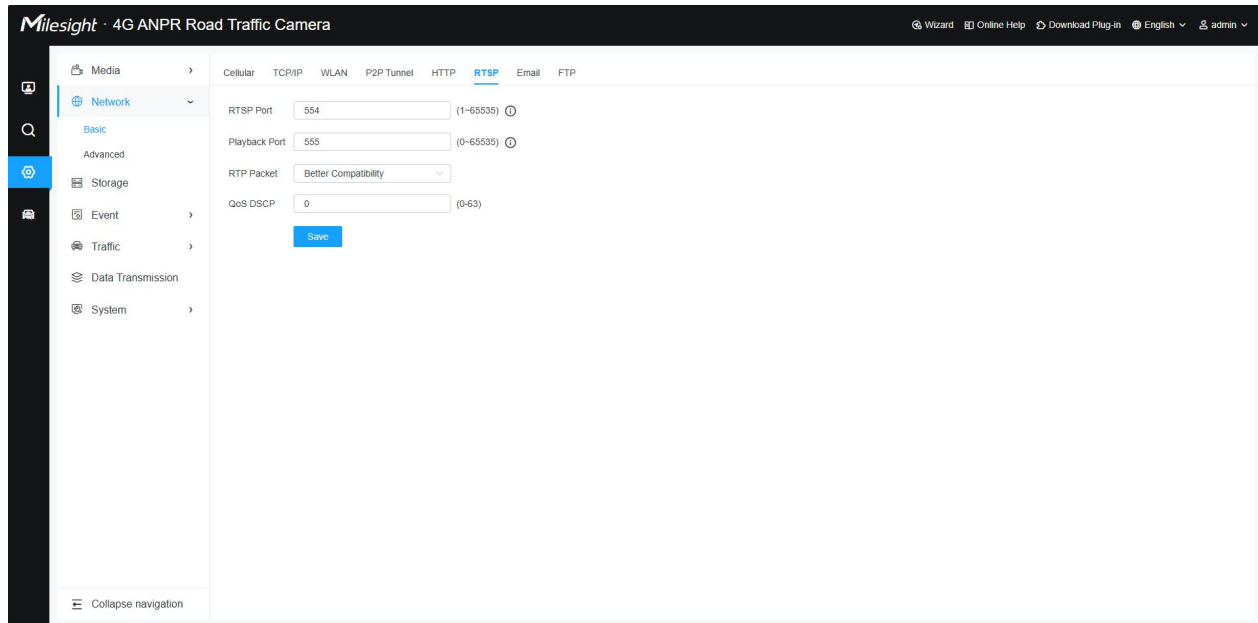


Table 24. Description of the buttons

Parameters	Function Introduction
RTSP Port	The port of RTSP, the default is 554.
Playback Port	Playback Port The port of playback, the default is 555.  Note: Port 0 means closing playback function.
RTP Packet	There are Better Compatibility and Better Performance two options, if your camera's image mess up, please switch this option.
QoS DSCP	The valid value range of the DSCP is 0-63.
Save	Save the configuration.

Table 25. RTSP URL are as below:

Stream	URL
Primary Stream	rtsp://IP:RTSP Port/main
Secondary Stream	rtsp://IP:RTSP Port/sub

 Note:

- DSCP refers to the Differentiated Service Code Point; and the DSCP value is used in the IP header to indicate the priority of the data.
- A reboot is required for the settings to take effect.

7.1.7 Email

Alarm video files can be sent to specific mail account through SMTP server. You must configure the email settings correctly before using it.

The screenshot shows the Milesight 4G ANPR Road Traffic Camera web interface. The 'Email' tab is selected under the 'Network' section. The configuration fields are as follows:

- Enable:** Checked
- User Name:** hdpnc
- Sender Email Address:** hdpnc@sina.com
- Password:** Masked with asterisks
- Email Server:** smtp.sina.com
- Email Port:** 25 (with a note (1-65535))
- Recipient Email Address1:** user@domain.com
- Recipient Email Address2:** Empty
- Encryption:** Radio buttons for None (selected), SSL, and TLS.
- Record Settings:**
 - Alarm Record File Name:** YYYY-MM-DD
 - Record Format:** AVI
 - Max Record Segment Size:** 40M
- Snapshot Settings:**
 - Alarm Snapshot File Name:** YYYY-MM-DD
 - Timing Snapshot File Name:** YYYY-MM-DD

Table 26. Description of the buttons

Parameters	Function Introduction
Enable	Check the checkbox to enable Email function.
User Name	The sender's name. It is usually the same as the account name.
Sender Email Address	Email address to send video files attached emails.
Password	The password of the sender.
Email Server	The email server IP address or host name(e.g. smtp.gmail.com).
Email Port	The default TCP/IP port for SMTP is 25(not secured). For SSL/TLS port, it depends on the mail you use.
Recipient Email Address1	Email address to receive video files.

Parameters	Function Introduction
Recipient Email Address2	Email address to receive video files.
Encryption	Check the checkbox to enable SSL or TLS if it is required by the SMTP server. You can also select None .
Record Settings	Alarm Record File Name: Default(YYYY-MM-DD) /MM-DD-YYYY/ DD- MM-YYYY/ Add prefix/ Customize are available. Record Format: Selects the recording file format; MP4 and AVI are available. Max Record Segment Size: Limits the size of each recording file.
Snapshot Settings	Alarm Snapshot File Name: Default(YYYY-MM-DD) /MM-DD-YYYY/ DD- MM-YYYY/ Add prefix/ Customize are available. Timing Snapshot File Name: Default(YYYY-MM-DD) /MM-DD-YYYY/ DD- MM-YYYY/ Add prefix/ Customize are available.
Save	Save the configuration.
Test	Test whether the configurations are successful.

 Note: You can refer to the following file name tip to customize the file name.

File Name Tip
 &Device - Device Name
 &Y - Year
 &M - Month
 &D - Day
 &h - hour
 &m - minute
 &s - second
 &ms - millisecond
 && - &

7.1.8 FTP

Alarm video files can be sent to specific FTP server. You must configure the FTP settings correctly before using it.

Table 27. Description of the buttons

Parameters		Function Introduction
FTP Server Settings	FTP Type	FTP and SFTP are optional.
	Server Address	FTP/SFTP server address.
	Server Port	The port of the FTP server. Generally it is 21. The port of the SFTP server. Generally it is 22.
	User Name	User name used to log in to the FTP/SFTP sever.
	Password	User password.
	Storage Path	Storage Path where video and image will be uploaded to the FTP server. Four FTP storage path types are available, including Root Directory, Parent Directory, Child Directory and Customize.
	Parent Directory	Choose IP Address/ Device Name/ Date as the folder name of Parent Directory, or customize the folder name.
	Child Directory	Choose IP Address/ Device Name/ Date as the folder name of Child Directory, or customize the folder name.
	Multilevel Folder Name	If the storage path is more than two levels, enter Multilevel FTP storage path here manually.

Parameters		Function Introduction
FTP Storage Settings	Alarm Action File Name	Choose the default(YYYY-MM-DD) or customize the alarm action file name.
	Video File Name	If you choose to customize the alarm action file name, YYYY-MM-DD/ MM-DD-YYYY/ DD-MM-YYYY/ Add prefix are available.
	Image File Name	If you choose to customize the alarm action file name, YYYY-MM-DD/ MM-DD-YYYY/ DD-MM-YYYY/ Add prefix are available.
	Timing Snapshot File Name	Default(YYYY-MM-DD) /MM-DD-YYYY/ DD-MM-YYYY/ Add prefix/ Overwrite with the base file name are available.
	Record Format	Optional AVI/MP4
Save		Save the configuration, 0s ~ 10s are optional.
Test		Test whether the configuration is successful.

 Note:

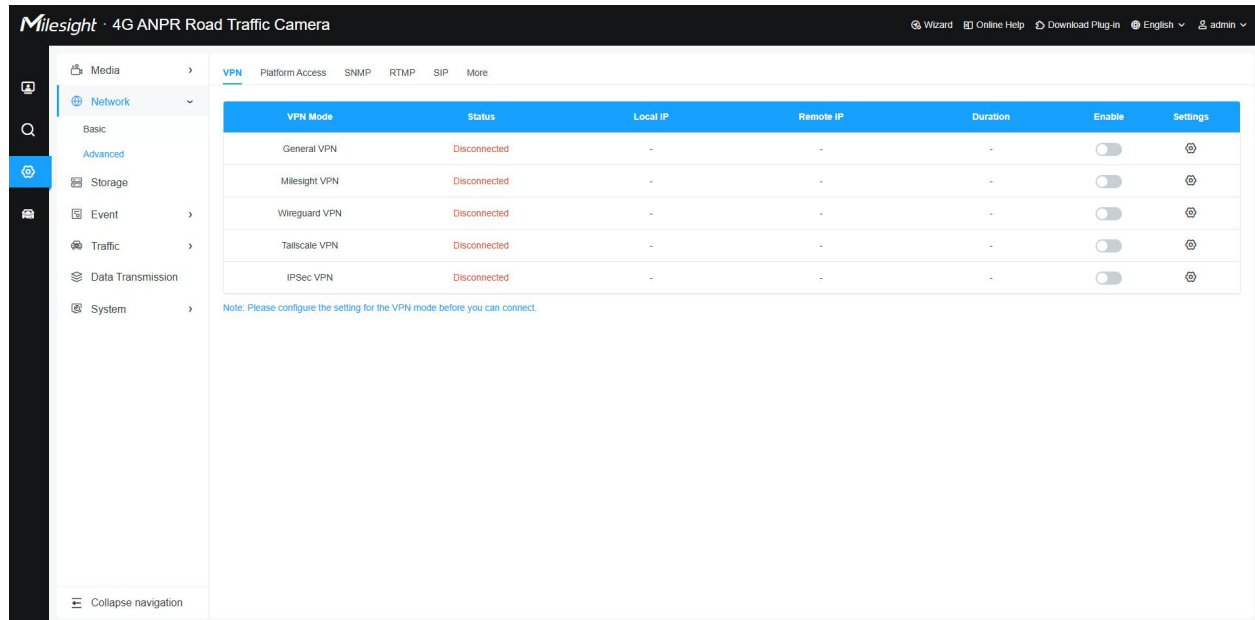
- Parent Directory will be under Root Directory, and Child Directory will be under Parent Directory.
- You can refer to the following file name tip to customize the file name.

7.2 Advanced

7.2.1 VPN

VPN stands for Virtual Private Network. It is a network protocol that can provide you secure encrypted connection over the public internet. It is a significant technology in surveillance industry. Imagine that you have a network camera connected via public IP address, it's possible for others to log in or listen illegally if someone knows the specific IP address and forwarded port. Via VPN the camera streams and data will be transferred through an encrypted tunnel. This encrypted VPN tunnel makes it appear as though you are directly connected to the private network, keeping your online activity (including your browsing history) hidden. For Milesight camera, VPN feature allows us to log in the camera via a virtual IP, which makes it easier to configure the camera remotely.

For more details about **How to use VPN on Milesight Camera**, please refer to <https://milesight.freshdesk.com/support/solutions/articles/69000829102-how-to-use-vpn-on-milesight-network-camera>.



Step 1: Select a VPN mode and click the  button to configure its parameters.

Table 28. Description of the buttons

Parameters	Function Introduction	
VPN Mode	General VPN	OpenVPN Configuration File: Upload the .ovpn format OpenVPN client configuration file.
	Milesight VPN	Server Address: Specify the server address of Milesight VPN server. Server Port: Specify the server port of Milesight VPN server. Authorization Code: Copy the authentication code from Milesight VPN server. Device Name: Customize a unique device name to define the device.
	Wireguard VPN	Wireguard VPN Configuration file: Upload Wireguard VPN configuration file.
	Tailscale VPN	Tailscale VPN is a zero-configuration, peer-to-peer VPN solution built on the WireGuard protocol. Its key advantage is that devices can communicate as if on the same local network without requiring public IP addresses, port forwarding, or complex network setup.

Parameters	Function Introduction	
		With Tailscale VPN enabled, the SP112 can be accessed remotely from the customer's Tailscale network regardless of geographic location or network type, allowing the client platform to access each device via its VPN address for streaming, configuration, and data retrieval. To establish a Tailscale VPN connection: Select "Tailscale VPN" from the VPN mode options, then click the settings button to configure it. Enter the Tailscale Key in the input field. Click the "Save" button to initiate the connection. The device will automatically register with the Tailscale network in the background and validate the key. If the key is valid, the connection will be established. If the key is incorrect, the Status will display a connection failure.
	IPSec VPN	IPSec VPN is a widely used enterprise VPN protocol. This implementation uses IKEv2 key exchange with AES256 encryption in Tunnel mode, providing strong security for mission-critical remote access scenarios. To establish an IPSec VPN connection: Select "IPSec VPN" from the VPN Mode options, then click the settings button to configure it. Enter the Server Address (IP or domain name of the IPSec VPN server). Enter the Preshare Key for IKE authentication. Optionally enter a Local ID to identify this device (recommended for cellular connections). Configure Local Subnet CIDR and Remote Subnet CIDR as needed (defaults are 0.0.0.0/24). Click the "Save" button to save all configuration and initiate the connection.

Step 2: Click the button to enable the VPN.



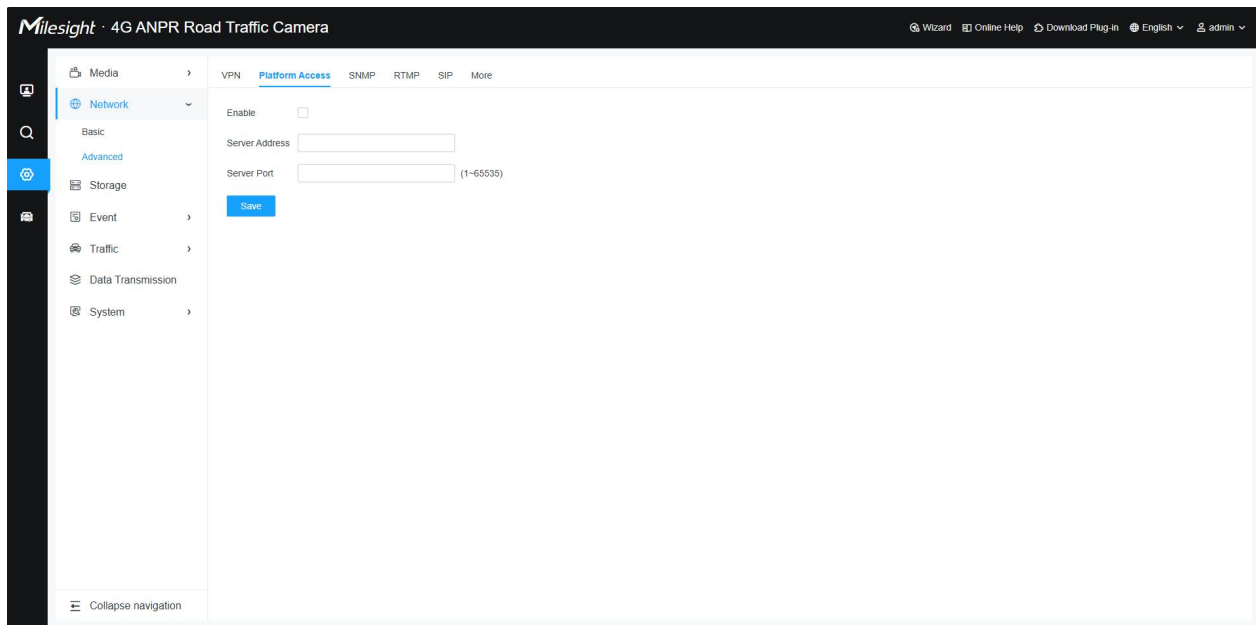
Note: Only one VPN mode can be active at a time.

Step 3: Check the VPN connection status and basic information.

Table 29. Description of the buttons

Parameters	Function Introduction
Status	Connection Status.
Local IP	IP Address Used by the User Device (also known as Local Host).
Remote IP	IP Address of the Remote Host Communicating with the User Device.
Duration	Connection Duration.

7.2.2 Platform Access



Platform access can be enabled to configure the external IP address and port of the backend VMS server.

For detailed instructions, please refer to the following two documents:

<https://resource.milesight.com/milesight/security/document/troubleshooting/ipc/milesight-troubleshooting-how-to-connect-4g-solar-powered-cameras-to-milesight-vms.pdf>

<https://resource.milesight.com/milesight/security/document/troubleshooting/ipc/milesight-troubleshooting-how-to-use-milesight-vpn-to-connect-4g-solar-powered-camera-and-vms-network.pdf>

7.2.3 SNMP

You can set the SNMP function to get camera status, parameters and alarm related information and manage the camera remotely when it is connected to the network.

Before setting the SNMP, please download the SNMP software and manage to receive the camera information via SNMP port. By setting the Trap Address, the camera can send the alarm event and exception messages to the surveillance center.

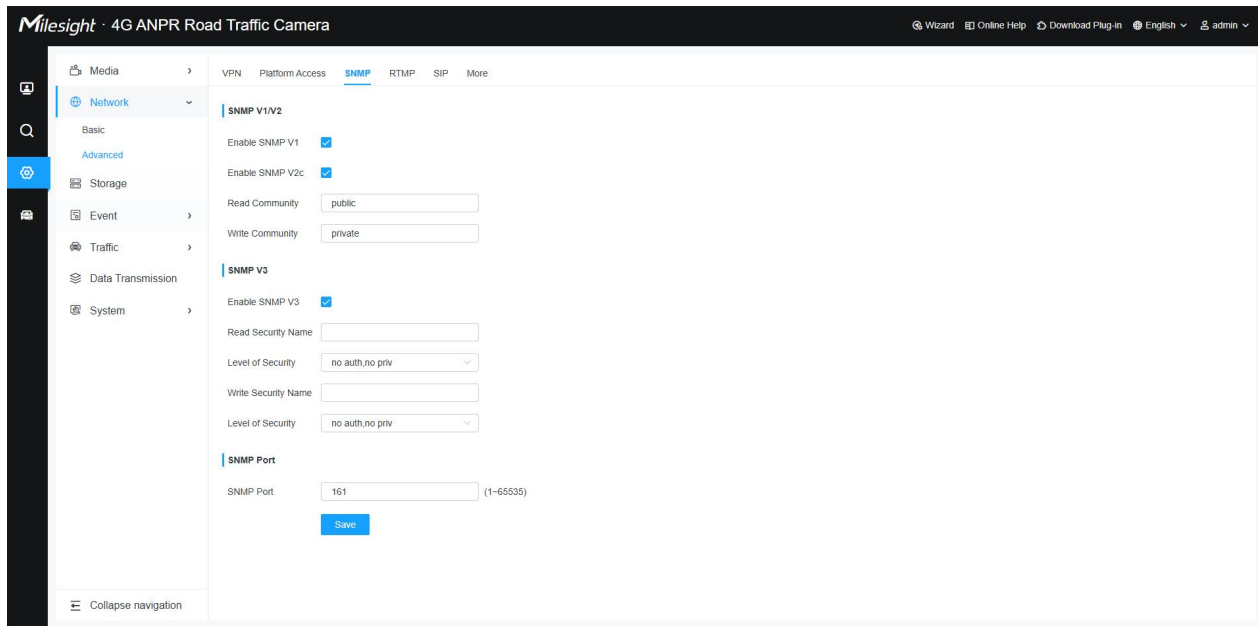


Table 30. Description of the buttons

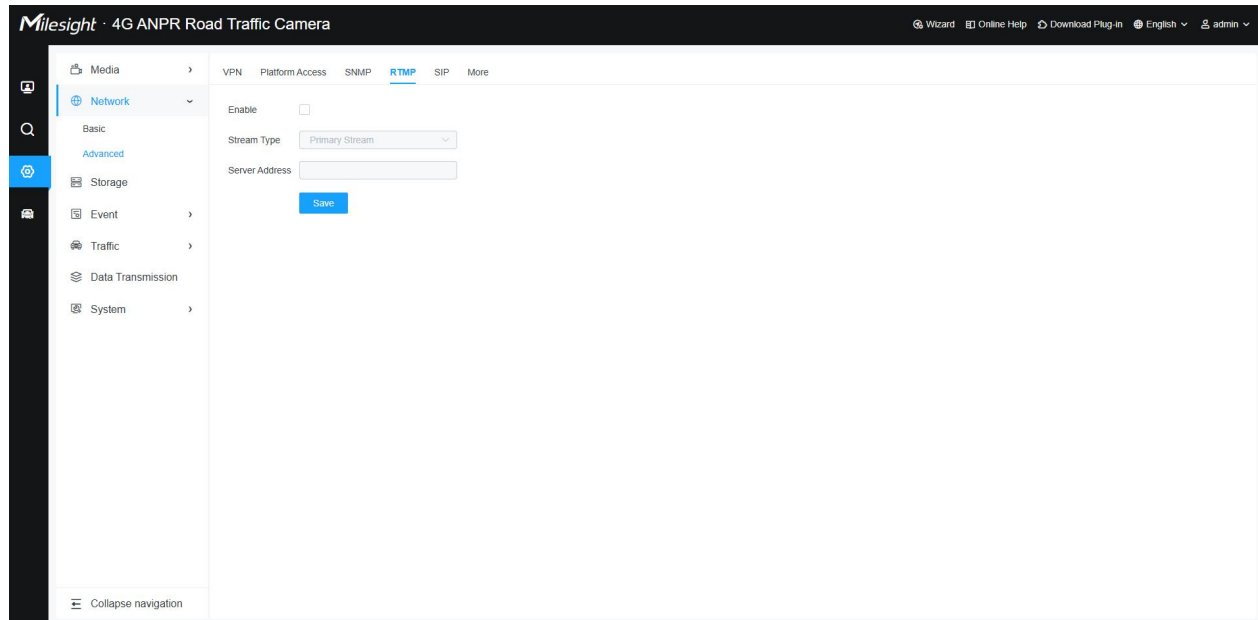
Parameters	Function Introduction
SNMP v1/v2	The version of SNMP, please select the version of your SNMP software. Enable SNMP v1: Provide no security. Enable SNMP v2: Require password for access. Write Community: Input the name of Write Community. Read Community: Input the name of Read Community
SNMP v3	Enable SNMP v3: Provide encryption and the HTTPS protocol must be enabled. Read Security Name: Input the name of Read Security Community. Level of Security: There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv). Write Security Name: Input the name of Write Security Community. Level of Security: There are three levels available: (auth, priv), (auth, no priv) and (no auth, no priv).
SNMP Port	The port of SNMP, the default is 161.
Save	Save the configuration.

 Note:

- The settings of SNMP software should be the same as the settings you configure here;
- A reboot is required for the settings to take effect.

7.2.4 RTMP

Real-Time Messaging Protocol (RTMP) was initially a proprietary protocol for streaming audio, video and data over the Internet, between a Flash player and a server. RTMP is a TCP-based protocol which maintains persistent connections and allows low-latency communication. It can realize the function of live broadcast so that customers can log in to the camera wherever there is a network.



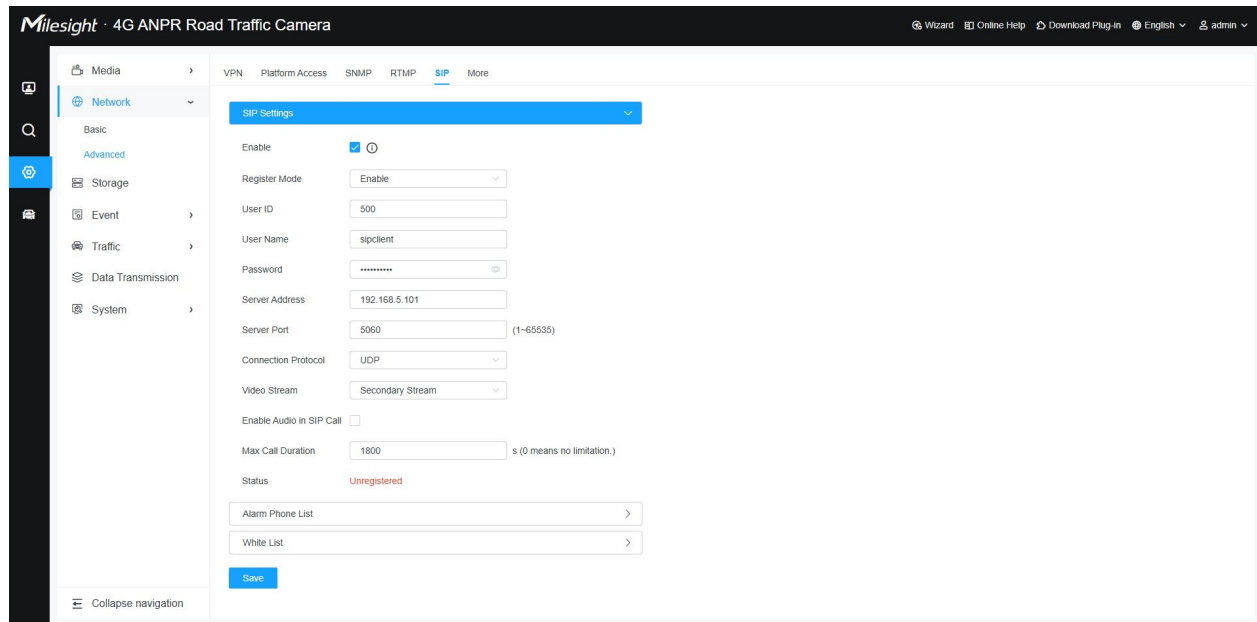
Note:

- For YouTube live broadcast, if you use a newly created account to live broadcast, you need to wait for 24hrs to activate the account for using live function.
- For RTMP, since G.711 is not available for YouTube, so you can only play video from Milesight Network Camera with H.264 video coding and AAC audio coding on YouTube.
- Server Address in Network Camera RTMP interface needs to be filled with the format: `rtmp://< Server URL >/< Stream key >`, remember it needs '/' to connect between <Server URL > and < Stream key >.
- For more details about how to use RTMP for live broadcast, please refer to <https://milesight.freshdesk.com/a/solutions/articles/69000643313>.

7.2.5 SIP

The Session Initiation Protocol(SIP) is a signaling communications protocol, widely used for controlling multimedia communication sessions such as voice and video calls over Internet Protocol (IP) networks. This page allows user to configure SIP related parameters. Milesight Network cameras can be configured as SIP endpoint to call out when alarm triggered; or allow permitted number to call in to check the video if the video IP phone is used.

Note: For more details about how to use SIP, please refer to <https://milesight.freshdesk.com/a/solutions/articles/69000643391>.



To use this function, the settings in SIP page must be configured properly. There are two ways to get video through SIP, one is to dial the IP address directly, the other is account registration mode. the details are as follows:

Method 1: IP Direct mode

Dial on the camera's IP address directly through SIP phone, so you can see the video.



Note: SIP phone and the camera should in the same network segment.

Method 2: Account registration mode

- Before using the SIP, you need to register an account for the camera from the SIP server;
- Register another user account for the SIP device from the same SIP server;
- Call the camera User ID from the SIP device, you will get the video on the SIP device.

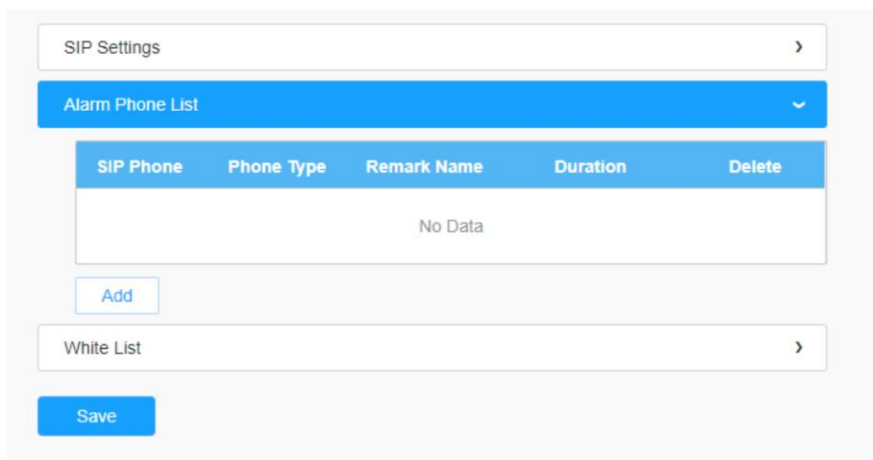
[SIP Settings]

Table 31. Description of the buttons

Parameters	Function Introduction
------------	-----------------------

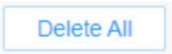
Parameters	Function Introduction
Enable	Start or stop using SIP.  Note: SIP supports Direct IP call.
Register Mode	Choose to use Enable mode or Disable mode. Enable mode means to use SIP with register account. Disable mode refers to use SIP without register account, just use the IP address to call.
User ID	SIP ID.
User Name	SIP account name.
Password	SIP account password.
Server Address	Server IP address.
Server Port	Server port.
Connection Protocol	UDP/TCP.
Video Stream	Choose the video stream.
Enable Audio in SIP Call	Enable/disable audio in SIP call.
Max Call Duration	The max call duration when use SIP.
Status	SIP registration status. Display “Unregistered” or “Registered” .

[Alarm Phone List]



The screenshot shows a web interface for SIP Settings. At the top, there is a 'SIP Settings' header with a right arrow. Below it, the 'Alarm Phone List' section is highlighted in blue with a dropdown arrow. Under this section, there is a table with the following columns: SIP Phone, Phone Type, Remark Name, Duration, and Delete. The table is currently empty, displaying 'No Data'. Below the table is an 'Add' button. At the bottom of the interface, there is a 'White List' section with a right arrow and a 'Save' button.

Table 32. Description of the buttons

Parameters	Function Introduction
	Add alarm phone to the camera. Phone Type: Phone Number(Call by phone number) & Direct IP Call(Check to accept peer to peer IP call). To Phone Number/IP Address: Call by phone number or IP address. Remark Name: Display name. Duration: The time schedule to use SIP.
	Delete the selected alarm phone.
	Delete all added alarm phone.

[White List]

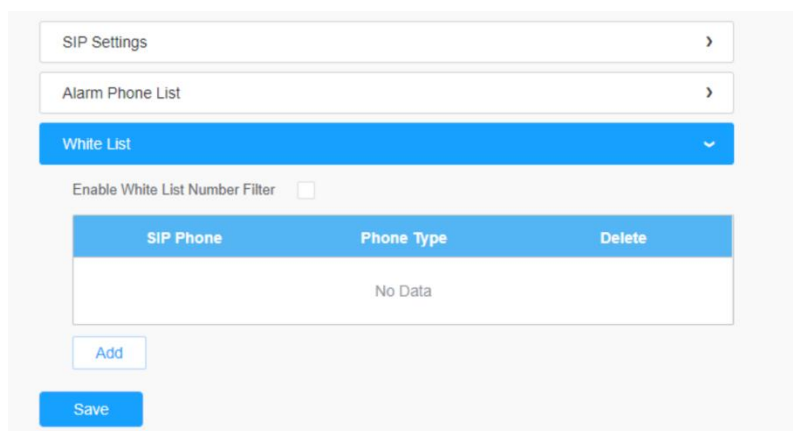
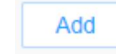


Table 33. Description of the buttons

Parameters	Function Introduction
Enable White List Number Filter	When enabled, only the designated phone number or IP address can visit
	Phone Type: Phone Number(Call by phone number) & Direct IP Call. Phone Number/IP Address: Including the phone number or IP address on the white list.

7.2.6 More

Here you can set more functions, like Push Message Settings and ONVIF Settings.

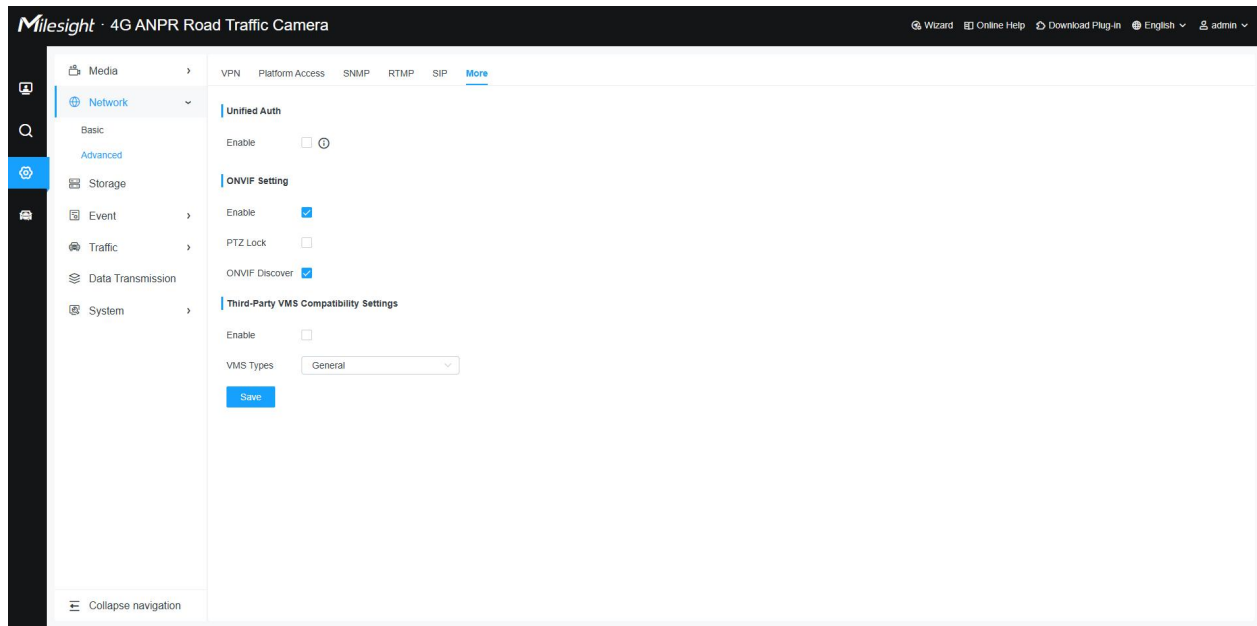


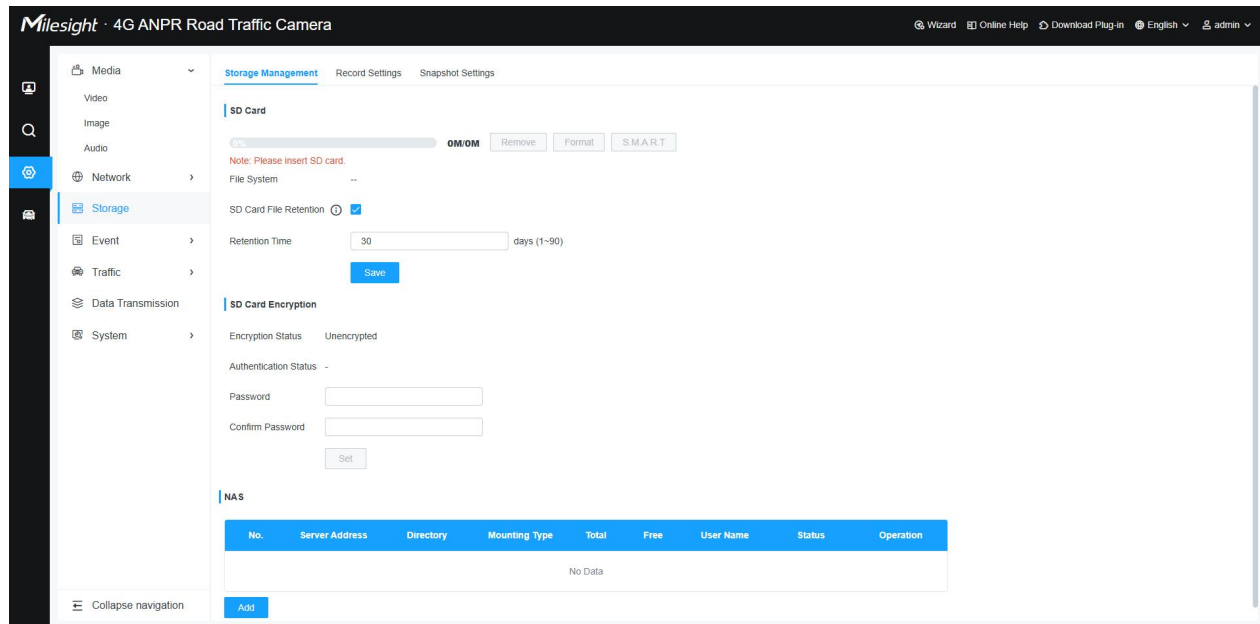
Table 34. Description of the buttons

Parameters	Function Introduction
Unified Auth	Enable to let your browser remember login details for next time and enable passwordless login.
ONVIF Setting	Enable: Select to enable or disable the camera's ONVIF function. ONVIF is enabled by default, allowing third-party software to search for, add, and connect to the camera using ONVIF protocols. Disabling this option will completely turn off all ONVIF functions. PTZ Lock: Intercepts ONVIF-initiated PTZ commands (ONVIF is the main way for third-party devices to control the camera); select to enable/disable it, and enabling locks the camera's operating settings to avoid unintended zoom or focus changes ONVIF Discover: This option controls whether the camera can be discovered by third-party back-end systems via ONVIF. It is enabled by default to facilitate device addition and compatibility with third-party platforms. If you are using a cellular fixed IP and notice high data usage, you can disable ONVIF Discover to reduce traffic. When disabled, ONVIF discovery is turned off, but ONVIF functions remain available—you can still manually add the camera using its IP address.
Third-Party VMS Compatibility Settings	Enable: Check the checkbox to enable compatibility with third-party VMS systems. VMS Types: Select the desired third-party VMS type for compatibility.

Chapter 8. Storage

8.1 Storage Management

In this section, you can manage the SD card status, storage logic, and data security settings to optimize the device's performance and comply with privacy regulations.



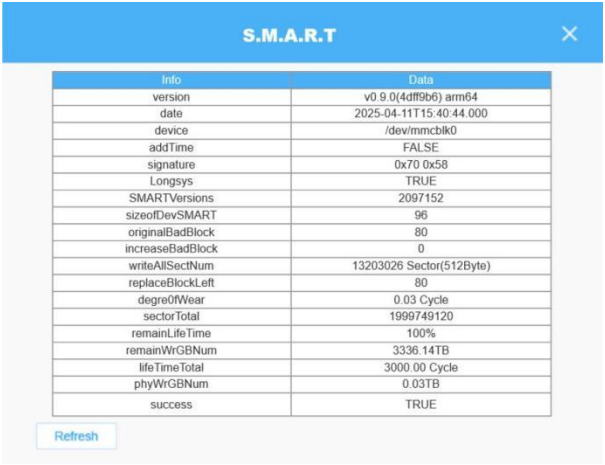
Note: Before you start:

- Before using the SD card for the first time, please format the card on the camera.
- To configure record settings, please make sure that you have the SD card inserted in your camera.

Please refer to the meaning of the options as follows:

Table 35. Description of the buttons

Item	Description
SD Card	Format: Format SD card, the files in SD card will be removed. Remove: Remove SD card. S.M.A.R.T: It is used to detect and display the SD card's health status. Click to view detailed health status information and the following window will displayed.

Item	Description
	
File System	Displays the file system format (e.g., EXT4). If no SD card is inserted, it displays "-".
SD Card File Retention	Enable this to set a specific storage period for recordings and snapshots. Once the retention period is reached, files will be automatically deleted. Retention Time: Set the number of days to keep files on the SD card. Range: 1~90 days (Default: 30).
Save	Click to apply and save all configurations in the SD Card module.

[SD Card Encryption]

Provides advanced security mechanisms to protect stored data, ensuring compliance with **EU GDPR** privacy requirements.

Table 36. Description of the buttons

Item	Description
Encryption Status	Displays whether the SD card file system is currently "Encrypted" or "Unencrypted".
Authentication Status	Shows the current password protection status.
Password / Confirm Password	Set or confirm the encryption password to secure the data on the SD card.

 **Note:** Once the SD card is encrypted, the encryption cannot be removed directly. If you need to clear the encryption and return the card to an unencrypted state, the **SD card must be formatted**, which will erase all existing data.

[SD Card Decryption]

Supports decryption using third-party tools. The operation commands on Linux are as follows:

1. Install the decryption tool:

```
sudo apt install cryptsetup
```

2. Locate the newly inserted SD card, e.g., /dev/sdb:

```
ls -rtl /dev | grep disk
```

3. Decrypt and mount:

/opt/mmc is the mount point and must be an empty directory.

```
echo 'Enter the password set during SD card encryption here' | sudo cryptsetup --type=plain --cipher=aes-xts-plain64 --key-size=512 --hash=sha512 open /dev/sdb sd_encrypt
```

```
mkdir -p /opt/mmc
```

```
mount -t ext4 /dev/mapper/sd_encrypt /opt/mmc
```

4. Unmount:

```
umount -l /opt/mmc
```

```
cryptsetup close sd_encrypt
```

```
udisksctl power-off -b /dev/sdb
```

8.2 Record Settings

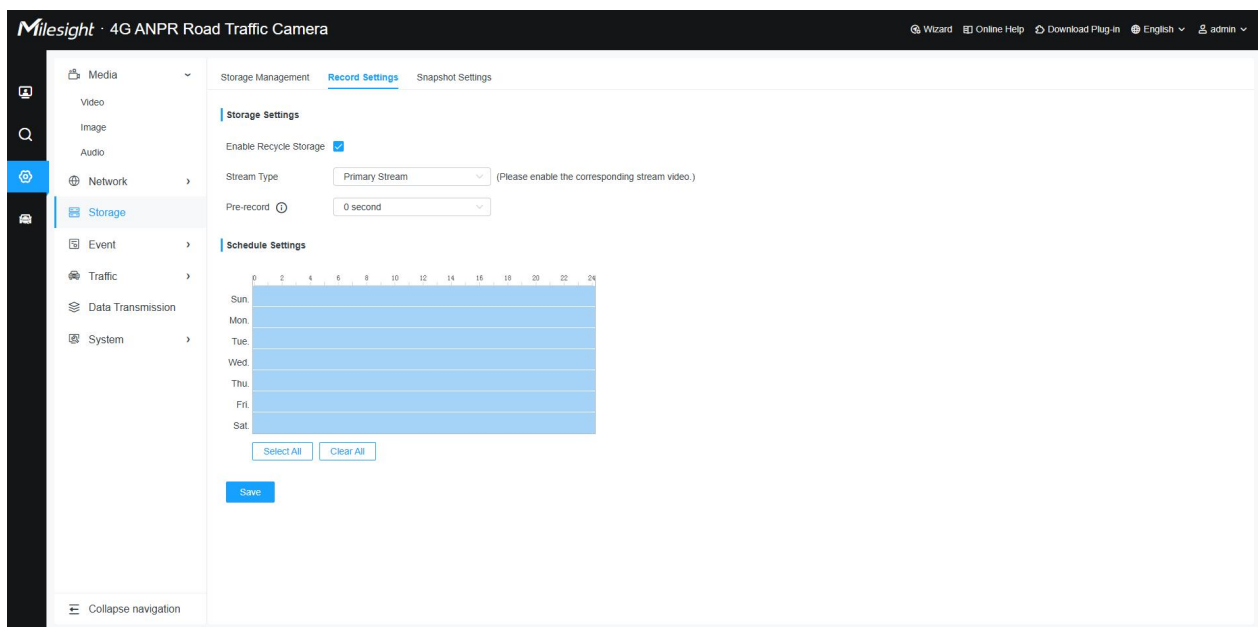


Table 37. Description of the buttons

Parameters	Function Introduction
Enable Recycle Storage	Enable/Disable Recycle Storage, if you enable this option, it will delete the files when the free disk space reaches a certain value.

Parameters	Function Introduction	
Pre Second	Reserve the record time before alarm, 0~30 sec.	
Schedule Settings	Edit record schedule as needed. Intuitive scheduling by drawing the time bar directly. Schedule Settings 	
	Copy To... ☐ All ☐ Sun. ☐ Mon. ☐ Tue. ☒ Wed. ☐ Thu. ☐ Fri. ☐ Sat. Save	Copy the schedule area to another date.
	Select All	Select all schedule.
	Clear All	Clear all schedule.
Save	Save the configuration.	

8.3 Snapshot Settings

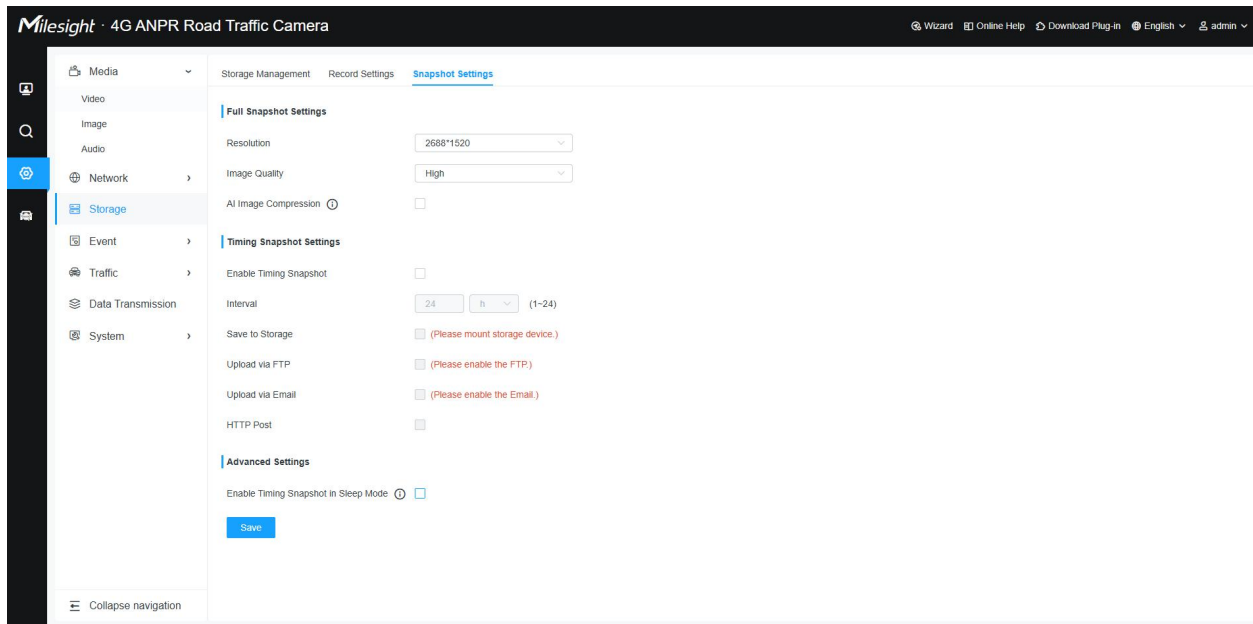


Table 38. Description of the buttons

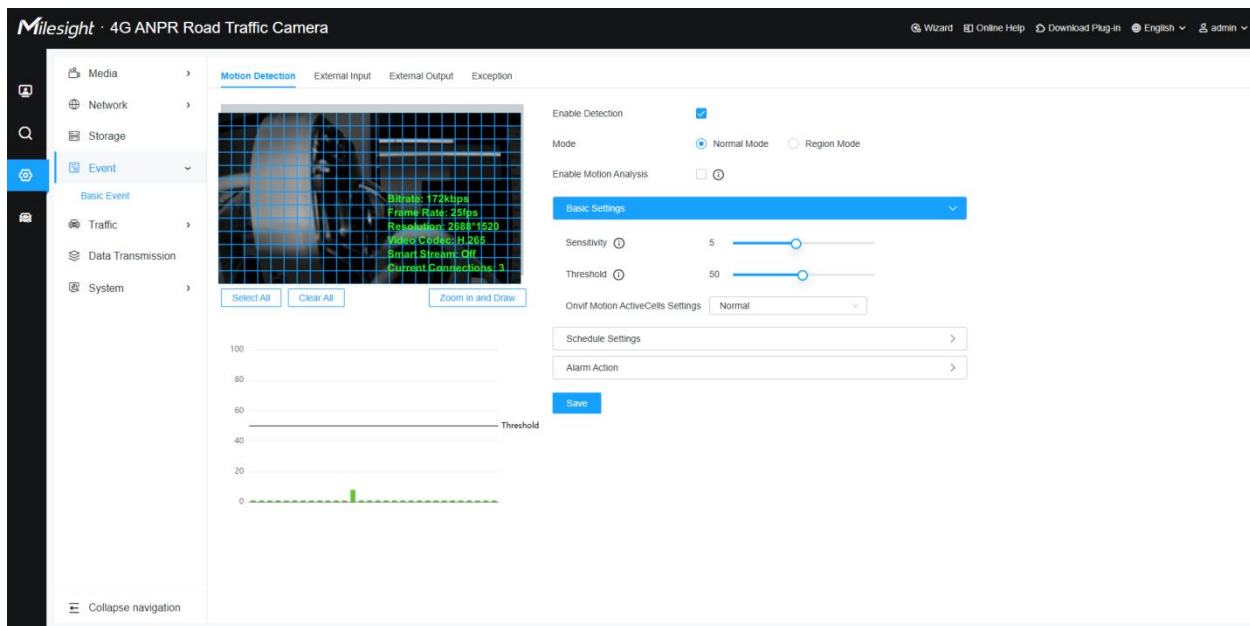
Parameters	Function Introduction
Full Snapshot Settings	Resolution: Select the resolution for snapshots. It synchronizes with the main stream options: 2688*1520, 2304*1296, 1920*1080, 1280*720, 960*540, 640*360.
	Image Quality: Adjust the overall compression level for the entire image file. Options include Low, Medium, and High. (Default: High)
	AI Image Compress: Enable this to activate AI-based image processing. It focuses on maintaining target clarity (human/ vehicle) while optimizing background data to reduce file size.
Timing Snapshot Settings	Enable Timing Snapshot: Check the checkbox to enable the Timing Snapshot function.
	Interval: Set the snapshots interval, input the number and choose the unit(millisecond, second, minute, hour, day).
	Save Into Storage: Save the snapshots into SD card or NAS, and choose the file name to add time suffix or overwrite the base file name.
	Upload Via FTP: Upload the snapshots via FTP.
	Upload Via Email: Upload the snapshots via Email.
	 Note: If you choose to add time suffix, every snapshot picture will be saved, but if you choose to overwrite the base file name, only one latest picture will be saved. When you choose add overwrite the base file name to SD Card or NAS, it will create a file named “Snapshot” to place the snapshot. HTTP Post: Upload the snapshots via HTTP Post. Support uploading the snapshots to

Parameters	Function Introduction
	specified HTTP URL.
Advanced Settings	Enable Timing Snapshot in Sleep Mode: Check the checkbox to allow the device to continue performing timing snapshots in Sleep Mode.  Note: When the device enters Sleep Mode, enabling Timing Snapshot will accelerate battery consumption.
Save	Save the configuration.

Chapter 9. Event

9.1 Basic Event

9.1.1 Motion Detection



 Note: For details about how to configure Motion Detection, see <https://milesight.freshdesk.com/a/solutions/articles/69000643423>.

Configuration steps are shown as follows:

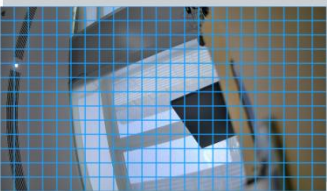
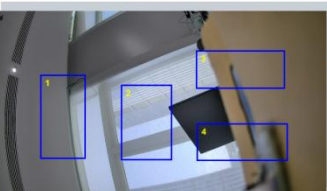
Step 1: Choose Settings > Event > Basic Event > Motion Detection.

Step 2: Check the check box to enable the function.

Step 3: Select the detection mode and then draw the detection region.

Table 39. Description of the buttons

Parameters	Function Introduction
Enable Detection	Check the checkbox to enable the motion detection function.
Mode	Region Mode and Normal Mode are available. Normal Mode allows you to draw and customize detection zones freely across the entire live view

Parameters	Function Introduction
	Motion Detection External Input External Output Exception  Enable Detection ☒ Mode ☒ Normal Mode ☐ Region Mode Enable AI Advance Detection ☒ Detection Object Human +3 Enable Motion Analysis ☐ ⓘ Basic Settings > Schedule Settings > Alarm Action > Save Region Mode allows you to configure up to four independent rectangular detection areas. To exclude specific zones from detection. Detection regions are marked with blue boxes, which turn red when an event is triggered. Motion Detection External Input External Output Exception  Enable Detection ☒ Mode ☐ Normal Mode ☒ Region Mode Enable AI Advance Detection ☐ Detection Object Human +3 Enable Motion Analysis ☐ ⓘ Basic Settings > Schedule Settings > Alarm Action > Save

[Basic Settings]

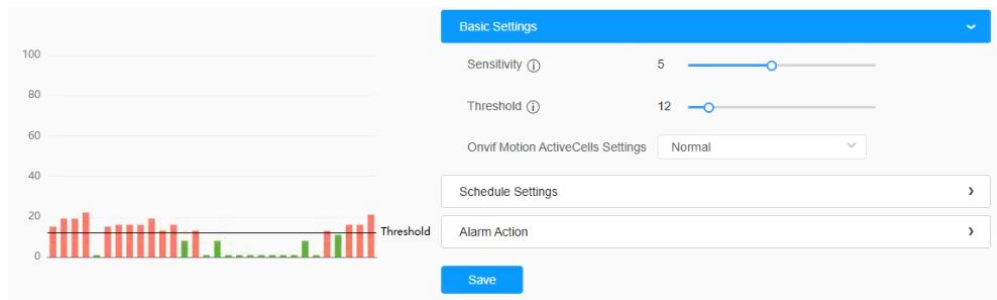


Table 40. Description of the buttons

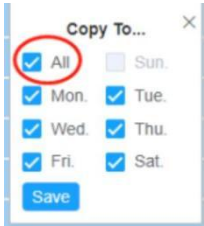
Parameters	Function Introduction
Threshold	Higher threshold requires a greater amount of motion area change to trigger an alarm.
Sensitivity	Higher sensitivity detects smaller movement to trigger alarm. Sensitivity level: 1~10.
Threshold Curve	The threshold curve displays whether the detection value exceeds the preset threshold over time, helping you visualize and fine-tune the motion detection settings.
Onvif Motion ActiveCells Settings	Normal and Compatible are available for the option. If the setting of motion region of the third-party software is different from ours, select Compatible here.

[Schedule Settings]

Step 4: Set a motion detection schedule.

The screenshot shows the 'Schedule Settings' tab selected. It features a calendar grid for the week of Sunday to Saturday. The time axis at the top ranges from 0 to 24 hours. The entire grid is highlighted in blue, indicating it is selected. Below the grid are 'Select All' and 'Clear All' buttons. At the bottom, there is an 'Alarm Action' dropdown menu and a 'Save' button.

Table 41. Description of the buttons

Parameter	Function Introduction
	Copy the schedule area to another date. The All button is handy to copy today's schedule to all days.
	Select all schedules.
	Clear all schedules.

[Alarm Action]

Step5: Set an alarm action.

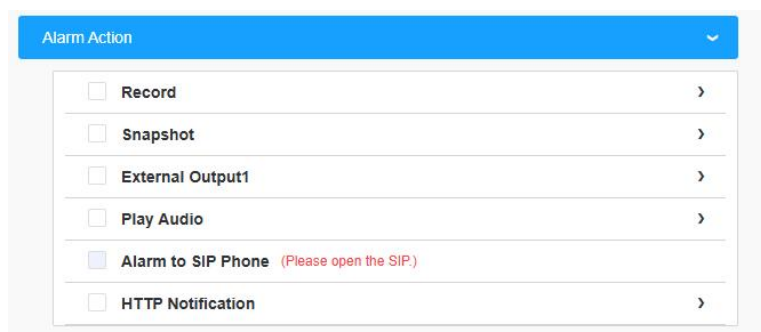
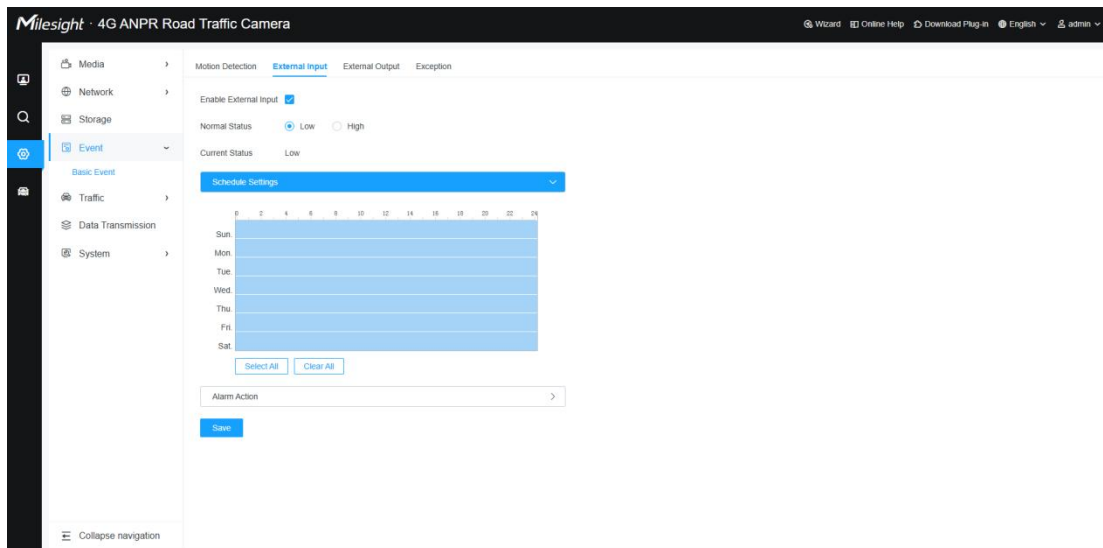


Table 42. Description of the buttons

Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Alarm recording files can be saved to SD Card or NAS, uploaded via FTP, or sent via email.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into an SD card or NAS, upload the recording files via FTP, and send an alarm email.
External Output	If the camera is equipped with external outputs, you can enable the action after configuring the trigger duration. Two external output interfaces are available and can be configured independently. Action Time: Customize, 10 s, 30 s, 1 min., 5 min., and Constant are available for each output.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Enable the Audio Speaker first.

Parameters	Function Introduction
Alarm to SIP Phone	Support to call the SIP phone after enabling the SIP function.
HTTP Notification	Support to push the alarm news to specified HTTP URL.  Note: • Three HTTP notifications at most can be added to the same event. • HTTP Notification supports Basic & Digest authentication.

9.1.2 External Input



[Normal Status]

Please set the **Normal Status** firstly, when the **Current Status** is different with **Normal Status**, it will lead to the alarm.

[Schedule Settings]

Set motion detection schedule.

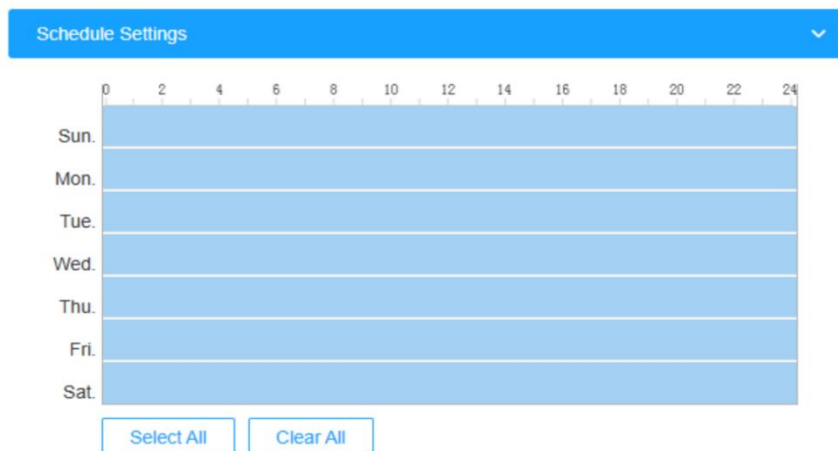
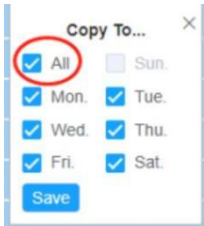


Table 43. Description of the buttons

Parameter	Function Introduction
	Copy the schedule area to another date. The All button is handy to copy today's schedule to all days.
	Select all schedules.
	Clear all schedules.

[Alarm Action]

Set alarm action.

Alarm Action
▼

☐ **Record**
>

☐ **Snapshot**
>

☐ **External Output**
>

☐ **Play Audio** (Please enable the Audio Speaker.)

☐ **Alarm to SIP Phone** (Please open the SIP.)

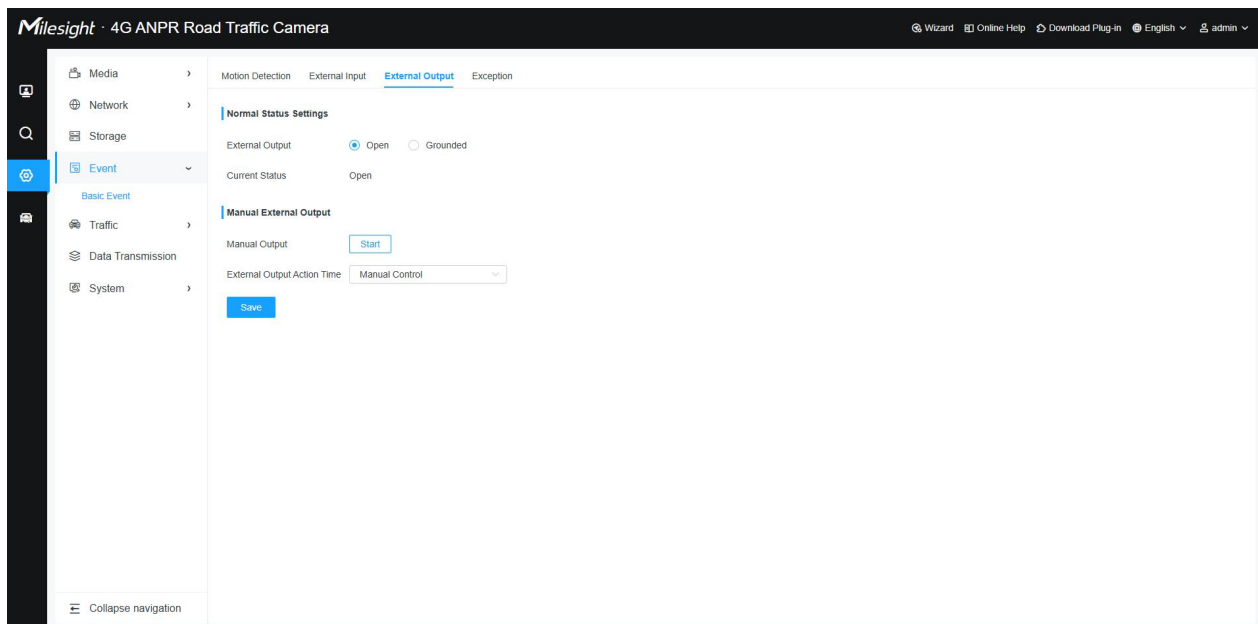
☐ **HTTP Notification**
>

Table 44. Description of the buttons

Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email.

Parameters	Function Introduction
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Audio Action: Schedule the alarm activation time. Interval: Set different alarm trigger intervals. Options are Auto/10 s/30 s/1 min./5 min./10 min.
Alarm to SIP Phone	Support to call the SIP phone after enabling the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note: • Three HTTP notifications at most can be added to the same event. • HTTP Notification supports Basic & Digest authentication.

9.1.3 External Output



[Normal Status Settings]

Please set the **Normal Status** firstly, when the **Current Status** is different with **Normal Status**, it will lead to the alarm.

[Manual External Output]

You can set the manual external output.

Table 45. Description of the buttons

Parameters	Function Introduction
Manual Output	Click to Start/Stop manual external output.
External Output Action Time	Manual Control/Customize/10 s/1 min./5 min./10 min. are available.

9.1.4 Exception

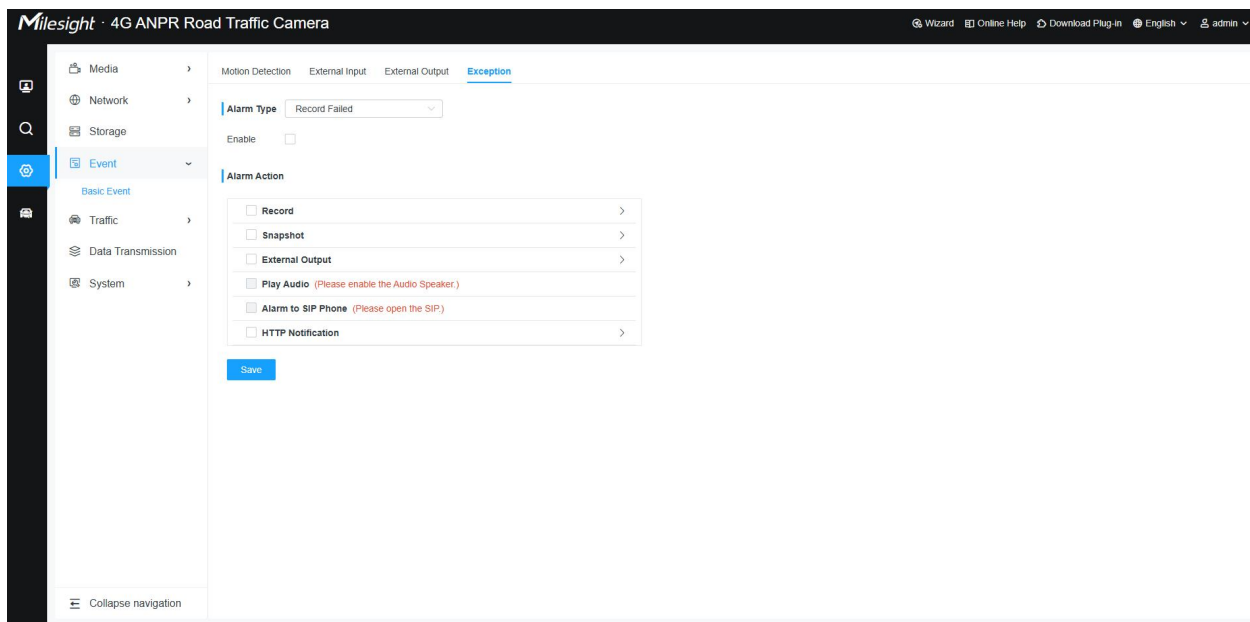


Table 46. Description of the buttons

Parameters	Function Introduction
Alarm Type	Record Failed, SD Card Full, SD Card Uninitialized, SD Card Error and No SD Card are available. Check the checkbox to enable the alarm type you selected.
Alarm Action	Please refer to the previous section for the meaning of the options; it will not be repeated here.

9.2 Traffic (For ANPR Road Traffic Camera)

9.2.1 LPR

The LPR function will automatically detect and capture license plate in real time and compares to a predefined list, then takes appropriate action such as generating an alert once the license plate is on the predefined black list.

9.2.1.1 General

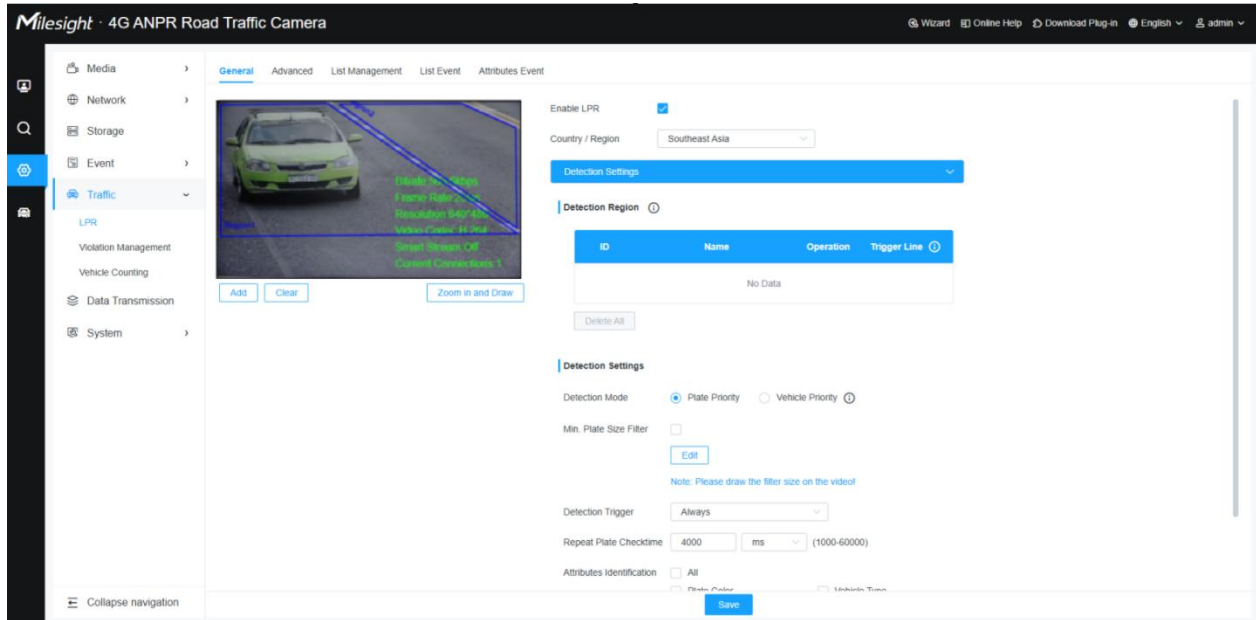


Table 47. Description of the buttons

Parameters	Function Introduction
Enable Detection	Enable/disable the LPR detection function.
Country/ Region	Select country/ region to detect the license plate.

Step 1: Check the check box to enable the LPR detection function. Select country/ region to detect the license plate.

[Detection Settings]

Step2: Draw the screen to select area interested. You can also select Trigger Line to draw a line for each region.



Detection Settings

Detection Region ⓘ

ID	Name	Operation	Trigger Line ⓘ
No Data			

Delete All

Detection Settings

Detection Mode ☒ Plate Priority ☐ Vehicle Priority ⓘ

Min. Plate Size Filter ☐

Edit

Note: Please draw the filter size on the video!

Detection Trigger Always

Repeat Plate Checktime 4000 ms (1000-60000)

Attributes Identification

☐ All

☐ Plate Color

☐ Vehicle Color

☐ Direction

☐ Vehicle Type

☐ Vehicle Brand

☐ Country / Region

Schedule Settings >

Save

 Note: The detection area can be drawn as an irregular quadrilateral, which greatly enhances the scene adaptability.

Table 48. Description of the buttons

Parameters	Function Introduction
Add	Draw the screen to select the area interested, then click "Add" button to add the area, only two recognition areas can be added. You can edit the name of the area or delete the area in the list below. Trigger Line: Only vehicles crossing the trigger line will trigger license-plate result push. This option suppresses false positives caused by non-plate text and patterns in the view.  Note: Only license plates larger than 150 pixels can be recognized.
Clear	Click the "Clear" button to clear the area being drawn.
Delete All	Click the "Delete All" button to delete all the added areas.

Step 3: Set Detection Settings.

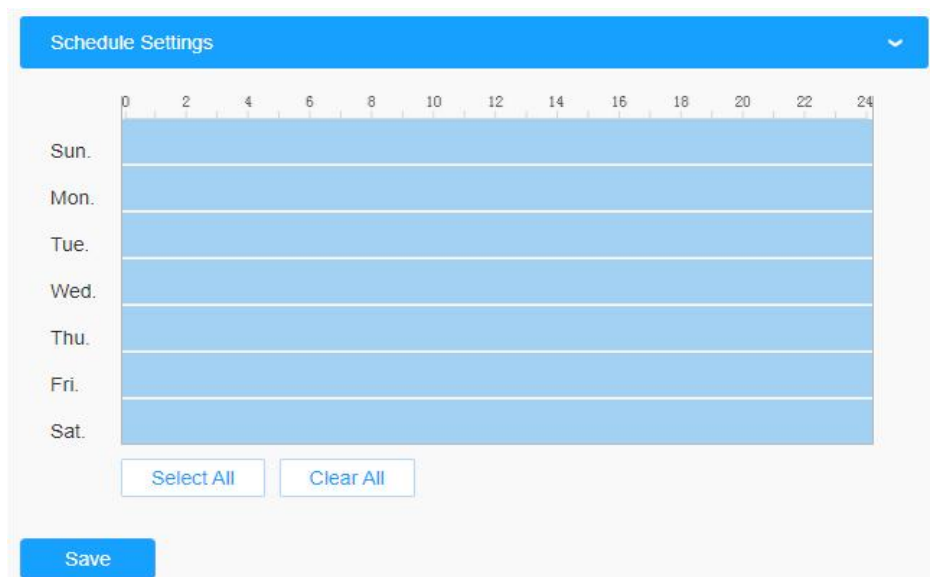
Table 49. Description of the buttons

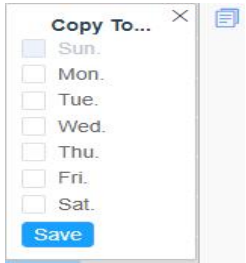
Parameters	Function Introduction
Detection Mode	Plate Priority: Under this mode, the camera will first recognize the license plate and then locate the target as a vehicle with less delay. Vehicle Priority: Under this mode, the camera will first locate the target vehicle and then recognize the license plate to avoid some false detection. Note: Vehicle priority mode can identify vehicles without license plates.
Min. Plate Size Filter	Edit: Click this button to draw a minimum license plate size. Note: License-plates smaller than the configured size will not be pushed.
Detection Trigger	Always: in this mode, camera will always detect license plates. Alarm Input: in this mode, camera will only detect license plates during Alarm Input is being triggered.

Repeat Plate Checktime	Set the time interval for repeatedly reading license plates to effectively avoid duplicate identification of parking vehicles. You can set Repeat Plate Checktime from 1 to 60min or 1000 to 60000ms.																																																																																
Attributes Identification	Check Plate Color, Vehicle Type, Vehicle Color, Vehicle Brand, Direction, Country/Region, or All to enable Attributes Identification, it will display the corresponding information on the Smart Search interface. Vehicle Type: Car, SUV, MPV, Pick-up, Van, Bus, Truck, Mini Truck, Trailer, Fire Engine, Ambulance, Motorbike, Bicycle, E-scooter, Other. Vehicle Color: Black, White, Gray, Red, Yellow, Green, Blue, Purple and Brown. Plate Color: Black, White, Red, Yellow, Green and Blue Vehicle Brand: <table><tr><th colspan="5">Vehicle Brand</th></tr><tr><td>Audi</td><td>Aston Martin</td><td>Alfa Romeo</td><td>Acura</td><td>BYD</td></tr><tr><td>Buick</td><td>BMW</td><td>Bentley</td><td>Bugatti</td><td>CUPRA</td></tr><tr><td>Cadillac</td><td>Chrysler</td><td>Chery</td><td>Chevrolet</td><td>Citroen</td></tr><tr><td>Dodge</td><td>Daewoo</td><td>Daihatsu</td><td>DS</td><td>Dacia</td></tr><tr><td>Ford</td><td>Ferrari</td><td>Fiat</td><td>GMC</td><td>Geely</td></tr><tr><td>Honda</td><td>Haval</td><td>Hyundai</td><td>Infinity</td><td>Isuzu</td></tr><tr><td>Jeep</td><td>Jaguar</td><td>Kia</td><td>Koenigsegg</td><td>Lincoln</td></tr><tr><td>Lexus</td><td>Land Rover</td><td>Lamborghini</td><td>LYNK&CO</td><td>Lancia</td></tr><tr><td>McLaren</td><td>Mercedes-Benz</td><td>MITSUBISHI</td><td>Mazda</td><td>MINI</td></tr><tr><td>Maserati</td><td>Maybach</td><td>Mitsubishi</td><td>Mercury</td><td>MorrisGarages</td></tr><tr><td>Nissan</td><td>Opel</td><td>Pagani</td><td>Porsche</td><td>Peugeot</td></tr><tr><td>Renault</td><td>Rolls-royce</td><td>Rolls-royce</td><td>Seat</td><td>Suzuki</td></tr><tr><td>Skoda</td><td>Subaru</td><td>Smart</td><td>Ssangyong</td><td>Saturn</td></tr><tr><td>SAAB</td><td>Spyker</td><td>Shelby</td><td>Toyota</td><td>Tesla</td></tr><tr><td>Volkswagen</td><td>Volvo</td><td></td><td></td><td></td></tr></table>	Vehicle Brand					Audi	Aston Martin	Alfa Romeo	Acura	BYD	Buick	BMW	Bentley	Bugatti	CUPRA	Cadillac	Chrysler	Chery	Chevrolet	Citroen	Dodge	Daewoo	Daihatsu	DS	Dacia	Ford	Ferrari	Fiat	GMC	Geely	Honda	Haval	Hyundai	Infinity	Isuzu	Jeep	Jaguar	Kia	Koenigsegg	Lincoln	Lexus	Land Rover	Lamborghini	LYNK&CO	Lancia	McLaren	Mercedes-Benz	MITSUBISHI	Mazda	MINI	Maserati	Maybach	Mitsubishi	Mercury	MorrisGarages	Nissan	Opel	Pagani	Porsche	Peugeot	Renault	Rolls-royce	Rolls-royce	Seat	Suzuki	Skoda	Subaru	Smart	Ssangyong	Saturn	SAAB	Spyker	Shelby	Toyota	Tesla	Volkswagen	Volvo			
Vehicle Brand																																																																																	
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Buick	BMW	Bentley	Bugatti	CUPRA																																																																													
Cadillac	Chrysler	Chery	Chevrolet	Citroen																																																																													
Dodge	Daewoo	Daihatsu	DS	Dacia																																																																													
Ford	Ferrari	Fiat	GMC	Geely																																																																													
Honda	Haval	Hyundai	Infinity	Isuzu																																																																													
Jeep	Jaguar	Kia	Koenigsegg	Lincoln																																																																													
Lexus	Land Rover	Lamborghini	LYNK&CO	Lancia																																																																													
McLaren	Mercedes-Benz	MITSUBISHI	Mazda	MINI																																																																													
Maserati	Maybach	Mitsubishi	Mercury	MorrisGarages																																																																													
Nissan	Opel	Pagani	Porsche	Peugeot																																																																													
Renault	Rolls-royce	Rolls-royce	Seat	Suzuki																																																																													
Skoda	Subaru	Smart	Ssangyong	Saturn																																																																													
SAAB	Spyker	Shelby	Toyota	Tesla																																																																													
Volkswagen	Volvo																																																																																

[Schedule Settings]

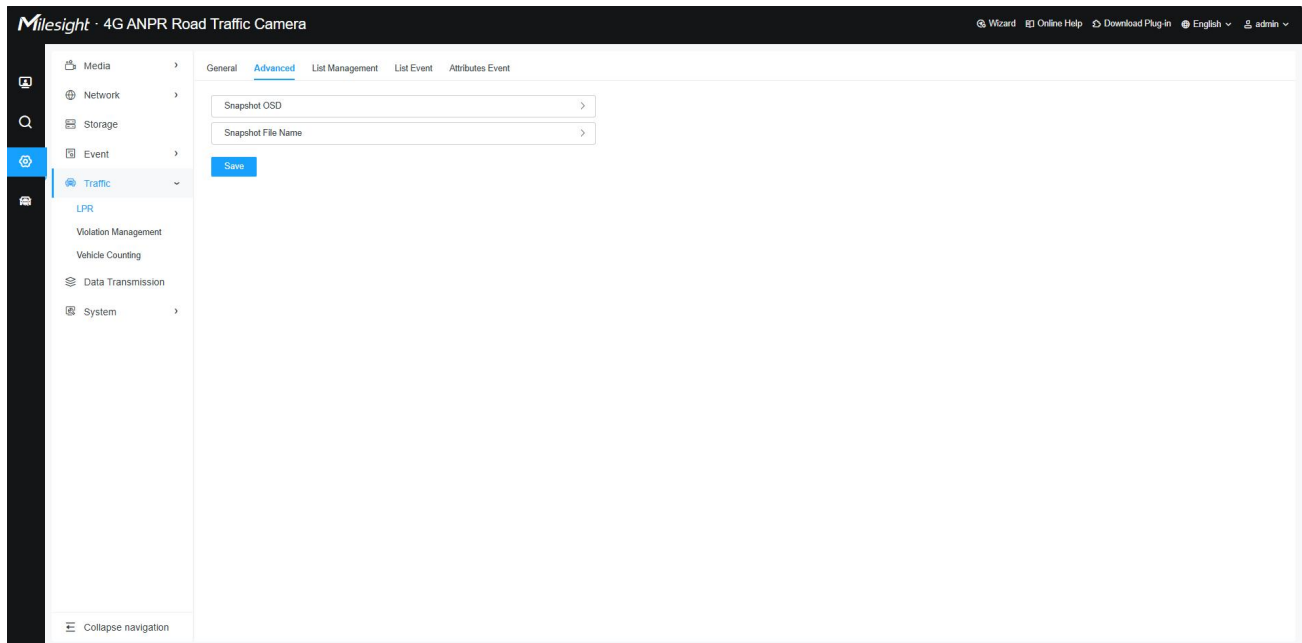
Step 4: Schedule Settings.

**Table 50. Description of the buttons**

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule.
	Clear all schedule.

9.2.1.2 Advanced

In the interface, you can set display information on snapshot of license plate recognition, and also customize the file name of snapshots which are uploaded via FTP or Email or stored on local LPR Picture File Path.



[Snapshot OSD]

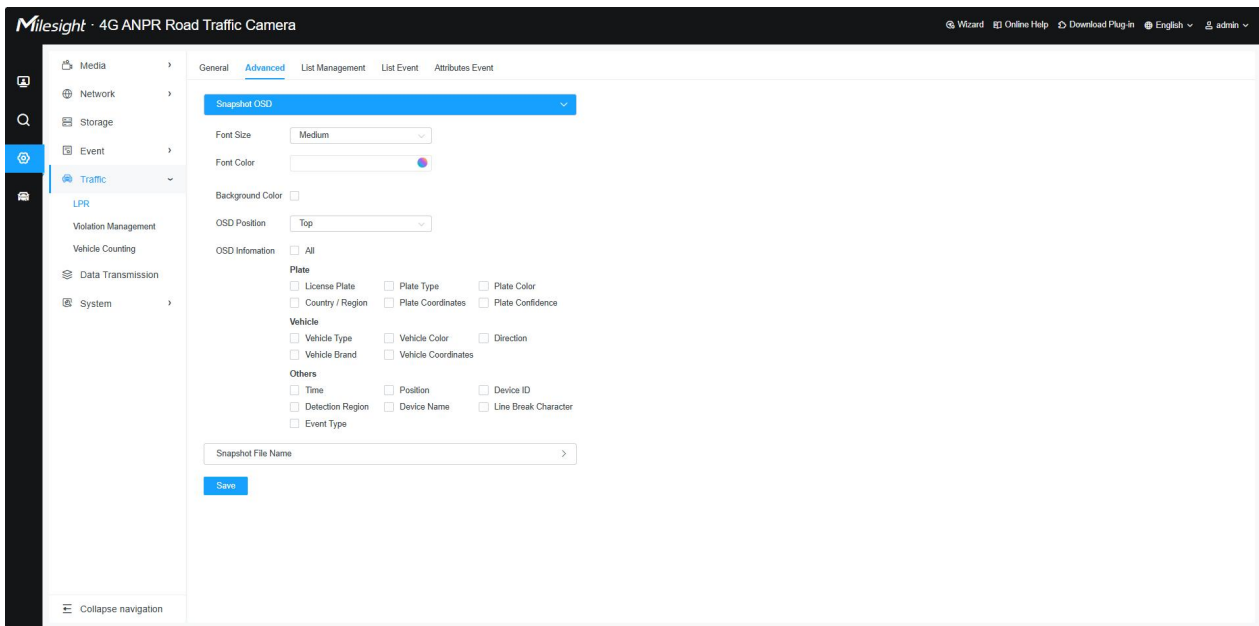


Table 51. Description of the buttons

Parameters	Function Introduction
Font Size	Smallest/Small/Medium/Large/Largest are available for OSD information.  Note: Snapshot OSD font size and Image OSD font size are corresponded.
	Enable to set different colors for OSD information.

Font Color	 Note: Snapshot OSD font color and Image OSD font color are corresponded.
Background Color	Check the checkbox to select background color of snapshot OSD information.  Note: Background color cannot be the same with font color.
OSD Position	Top/Bottom/Top outside the picture/Bottom outside the picture are available for OSD position.
OSD Information	Customize the OSD content. You can set OSD Information as shown below: OSD Information ☐ All Plate ☐ License Plate ☐ Plate Type ☐ Plate Color Vehicle ☐ Vehicle Type ☐ Vehicle Color ☐ Direction ☐ Speed Other ☐ Time ☐ Position ☐ Device ID ☐ Detection Region ☐ Device Name ☐ Line Break Character When license plate is recognized and the alarm is triggered, the snapshot of license plate recognition will show as below: 

[Snapshot File Name]

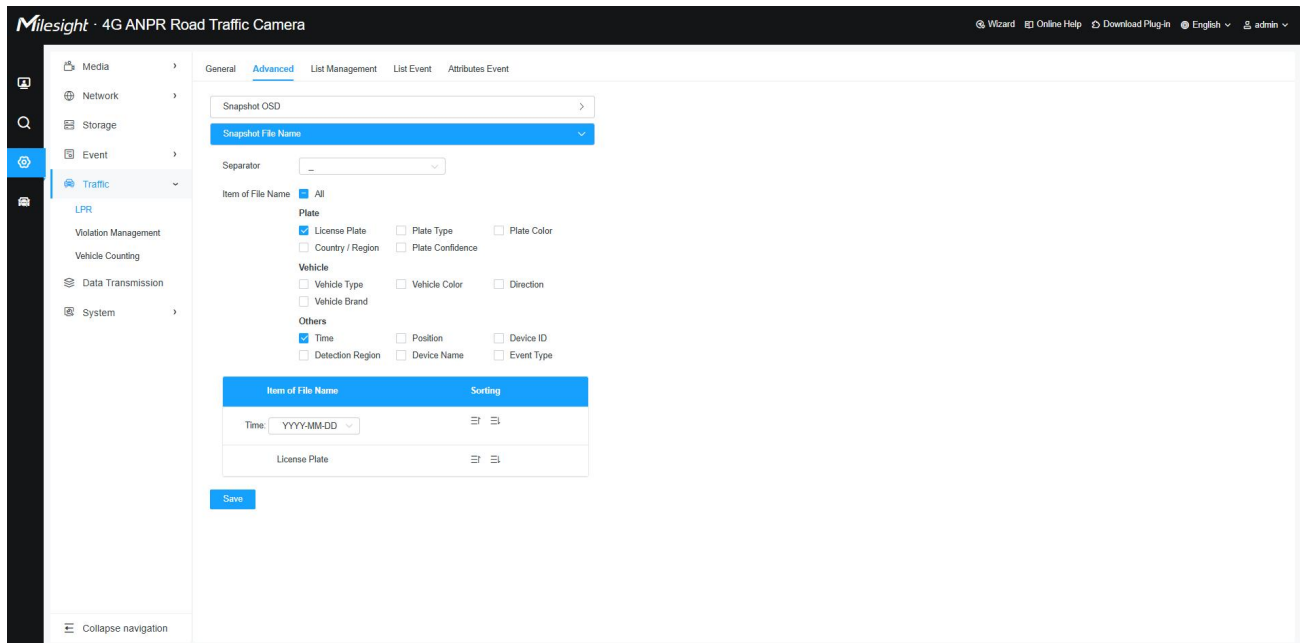


Table 52. Description of the buttons

Parameters	Function Introduction
Separator	“-”, “_” and Space are available for File Name Separator format. The default separator is “-”.
Item of File Name	You can customize the snapshot file name according to items chosen. Item of File Name ☐ All Plate ☒ License Plate ☐ Plate Type ☐ Plate Color Vehicle ☐ Vehicle Type ☐ Vehicle Color ☐ Direction ☐ Speed Other ☒ Time ☐ Position ☐ Device ID ☐ Detection Region ☐ Device Name

Each time when an item is checked, the list will add the item row, including the item name

and sorting operation. You can click  and  button to sort these items, and choose separator to connect these items name. Also, the content of Position and Device ID items can be customized. When you check all items, the function interface will show as below:

Item of File Name ☒ All

Plate

☒ License Plate ☒ Plate Type ☒ Plate Color

Vehicle

☒ Vehicle Type ☒ Vehicle Color ☒ Direction

☒ Speed

Other

☒ Time ☒ Position ☒ Device ID

☒ Detection Region ☒ Device Name

Item of File Name	Sorting
Time	≡ ≡↓
License Plate	≡ ≡↓
Plate Type	≡ ≡↓
Speed	≡ ≡↓
Direction	≡ ≡↓
Detection Region	≡ ≡↓
Position: Position	≡ ≡↓
Device Name	≡ ≡↓
Device ID: Device ID	≡ ≡↓
Plate Color	≡ ≡↓
Vehicle Type	≡ ≡↓
Vehicle Color	≡ ≡↓

 Note: You need to check at least one item.

For example, you can choose items, separator and items sorting as below:

Item of File Name ☒ All

Plate

☒ License Plate ☐ Plate Type ☐ Plate Color

Vehicle

☐ Vehicle Type ☐ Vehicle Color ☐ Direction

☐ Speed

Other

☒ Time ☐ Position ☐ Device ID

☐ Detection Region ☐ Device Name

Item of File Name	Sorting
Time	⇅ ⇅
License Plate	⇅ ⇅

Once license plate is recognized, and the snapshot will be uploaded via FTP or Email or stored on your local LPR Picture File Path. Then, You can see the snapshot file name which you customize as shown below:

Full-snapshot Recognized successfully



Full-snapshot Recognized failed



420201116021729_RT528N

License plate snapshot Recognized successfully



20201116021729_RT528N

License plate snapshot Recognized failed



20201116021729_##528N

 Note:

- If the item checked is not recognized successfully, then the item will be displayed with the specific symbol “#”.
- The file name of full-snapshot will be preceded by a number of 4.

9.2.1.3 List Management

Add the license plates to this interface as Black or White type (Black/White List), and then you can set the alarm action for these license plates in the corresponding black list mode or white list mode interface. When these license plates are detected, the camera will respond according to your settings.

When adding the license plates, you can also define the ID card number for the license plate, when the camera identifies these license plates and recognizes the attached ID card number, it will send the ID card number to your parking system through the **Wiegand protocol**, and then your system can respond based on the received information, such as access control.

 Note: Please make sure you have correctly connected the Wiegand interface to the camera and enabled it.

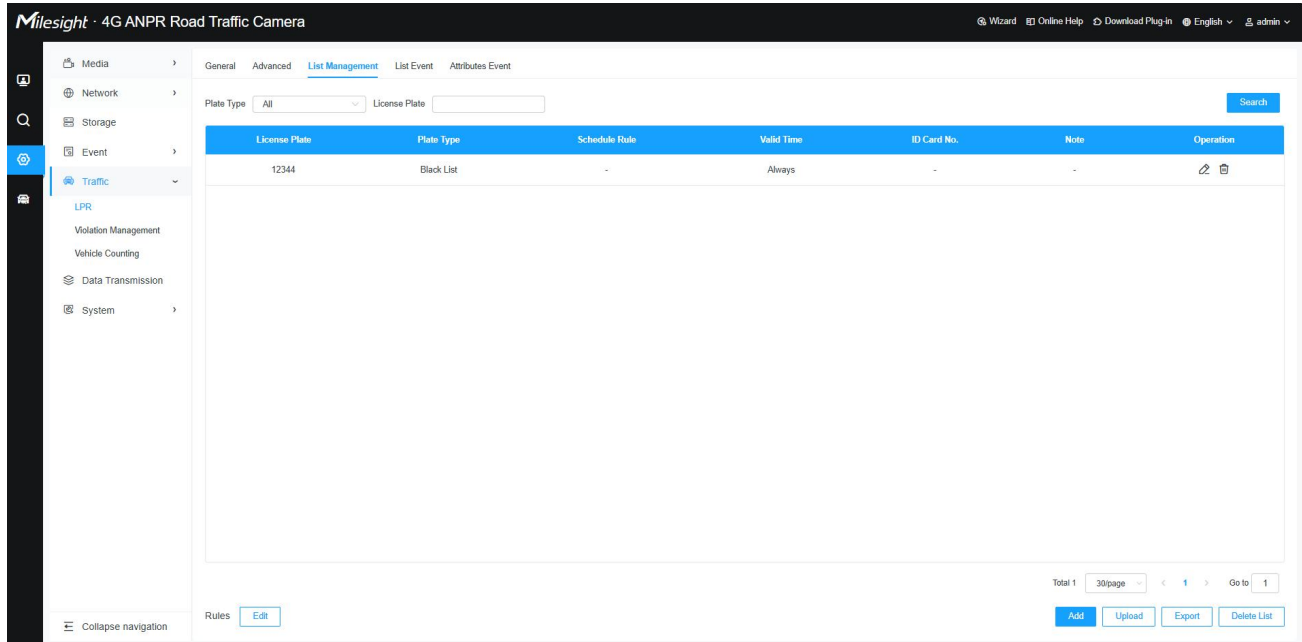
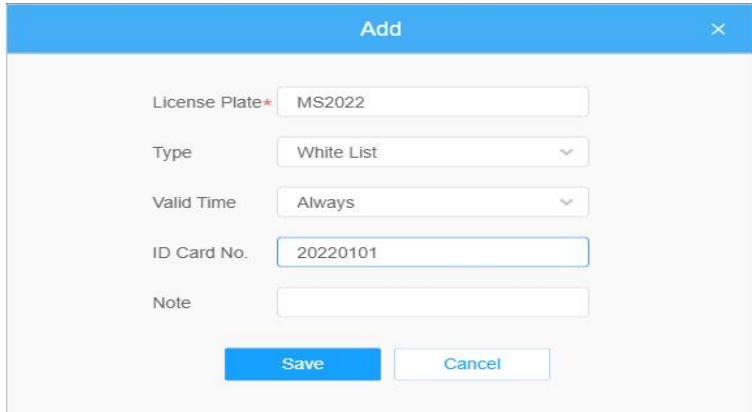
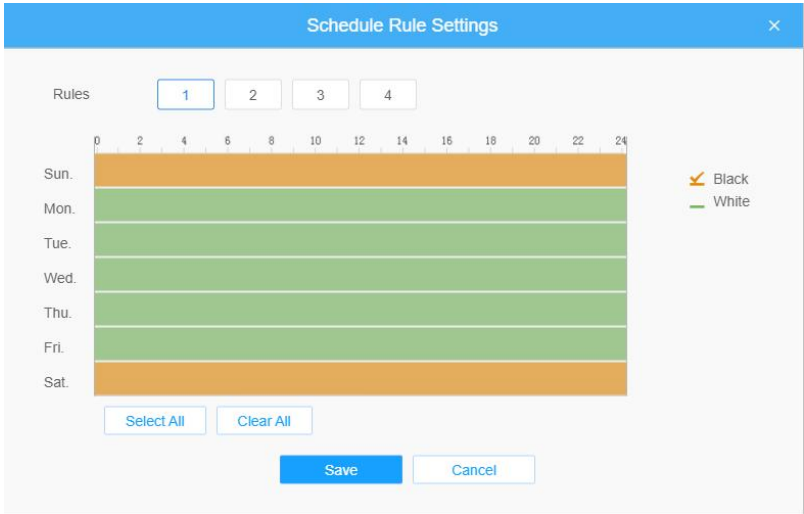
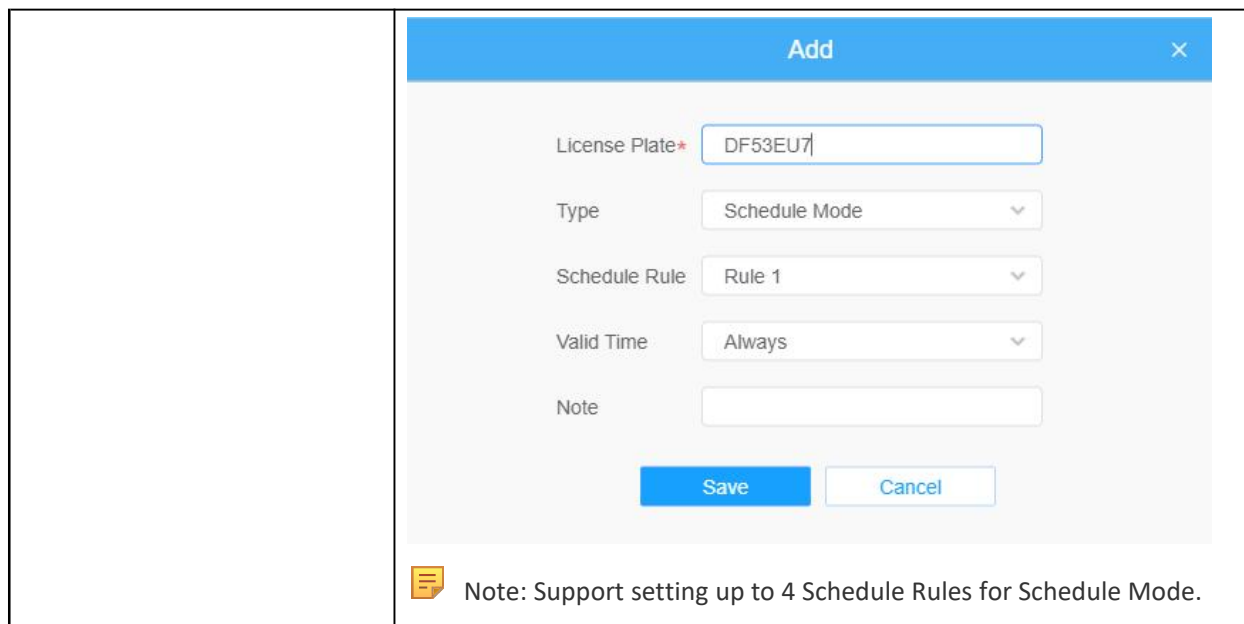


Table 53. Description of the buttons

Parameters	Function Introduction
Add License Plate	Select the license plate type as black or white, enter the ID Card number and license plate, click the “Add” button, the license plate will be added successfully. 

Batch Upload	You can add a csv form with the license plate you want to add, click the "Browse" button to import the form to this interface, click the "Upload" button, the license plates will be added successfully.  Note: You can first download the template as a reference in this interface.
List Search	Select Plate Type or directly enter the license plate number, click the "Search" button, the corresponding license plate will be displayed in the list below.
Export List	Click the "Export List" button to export the license plate in the current list to a csv form locally.
Delete List	Click the "Delete List" button to delete all the license plate in the current list.
Schedule Rules	Click the "Edit" button to customize a rule.  And then set the license plate to Schedule Mode and choose a custom schedule rule that can configure the license plate as Black List or White List at different times.



Add

License Plate*

Type

Schedule Rule

Valid Time

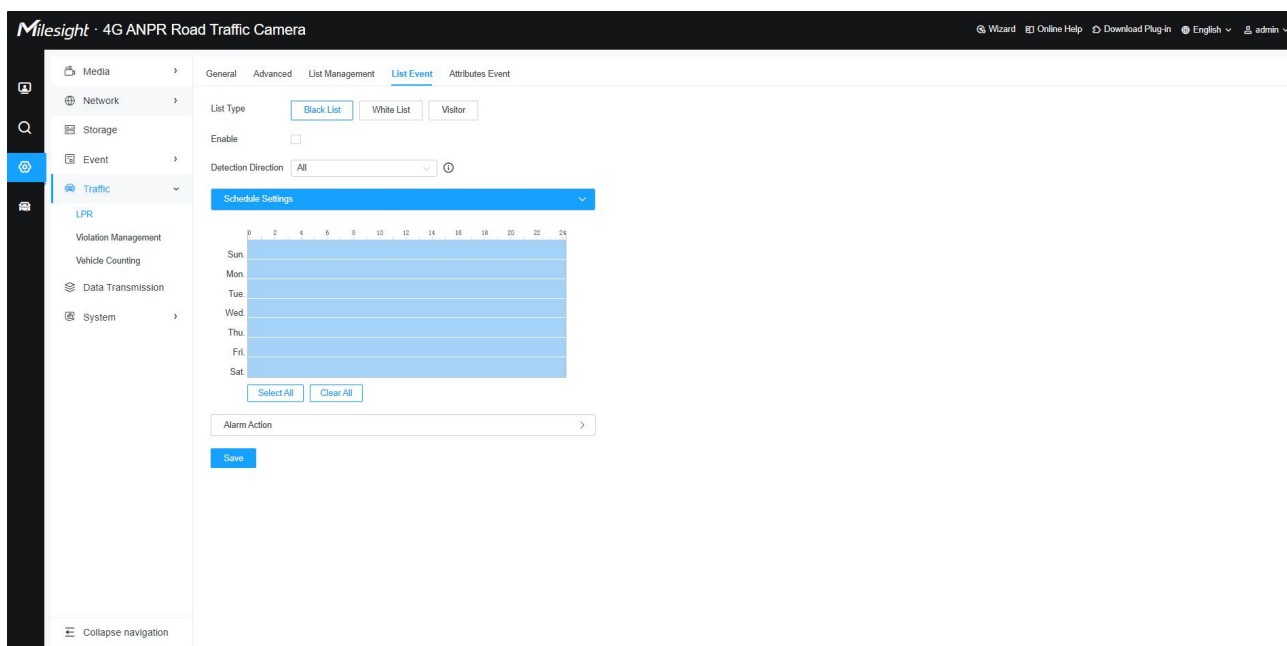
Note

Save **Cancel**

Note: Support setting up to 4 Schedule Rules for Schedule Mode.

Note: ANPR road traffic camera supports adding 20000 Black List and White List, and ANPR Parking Camera supports adding 100000 Black List and White List.

9.2.1.4 List Event



Milesight · 4G ANPR Road Traffic Camera

Wizard Online Help Download Plug-in English admin

Media Network Storage Event Traffic LPR Violation Management Vehicle Counting Data Transmission System

General Advanced List Management **List Event** Attributes Event

List Type

Enable ☐

Detection Direction

Schedule Settings

Sun Mon Tue Wed Thu Fri Sat

Select All **Clear All**

Alarm Action

Save

Collapse navigation

Step 1: Select the List Type. Check the check box to enable Black List/White List/Visitor mode.

Step 2: The corresponding alarm icon is triggered when the Black List/White List/Visitor vehicles passing by.

Black List:

List Type ☒ Black List ☐ White List ☐ Visitor

Enable ☒ 

Schedule Settings 

	0	2	4	6	8	10	12	14	16	18	20	22	24
Sun.													
Mon.													
Tue.													
Wed.													
Thu.													
Fri.													
Sat.													

Alarm Action 

White List:

List Type ☐ Black List ☒ White List ☐ Visitor

Enable ☒ 

Schedule Settings 

	0	2	4	6	8	10	12	14	16	18	20	22	24
Sun.													
Mon.													
Tue.													
Wed.													
Thu.													
Fri.													
Sat.													

Alarm Action 

Visitor:

List Type

Enable ☒ 

Schedule Settings 

	0	2	4	6	8	10	12	14	16	18	20	22	24
Sun.													
Mon.													
Tue.													
Wed.													
Thu.													
Fri.													
Sat.													

Alarm Action 

[Schedule Settings]

Step3: Schedule Settings.

Milesight · 4G ANPR Road Traffic Camera Wizard Online Help Download Plug-in English admin

Media Network Storage Event Traffic LPR Violation Management Vehicle Counting Data Transmission System

General Advanced List Management **List Event** Attributes Event

List Type

Enable ☒

Detection Direction 

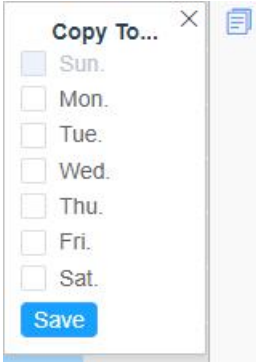
Schedule Settings 

	0	2	4	6	8	10	12	14	16	18	20	22	24
Sun.													
Mon.													
Tue.													
Wed.													
Thu.													
Fri.													
Sat.													

Alarm Action 

 Collapse navigation

Table 54. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule.
	Clear all schedule.

[Alarm Action]

Step4: Set Alarm Action.

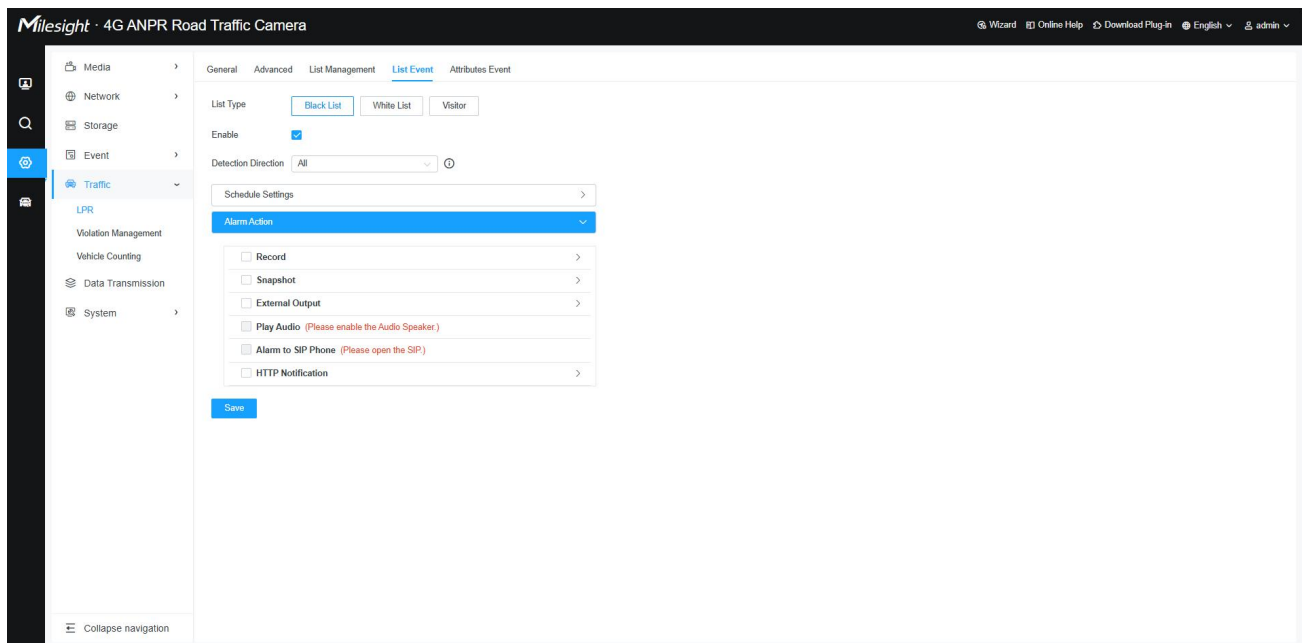


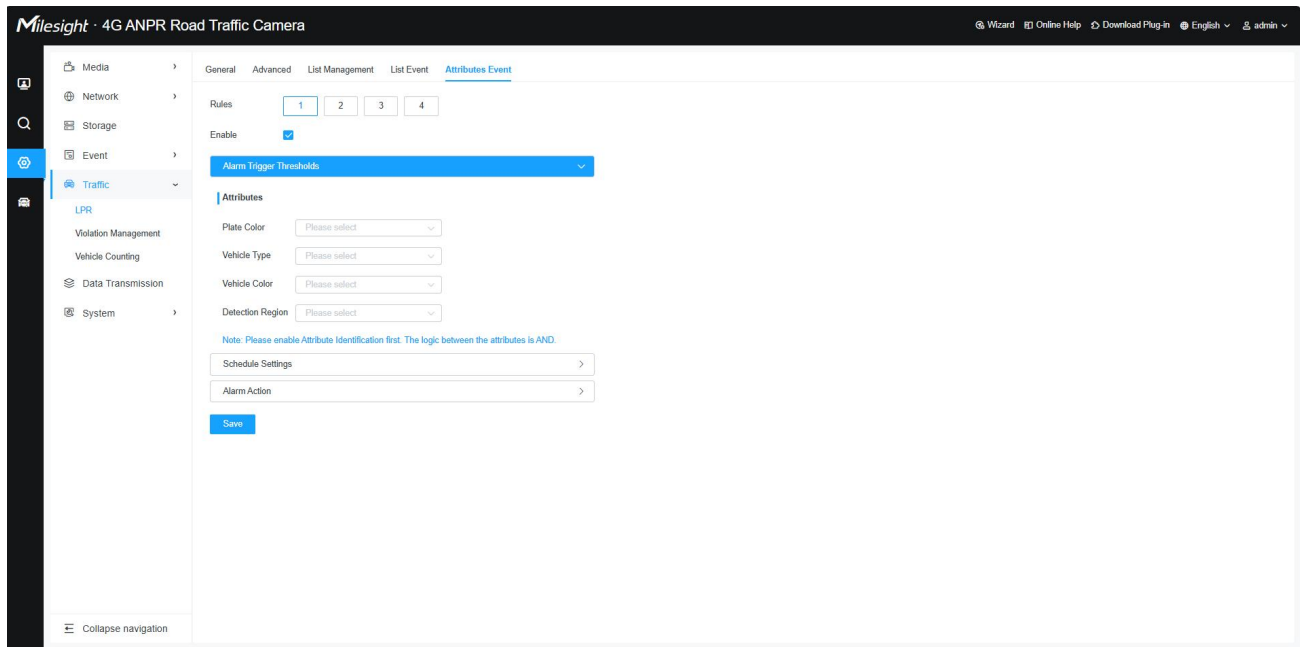
Table 55. Description of the buttons

Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the

	recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note: Three HTTP notifications at most can be added to the same event. HTTP Notification supports Basic & Digest authentication

9.2.1.5 Attributes Event

This function can trigger alarms by corresponding attributes of the vehicle and plate or by No-plate Vehicle, which can be of great help in urban management, such as detecting whether there is a vehicle illegally occupying the bus lane, or detecting whether there is a truck entering the city road during the day, etc., to meet a variety of uses.



Settings steps are shown as follows:

Step 1: Select an event rule and enable it.

 **Note:** Up to 4 attribute event rules can be set.

Step 2: Set the Alarm Trigger as No-plate detection or other attributes.

 **Note:**

- Please enable Attribute Identification first.
- The logic between No plates and Attributes is OR. For example, if I check both No Plates and Attributes, whether "No plates" or other attributes are recognized, the alarm event will be triggered.
- The logic between the attributes is AND. For example, if I check multiple vehicle attributes, the alarm action will only be triggered when the vehicle meets these attributes at the same time.

Step 3: Set the schedule.

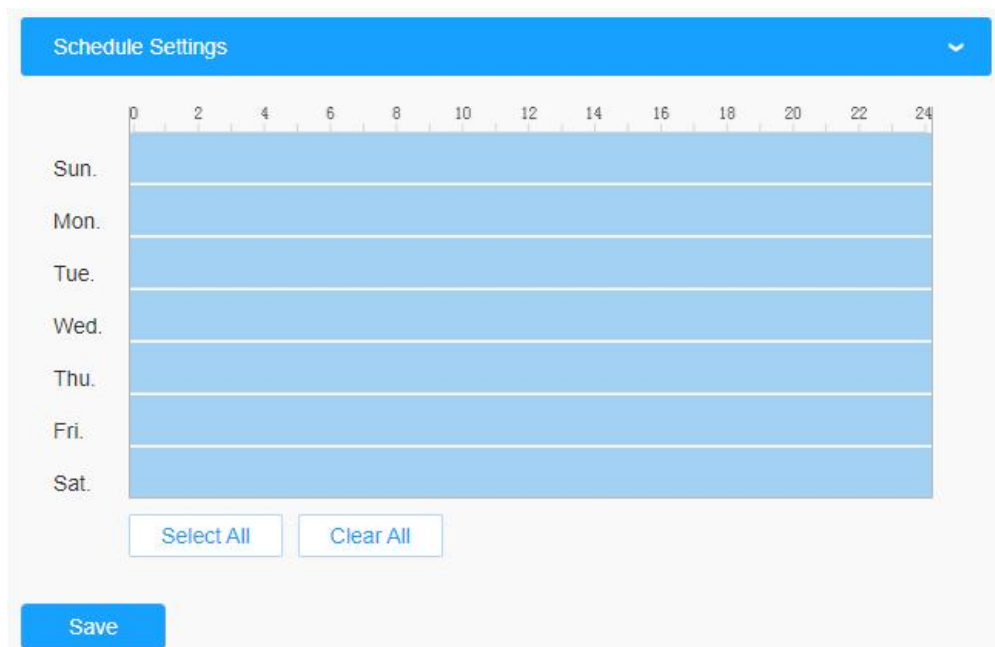
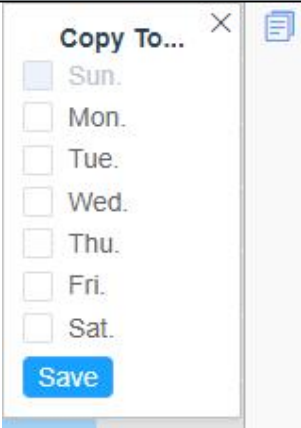


Table 56. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule.
	Clear all schedule.

Step 4: Set the alarm actions.

Alarm Action

☐ Record

☐ Snapshot

☐ External Output

☐ Play Audio (Please enable the Audio Speaker.)

☐ Alarm to SIP Phone (Please open the SIP.)

☐ HTTP Notification

☐ White LED

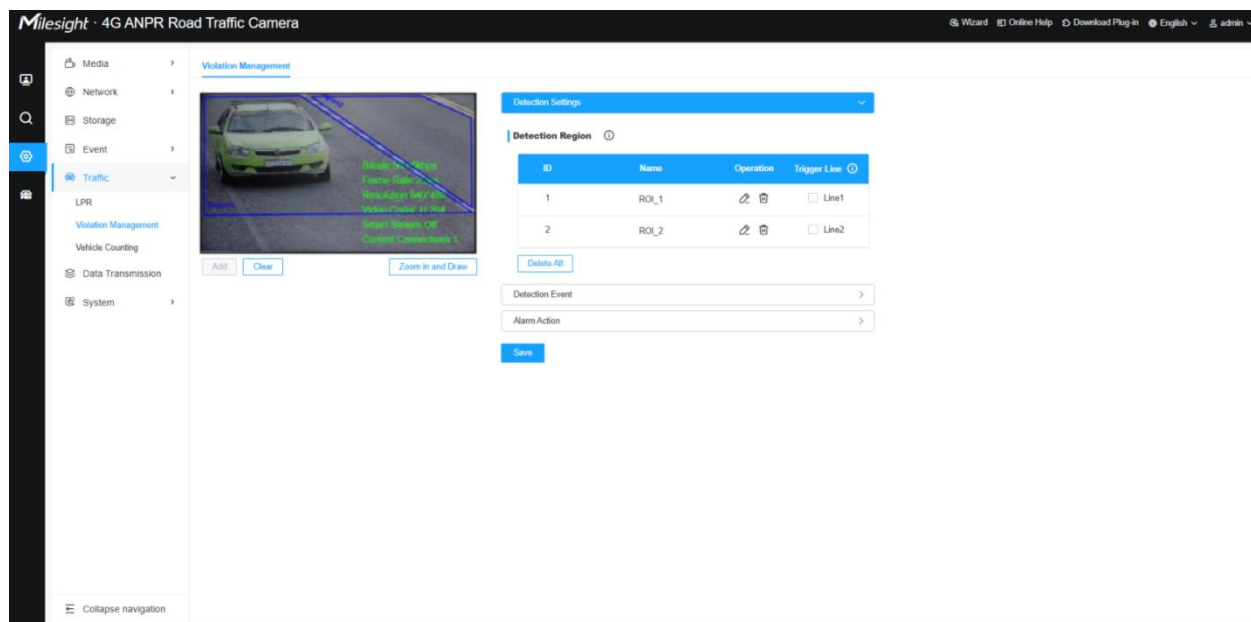
Save

Table 57. Description of the buttons

Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note: Three HTTP notifications at most can be added to the same event. HTTP Notification supports Basic & Digest authentication

9.2.2 Violation Management

This function is designed to handle traffic violation events captured by the camera.



[Detection Settings]

Step 1: Draw the detection regions.

Table 58. Description of the buttons

Parameters	Function Introduction								
Add	Draw the screen to select the area interested, then click “Add” button to add the area, only two recognition areas can be added. You can edit the name of the area or delete the area in the list below. Trigger Line: Only vehicles crossing the trigger line will trigger license- plate result push. This option suppresses false positives caused by non- plate text and patterns in the view. <table><thead><tr><th>ID</th><th>Name</th><th>Operation</th><th>Trigger Line ⓘ</th></tr></thead><tbody><tr><td>1</td><td>ROI_1</td><td> </td><td>☐ Line1</td></tr></tbody></table> Note: 1.Only license plates larger than 150 pixels can be recognized. 2.This detection area is synchronized with the area drawn on the LPR page. Any modification made on the LPR page will update this area accordingly.	ID	Name	Operation	Trigger Line ⓘ	1	ROI_1		☐ Line1
ID	Name	Operation	Trigger Line ⓘ						
1	ROI_1		☐ Line1						
Clear	Click the "Clear" button to clear the area being drawn.								

Delete All	Click the "Delete All" button to delete all the added areas.
-------------------	--

[Detection Event]

Step 2: Select violation events.

Detection Event
▼

☒ No Plates ⓘ

☒ Reverse Driving

Region1

Region2

Trigger Condition Approach ⌵

Table 59. Description of the buttons

Parameters	Function Introduction
No Plates	Detect unlicensed vehicles within the detection area  Note: When enabled, LPR switches to vehicle priority mode.
Reverse Driving	Detect vehicles traveling in the reverse direction, and you can set the travel direction for triggering events.

[Alarm Action]

Step 3: Set Alarm Action.

Alarm Action
▼

☐ **Record**
>

☐ **Snapshot**
>

☐ **External Output**
>

☐ **Play Audio** (Please enable the Audio Speaker.)

☐ **Alarm to SIP Phone** (Please open the SIP.)

☐ **HTTP Notification**
>

Table 60. Description of the buttons

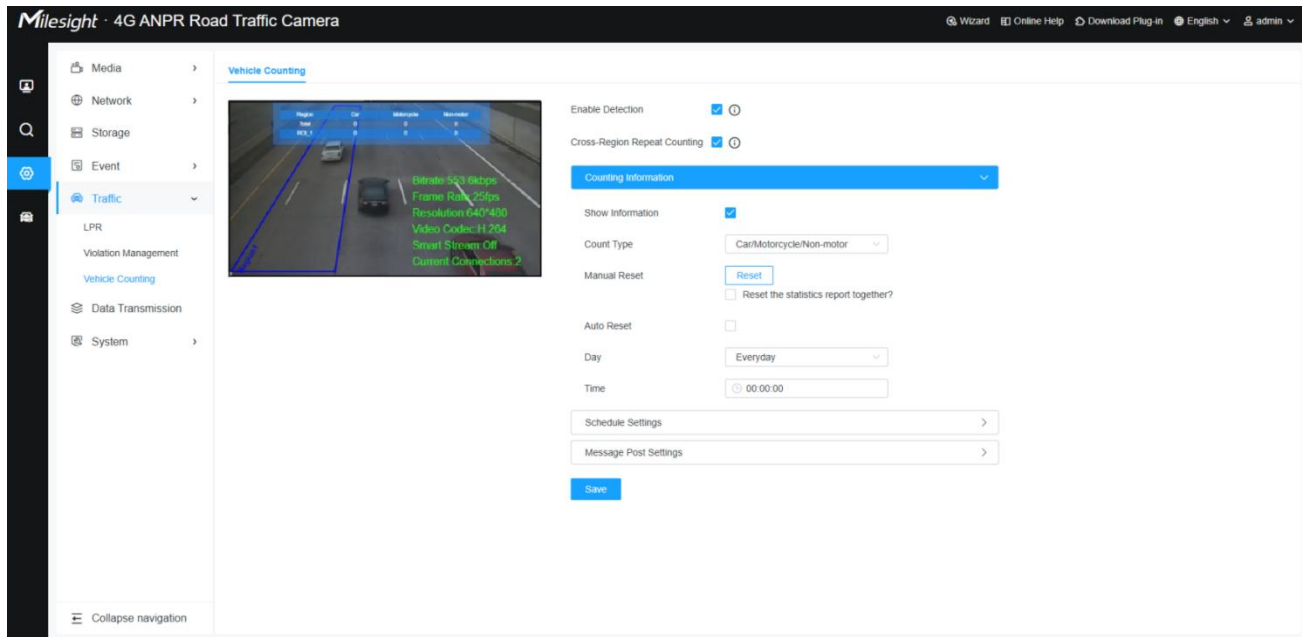
Parameters	Function Introduction
------------	-----------------------

Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, Upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note: Three HTTP notifications at most can be added to the same event. HTTP Notification supports Basic & Digest authentication

9.2.3 Vehicle Counting

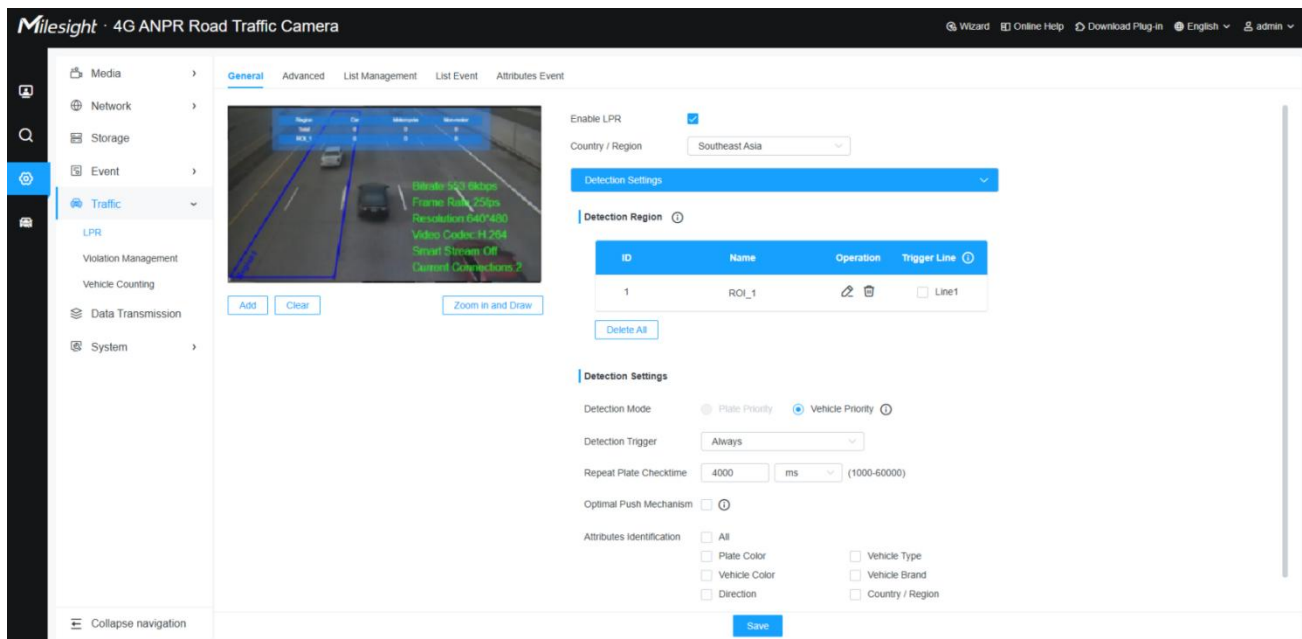
The Vehicle Counting function can be carried out according to different vehicle types and different lanes. And the statistics report can be displayed on the Live View interface and LPR interface to provide intuitive experience. The vehicle counting data can help to understand the real-time traffic volume, which is very helpful in road guidance and traffic control.

 Note: Enabling the Vehicle Counting will switch LPR to vehicle priority mode, ensuring more accurate vehicle counting data without missing the count for no-plate vehicles.



Step 1: Enable LPR function and draw the detection area in preview on Traffic-->LPR-->General interface. Up to 2 detection areas are supported.

 **Note:** If you have enabled the LPR function before, steps of LPR configuration are not require.

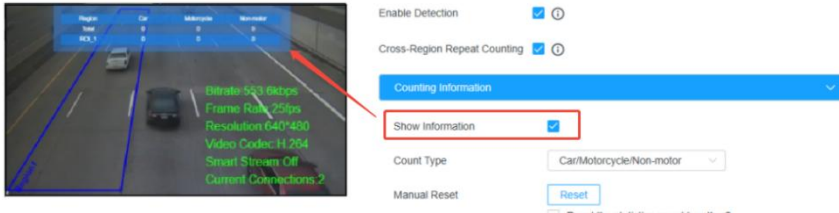


Step 2: Go to the Vehicle Counting interface and click to enable the Vehicle Counting function.

[Counting Information]

Step 3: Configure the counting information.

Table 61. Description of the buttons

Parameters	Function Introduction
Show Information	Click to present counting chart on Liveview.  Note: Counting chart can be dragged to different places as needed.
Counting Type	There are two ways to count based on vehicle types classification in liveview. Car/Motorcycle/ Non-motor Mode: Car: Car, SUV, Van, Bus, Truck, Fire engine, Ambulance Motorcycle: Motorbike Non-motor: Bicycle, Other Small/Medium/Large Vehicle Mode: Small Vehicle: Car, Motorbike, Bicycle, Other Medium Vehicle: SUV, Van, Ambulance Large Vehicle: Bus, Truck, Fire engine The vehicles can be counted in real time for 3 different vehicle types and up to 4 different lanes, giving users the most effective information.

[Schedule Settings]

Step4: Set the schedule of monitoring;

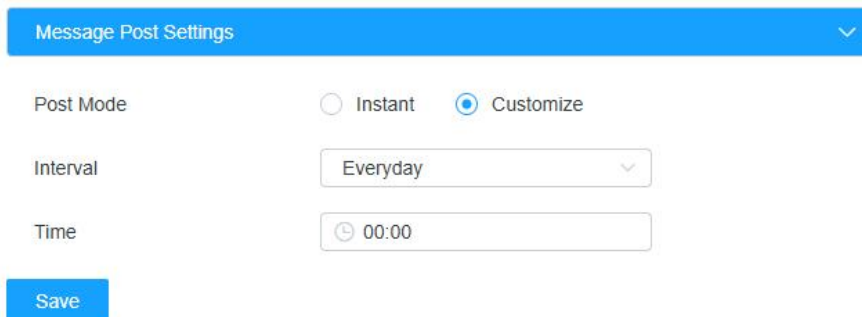


[Message Post Settings]

Step 5: Enable the message post and set the post mode.

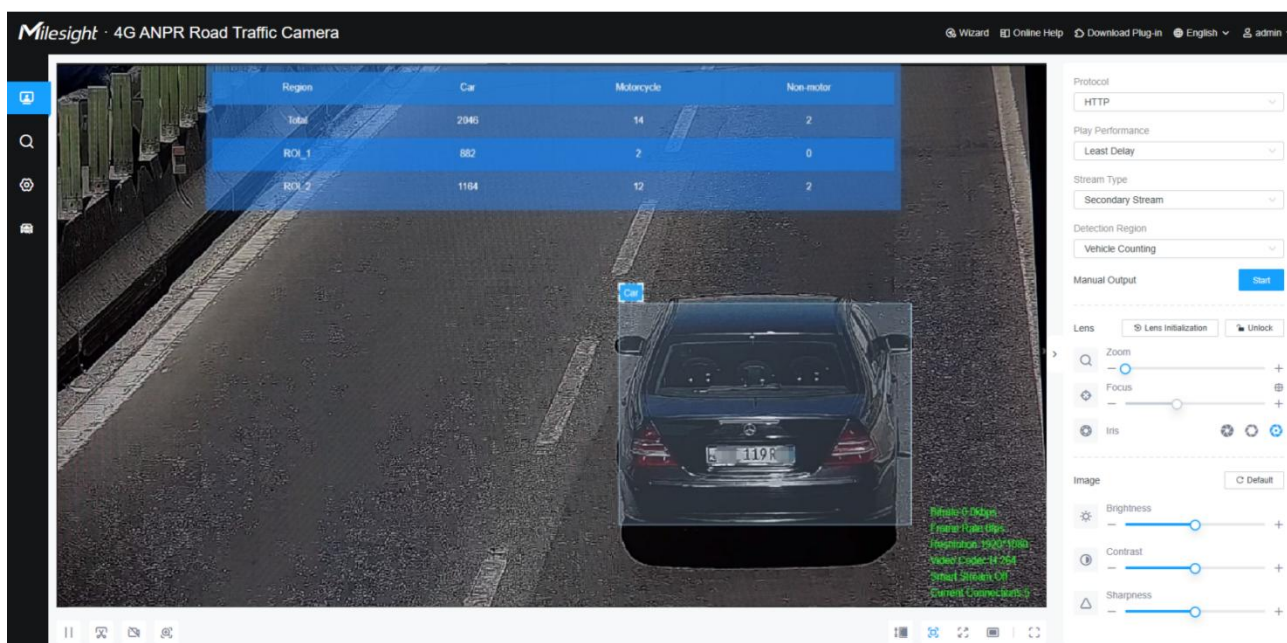
Table 62. Description of the buttons

Parameters	Function Introduction
Post Mode	Instant: Immediately post the message. Customize: Configure the time interval to post the message.



[LPR Interface]

Step 6: After completing the above settings, the camera will work to count vehicles, and the statistics report can be displayed on the Live View interface and LPR interface to provide an intuitive experience.

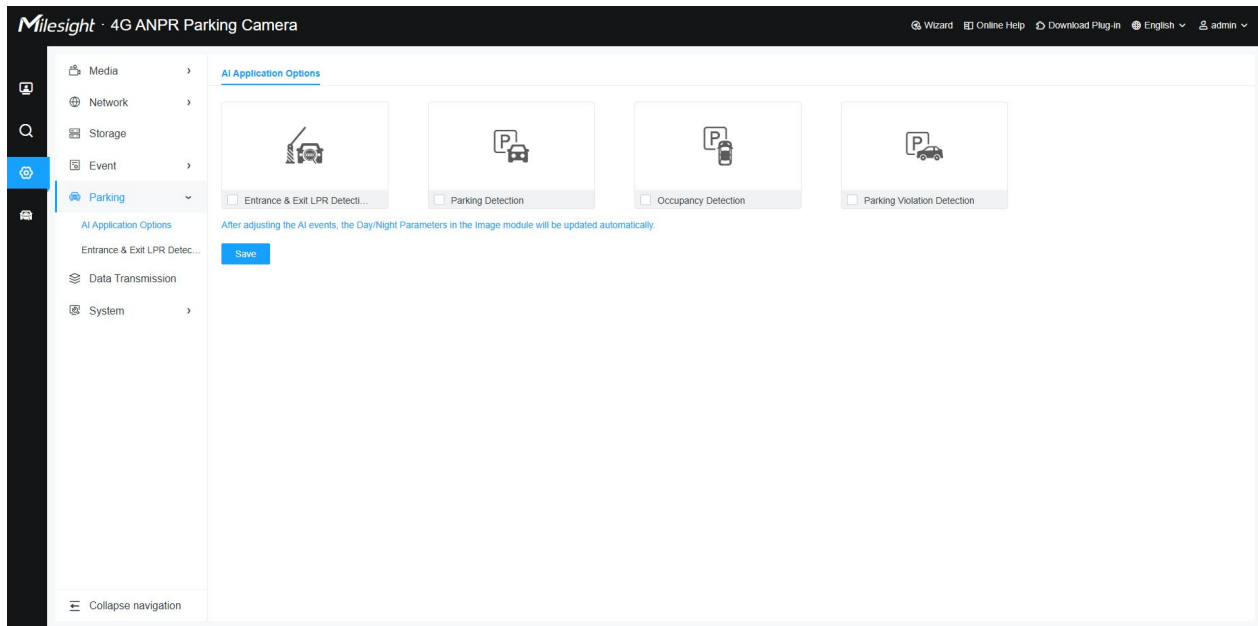


9.3 Parking (For ANPR Parking Camera)

9.3.1 AI Application Options

The 4G Solar-powered ANPR Parking Camera can support 4 AI Application Options, which include Entrance&Exit LPR Detection, Parking Detection, Occupancy Detection and Parking Violation Detection.

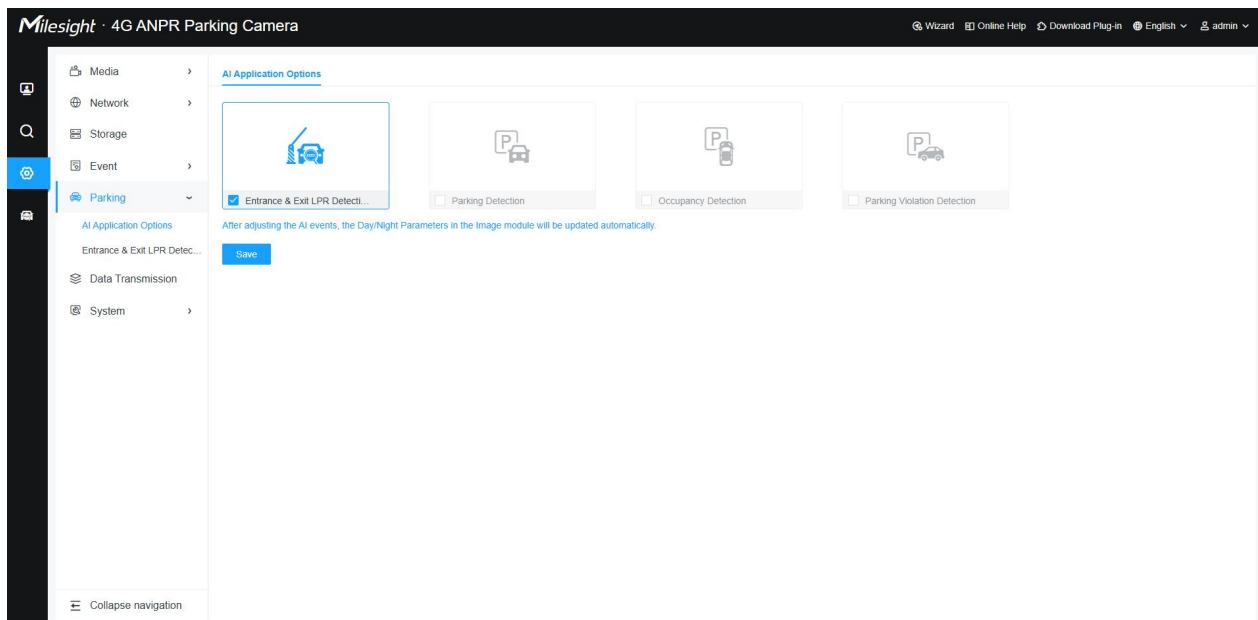
Select one AI option according to your usage scenario (only one can be enabled at a time). After checking and saving, the corresponding configurations will be displayed below on the Parking page.

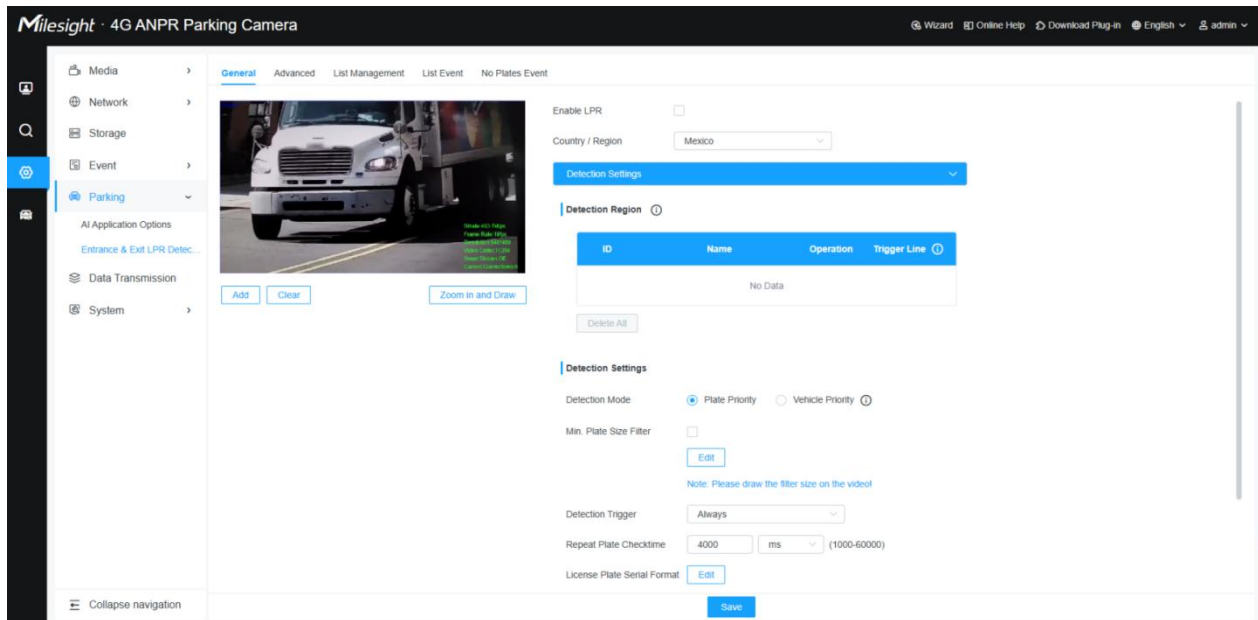


 **Note:** After adjusting the AI events, the Day/Night Parameters in the Image module will be updated automatically.

9.3.2 Entrance & Exit LPR Detection

This option is applicable to parking lot entrance and exit scenarios. It recognizes information of vehicles entering and exiting the parking lot, and supports gate control based on Black and White List.





9.3.2.1 General

For detailed functional description, refer to Section [9.2.1.1 General](#) in the Road Traffic Camera part.

9.3.2.2 Advanced

For detailed functional description, refer to Section [9.2.1.2 Advanced](#) in the Road Traffic Camera part.

9.3.2.3 List Management

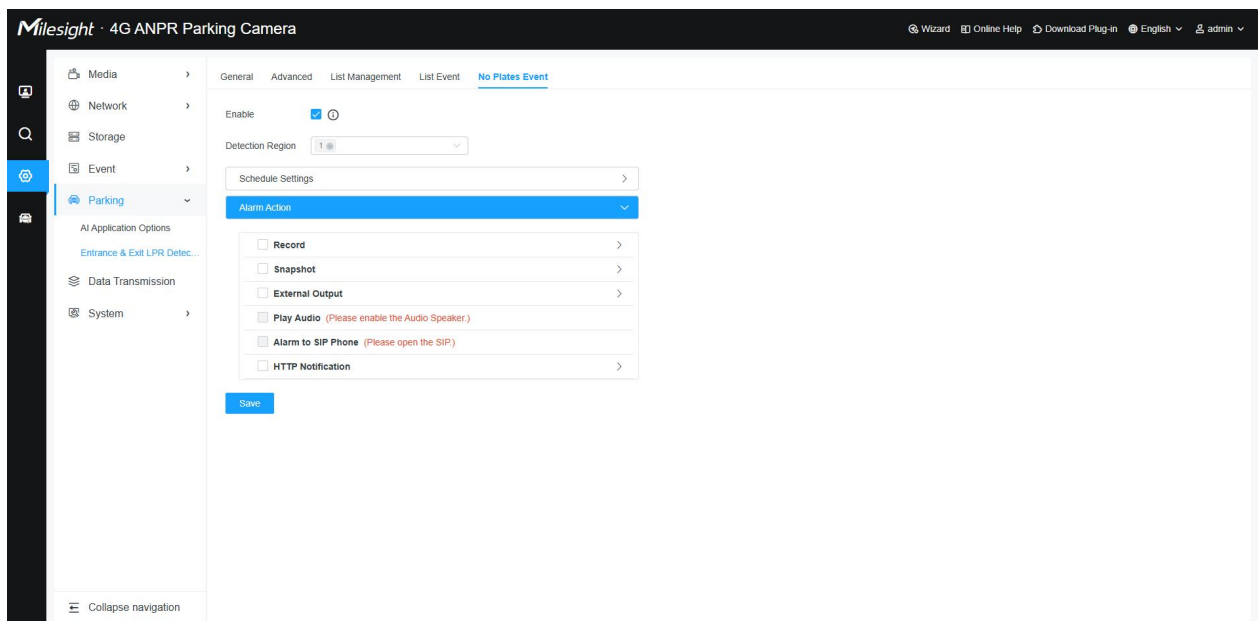
For detailed functional description, refer to Section [9.2.1.3 List Management](#) in the Road Traffic Camera part.

9.3.2.4 List Event

For detailed functional description, refer to Section [9.2.1.4 List Event](#) in the Road Traffic Camera part.

9.3.2.5 No Plates Event

This function can trigger alarms by No-plate vehicles.



Step 1: Check “Enable” option to enable the function.

 **Note:** When enabled, LPR switches to vehicle priority mode.

Step 2: Select detection region. (The region is drawn under the General page.)

Step 3: Set the schedule.

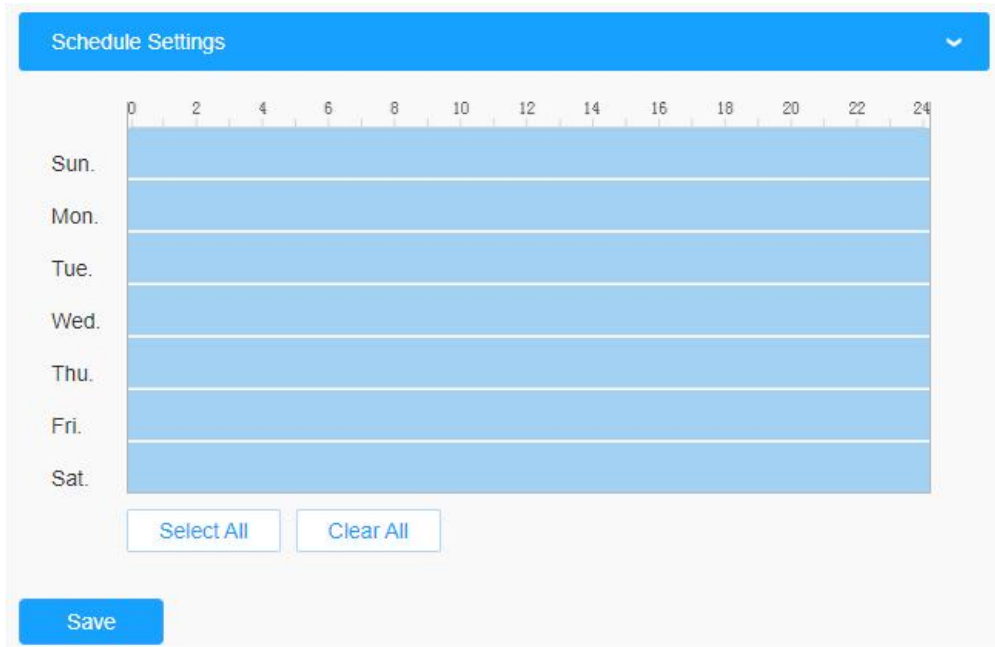
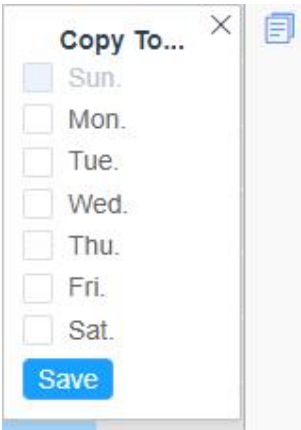


Table 63. Description of the buttons

Parameters	Function Introduction
	Copy the schedule area to another date.
	Select all schedule.
	Clear all schedule.

Step4: Set the alarm actions.

Alarm Action
▼

☐ **Record** >

☐ **Snapshot** >

☐ **External Output** >

☐ **Play Audio** (Please enable the Audio Speaker.)

☐ **Alarm to SIP Phone** (Please open the SIP.)

☐ **HTTP Notification** >

☐ **White LED** >

Save

Table 64. Description of the buttons

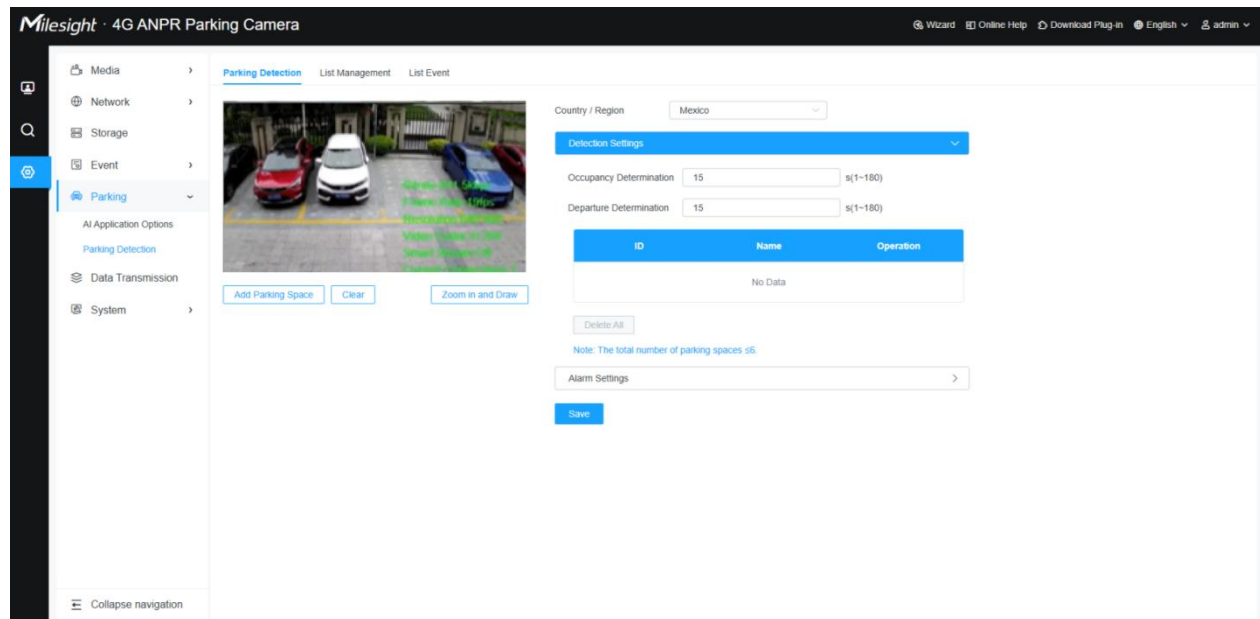
Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note:

Three HTTP notifications at most can be added to the same event.

HTTP Notification supports Basic & Digest authentication

9.3.3 Parking Detection

Parking Detection with LPR based on AI LPR algorithm can realize simultaneous detection and management of up to 4 parking spaces with LPR. It greatly help guide parking and realize more efficient and intelligent parking management.



Setting steps are as shown below:

Step 1: Select the country whose license plate numbers you want to recognize.

Step 2: Set Occupancy Determination and Departure Determination.

Detection Settings
▼

Occupancy Determination

15

s(1~180)

Departure Determination

15

s(1~180)

Table 65. Description of the buttons

Parameters	Function Introduction
Occupancy Determination	Threshold to judge parking occupancy: vehicle is considered occupied only when stop duration exceeds this value.

Departure Determination	Threshold for vehicle departure judgment: vehicle is deemed departed when out of detection area beyond this duration.
-------------------------	---

Step 3: Draw detection boxed in the preview. You can rename the parking space by referring to the name of the parking space in the parking system.

Parking Detection List Management List Event

Country / Region Mexico

Detection Settings

Occupancy Determination 15 s(1~180)

Departure Determination 15 s(1~180)

ID	Name	Operation
1	ROI_1	
2	ROI_2	
3	ROI_3	
4	ROI_4	

Delete All

Note: Up to 6 detection regions can be drawn, but it's better to cover 4 parking spaces for better recognition.

[Alarm Settings]

Step 4: Check the timeout alarm box. Set the maximum parking time (up to 7 days supported) as needed, and the alarm will be triggered to prevent long-term parking.

Alarm Trigger Thresholds

Timeout Alarm ☐

Max. Parking Time 7 d (0~7)

Step 5: Set alarm action. Support to pop up the alarm news to specified HTTP URL.

Alarm Action

☐ HTTP Notification

URL

1

2

3

Test

Enable

☐

Trigger Interval

s (0~900)

User Name

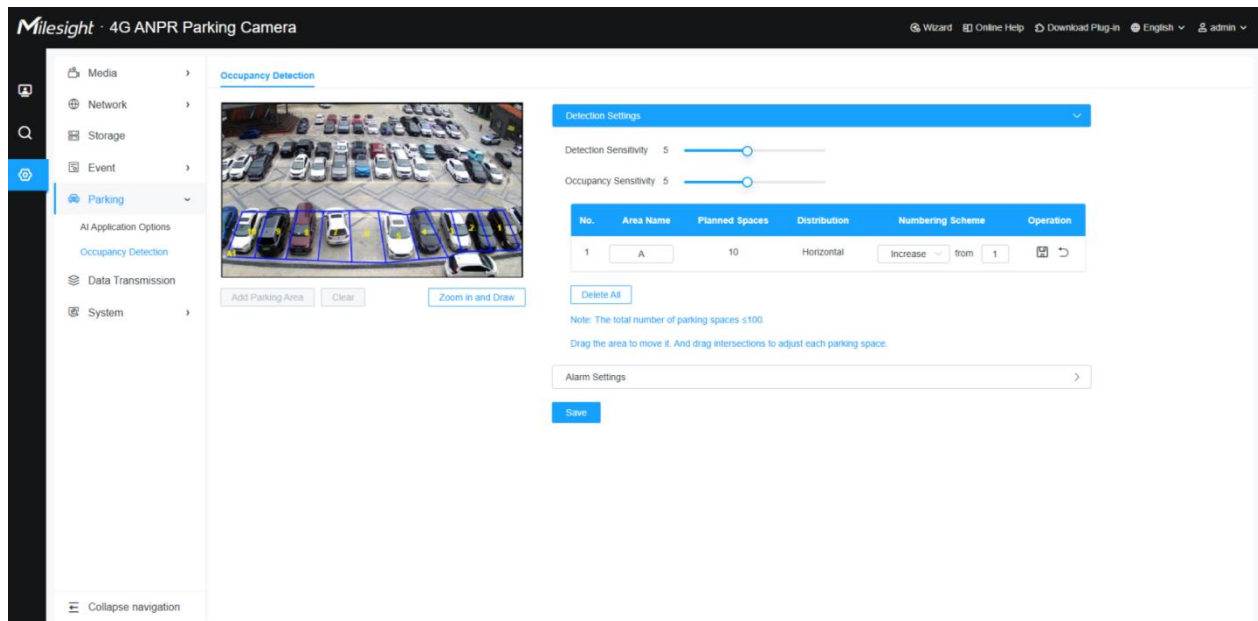
Password

Table 66. Description of the buttons

Parameters	Function Introduction
URL	The HTTP URL format can be customized,for example: http://{ip}:{port}/api/ httpEvent?xxxxxx
Test	Verify whether the message can be successfully sent to destination.
Enable	Start or stop using HTTP.
Trigger Interval	Time interval between event pushes. 0~900s of period time are available.
User Name	Receiver name.
Password	Receiver password.

9.3.4 Occupancy Detection

Occupancy Detection based on AI algorithm can realize simultaneous detection and management of up to 100 parking spaces with up to 98% detection accuracy. It greatly help guide parking and realize more efficient and intelligent parking management.

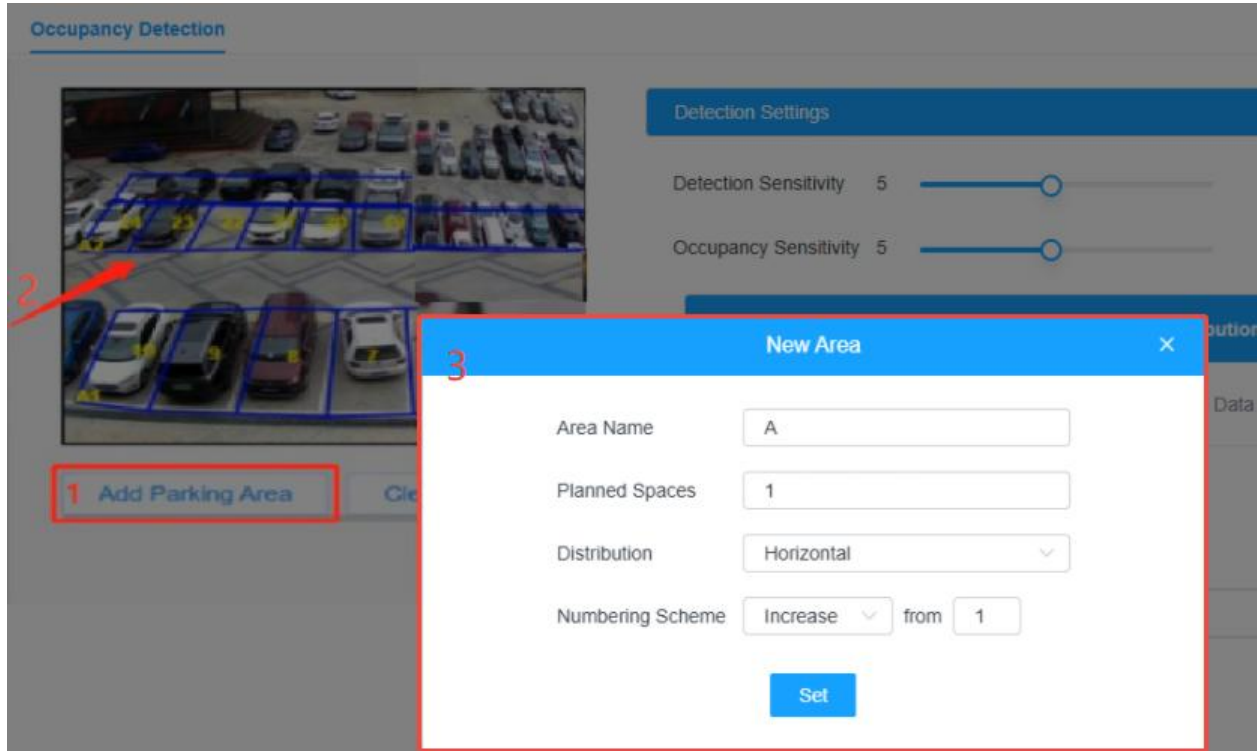


Step 1: Set Detection Sensitivity and Occupancy Sensitivity. Level 1~10 are available, the default level is 5.

Table 67. Description of the buttons

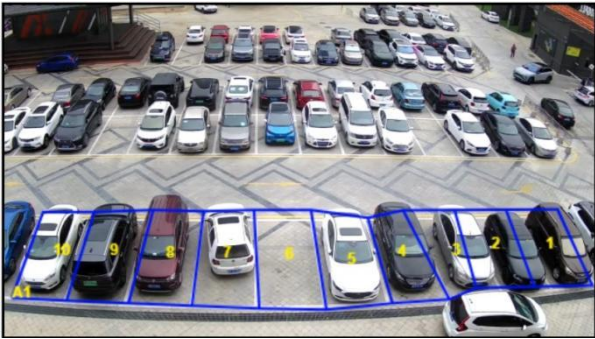
Parameters	Function Introduction
Detection Sensitivity	Level 1~10 are available, the default level is 5. The default sensitivity of 5 is the balance point between target missed detection and false detection. The higher the sensitivity, the easier the occupancy is to be detected. Users can adjust the detection sensitivity as needed to avoid some missed or false detection. For example, when the sensitivity is set to 10, it is possible to identify some objects that look like cars as cars, resulting in false detection.
Occupancy Sensitivity	Level 1~10 are available, the default level is 5. The higher the sensitivity, the parking space will be judged to be occupied if it is slightly occupied for a while; the lower the sensitivity, the parking space needs to be occupied for a certain period of time before it is judged to be occupied. For example, when the sensitivity is set to 10, the parking space may be judged as occupied when the vehicle passes by the parking space only briefly.

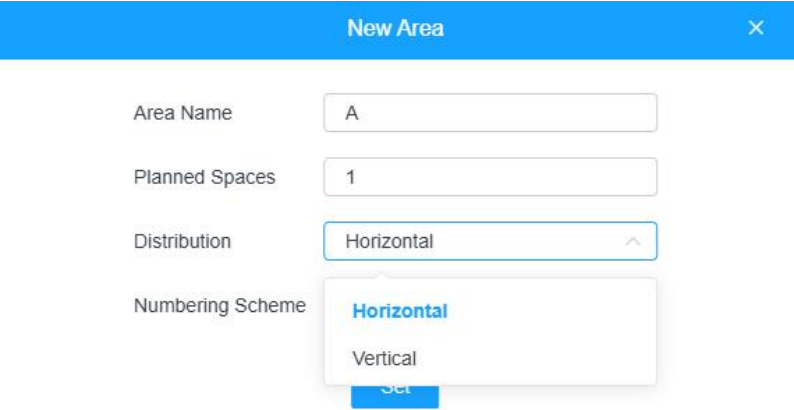
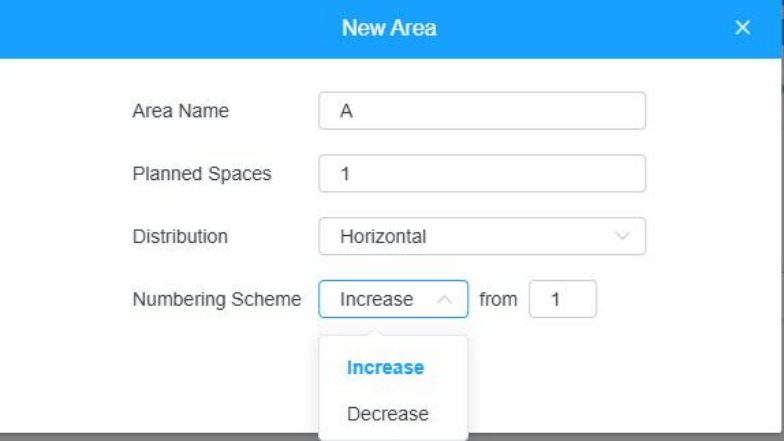
Step 2: Draw the detection areas based on the parking lot. Click "Add Parking Area" button to configure the information of detection area.



 Note: The total number of parking spaces should be less than or equal to 100.

Table 68. Description of the buttons

Parameters	Function Introduction
Area Name	The name of the detection area can be edited. Such as A1, A2, B1, B2.  Note: Valid content: 1~10 digits or letters!
Planned Spaces	Enter the number of parking spaces on the drawn detection area. Numbers between 1~99 are available. For example, Area A has 15 planned spaces: 

Distribution	Define the distribution of parking spaces. Horizontal and Vertical are available. For example, the distribution of Area A is Horizontal, and the distribution of Area B is Vertical: 
Numbering Scheme	Define the parking space numbering scheme and the starting numbers. Increase and Decrease of numbering scheme are available, and the starting numbers between 1~99 are available. For example, the numbering scheme of Area A is Increase from 1, and the numbering scheme of Area B is Decrease to 11: 
	Edit the Area Name and Numbering Scheme of the detection area.
	Delete the detection area.
	Save the edit.
	Cancel the edit.

Delete All	Delete the all added detection areas.
-----------------------	---------------------------------------

Step 3: After the configuration, the occupied parking spaces in the detection area will be covered with red to provide a more intuitive interface. And the parking information containing total number, occupied number and available number will be displayed on the interface.

[Alarm Settings]

Step 4: Check the timeout alarm box. Set the maximum parking time (up to 7 days supported) as needed, and the alarm will be triggered to prevent long-term parking.

Alarm Trigger Thresholds

Timeout Alarm ☐

Max. Parking Time (0~7)

Step 5: Set alarm action. Support to pop up the alarm news to specified HTTP URL.

Alarm Action

☐ HTTP Notification

URL

1

2

3

Test

Enable

☐

Trigger Interval

s (0~900)

User Name

Password

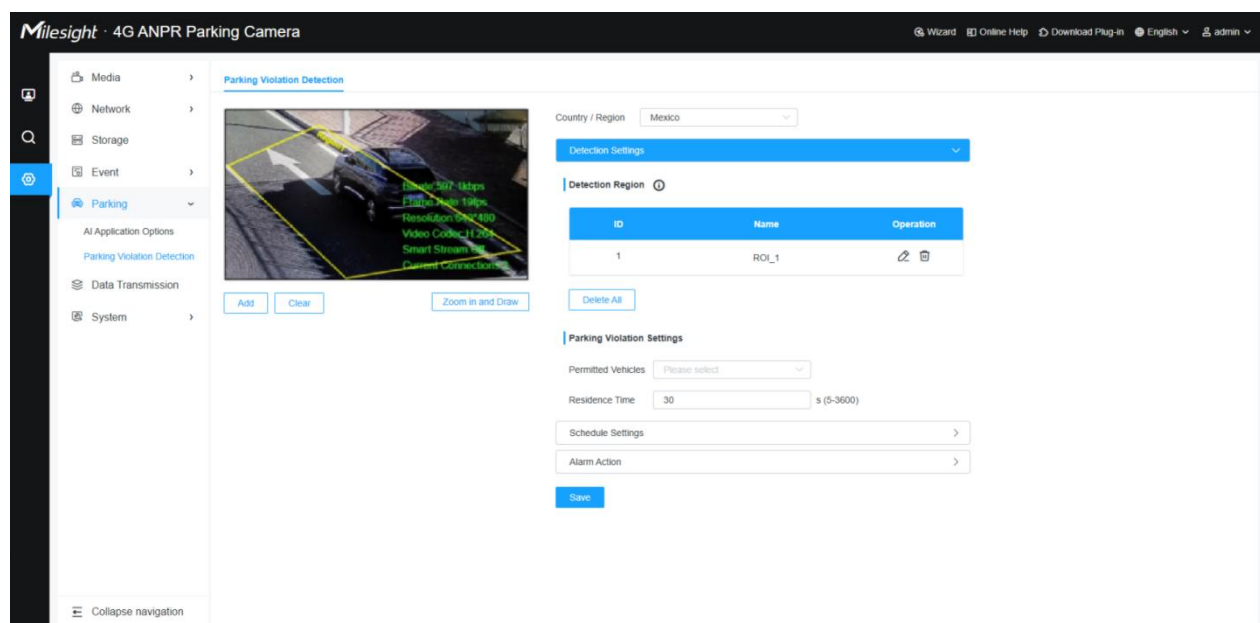
Table 69. Description of the buttons

Parameters	Function Introduction
URL	The HTTP URL format can be customized,for example: http://{ip}:{port}/api/ httpEvent?xxxxxx
Test	Verify whether the message can be successfully sent to destination.
Enable	Start or stop using HTTP.

Trigger Interval	Time interval between event pushes. 0~900s of period time are available.
User Name	Receiver name.
Password	Receiver password.

9.3.5 Parking Violation Detection

Parking Violation Detection function supports real-time detection, timing and trigger alarm of illegal parked vehicles. Also, it can detect the vehicle attributes and license plate attributes of the illegal parked vehicles.



Settings steps are shown as follows:

Step 1: Select a country for the detection.

Step 2: Draw on the video to set detection regions. Support simultaneous detection of 2 illegal parking areas and the single illegal parking area can detect multiple illegal parked vehicles. And you can fill in the name of parking violation area.

[Parking Violation Settings]

Step 3: Set the illegal parking conditions like permitted vehicles and residence time.

Parking Violation Settings

Permitted Vehicles

Residence Time s (5-3600)

Table 70. Description of the buttons

Parameters	Function Introduction
Permitted Vehicles	Choose different types of vehicle to be permitted to parking if lane is exclusive. If an unselected vehicle type is identified and parked, it will be judged as illegal parking. The vehicle type include All, Car, SUV, MPV, Pick-up, Van, Bus, Truck, Mini Truck, Trailer, Fire Engine, Ambulance, Motorbike, Bicycle, E-scooter, Other.
Residence Time	Set the dwell time, if vehicle stay beyond this time, vehicle will be judged as illegal parking. 5~3600s are available.

[Schedule Settings]

Step 4: Set a schedule to enable Parking Violation Detection;

The screenshot displays the 'Schedule Settings' window. At the top, there's a blue header with the title 'Schedule Settings' and a dropdown arrow. Below this is a 24-hour timeline with numerical markers from 0 to 24 in increments of 2. Underneath the timeline, there are seven horizontal bars representing the days of the week: Sun., Mon., Tue., Wed., Thu., Fri., and Sat. All these bars are filled with a solid blue color, signifying that the parking violation detection is scheduled for every day of the week. At the bottom of the interface, there are two buttons: 'Select All' and 'Clear All'.

Step 5: Set alarm action.

Alarm Action
▼

☐ **Record**
>

☐ **Snapshot**
>

☐ **External Output**
>

☐ **Play Audio** (Please enable the Audio Speaker.)

☐ **Alarm to SIP Phone** (Please open the SIP.)

☐ **HTTP Notification**
▼

URL

1

2

3

https://abc.com

Test

Enable
☒

Trigger Interval

0

s (0~900)

User Name

Password

Table 71. Description of the buttons

Parameters	Function Introduction
Record	Duration: Selected the duration time of alarm. 5s/10s/15s/20s/25s/30s are available. Linkage: Save alarm recording files into SD Card or NAS or Upload the recording files via FTP.
Snapshot	Number: The number of snapshot, 1~5 are available. Interval: This cannot be edited unless you choose more than 1 to Snapshot. Linkage: Save alarm recording files into SD Card or NAS, upload the recording files via FTP and send alarm email.
External Output	If the camera equips with External Output, you can enable the action after configuring the trigger duration.

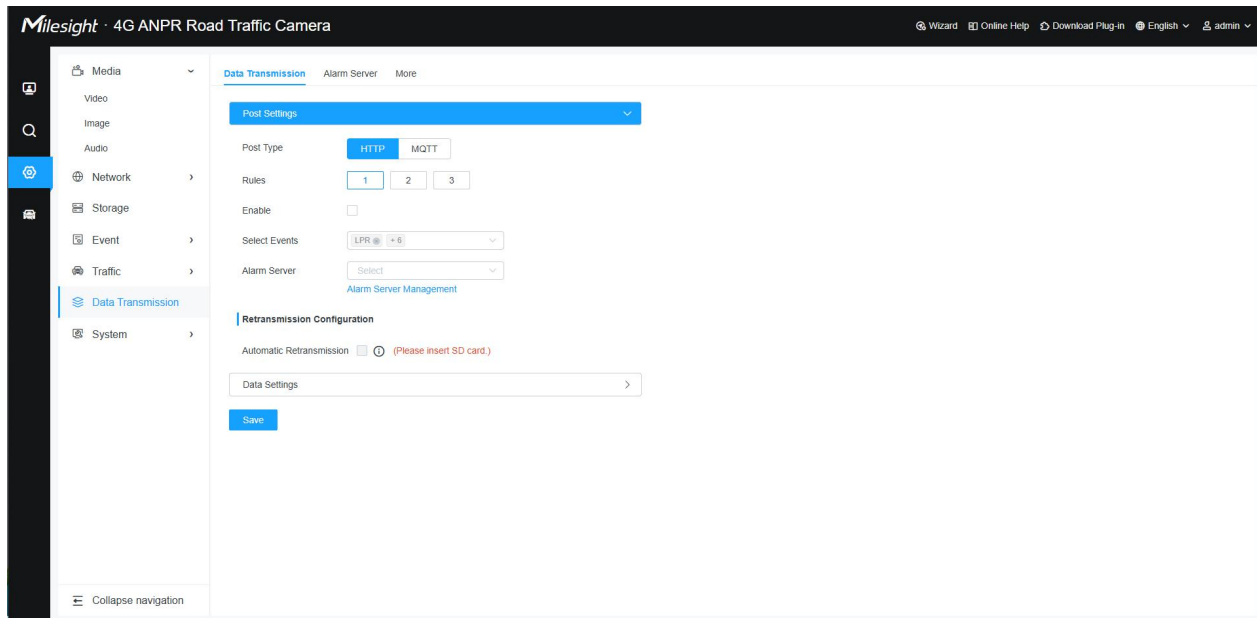
Play Audio	Auto/10 seconds/30 seconds/1 minute/5 minutes/10 minutes are available.  Note: Please enable the Audio Speaker.
Alarm to SIP Phone	Support to call the SIP phone after enable the SIP function.
HTTP Notification	Support to pop up the alarm news to specified HTTP URL.  Note: Three HTTP notifications at most can be added to the same event. HTTP Notification supports Basic & Digest authentication

Step 6: Save the configuration.

Chapter 10. Data Transmission

10.1 Data Transmission

You can select the protocol to post traffic data and configure related elements.



Step 1: Configure the alarm server address as the data push destination.

10.2 Alarm Server

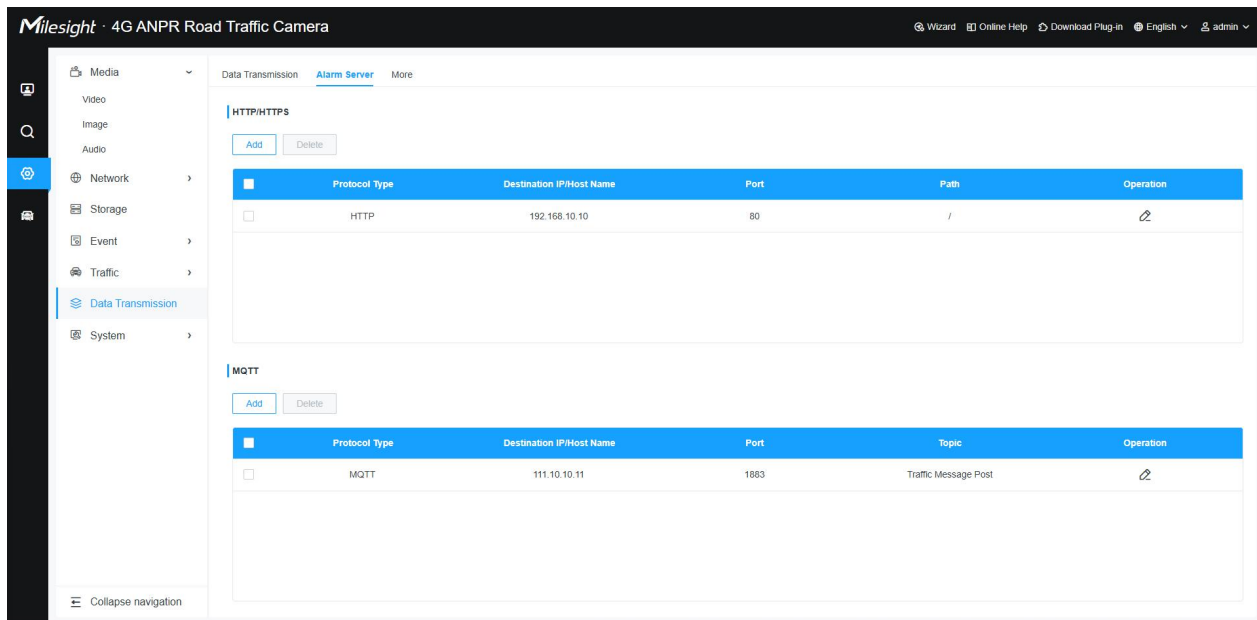
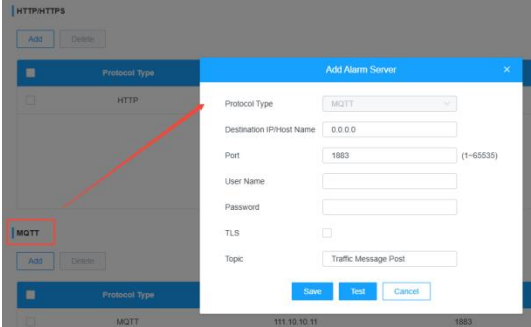


Table 72. Description of the buttons

Parameters		Function Introduction
HTTP/HTTPS	Protocol Type	Support HTTP and HTTPS
	Destination IP/Host Name	Input the IP, Path(URL), Port, Username and Password for the Alarm server.
	Path	
	Port	
	User Name	
	Password	
		Click the Test button to verify whether the alarm server can receive messages successfully.
MQTT	Destination IP/Host Name	Input the IP, Port, Username and Password for the Alarm server.
	Port	
	User Name	
	Password	
		
	TLS	Enable TLS and select a pre- configured certificate for secure data transmission.
	Server Certificate	
	Topic	MQTT Topic
		Click the Test button to verify whether the alarm server can receive messages successfully.

Step 2: Enable the post function, select a protocol and server for data push according to the events you care about.

[Post Settings]

Table 73. Description of the buttons

Parameters	Function Introduction
Post Type	Information can be pushed by HTTP and MQTT.  Note: HTTP can support 3 rules for different events and alarm servers.
Select Events	Include LPR, Black List Event, White List Event, Visitor Event, Attributes Event, Violation Event, Vehicle Counting
Alarm Server	Alarm Server list  Note: Users can configure the alarm server in Alarm Server page in advanced, or click the Alarm Server Management to go directly to the configuration page. Alarm Server Select  Alarm Server Management 
Retransmission Configuration	Automatic Retransmission: Support automatic retransmission of failed data. Only for HTTP Method. It is recommended that the post and stored snapshot configuration be consistent.  Note: It need to inset SD card to use this function.

Step 3: Configure the posting data content.

[Data Settings]

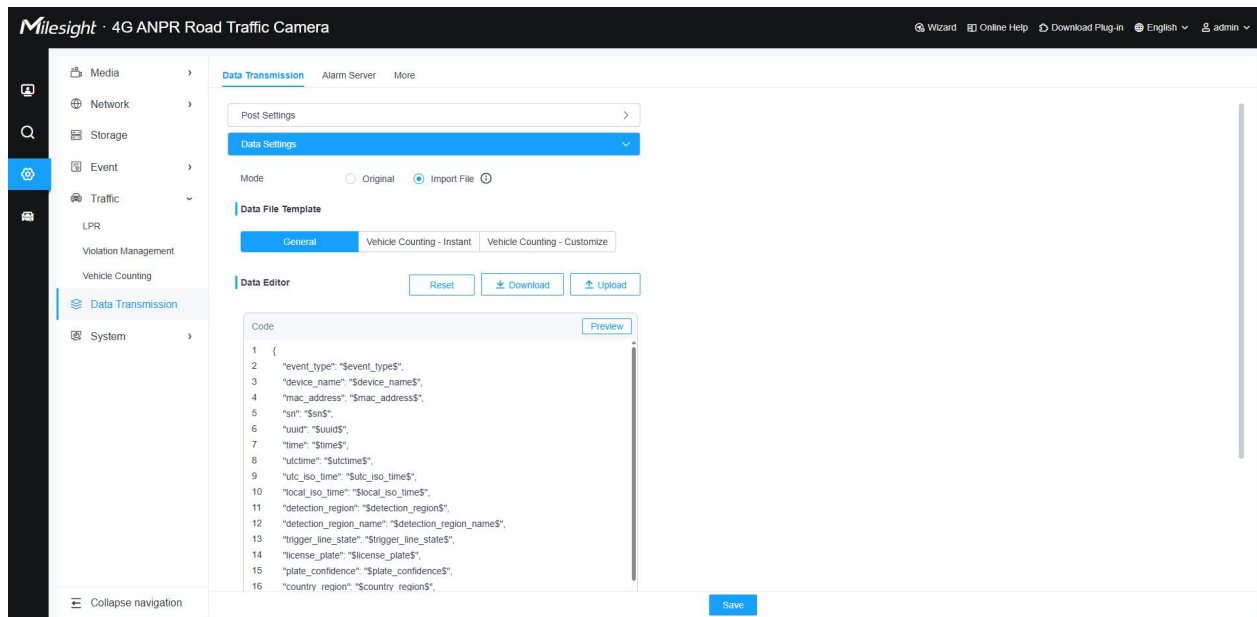


Table 74. Description of the buttons

Parameters		Function Introduction
Mode	Original	In this mode, the system uses the default built-in template to generate result data files. The output format and fields are fixed and predefined by the system, without customization options.
	Import File	This mode allows users to upload a custom template file to define the format and content of the result data.
Data File Template (For Import File Mode)	General Vehicle Counting-Instant Vehicle Counting-Customize	By importing a template, users can: • Customize which database fields to include in the output • Add fixed or dynamic content as needed After importing the template file, the system will generate result data strictly following the user-defined template. This provides great flexibility for integrating with various downstream applications or meeting specific client requirements without changing system code. Configuration Template File The content of the result data file is customizable using templates. You can edit, change, and save content in the editor. Template file will take effect after saving. The following short example, which will describe a result formatted as an JSON contains all features: 1. { 2. "event_type": "\$event_type\$", 3. "device_name": "\$device_name\$", 4. "license_plate": "\$license_plate\$", 5. "license_plate_snapshot": "\$license_plate_snapshot\$" 6. } In this example we have to adhere to the JSON standard. Lines #2, #3, #4 and #5 is an example of a database field, This template may evaluate to something like: <pre>{</pre>

		<pre>"event_type":"LPR", "device_name":"Network Camera", "license_plate":"KK12345", "license_plate_snapshot":"/9j/4AAQSkZJRgABAQAAQABA[... a base 64 encoded image...]" }</pre> Database fields The contents of the database can be injected using the following syntax: <code>\$(database field id)\$</code>, represents the data result in string format. <code>#(database field id)#</code>, represents the data result in numeric format. Custom fields When a fixed data result is required, simply enter The content (without the character '\$').
Data Editor (For Import File Mode)		The Data Editor provides a user-friendly interface to directly edit the template content within the system. Users can: • Edit the template text manually to customize the output format and included fields. • Download the current template file to their local device for backup or offline editing. • Upload a previously saved template file to replace or restore the template content. • Reset the template to the original default format, discarding any custom changes. This convenient editor enables quick adjustments and easy management of the template without needing external tools.

10.3 More

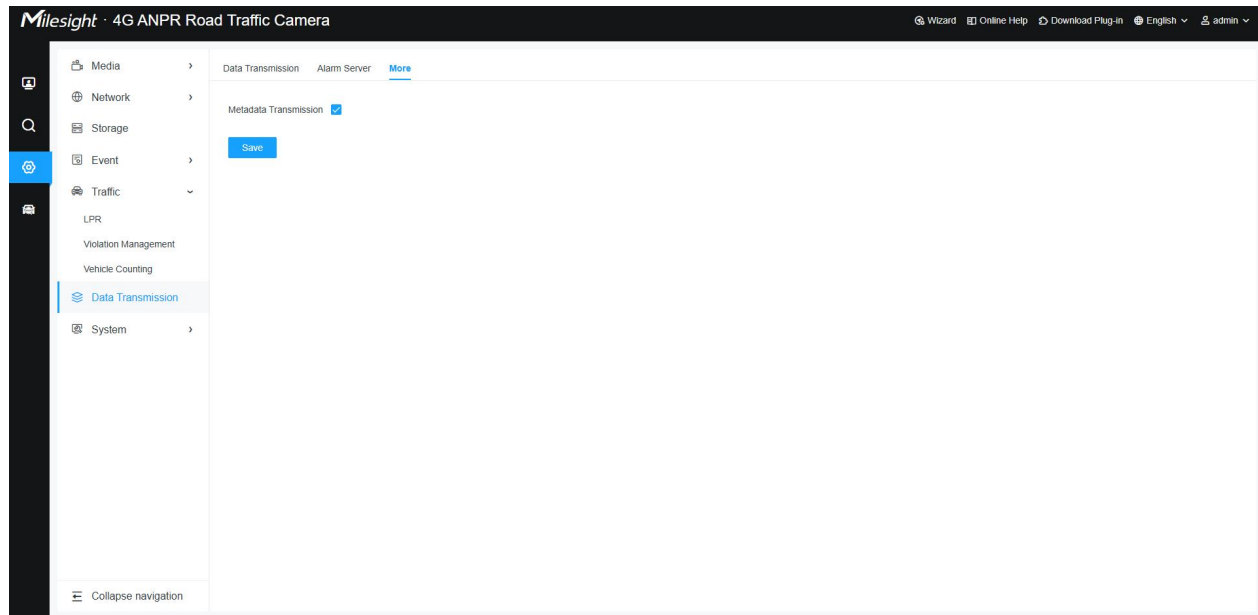


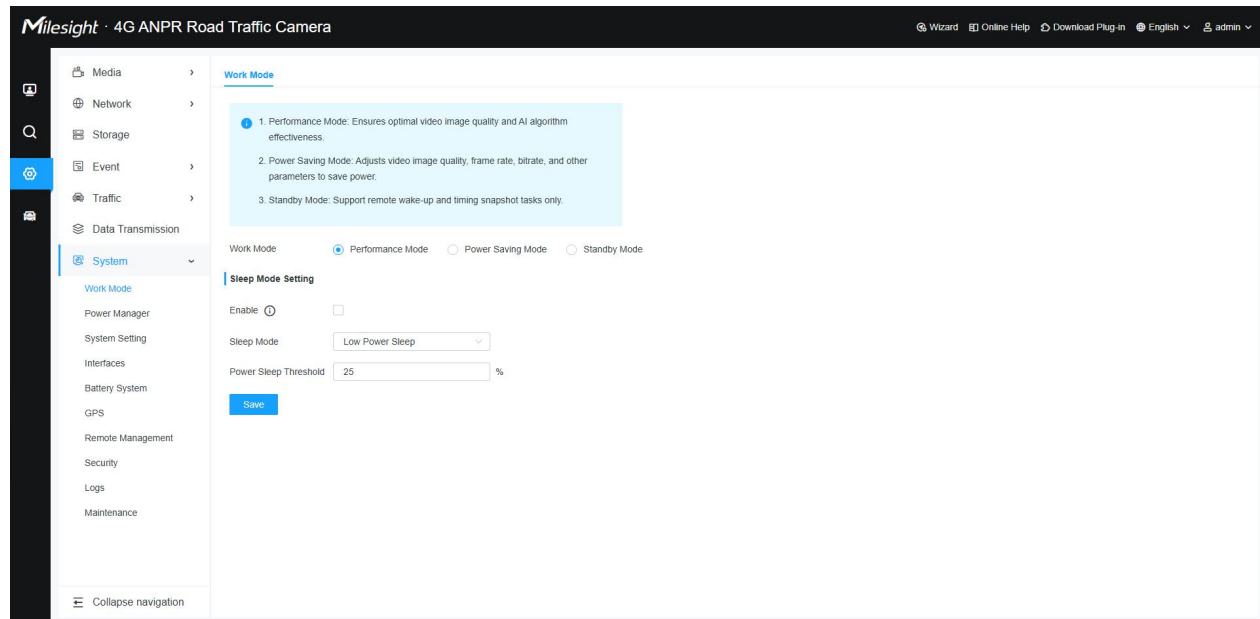
Table 75. Description of the buttons

Parameters	Function Introduction
Metadata Transmission	The Metadata Transmission feature controls whether metadata is included in the data output. • When enabled, the system will transmit detailed metadata along with the main result data. • When disabled, metadata transmission is turned off, and only core result data is sent. Enabling metadata transmission can provide additional context and information useful for advanced data processing or integration.

Chapter 11. System

11.1 Work Mode

The Work Mode module allows users to switch the camera between different operating modes optimized for various scenarios. Each mode balances video quality, Algorithm performance, and power consumption differently to suit specific application requirements.



11.1.1 Overview

SP112 ANPR model supports the following work modes:

Work Mode	Description
Performance Mode (Default)	This mode ensures optimal video image quality and enhances AI algorithm performance, making it suitable for high-security areas and critical monitoring scenarios.
Power Saving Mode	Adjusts video image quality, frame rate, bitrate, and other parameters to reduce power consumption. This mode is recommended for battery-powered or solar-powered installations where power conservation is a priority while maintaining full AI functionality.
Standby Mode	Supports remote wake-up and timing snapshot tasks only. This mode is recommended for scenarios requiring minimal power consumption with periodic check-in capabilities.

11.1.2 Work Mode Comparison

Event Type	Performance Mode	Power Saving Mode	Standby Mode
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Event Type	Performance Mode	Power Saving Mode	Standby Mode
Frame Rate (60Hz)	Up to 30fps	Up to 15fps	Up to 15fps
Frame Rate (50Hz)	Up to 25fps	Up to 12fps	Up to 12fps
Bit rate	3072 Kbps	2048 Kbps	2048 Kbps
Traffic/Parking Detection	√	√	×
Motion Detection	√	√	×
External Input	√	√	√
External Output	√	√	√
Exception	√	√	√

 Note: √ means the function can be enabled to use, × means the function can't be used.

11.1.3 Switching Work Modes

To switch between work modes:

8. Navigate to System > Work Mode in the web interface.
9. Select the desired work mode from the available options.
10. Click "Save" to apply the selection.
11. A confirmation dialog will appear with the message: "Work Mode switch takes effect after restarting. Restart it now?"
12. Click "OK" to restart the device immediately, or "Cancel" to return without restarting.

If "OK" is selected, the device will restart. During restart, the following message is displayed:

"Restarting (1~3 mins estimated). Checking the device's network is working after restart, then re-access the current page."

11.1.4 Sleep Mode Setting

The Sleep Mode Setting allows the camera to enter Sleep Mode under specific conditions while operating in either Performance Mode or Power Saving Mode, providing greater flexibility and improved power efficiency.

 Note:

Under Low Power Sleep mode, only remote access wake-up and scheduled wake capture are supported.

Remote wake-up is only available when the network connection is functioning properly.

Step 1: Enable the Function.

Step 2: Select Sleep Mode

Low Power Sleep:

In this mode, you can configure the power sleep threshold. When the detected battery level falls below the specified threshold, the camera will automatically enter sleep mode.

Sleep Mode Setting

Enable ⓘ ☐

Sleep Mode

Power Sleep Threshold %

[Save](#)

 **Note:** The Low Power Sleep function requires access to external battery level information. If this information is unavailable, the function will not be triggered even if configured.

Scheduled Sleep:

Allows you to configure scheduled sleep periods. The camera will enter sleep mode according to the defined schedule.

Sleep Mode Setting

Enable ⓘ ☐

Sleep Mode

Schedule Settings

	0	2	4	6	8	10	12	14	16	18	20	22	24
Sun.													
Mon.													
Tue.													
Wed.													
Thu.													
Fri.													
Sat.													

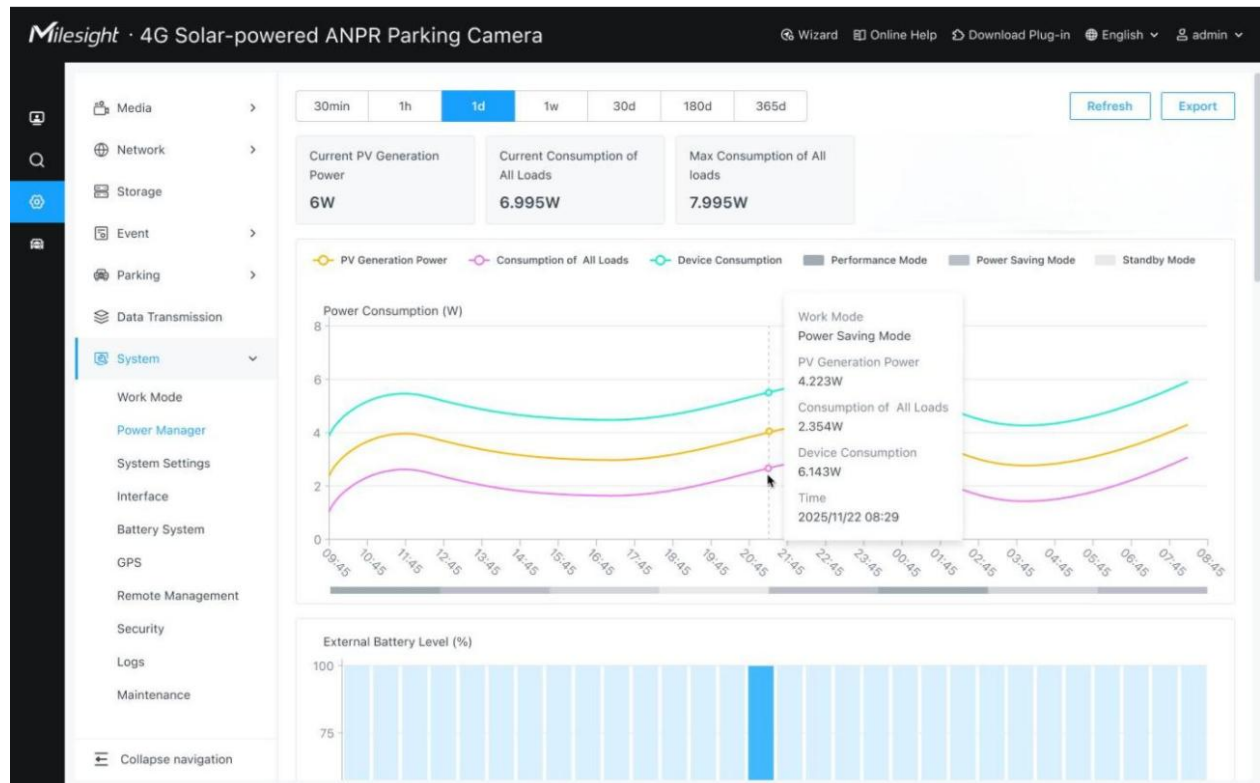
[Select All](#) [Clear All](#)

Step 3: Save Settings

Click the **Save** button to apply the settings.

11.2 Power Manager

The Power Manager module provides comprehensive power monitoring and management capabilities for the SP112 device. It tracks power generation, consumption, and battery status in real time, helping users accurately assess battery specifications and estimate device runtime under various conditions.



11.2.1 Overview

The Power Manager module serves two primary purposes:

- Track power consumption statistics at the camera to help users accurately evaluate battery sizing based on actual measured data.
- Track current battery level information.

11.2.2 Quick Query

The Quick Query buttons allow you to quickly select predefined time ranges for data viewing. The following preset options are available:

Quick Query Button	Time Range
30min (Default)	Last 30 minutes from current time

Quick Query Button	Time Range
1h	Last 1 hour from current time
1d	Last 1 day from current time
1w	Last 1 week from current time
30d	Last 30 days from current time
180d	Last 180 days from current time
360d	Last 360 days from current time

The time range is calculated from the current moment backward. For example, selecting "30min" displays data from the most recent 30 minutes.

 **Note:** Custom time range queries are not supported. For more granular data analysis, export the data to CSV and perform calculations using external tools.

11.2.3 Power Statistics Panel

The Power Statistics Panel displays key power metrics for the selected query period.

Attribute	Description
Current PV Generation Power	Displays the current photovoltaic (solar) generation power.
Current Consumption of All Loads	Displays the current total power consumption of all loads connected to the battery system.
Max Consumption of All Loads	Displays the maximum power consumption of all loads within the selected query time period.
Daily Average Consumption of All Loads	Displays the daily average power consumption of all loads within the selected query time period.
Estimated Runtime on Rainy Days	Based on the daily- average power consumption of all loads within the query period, estimate roughly how long the camera can continue operating on rainy- overcast days.

11.2.4 Power Consumption Curves

The Power Consumption Curves graph displays power data over time with the following characteristics:

Attribute	Description
X-axis	Time (time scale adjusts based on query range)

Attribute	Description
Y-axis	Power Consumption (W); range: 0 to max data value (minimum 8W)
Display Type	Line chart with reference grid lines at 2W, 4W, 6W, 8W
Update	Page load and Refresh button

Curve Legend

The following curves are displayed on the power consumption chart:

Curve	Description
PV Generation Power (W)	Photovoltaic (solar) power generation
Consumption of All Loads (W)	Total power consumption of all battery system loads
Device Consumption (W)	Power consumption of the camera device itself
Performance Mode	Time periods when the device was in Performance Mode
Power Saving Mode	Time periods when the device was in Power Saving Mode
Standby Mode	Time periods when the device was in Standby Mode

Work Mode Markers

The work mode markers are displayed along the time axis to indicate which mode the device was operating in during each time period.

Work mode data does not participate in power calculations. If work mode data is unavailable for a period, the marker area may be empty or display "-". Missing mode markers do not affect power data or subsequent user calculations.

11.2.5 Battery Level Curve

The Battery Level Curve displays the external battery charge level over time.

Attribute	Description
X-axis	Time (same time scale as power curves)
Y-axis	External Battery Level (%); range: 0~100%
Display Type	Bar chart with reference grid lines at 25%, 50%, 75%, 100%
Precision	Up to 2 decimal places

Attribute	Description
Hover Detail	Hovering over the chart displays battery level information with time granularity matching the power curve
Update	Page load and Refresh button

Legend

External Battery Level — represents the charge percentage of the external battery connected to the battery system.

11.2.6 Refresh

The Refresh button immediately updates the following displayed data:

- [B]Current PV Generation Power
- [B]Current Consumption of All Loads
- [B]Max Consumption of All Loads (for the selected query period)
- [B]Power consumption curves (PV Generation, All Loads, Device Consumption)
- [B]External Battery Level curve

The page automatically refreshes once when first loaded. Click Refresh at any time to update the data display.

11.2.7 Data Export

The Power Manager supports exporting data in CSV format. The exported file contains the data corresponding to your current query selection.

CSV File Format

Column	Description
Column 1: Date	Timestamp for each data point
Column 2: PV Generation Power (W)	Photovoltaic generation power in Watts
Column 3: Consumption of All Loads (W)	Total power consumption of all loads in Watts
Column 4: Device Consumption (W)	Power consumption of the device itself (measured by internal power meter) in Watts
Column 5: External Battery Level (%)	External battery charge level as a percentage

File Naming

Exported files are named using the following convention:

PowerHistoryData-YYYY_MM_DD

Example: PowerHistoryData-2025_11_10

The date corresponds to the query date.

Data Granularity in Export

The exported CSV file uses the same time granularity as the power curve display, which depends on the selected query range.

11.3 System Setting

11.3.1 System Info

All information about the hardware and software of the camera can be checked on this page.

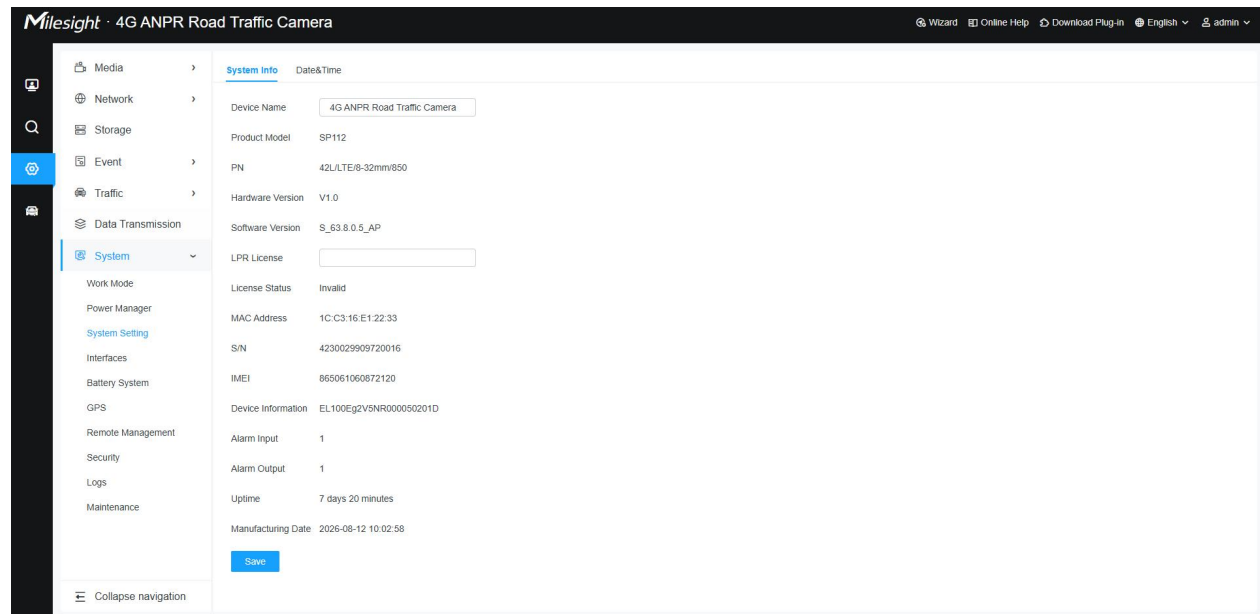


Table 76. Description of the buttons

Parameters	Function Introduction
Device Name	The device name can be customized.
Product Model	The product model of the camera.
PN	Part Number
Hardware Version	The hardware version of the camera.

Parameters	Function Introduction
Software Version	The software version of the camera can be upgraded.
LPR License	Generated by camera's information.
License Status	Show present license status, including Valid and Invalid .
MAC Address	Media Access Control address.
S/N	Stock Number.
IMEI	IMEI (International Mobile Equipment Identity) is a unique 15- digit identifier for mobile- capable devices. It is used by cellular carriers to identify the 4G module of the camera.
Device Information	The device information, including information about alarm I/O and clipper chip.
Alarm Input	The number of Alarm Input interface.  Note: The Alarm Input will appear only when the camera have alarm input/ output interface.
Alarm Output	The number of Alarm Output interface.  Note: The Alarm Output will appear only when the camera have alarm input/ output interface.
Uptime	The elapsed time since the last restarted of the device.
Manufacturing Date	Shows the Manufacturing Date and Time of this camera.
Save	Save the configuration.

11.3.2 Date&Time

The screenshot shows the Milesight 4G ANPR Road Traffic Camera web interface. The left sidebar contains navigation options: Media, Network, Storage, Event, Traffic, Data Transmission, System (selected), Work Mode, Power Manager, System Setting, Interfaces, Battery System, GPS, Remote Management, Security, Logs, and Maintenance. The main content area is titled 'System info' and 'Date&Time'. It has two tabs: 'Current System Time' and 'Set the System Time'. The 'Current System Time' tab shows the current date as 25/08/2026 and time as 15:37:05. The 'Set the System Time' tab includes fields for Time Zone (UTC+08:00 China(Beijing, Ho)), Time Format (HH:mm:ss), Synchronize Mode (GPS, NTP server, Manual, Synchronize with computer time), Server Address (pool.ntp.org), NTP Sync (checked), Interval (1440 min), and Daylight Saving Time (Automatic). A 'Save' button is at the bottom.

Table 77. Description of the buttons

Parameters	Function Introduction
Current System Time	Current date&time of the system.
Set the System Time	Time Zone: Choose a time zone for your location.
	Time Format: h/H=12/24 Hour; tt=AM or PM; mm=Minute; ss=Second
	Synchronize Mode: GPS, NTP server, Manual and Synchronize with computer time are optional.
	GPS: Synchronizing GPS Time. In addition to providing location coordinates, GPS also offers a highly accurate time source. All GPS satellites are equipped with atomic clocks and continuously broadcast precise time information, enabling terminal devices to achieve time synchronization. In this mode, it allows to enable NTP Retry. NTP Retry: After multiple failed attempts to obtain time via GPS, retries via NTP are allowed. Synchronize Mode ☒ GPS ☐ NTP server ☐ Manual ☐ Synchronize with computer time Enable NTP Retry ⓘ ☒ NTP server: Input the address of NTP server. Synchronize Mode ☐ GPS ☒ NTP server ☐ Manual ☐ Synchronize with computer time Server Address pool.ntp.org Manual: Set the system time manually.

Parameters	Function Introduction
	Synchronize Mode ☐ GPS ☐ NTP server ☒ Manual ☐ Synchronize with computer time Time 2026-08-25 15:37:04 Synchronize with computer time: Synchronize the time with your computer. Synchronize Mode ☐ GPS ☐ NTP server ☐ Manual ☒ Synchronize with computer time Date 25/08/2026 Time 15:40:32 NTP Sync: Regularly update your time according to the interval time. NTP Sync ☒ Interval 1440 min. (1~43200) Daylight Saving time: Enable the daylight saving time.
Save	Save the configuration.

11.4 Interfaces

11.4.1 RS485

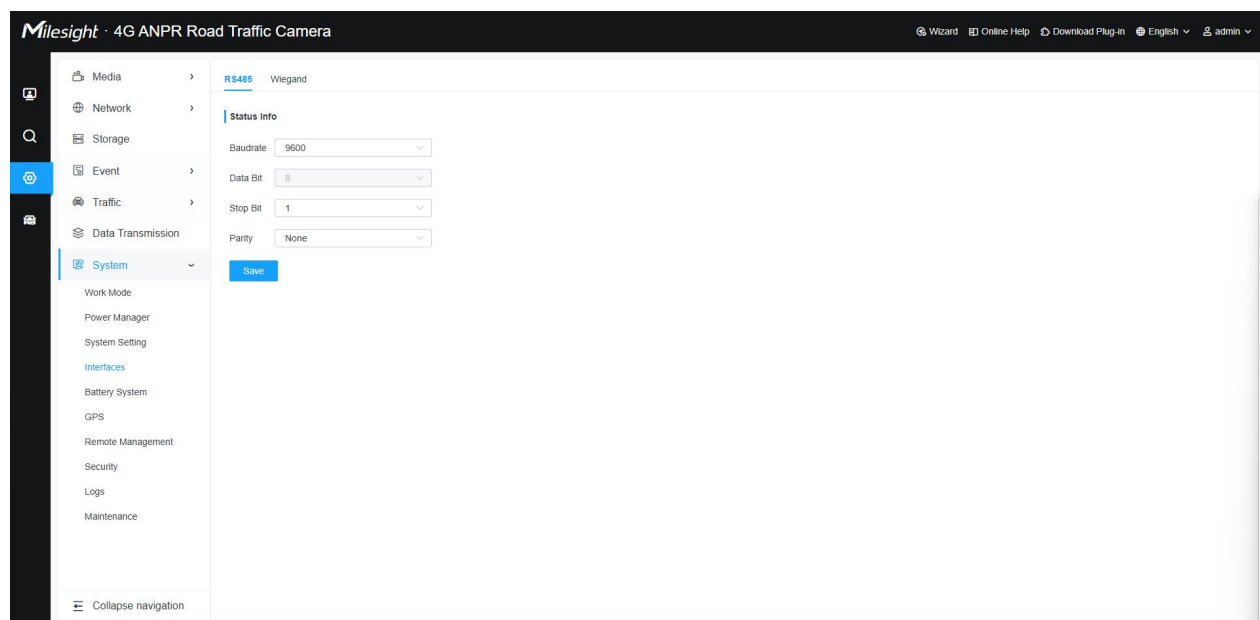
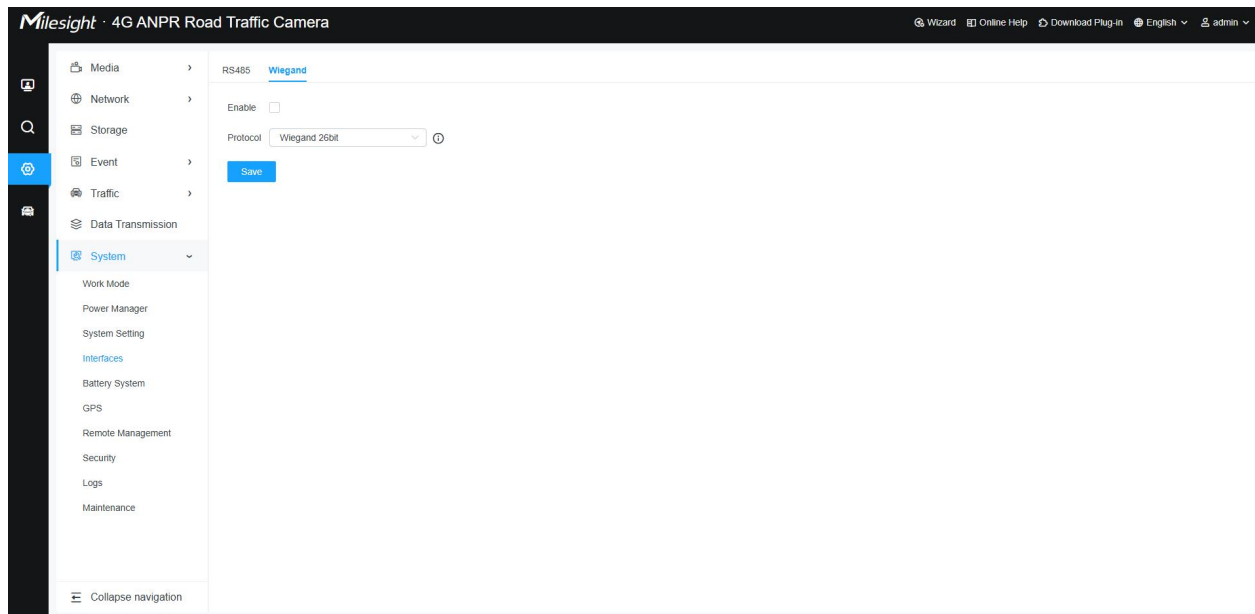


Table 78. Description of the buttons

Parameters	Function Introduction
Baudrate	The available baudrate options for this device are: 2400 bps/4800 bps/9600 bps (default)/19200 bps/38400 bps.
Data Bit	The RS485 Data Bit setting is fixed at 8 bits and cannot be adjusted. This means that each data frame will contain 8 data bits.
Stop Bit	Select the desired number of stop bits from the available options: 1 stop bit/2 stop bits.  Note: Ensure that the stop bit setting on your camera matches the setting on the connected RS485 device to ensure proper communication.
Parity	The available parity options for this device are: None (default)/Odd Parity/Even Parity. Select the desired parity option from the available choices: • None: No parity bit is used. • Odd Parity: The parity bit is set to ensure that the total number of 1-bits is odd. • Even Parity: The parity bit is set to ensure that the total number of 1-bits is even.
	Save the configuration.

11.4.2 Wiegand

Here you can enable the Wiegand interface for access control. It supports Wiegand 26bit/ 34bit/ 72bit/ 80bit protocol.

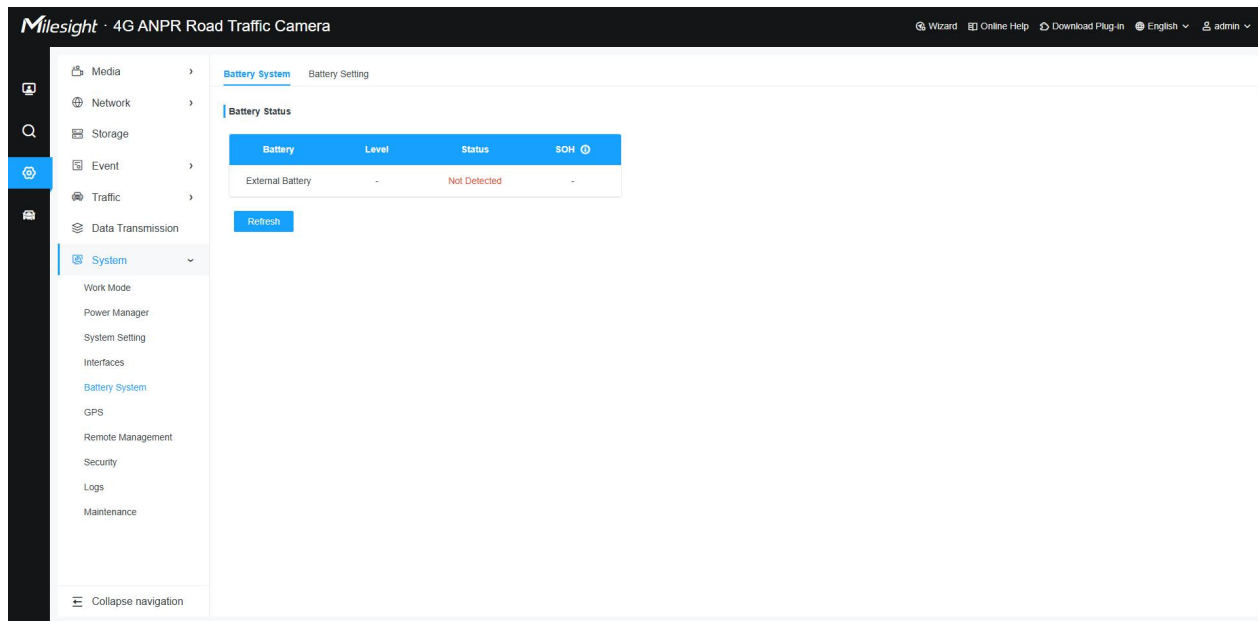
**Note:**

1. Wiegand 26bit supports up to 8-digit ID Card, Wiegand up to 10-digit ID Card; 72bit up to 9-char plate, 80bit up to 10-char plate. (72bit/80bit: letters & digits only)
2. Please make sure the camera has been correctly connected to your parking system through the Wiegand interface as shown below.
 - GND and A (Wet contact for External Output).
 - A, B and GND (DATA0, DATA1 and GND for Wiegand).

11.5 Battery System

11.5.1 Battery System

You can check the battery status and battery health in this module.



[Battery Status]

Table 79. Description of the buttons

Parameters	Function Introduction
Level	This column indicates the current battery level. It shows the remaining charge as a percentage, helping you monitor when the battery needs recharging or replacing.
Status	This column indicates the current status of the battery. • Running: The battery is operating normally. • Low Power: The battery is running low on charge and needs recharging soon. • Malfunction: There is a problem with the battery, and it may not be functioning correctly. • Not Detected: The battery is not detected by the system. • HighTempProtect: The battery is in a high-temperature protection mode to prevent overheating. • LowTempProtect: The battery is in a low-temperature protection mode to prevent damage from cold temperatures.
SOH	SOH (State of Health) refers to the health status of a battery.

11.5.2 Battery Setting

You can configure the battery sleep mode and battery health alarms in this module.

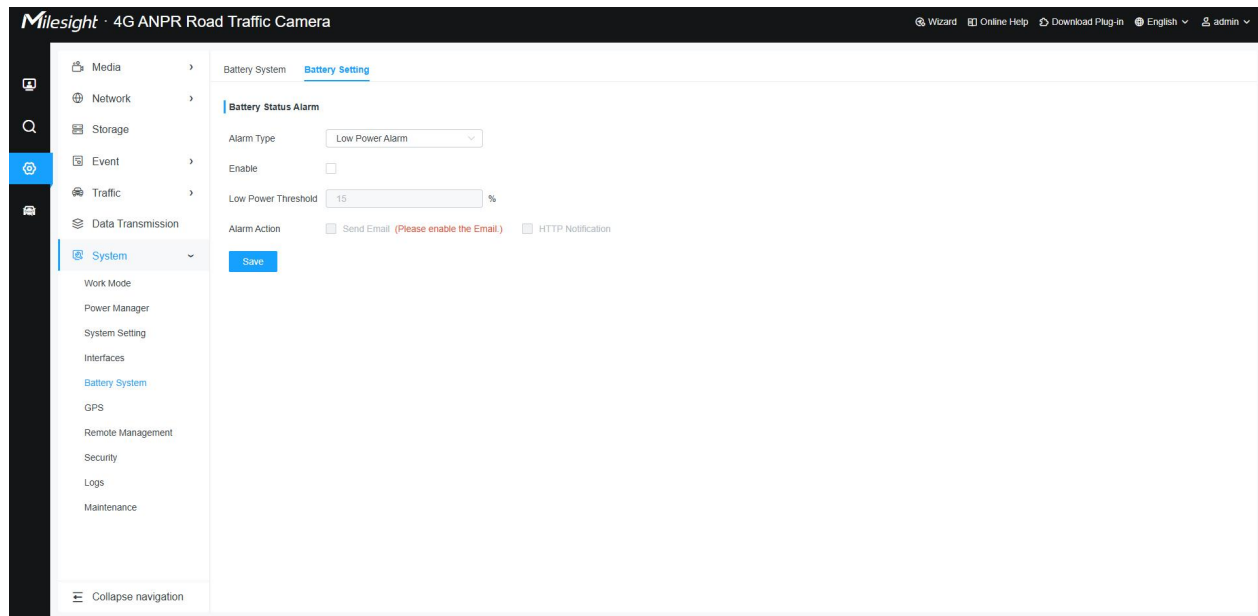


Table 80. Description of the buttons

Parameters	Function Introduction
Alarm Type	Select different alarm types for alarm configuration. The available battery status alarm types are: Low Battery Alarm, Malfunction Alarm, and Low Battery Health Alarm.
Enable	Click the enable checkbox to activate the Battery Status Alarm.
Low Power Threshold	The configuration for setting the low battery alarm threshold is available when the Alarm Type is set to Low Battery Alarm. When the battery level falls below the set value, the device will trigger the alarm.
	Send Email: Send alerts via email. For detailed email settings, please configure under Network - Basic - Email.

Parameters	Function Introduction
Alarm Action	HTTP Notification: When the battery status triggers an alarm, the security camera can send an HTTP notification to a specified server. To configure the HTTP notification for battery status alarms, please fill in the following information. URL: Enter the URL of the server that will receive the HTTP notification. This should be a fully qualified URL, including the protocol (e.g., http:// or https://). Enable: Enable or disable HTTP notification for battery status alarms. HTTP Method: Choose the HTTP method to be used for sending the notification. Common methods include POST and GET. User Name: If the server requires authentication, enter the user name here. This is typically used for basic authentication. Password: Enter the password associated with the user name for authentication purposes.
	Save the configuration.

11.6 GPS

The GPS module provides the camera's geographical coordinates (Latitude, Longitude, and Altitude). This data is essential for asset tracking, map integration, and synchronized event reporting.

Note:

- Outdoor Use Only:** The GPS module requires a clear, unobstructed view of the sky to lock onto satellite signals. It will **not function indoors** or in areas with significant overhead obstructions (such as deep canyons or under heavy metal roofing).
- Initial Positioning:** When the camera is first powered on outdoors, it may take a few minutes to acquire a satellite fix and update the coordinates in the interface.

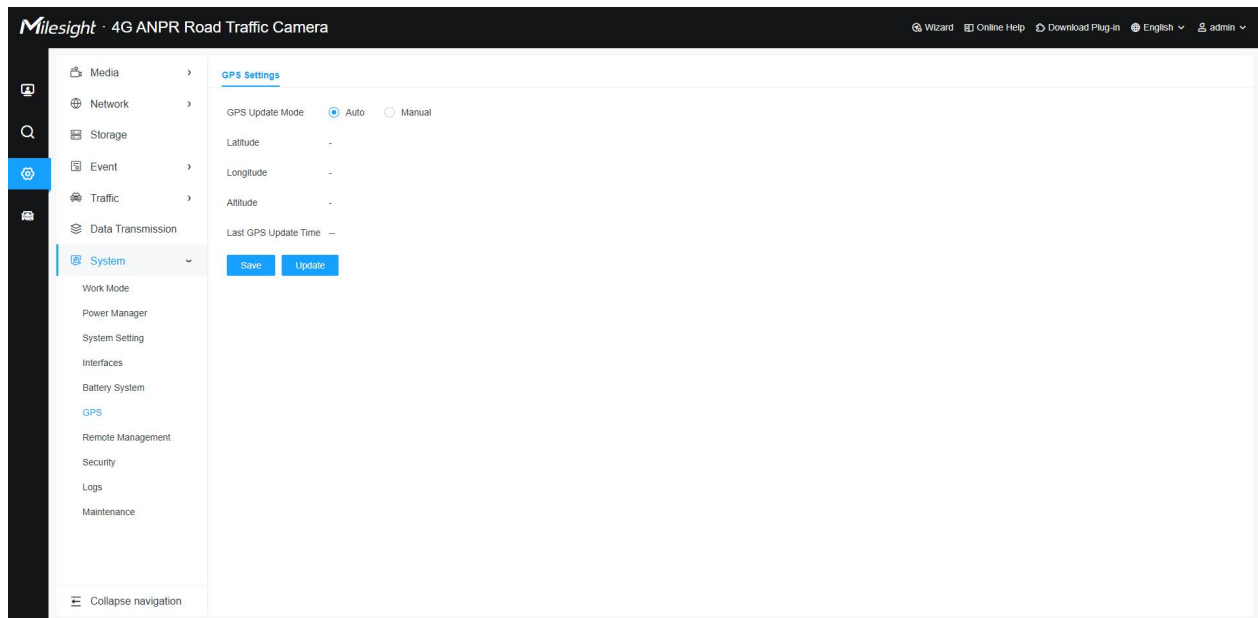
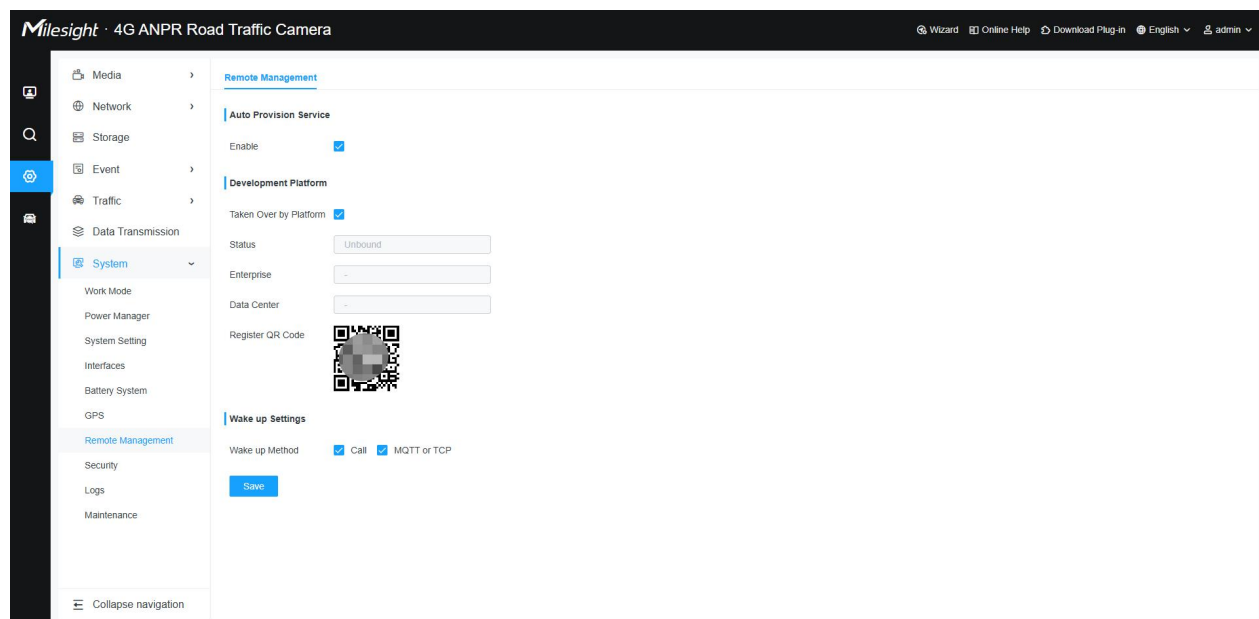


Table 81. Description of the buttons

Parameters	Function Introduction
GPS Update Mode	Choose how the camera acquires its location data. Auto The system automatically retrieves the latest location data from the built-in GPS module. Recommended for mobile installations or initial setups In Auto mode, all coordinates are read-only and updated by the system. • Latitude / Longitude: Displays the current horizontal and vertical coordinates in degrees (°). • Altitude: Displays the elevation above sea level. • Last GPS Update Time: Shows the timestamp of the most recent successful GPS fix. • [Update] Button: Click to trigger an immediate GPS refresh. The system will display <i>"Operating, Please wait..."</i> while it re-acquires the signal. Manual Allows you to manually input specific coordinates. This is ideal for stationary installations where GPS signals may be unstable or where specific professional mapping data is required. In Manual mode, you can customize the location data. The system uses a decimal degree format (consistent with Google Maps) for easier data entry.

Parameters	Function Introduction
	Latitude -90.000000 ~ 90.000000 Longitude -180.000000 ~ 180.000000 Altitude -11000.0 ~ 90000.0
Save	Save the configuration.

11.7 Remote Management



The Remote Management section allows you to configure various settings that enable remote control and management of your security camera. This includes enabling the Auto Provision Service, Development Platform, and configuring Wake Up Settings.

You can use the Milesight Development Platform for remote and bulk management of devices.
Platform address:

<https://account.milesight.com/login>

For instructions on how to add a device, please refer to the platform manual:

<https://www.milesight.com/docs/en/development-platform/introduction/connect-a-device.html>

Auto Provision Service

- **Enable Auto Provision Service:**

- o Enabling this option means that the camera will automatically obtain pre-configuration from the Milesight Development Platform after rebooting.

Development Platform

- **Enable Development Platform:**

- o Enabling this option allows the Milesight Development Platform to modify camera settings. Users can then more conveniently modify camera settings remotely in bulk via the Milesight Development Platform.

Table 82. Description of the buttons

Parameters	Function Introduction
Taken Over by Platform	Toggle to allow or restrict the device from connecting to the management platform. (Default: Enabled)
Status	Displays the real-time connection status: • Unbound: Device has not been added to any account. • Online: Device is successfully connected to the platform. • Offline: Device is registered but currently disconnected.
Enterprise	Displays the enterprise.
Taken Over by Platform	Toggle to allow or restrict the device from connecting to the management platform. (Default: Enabled)
Data Center	Displays the region of the connected server (e.g., EU).

Wake Up Settings

- **Wake Up Method:**

- o This setting determines how the camera will wake up from a low-power state.
- o **Call:** The camera can be woken up by making a call.
- o **MQTT or TCP:** The camera can be woken up using MQTT (Message Queuing Telemetry Transport) protocol.

11.8 Security

11.8.1 User

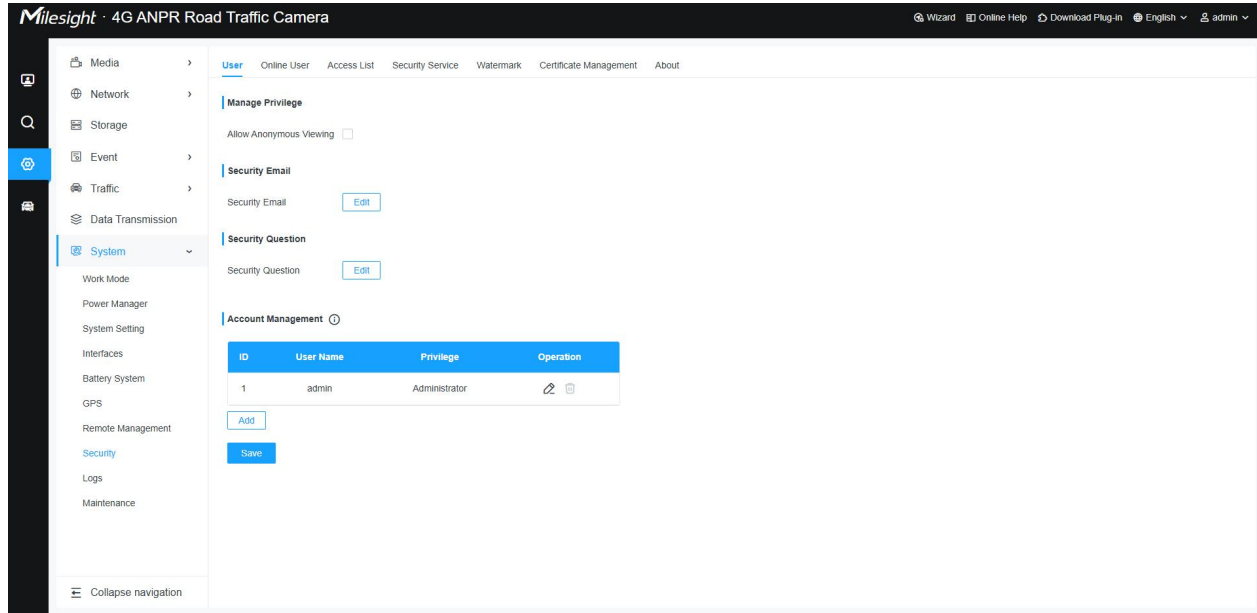
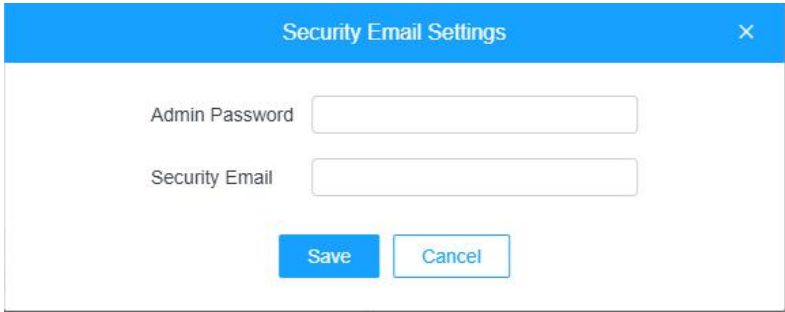


Table 83. Description of the buttons

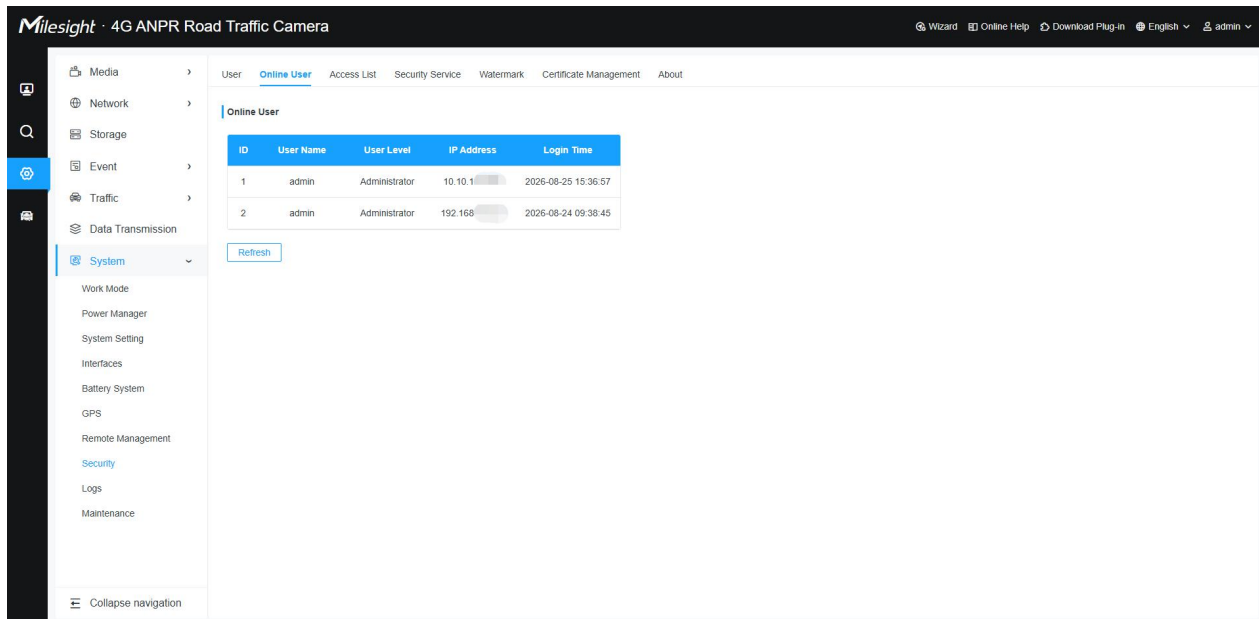
Parameters	Function Introduction
Manage Privilege	Allow anonymous viewing: Check the checkbox to enable visit from whom doesn't have account of the device.
Security Email	Set a security email for your camera. If you forget your password, click "Forgot Password" on the login page. A security code will be sent to your email. Enter the code to reset your password. 
Security Question	Click "Edit" button to set three security questions for your camera. In case that you forget the password, you can click "Forgot Password" button on login page to reset the password by answering three security questions correctly.

Parameters	Function Introduction
	There are twelve default questions below, you can also customize the security questions.
Account Management	Click “Add” button, it will display Account Management page. You can add an account to the camera by entering Admin Password, User Level, User Name, New Password, Confirm, and edit user privilege by clicking . The added account will be displayed in the account list. Admin Password: You can add an account only after you enter the correct admin password. User Level: Set the privilege for the account. User Name: Input user name for creating an account. New Password: Input password for the account.

Parameters	Function Introduction
	Confirm: Confirm the password. You can edit and delete the account in the account list under the admin account. For the default admin account, you can only change the password, and it cannot be deleted.  Note: • Support up to 20 users, including a default user and 19 custom added users. • The operator privilege is all checked by default.

11.8.2 Online User

Here real-time status of user logging in camera will be shown.



The screenshot displays the Milesight 4G ANPR Road Traffic Camera web interface. The left sidebar contains a navigation menu with options: Media, Network, Storage, Event, Traffic, Data Transmission, System (selected), Work Mode, Power Manager, System Setting, Interfaces, Battery System, GPS, Remote Management, Security, Logs, and Maintenance. The main content area shows the 'Online User' status under the 'User' tab. A table lists two online users:

ID	User Name	User Level	IP Address	Login Time
1	admin	Administrator	10.10.10.1	2025-08-25 15:36:57
2	admin	Administrator	192.168.1.1	2025-08-24 09:38:45

Below the table is a 'Refresh' button. The top navigation bar includes links for Wizard, Online Help, Download Plug-in, English, and a user profile dropdown.

Table 84. Description of the buttons

Parameters	Function Introduction
Refresh	Click to get latest status of user accessing to camera.
ID	Record serial number of user logging in camera.  Note: • There are at most 30 records shown at the list. • There is only one record if the same user logs in camera by the same IP address.
User Name	Name of user logging in camera.
User Level	Level of user logging in camera.
IP Address	Device IP address where user logging in camera web located.
Login Time	Camera system time of user logging in camera.

11.8.3 Access List

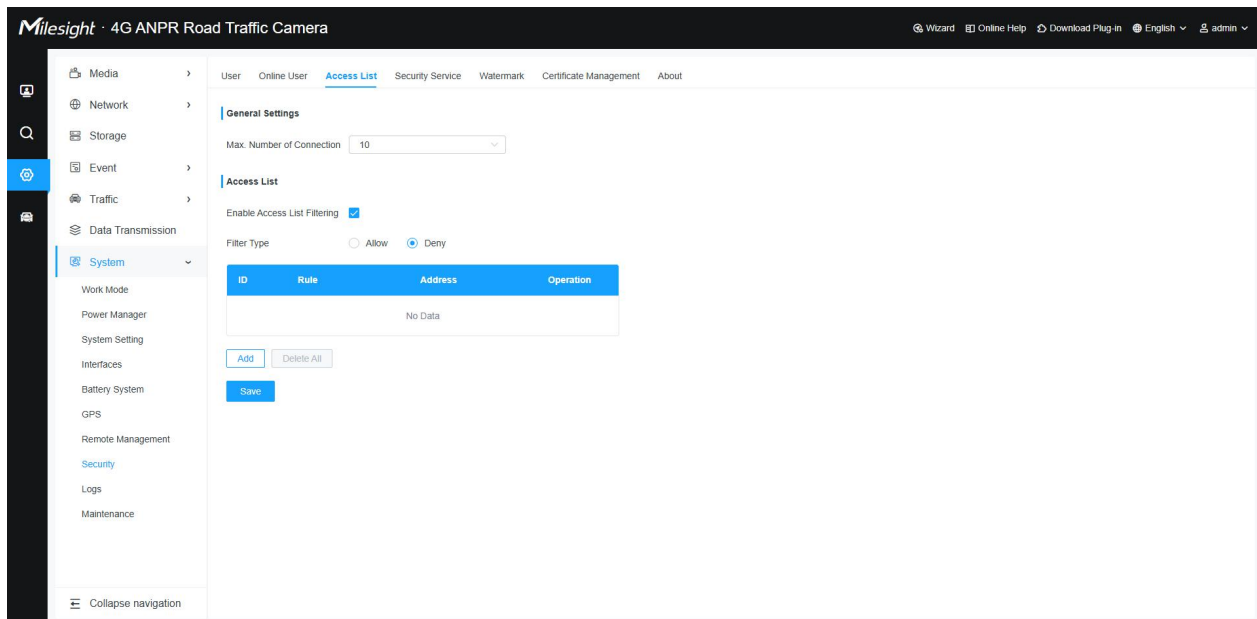


Table 85. Description of the buttons

Parameters	Function Introduction
General Settings	Max. Number of Connection: Select the maximum number of concurrent streaming. Options include No Limit, 1~10.

Parameters	Function Introduction
Access List	Enable Access List Filtering: Able to access or restrict access for some IP address.
Access List	Filter type: Allow or deny access.
	Rule: Single, Network and Range are available. IP address: Input the address to get the access to the device.
	Delete all the access list.
	Edit the selected IP on access list.
	Delete the selected IP on access list.
	Save the configuration.

11.8.4 Security Service

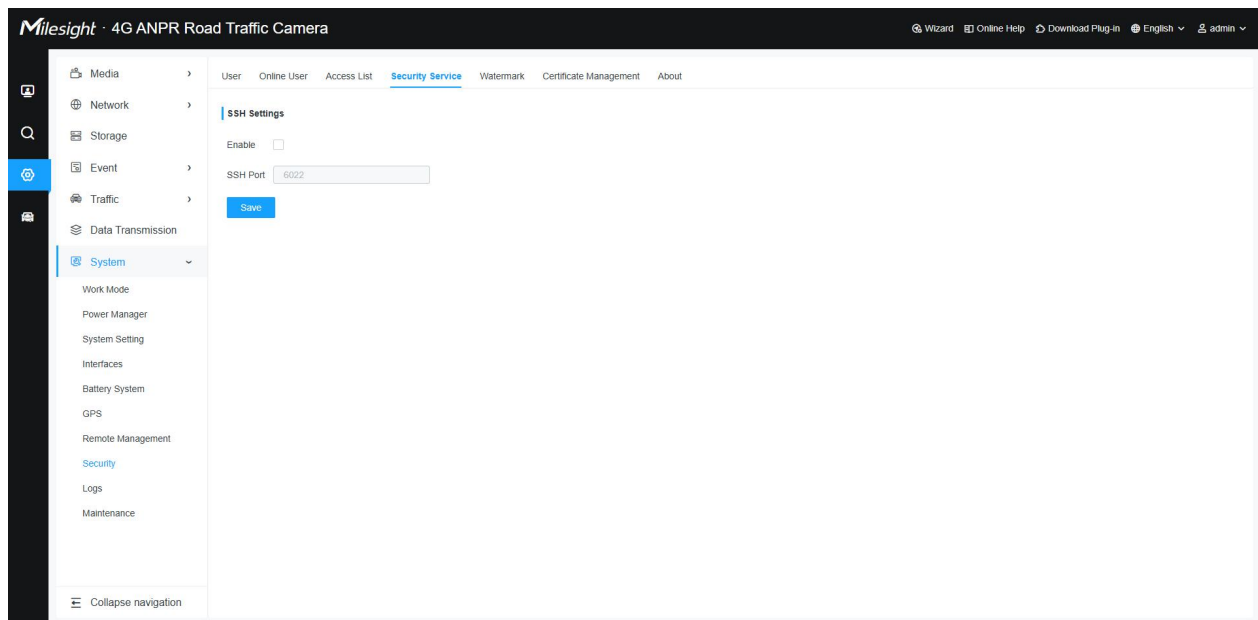
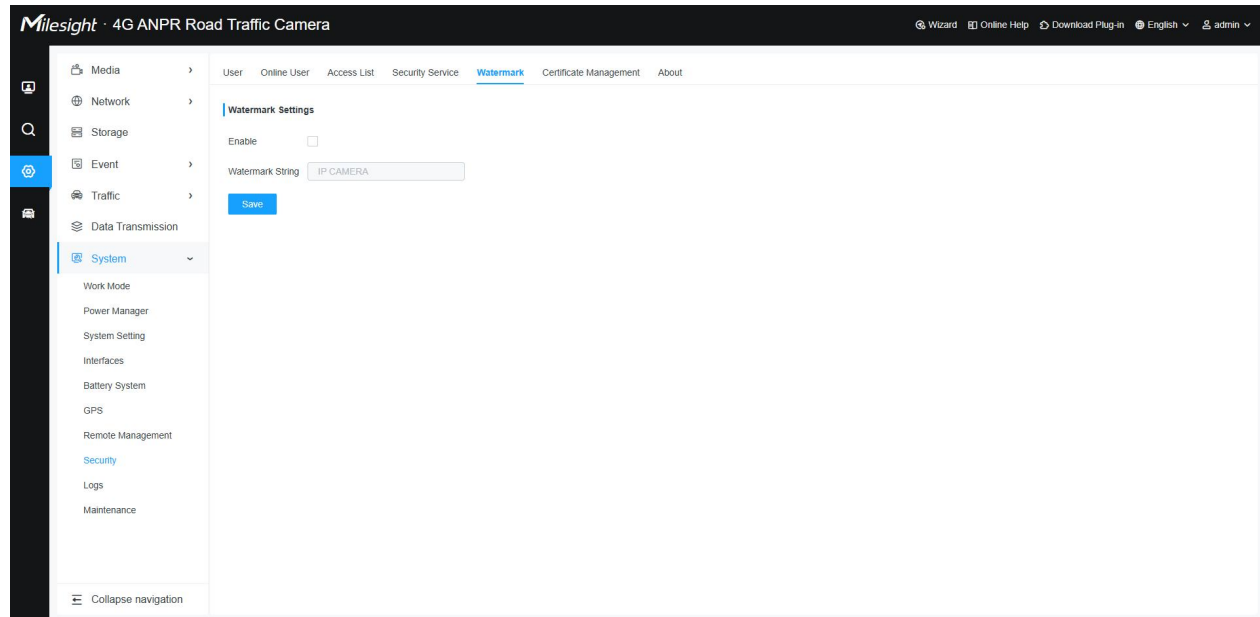


Table 86. Description of the buttons

Parameters	Function Introduction
SSH Settings	Secure Shell (SSH) has many functions: it can replace Telnet and also provides a secure channel for FTP, POP, even for PPP.

11.8.5 Watermark



Watermarking is an effective method to protect information security, realizing anti-counterfeiting traceability and copyright protection. Milesight Network cameras supports Watermark function to ensure information security.

11.8.6 Certificate Management

This section describes the information about certificate management.

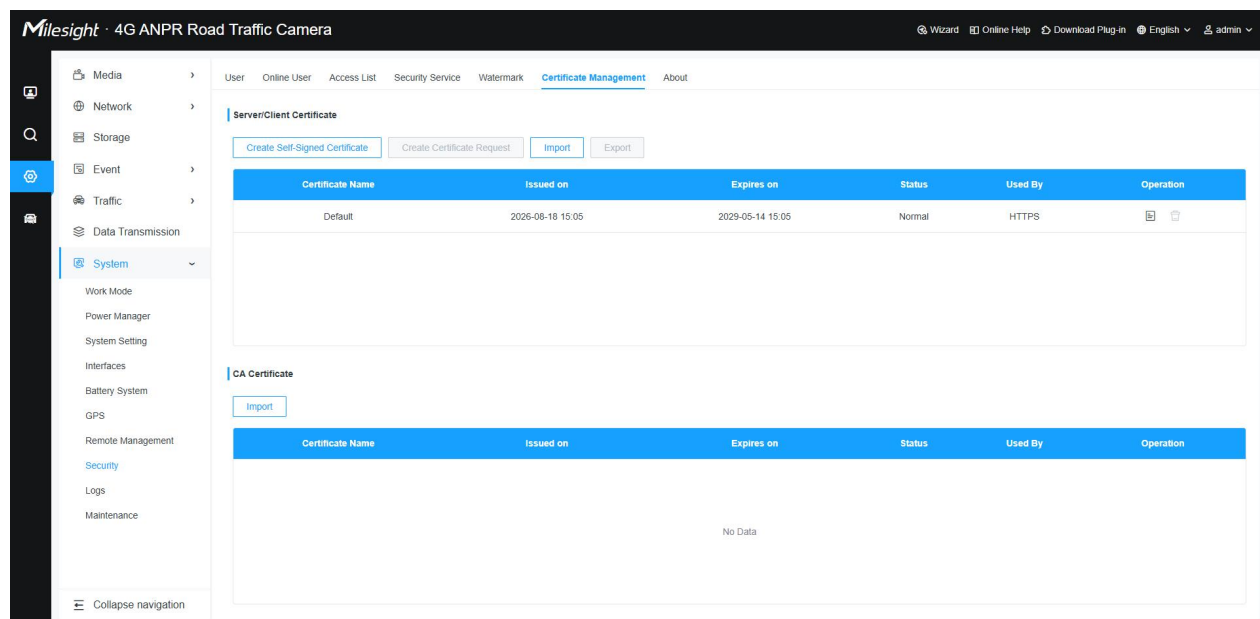
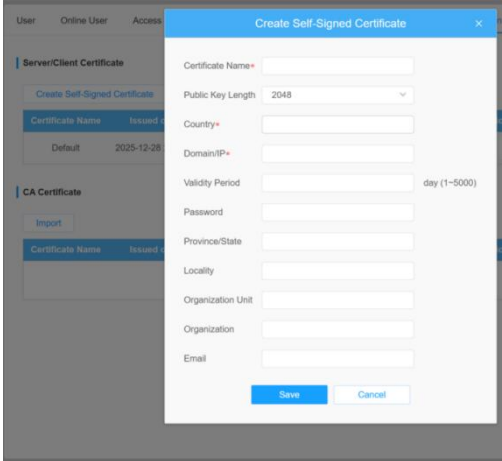
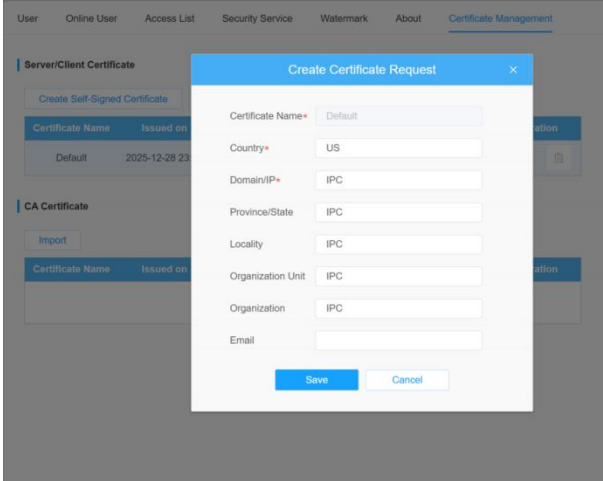
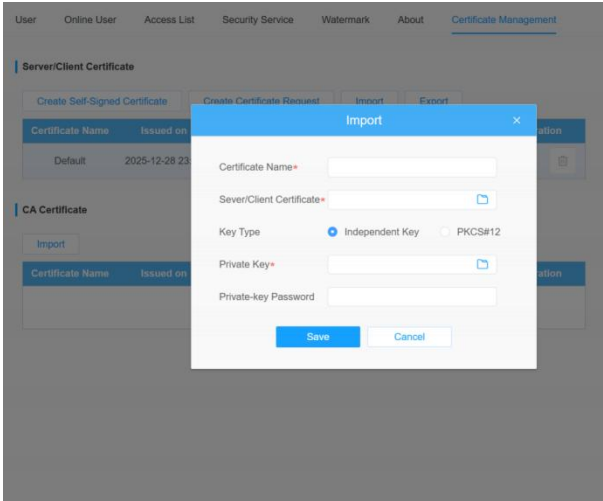
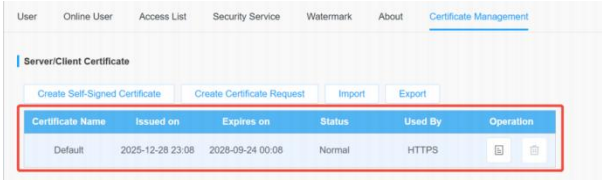
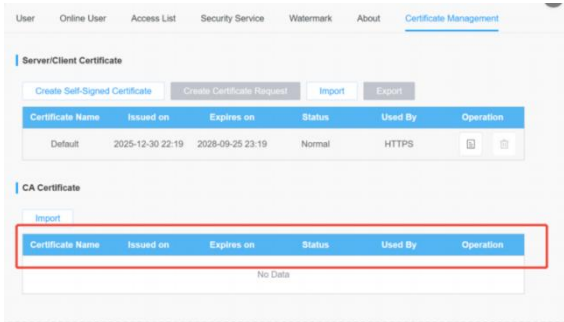
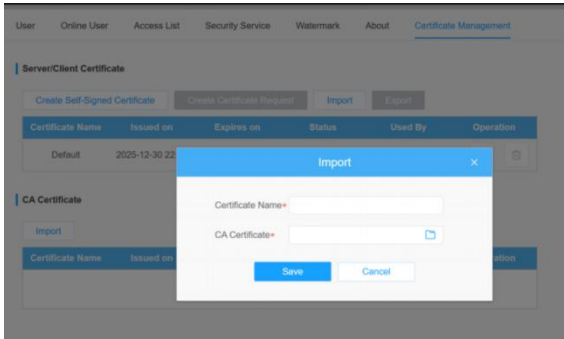


Table 87. Parameter Description

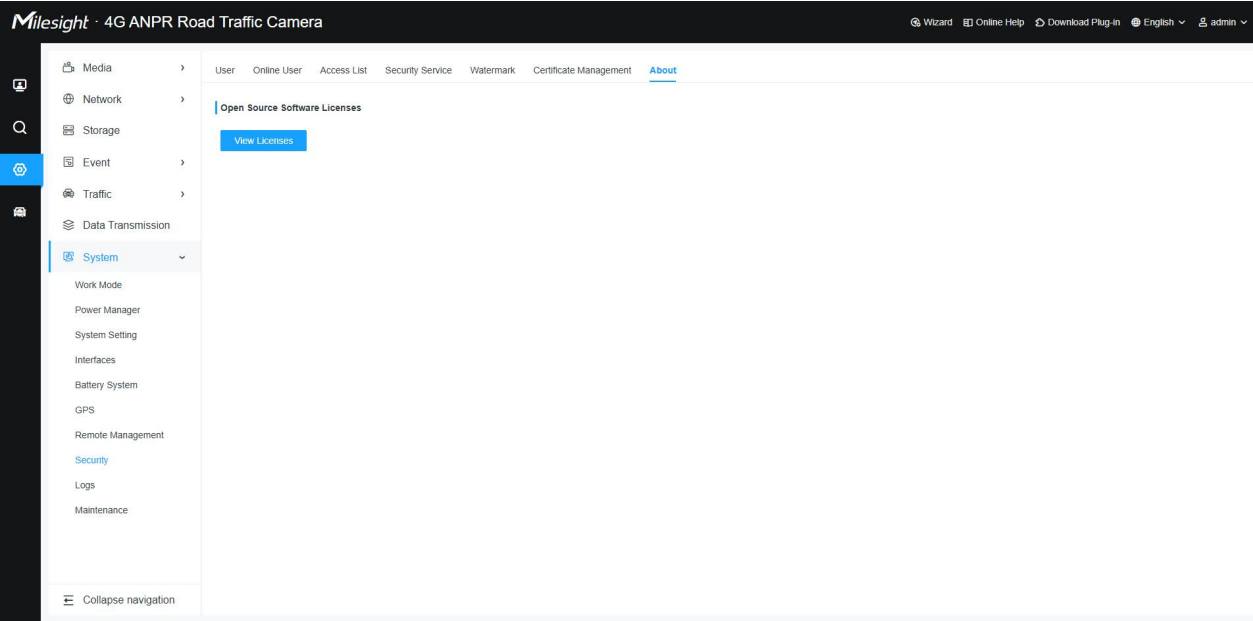
Parameters	Function Introduction
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Parameters	Function Introduction
Server/Client Certificate	Create Self-Signed Certificate: Click it to create a self- signed certificate. When you click it, the following buttons are displayed. Certificate Name: Enter a certificate name. Public Key Length: Select 1024 or 2048 for the public key length. Country: Enter a country. Domain/IP: Enter a domain or an IP. Validity Period: Enter a validity period (day) from 1 to 5,000. Password: Enter a password. Province/State: Enter a province or state. Locality: Enter a locality. Organization Unit: Enter an organization unit. Organization: Enter an organization. Email: Enter an email address. 

Parameters	Function Introduction
Server/Client Certificate	Create Certificate Request: Click it to create a certificate request. When creating a certificate request, you are advised to enter the following buttons: Certificate Name, Country, Domain/IP, Province/State, Locality, Organization Unit, Organization, and Email. 
Server/Client Certificate	Import: Import a certificate. Certificate Name: Enter a certificate name. Sever/Client Certificate: Import a sever or client certificate. Key Type: Select Independent Key or PKCS#12. Private Key: Import a private key. Private-key Password: Enter a private-key password.  Export: Click it to export the certificate.

Parameters	Function Introduction
Server/Client Certificate	 Certificate Name: Certificate name. Issued On: The Issue time of the certificate. Expires On: The validate period of the certificate. Status: The status of the certificate. Used By: The application method of the certificate. Operation: The following icons are displayed under the column of Operation.   Click the first icon to see the detailed information of the certificate; click the latter to delete the certificate.
CA Certificate	You can import CA certificates by clicking Import and configuring Certificate Name and CA Certificate. There also have Certificate Name, Issued On, Expires On, Status, Used By, and Operation options.  

11.8.7 About



User can view some open source software licenses about the camera by clicking the View Licenses button.

11.9 Logs

11.9.1 Logs

The logs contain the information about the time and IP that has accessed the camera through web.

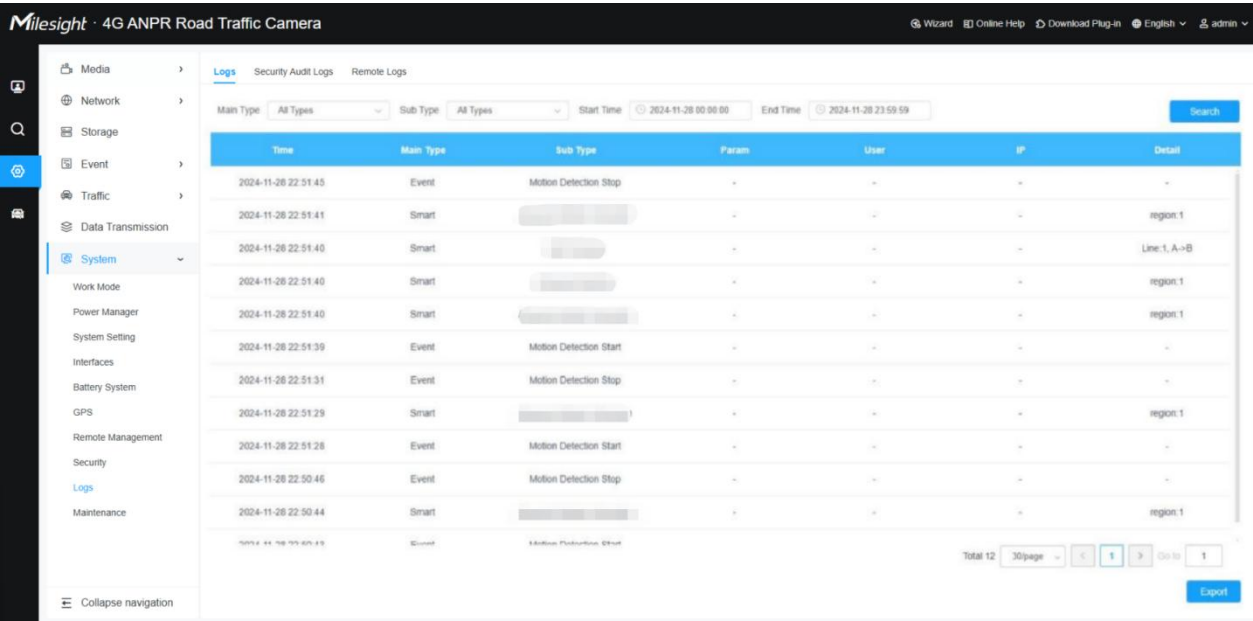


Table 88. Description of the buttons

Parameters	Function Introduction
Main Type	There are five main log types: All Type, Event, Operation, Information, Exception and Smart.
Sub Type	On the premise that main type has been selected, select the sub type to narrow the range of logs.
Start Time	The time log starts.
End Time	The time log ends.
Search	Search the logs.
Export	Export the logs.
Go to	Input the number of logs' page.

11.9.2 Security Audit Logs

Time	Main Type	Sub Type	Param	User	IP	Detail
2024-11-26 22:40:39	Operation	RTSP Session Stop	-	admin	192.168.69.39	HTTP
2024-11-26 22:40:25	Operation	RTSP Session Start	-	admin	192.168.69.39	HTTP
2024-11-26 22:40:22	Operation	RTSP Session Stop	-	admin	192.168.69.39	HTTP
2024-11-26 22:40:09	Operation	RTSP Session Start	-	admin	192.168.69.39	HTTP
2024-11-26 22:40:06	Operation	RTSP Session Stop	-	admin	192.168.69.39	HTTP
2024-11-26 22:39:28	Operation	RTSP Session Start	-	admin	192.168.69.39	HTTP
2024-11-26 22:39:22	Operation	RTSP Session Stop	-	admin	192.168.69.39	HTTP
2024-11-26 22:39:18	Operation	RTSP Session Start	-	admin	192.168.69.39	HTTP
2024-11-26 22:25:21	Operation	RTSP Session Stop	-	-	192.168.69.39	RTSP
2024-11-26 22:25:21	Operation	RTSP Session Stop	-	-	192.168.69.39	RTSP
2024-11-26 22:25:14	Operation	RTSP Session Stop	-	admin	192.168.69.39	HTTP

Table 89. Description of the buttons

Parameters	Function Introduction
Main Type	There are five main log types: All Type , Operation , Information and Exception .
Sub Type	On the premise that main type has been selected, select the sub type to narrow the range of logs.
Start Time	The time log starts.
End Time	The time log ends.
Search	Search the logs.
Export	Export the logs.
Go to	Input the number of logs' page.

11.9.3 Remote Logs

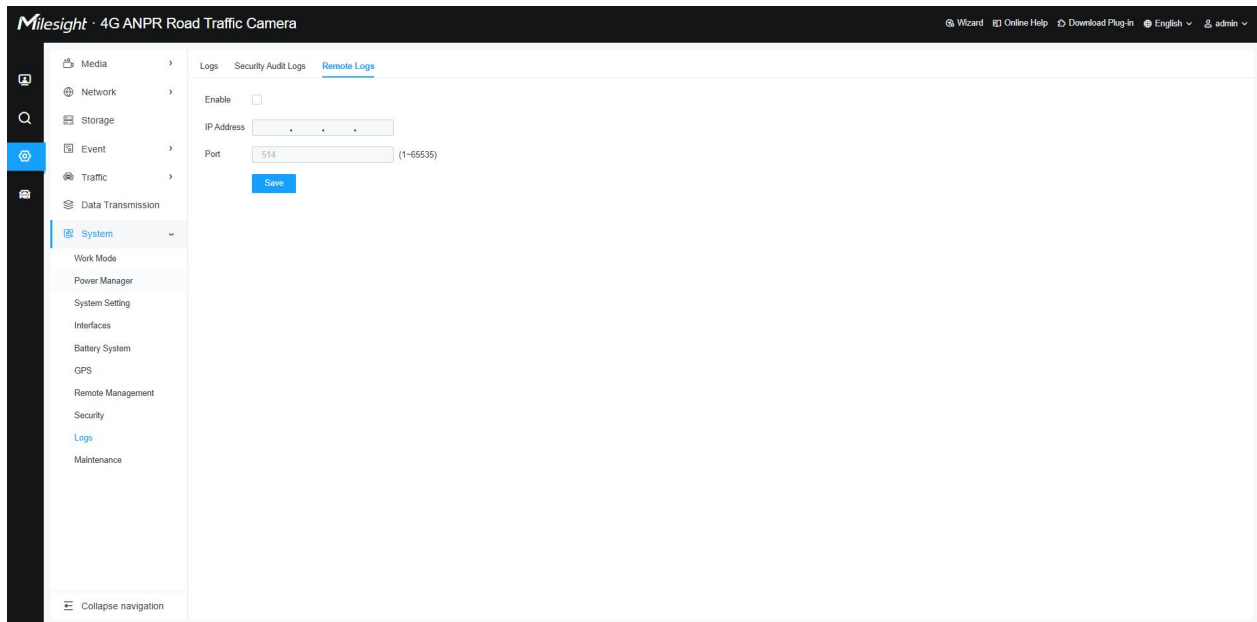


Table 90. Description of the buttons

Parameters	Function Introduction
Enable	Enable this checkbox to activate the Remote Logs feature. Logs can be sent to the target server.

Parameters	Function Introduction
IP Address	Enter the IP address of the target server where you wish to receive the logs.
Port	Enter the port number of the target server where you wish to receive the logs.
Save	Click this button to manually save the above operation.

11.10 Maintenance

11.10.1 System Maintenance

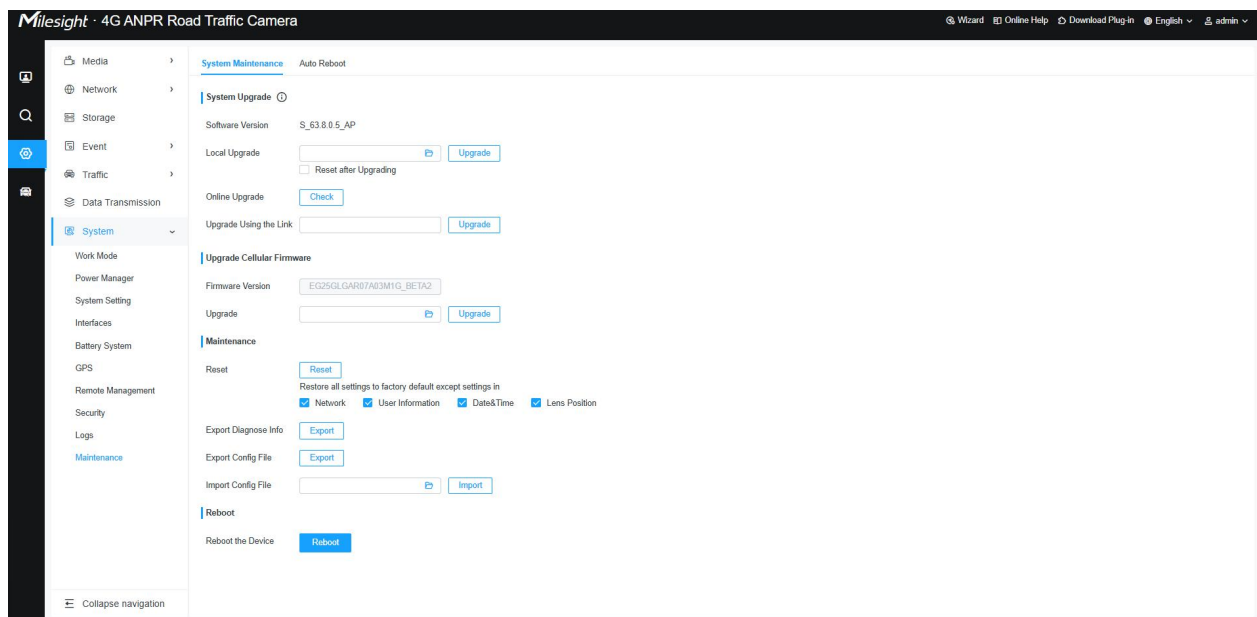
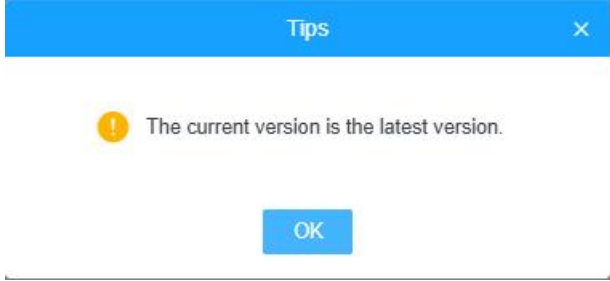
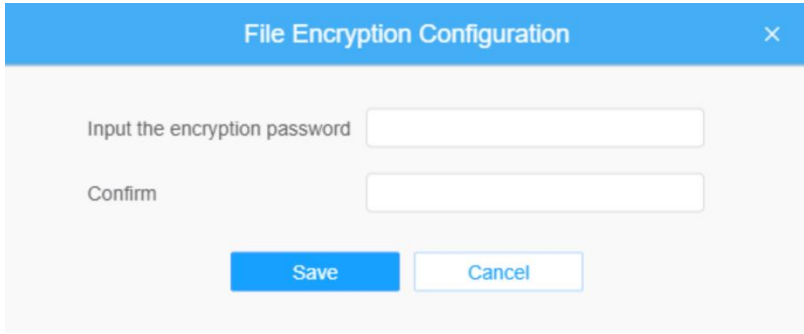
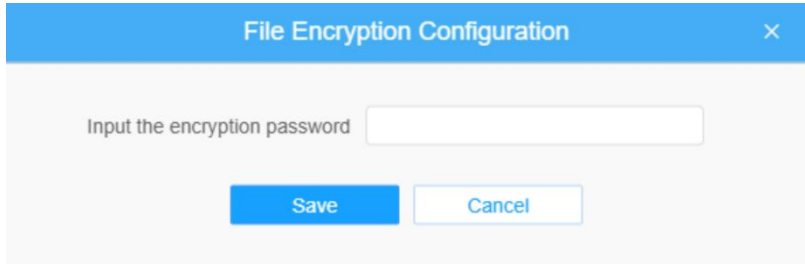


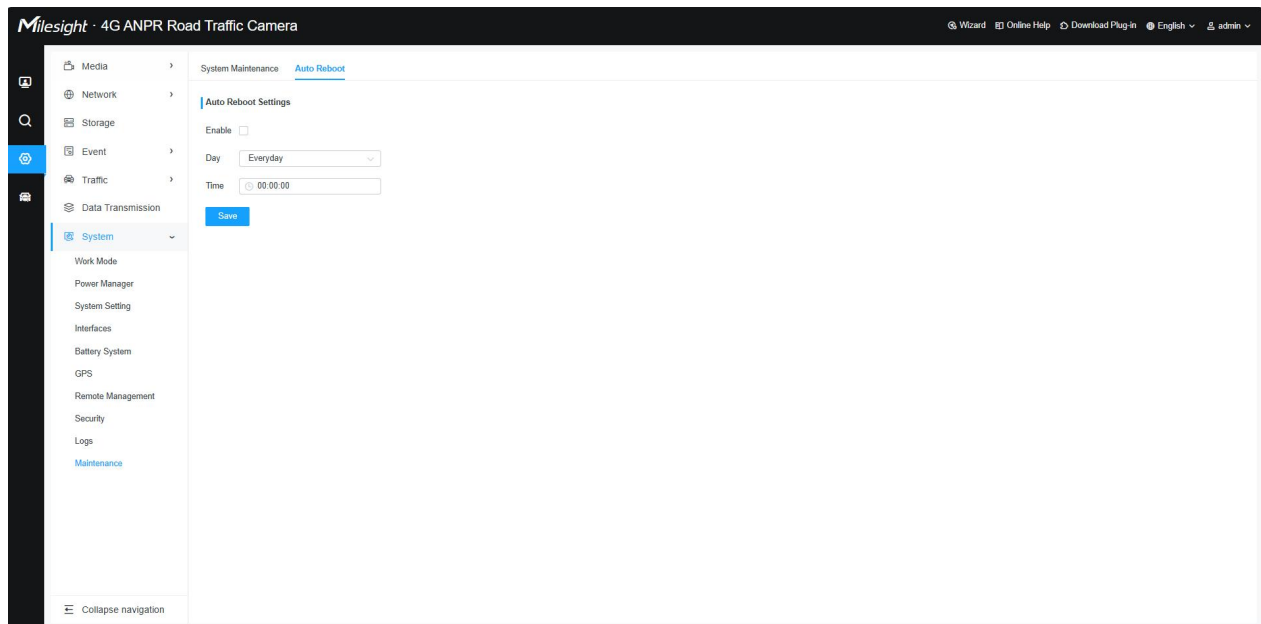
Table 91. Description of the buttons

Parameters	Function Introduction
System Upgrade	Software Version: The software version of the camera. Local Upgrade: Click the “Browse” button and select the upgrading file, then click the “Upgrade” button to upgrade. After the system reboots successfully, the update is done. You can check “Reset after Upgrading” to reset the camera after upgrading it.  Note: Do not disconnect the power of the device during the update. The device will be restarted to complete the upgrading. Online Upgrade: Click the "Check" button to check the current latest firmware version on our website, and then click "OK" to upgrade to this

Parameters	Function Introduction
	version. It will prompt "The current version is the latest version" if your camera is already the latest version.  Upgrade Using the Link: Input the firmware link to upgrade it directly.
Upgrade Cellular Firmware	Firmware Version: Display the current firmware version of the cellular module. Upgrade: Support selecting a firmware upgrade package for the cellular module and performing the upgrade.
Maintenance	Reset: Click "Reset" button to reset the camera to factory default settings. You can choose to retain network configuration, user information configuration, date & time configuration, and lens position during reset. Export Diagnose File: Click this button to export diagnose file. Export Config File: Click this button and a window will pop up as shown below:  You need to enter and confirm password again, then click save button to export configuration file. Import Config File: Click this button, then a window will pop up and you can click "OK" to update the configuration. It will pop up a window to prompt "Input the password of config file" , then enter password and click save button to import configuration file.

Parameters	Function Introduction
	 Note: Export and import the same configuration file. Password must be the same.
Reboot	Click the “Reboot” button to restart the device.

11.10.2 Auto Reboot



Set the date and time to enable Auto Reboot function, the camera will reboot automatically according to the customized time in case that camera overload after running a long time.

Chapter 12. Services

Milesight provides customers with timely and comprehensive technical support services. End-users can contact your local dealer to obtain technical support. Distributors and resellers can contact directly with Milesight for technical support.

Technical Support Mailbox: support@milesight.com

Web: <http://www.milesight.com>

Online Problem Submission System: <http://www.milesight.com/service/feedback.asp>

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