IP Camera

User Manual

V3.0.2

This manual is applicable to the following products:

F-SC241 / F-SC921 / F-SC431 / F-SC621 / F-SC332 / F-SC242

Xiamen Four-Faith Communication Technology Co., Ltd.

https://www.fourfaith.com

Document Revision History

Date	Version	Note	Author
2019-05-01	V1.0.0	Initial Version	Wayne
2020-12-01	V1.1.0	Add Latest Products and New Features Instruction	Jonas
2021-06-22	V1.1.1	Update Product Line Graph	Jonas
2021-07-08	V2.0.0	New Version	Jonas
2023-11-06	V3.0.0	New Version	Yulong
2024-04-09	V3.0.1	Installation method of adding a straight arm bracket	Leon
2024-04-09	V3.0.2	Adding 242 Back Cover Description	Yulong

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Note: There may be differences between models of accessories and interfaces, actual products shall prevail.

CONTENTS

Chapter 1 Introduction

1.1 General

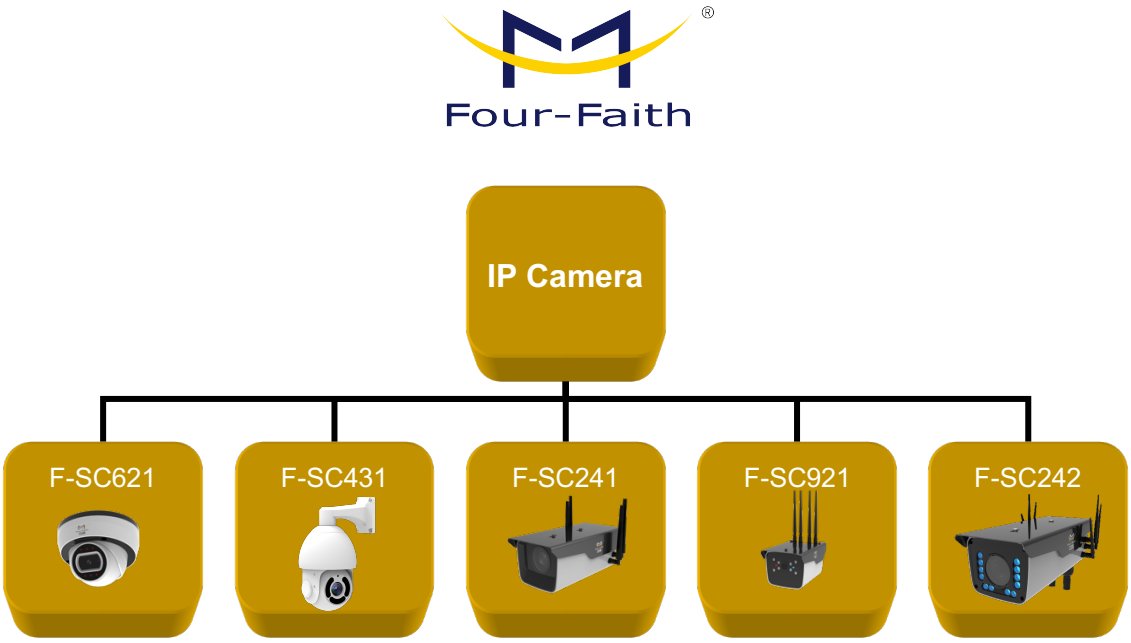
Four-Faith IP Camera series provides a comprehensive range of security and surveillance solution to meet users' requirement. The cameras can be set up in a network and controlled or managed locally and remotely. Users can use it as an independent monitoring camera or connect to an NVR to build a surveillance system. With the APP and cloud platform, users will be able to access the camera on a mobile phone and other computer devices.

Four-Faith cameras use the high-performance CPU and other industrial-grade units, with the embedded real-time operating system as the software support platform. The cameras support H.265/H.264/MJPEG video compression algorithm and industry-leading HD dual-stream technology to achieve the highest level of video image quality under the limited network resources. It is fully functional, supporting for flexible and comprehensive alarm linkage mechanism, day and night auto switch, smart PTZ control and privacy masking, etc.*

The product has been widely used in the M2M industry of the IoT industrial chain, such as smart grid, intelligent transportation, smart home, finance, mobile POS terminals, supply chain automation, industrial automation, intelligent building, fire protection, public safety, environmental protection, meteorology, digital medical, telemetry, agriculture, forestry, water, coal, petrochemical and other related fields.

*Only available for specific models

1.2 Product Line



1.3 Word Definition

Word	Explanation
IPC	IP Camera
H.264	Advanced Video Coding (MPEG-4 AVC) is a block-oriented motion-compensation-based video compression standard.
H.265	High Efficiency Video Coding(HEVC), also known as H.265 and MPEG-H Part 2, is a video compression standard, designed as a successor to the widely used AVC (H.264 or MPEG-4 Part 10).
MJPEG	Motion JPEG (M-JPEG or MJPEG) is a video compression format in which each video frame or interlaced field of a digital video sequence is compressed separately as a JPEG image.
SIP	The Session Initiation Protocol (SIP) is a signaling protocol used for initiating, maintaining, and terminating real-time sessions that include voice, video and messaging applications.
WDR	Wide Dynamic Range (WDR) is a term used in the surveillance camera industry to refer to high-dynamic-range imaging.
RTSP	The Real Time Streaming Protocol (RTSP) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers.

Chapter 2 System

2.1 Structure & Diagram

2.1.1 IPC Working Principle Diagram

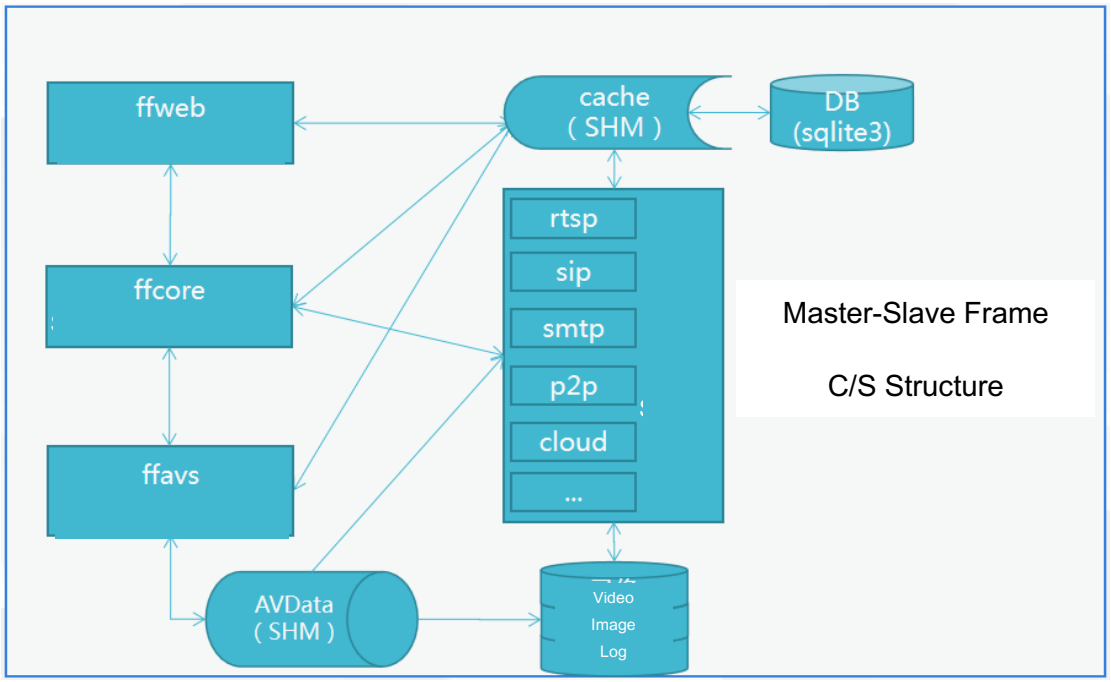


Diagram 2.1.1 IPC System Structure

2.1.2 IPC Cloud Management Structure

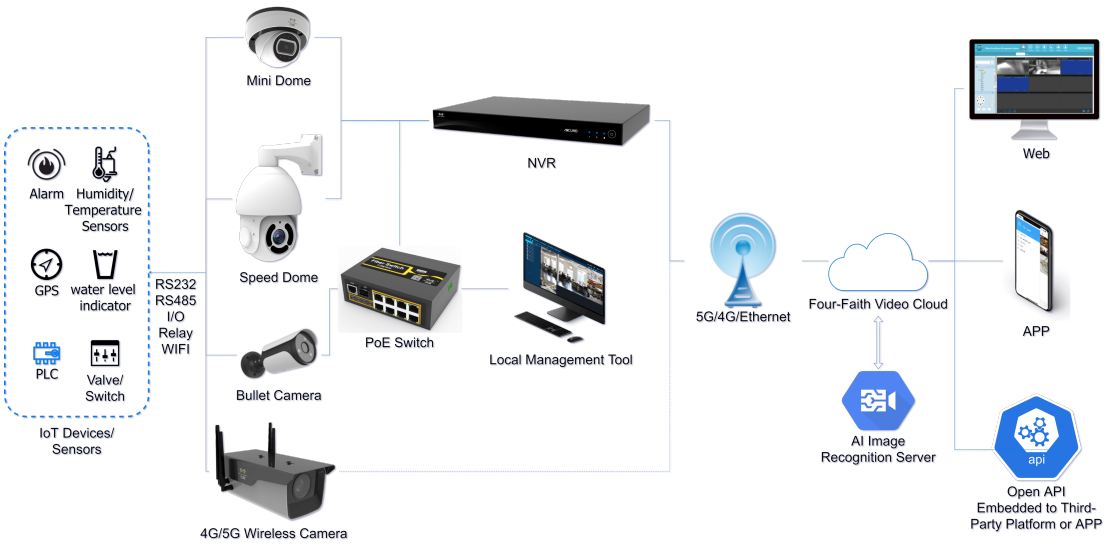


Diagram 2.1.2 Cloud Management Structure

2.2 Features

2.2.1 Network

- Ethernet: 1*RJ45 10M/100M Ethernet Port
- Network Storage: NFS、CIFS/SMB
- Protocol: IPv4/IPv6, TCP, UDP, RTP, RTSP, RTCP, HTTP, HTTPS, DNS, DDNS, DHCP, FTP, NTP, SMTP

2.2.2 System

- Storage: Support Micro SD/SDHC/SDXC Card Local Storage, up to 128G
- Advanced Function: Motion Detection, Privacy Masking, Backlight Compensation, HLC, 2D DNR, 3D DNR, ROI, Anti-fog, White Balance, EIS, IP Address Filtering
- Event Trigger: Motion Detection, Network Disconnection, External Input, Audio Alarm, etc.
- Event Action: FTP Upload/SMTP Upload/SD Card Record or Snapshot
- System Compatibility: Onvif Profile S, GB/T28181

2.2.3 External Interface

- Power: DC-12v or POE
- Audio: 1*
- Alarm: 1 Alarm In+1 Alarm Out (Port can Drive 12V or 5V Relay)*
- Relay Out: 1 Relay OUT*
- ADC In: 1 8bit IN*
- UART Port: TTL@115200bps Or Expansion for RS485*

* = Optional

2.2.4 Cloud Platform

- Remote web server device management cloud platform for user to do remote status monitoring, configuration and update, etc.

2.2.5 Other Web Functions

- Local web server for device configuration, system maintenance, storage management, video monitoring, etc.
- Video Playback: Support video playback on web browser
- NTP: NTP with RTC, support timed reboot, scheduled power on or off
- Internet: Support IPv4 & IPv6, including static IP and DHCP.
- External PTZ: RS232/RS485 + Pelco-D

2.3 Performance

2.3.1 Streaming Concurrency

Support maximum 10 ways video real-time streaming when all 3 stream types are on. (Primary, Secondary and Tertiary stream. 2 ways 1080P, 1 way D1 30fps, using H264/H265/MJPEG)

2.3.2 Video Storage

Support 1 way SD card scheduled video recording & image capture, multi-way SD card alarm recording & capture.

Chapter 3 Operating Environment

3.1 Computer Requirement

- Recommended Windows 8 and above.
- IE 11 or above.

Attention:
When playing in browsers that do not use the IE kernel, the frame rate may be restricted, causing the video to be not smooth.

3.2 Connection

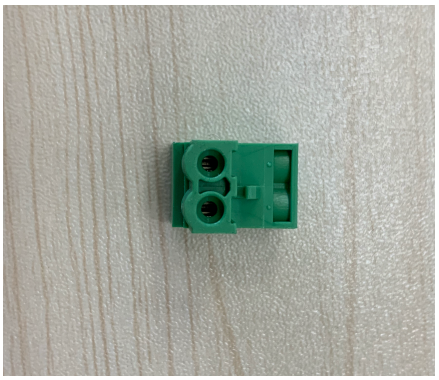
3.2.1 Equipment Power Supply

Four-Faith IP camera supports PoE power supply and DC 9-60V wide voltage power supply. Users can choose one of the power supply modes to power the equipment. The power supply and network interface can be seen at the end of the camera after the screws around the cover plate are removed.

When the device is normally powered on, the infrared light at the front of the camera will flash quickly, and there will be a slight clicking sound inside the lens. At the same time, when the back cover is opened, it can be seen that there are lights inside.

Power interface diagram:

Terminal Interface (F-SC241/431)



DC interface (other models)

The camera is divided into POE-powered and non-POE-powered types.

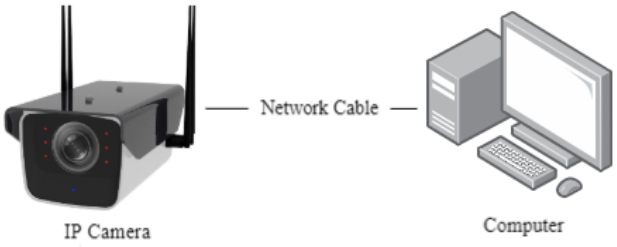
1. Non-POE Powered: Powered by a standard 12V adapter.

2. POE Powered: Directly powered through the network cable (standard POE 48V power).

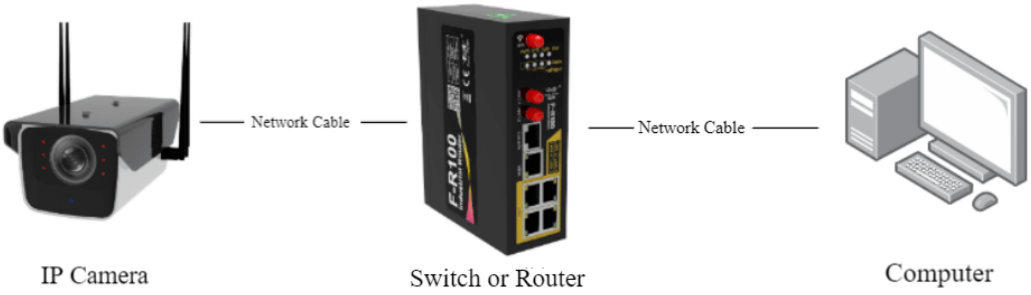
3.2.2 Network Connection

The camera can be connected to the computer for debugging and configuration in the following ways:

1. Direct computer connection

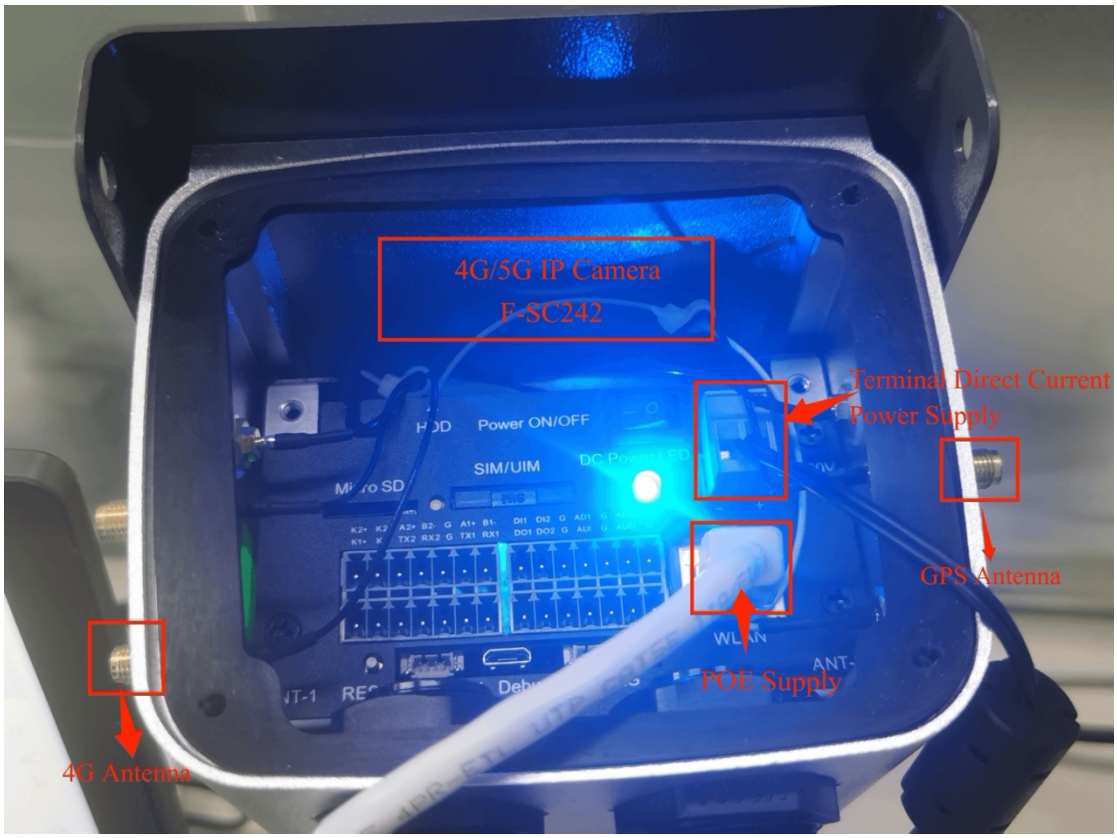


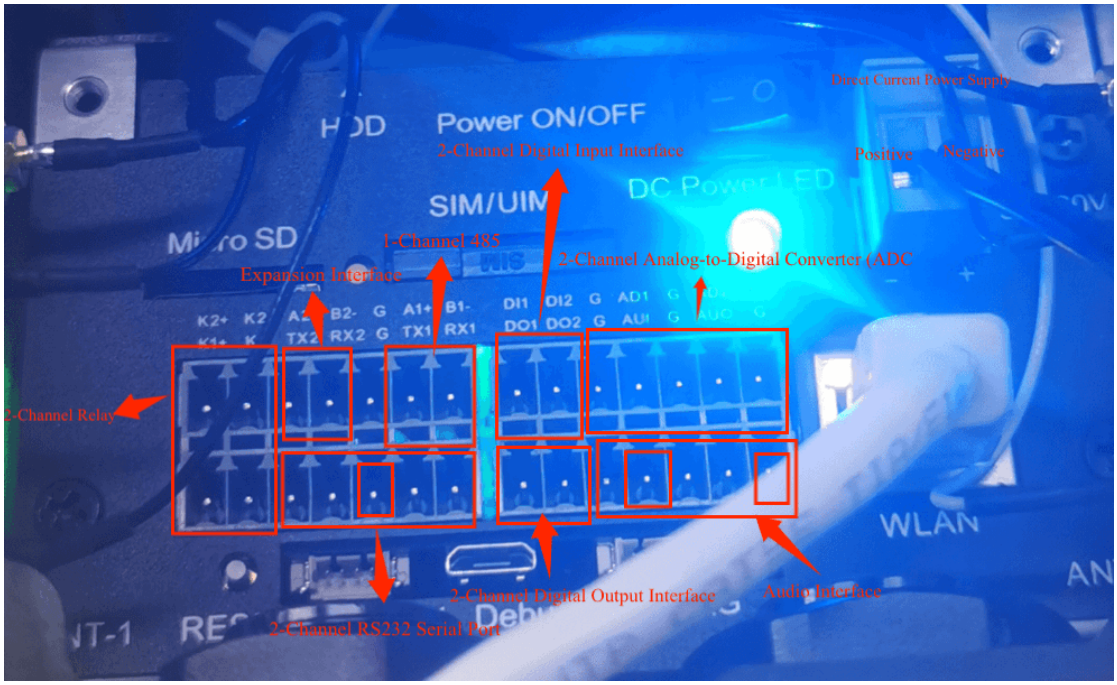
2. Connect through a switch or router



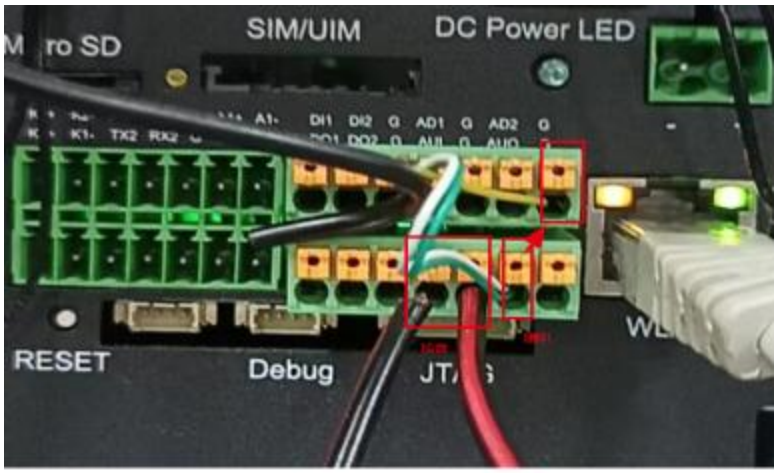
3.2.3 Interface Display

4G/5G IP Camera: F-SC242

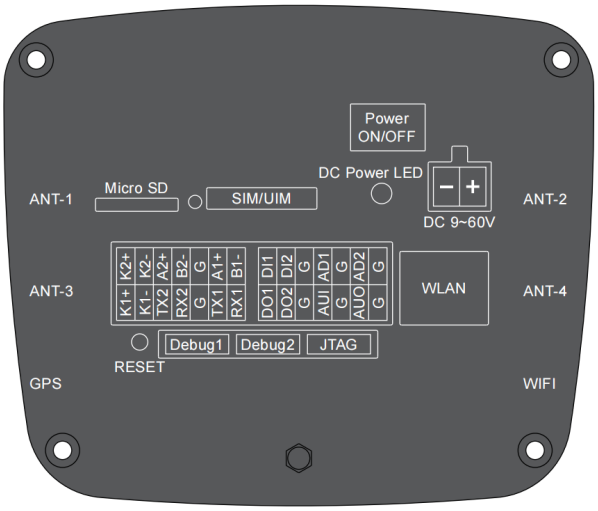




Audio Wiring: Connect the pickup to AUI and G, and the microphone to AUO and G.



Display of F-SC242 Back Cover Interface Description:



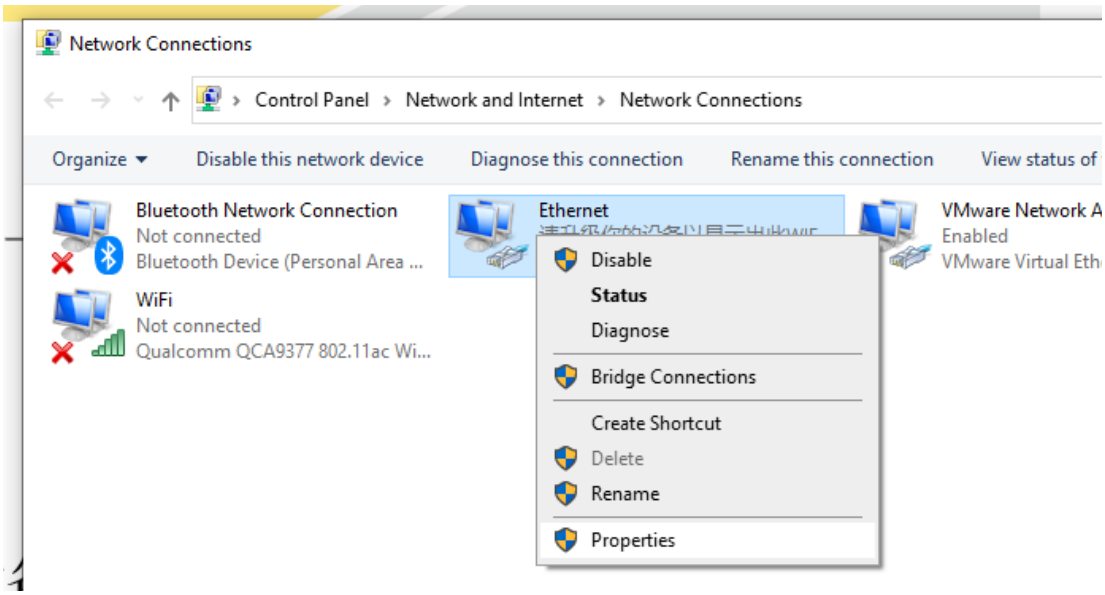
Interface Type	Interface	Definition	Value
RELAY1	K1+, K1-	Load capability	5A 250VAC/30VDC
RELAY2	K2+, K2-	Load capability	5A 250VAC/30VDC
RS232	TX1, RX1	Input/output	
RS485	A1+, B1-	Input/output	
RS232	TX2, RX2	Input/output	
RS485	A2+, B2-	Input/output	
DI	DI1, DI2	Input ON	0V~1.2V
		Input OFF	1.2V~12V
DO	DO1, DO2	Output	500mA 5V(Default)/12V
Audio In	AUI	Input	
Audio Out	AUO	Output	
ADC In	AD1, AD2	Input	4~20mA or 0~5V
	RESET	Input	RESET Configuration
	Debug1	Input/output	CPU Debug
	Debug2	Input/output	CPU USB Debug
	JTAG	GND-G	MCU Debug TTL
	GND-G		

3.2.4 Access to Devices

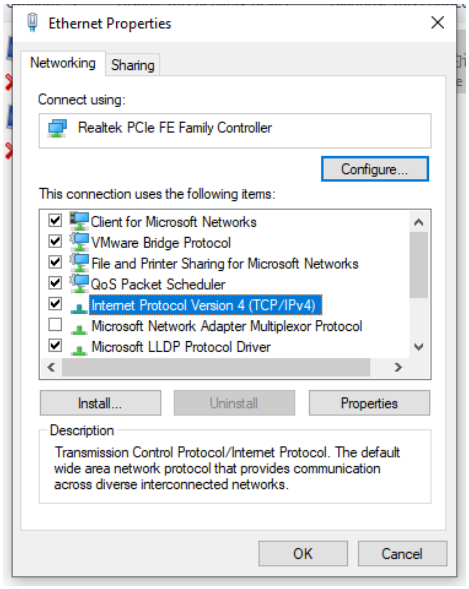
Factory default configuration page address of IPC is http://192.168.1.100. Default user name is admin, the password is xmsx1234. If the computer and the camera are in a different network segment so that customer cannot directly access the camera from the computer.

In the case of a direct computer connection, it is necessary to set a fixed IP address for the computer first. The specific operation is as follows:

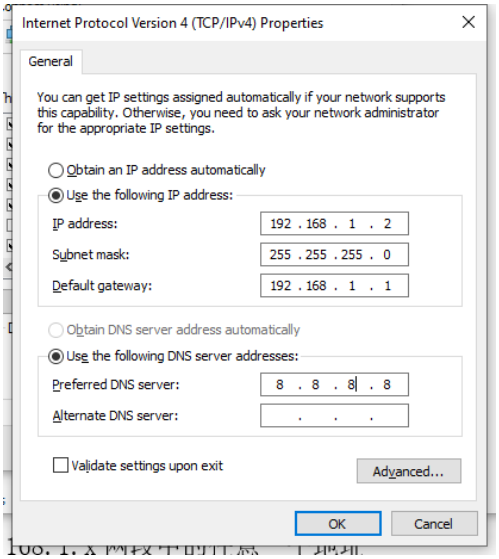
1. Open the Network Connections page of the computer and right-click the Ethernet and choose properties.



2. Modify IPv4.



3. Set the COMPUTER IP to any address in 192.168.1.x network segment.

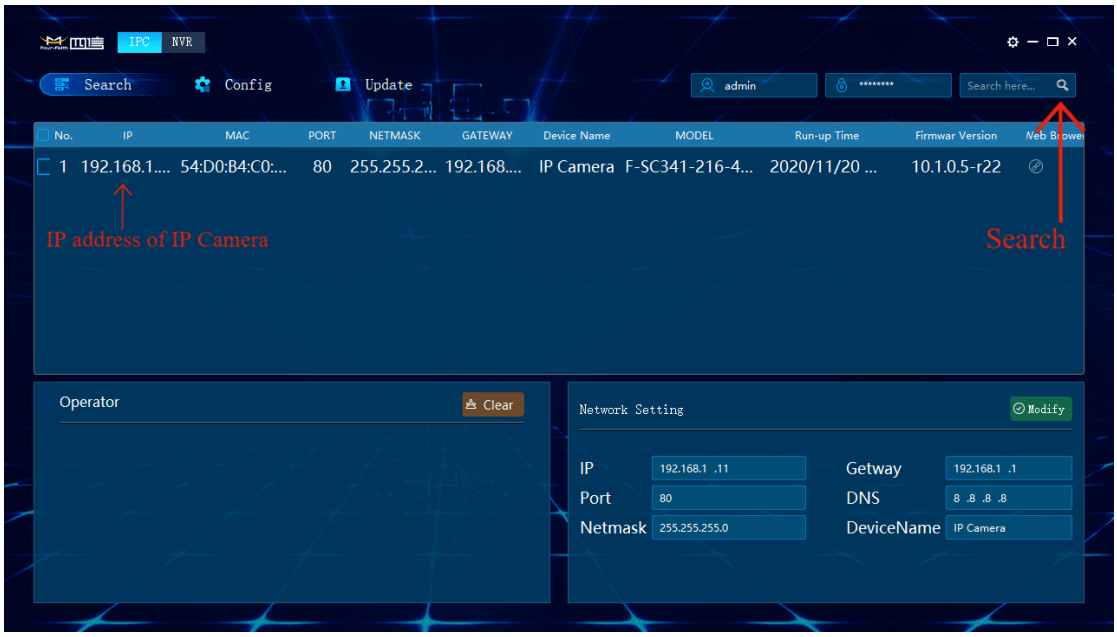


4. Try to access the IP camera configuration web page http://192.168.1.100 from Internet Explorer.

3.2.5 Device Search and IP Setting

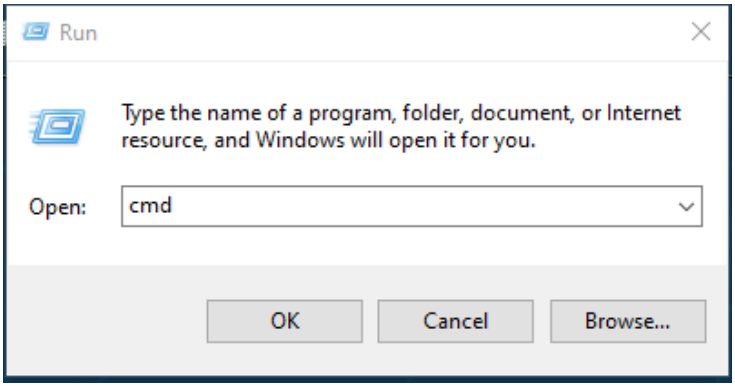
When customer using a switch or router to connect, the device may not be able to access because the camera is in a different network segment from the computer and router. At this time, customer needs to use search tools to search IPC device for configuration.

Open Incisive Tools and click the search button. The tool will search all camera devices under the same LAN and list them together.

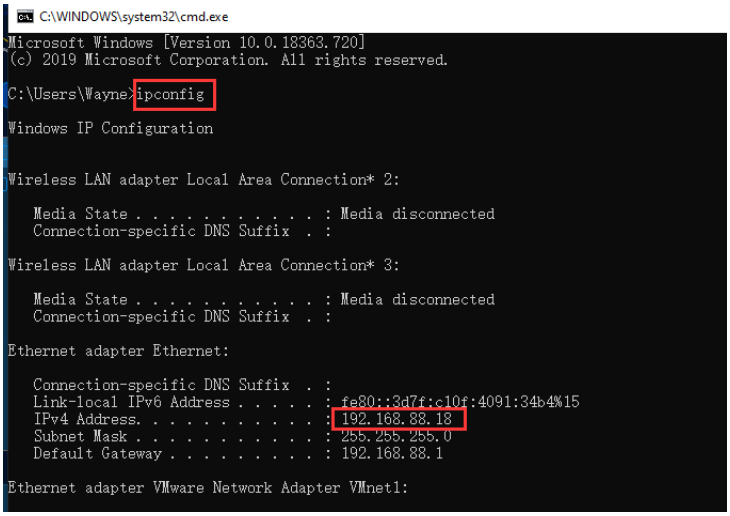


Please confirm whether the IP address of the IP camera is in the same network segment as the computer. Otherwise, the configuration of the camera cannot be accessed. The following processes can use for obtain the network segment where the computer is located:

Press Win+R on a Windows computer to open the CMD:

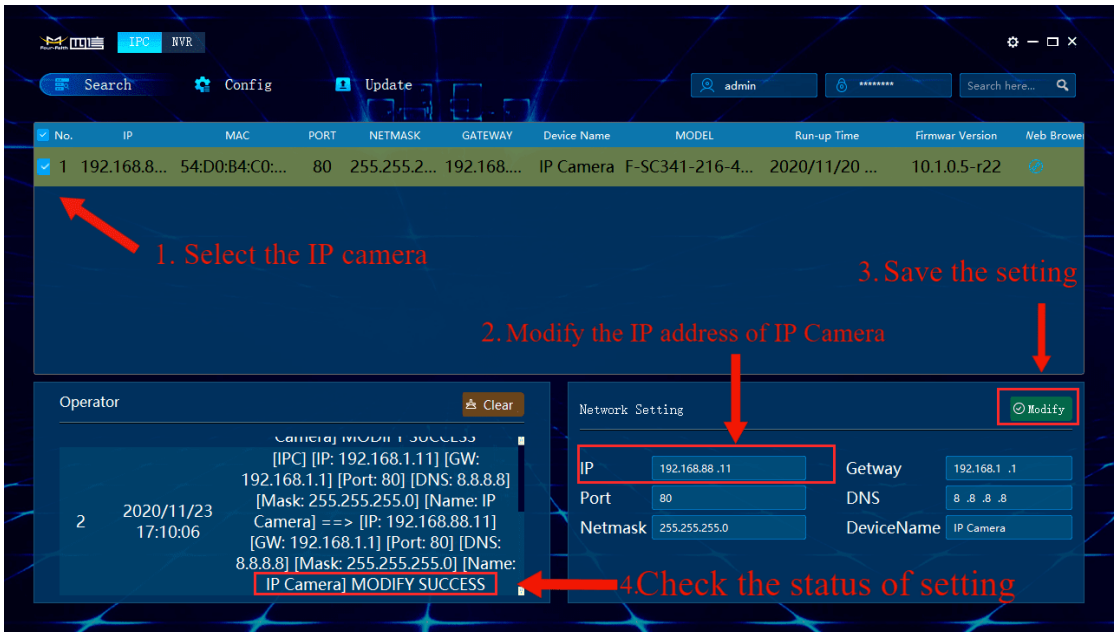


Enter ipconfig in the command bar and press Enter:



If the network segment of the computer is 192.168.88.x, the IP of the IP camera should also be changed to 192.168.88.x. If the network segment of the computer is 192.168.0.x, the IP of the camera should be changed to 192.168.0.x, and so on.

In the search tool, the IP of the device can be directly modified in batches. The specific processes are as follows:

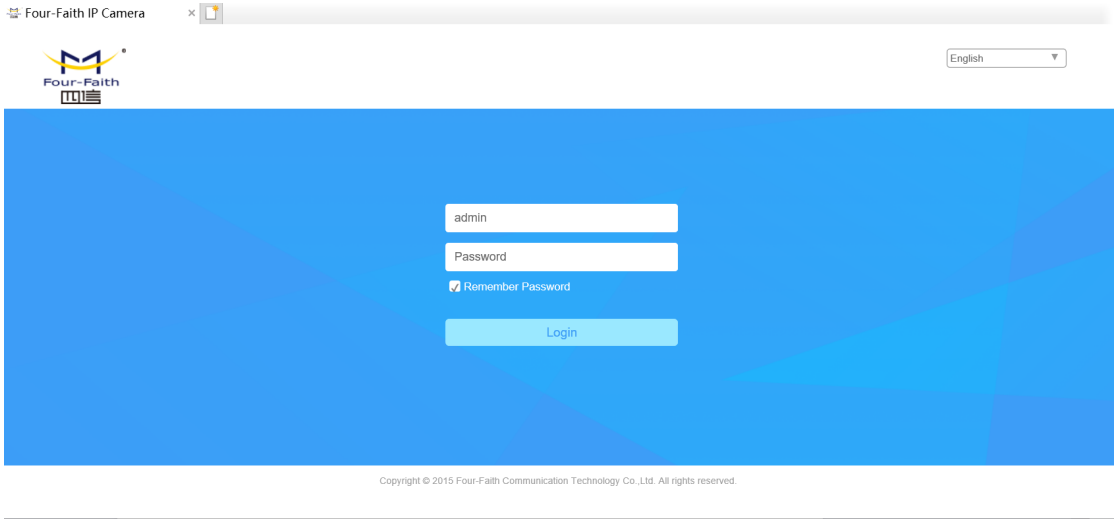


For information about the Incisive Tools, please refer to the user manual of the Incisive Tools.

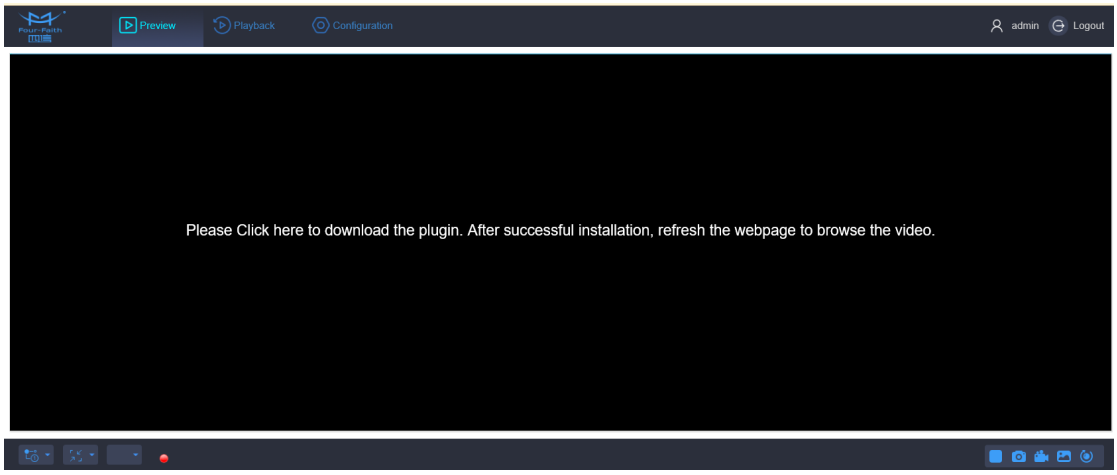
3.2.6 Device Login

1. Open IE browser (IE 8.0 or above) and enter the IP address of IPC.
2. Enter ID and password to login.

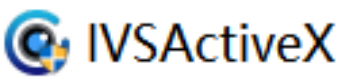
Notice:
1. Initial account of standard version: admin; Password: xmsx1234.
2. The version before V1.0.0.5, password is ff2018.



3. The user needs to install the video plug-in when the user login to IE for the first time. Click and download the video player plug-in.

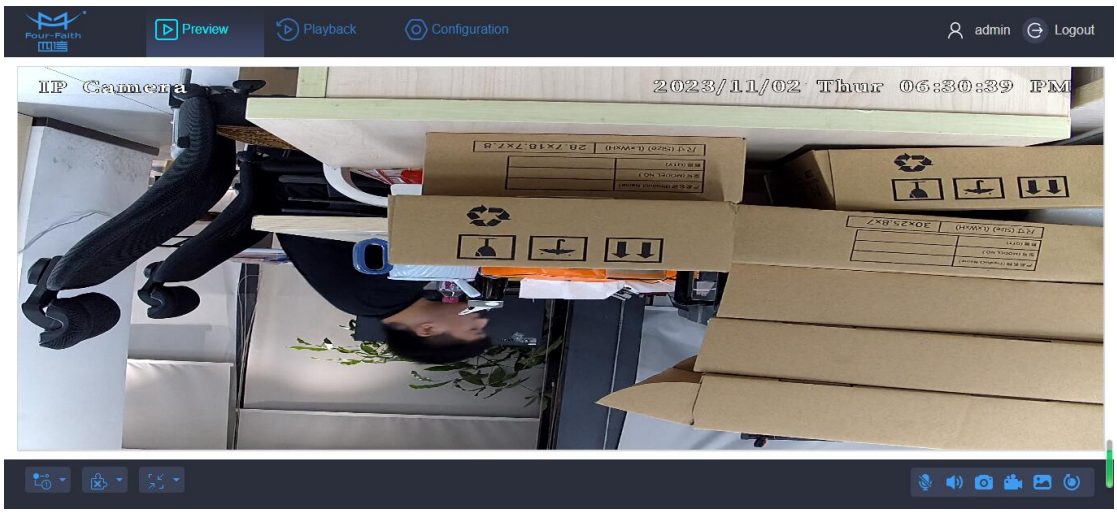


4. After finish downloading, install the video plug-in.



The latest cameras currently support plugin-free preview.

5. After finish installing the video plug-in, refresh the IE. Users can check real-time video monitoring on IE and user can operate different functions of IPC on this web interface.

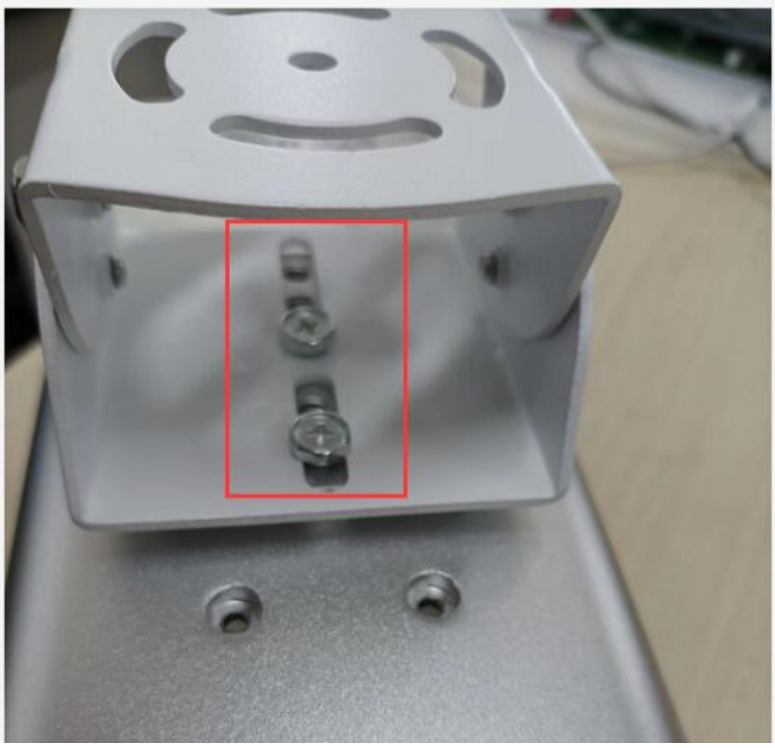


3.3 Mounting method

3.3.1 IPC Mounting Method

1. Universal joint bracket fixation

   a) The bracket is fixed to the bottom of the camera using screws.

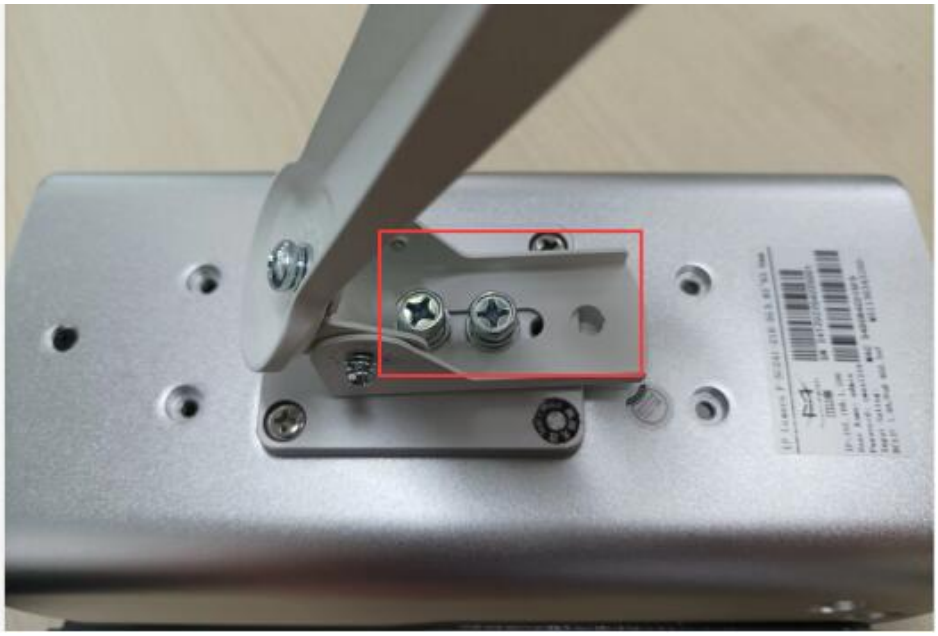


   b) The gimbal bracket is adjusted and fixed with screws to control the tilt angle and can be disassembled.

c) The bottom of the gimbal bracket is usually fixed with screws and crossbars. When fixing, it is necessary to first disassemble the bottom part.

2. The fixed straight arm

a) The bracket is fixed to the bottom of the camera with screws.

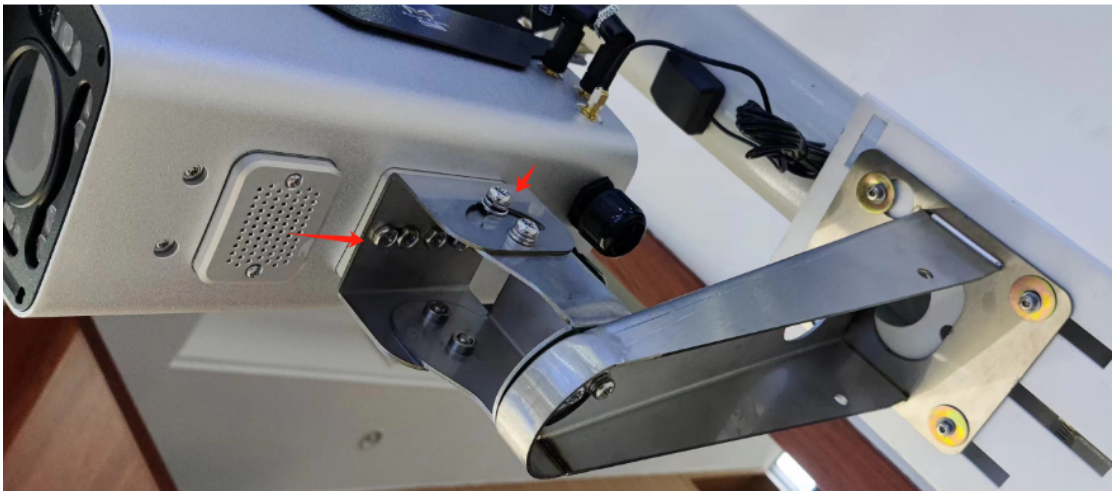


b) The bracket's side can be adjusted for tilt angle using screws.

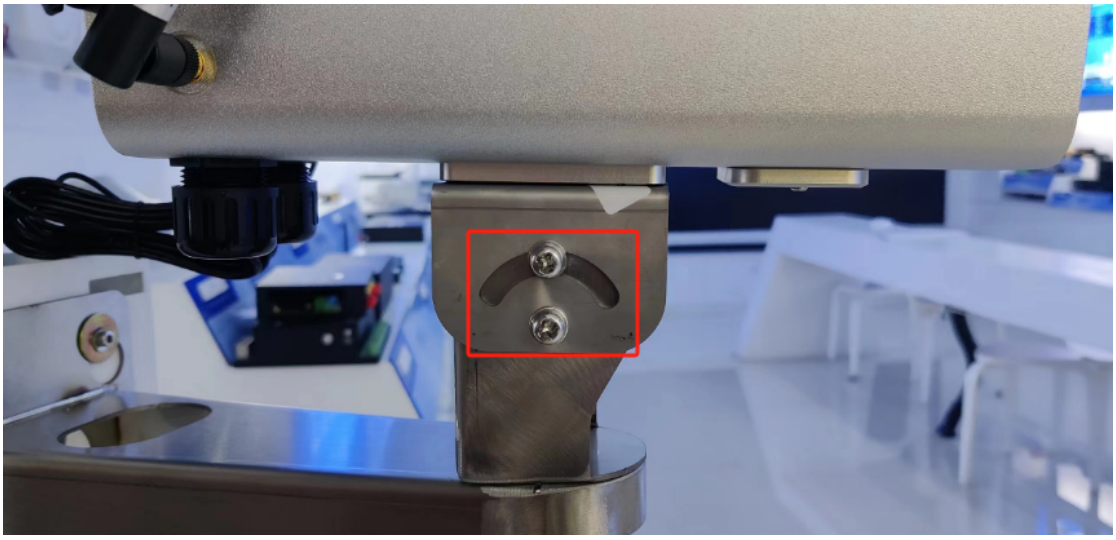
c) The bottom of the straight arm bracket can be fixed to a specific location using screws, typically on a wall.

3. The fixed straight arm (Big size)

A) The bracket is fixed to the bottom of the camera with screws



B) The bracket's side can be adjusted for tilt angle using screws.

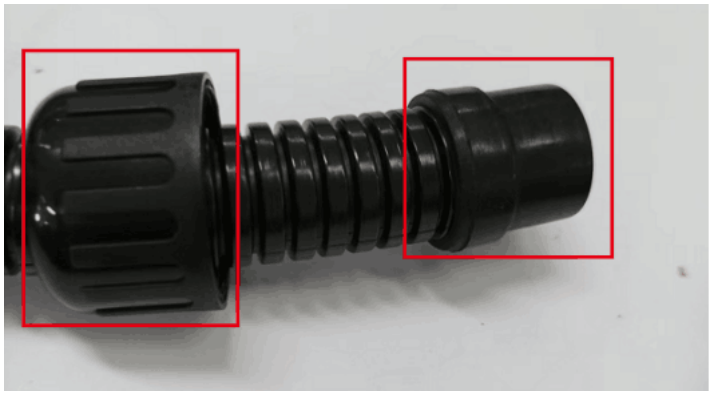


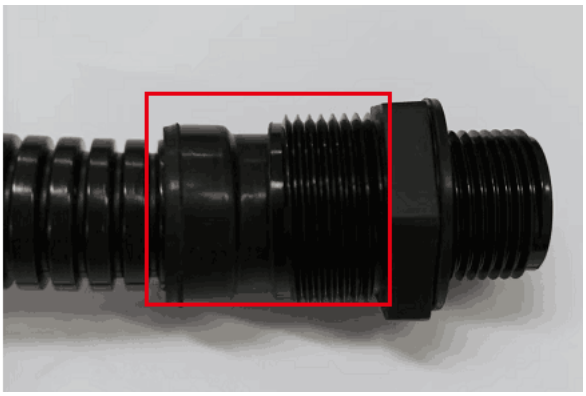
C)The bottom of the straight arm bracket can be fixed to a specific location using screws, typically on a wall.

3.3.2 Waterproof Installation

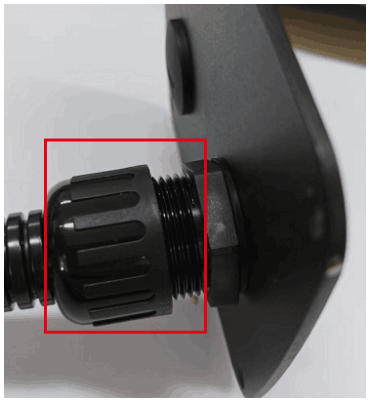
1. Remove the hole on the back cover

2. Attach the plug and screw cap.





3. Tighten the fixing nut, and connect the power or network cable.

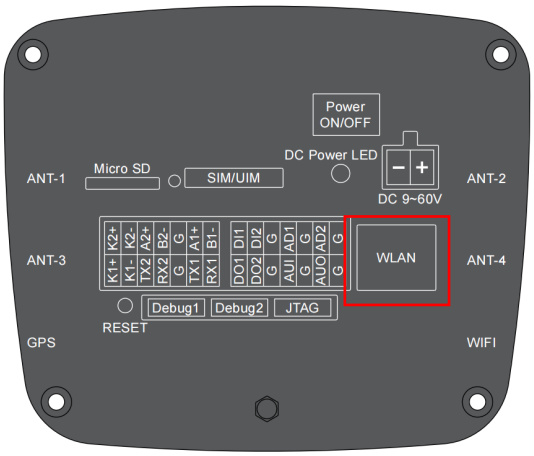


Chapter 4 Main Function

4.1 Embedded System

4.1.1 Ethernet

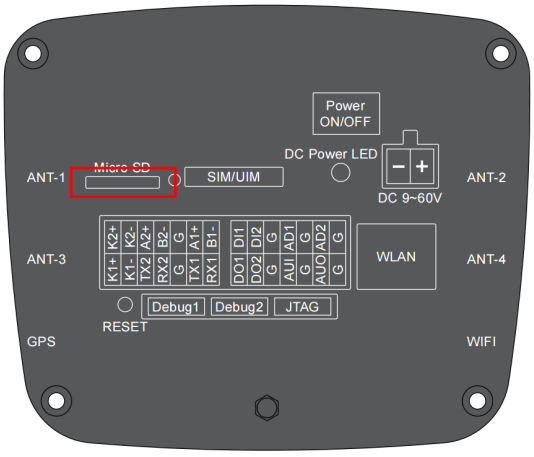
1 x 10/100M auto-adaptive Ethernet port



4.1.2 SD/TF Card

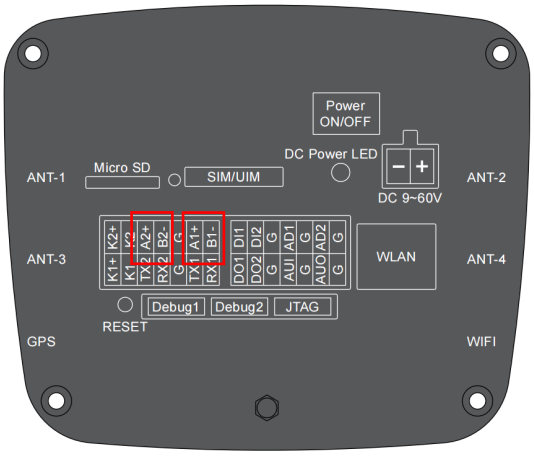
SD card auto mount directory: /mnt/mmc/, for video recording and image capture. The related web page will show the usage information, user can also check the files inside the SD card.

Note: The SD card needs to be initialized when user use IPC at the first time.



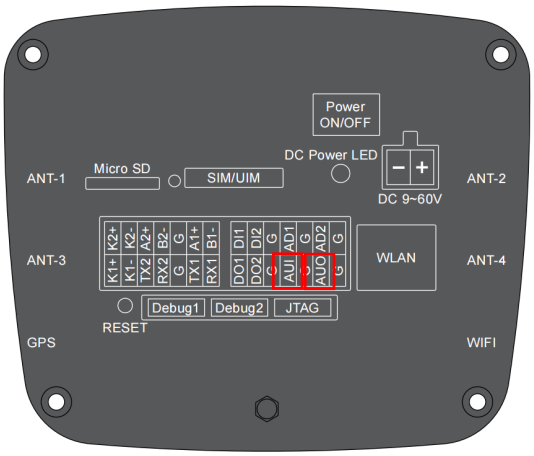
4.1.3 RS485

The RS485 serial port control directory: /dev/ttyS1 (COM1 on the hardware), can be connect to external PTZ to realize PTZ control.



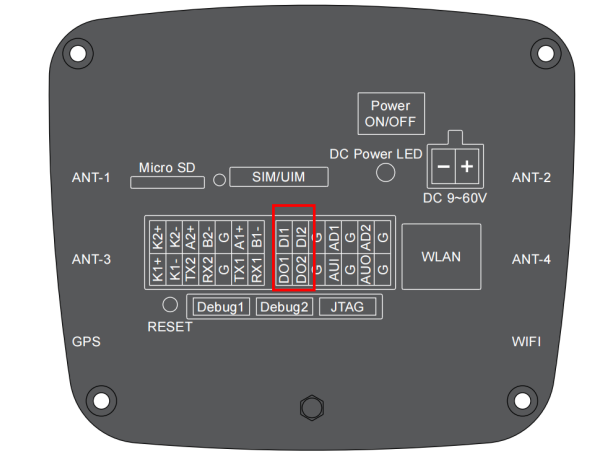
4.1.4 Audio Interface

Support 1 way MIC or Linear input. There is a reserved power amplifier interface inside the camera, user can connect it to a speaker directly. The IPC support web audio talkback, press the talk button to do real time talkback.



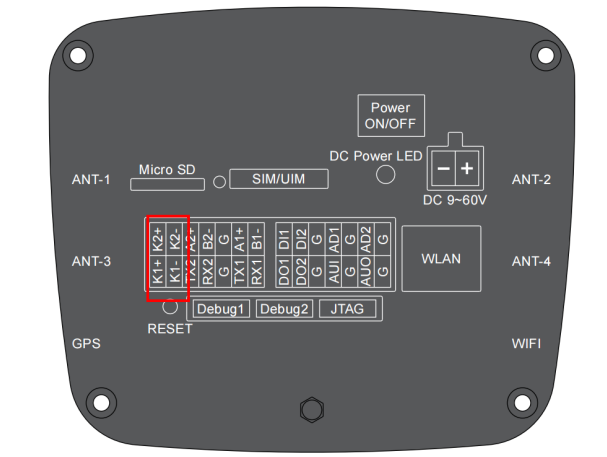
4.1.5 External I/O

Support external I/O, some models support external GPIO input and output, can be connected to other external alarm signal, such as smoke alarm, light alarm, etc. IPC can output TTL signal to trigger other action after received the alarm signal, such as control relay to send out alarm, or activate fire alarm system.



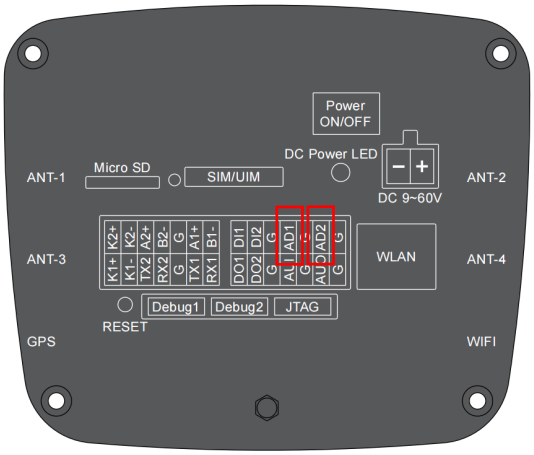
4.1.6 External RELAY Interface

Support external RELAY OUT, can output signal to trigger other action.



4.1.7 ADC In

Support external ADC collection, can be used for real-time analog data collection in some specific environment. For example, to check the temperature of a fishpond, the IPC can be connected to an external temperature sensor to collect the voltage analog data. When there is an abnormal temperature, it will trigger the alarm to remind the fishman to adjust the temperature.



4.1.8 USB Input Interface

Supports external USB devices and can be used for USB, 4G modules, or USB, wifi modules, achieving wireless connectivity functionality.

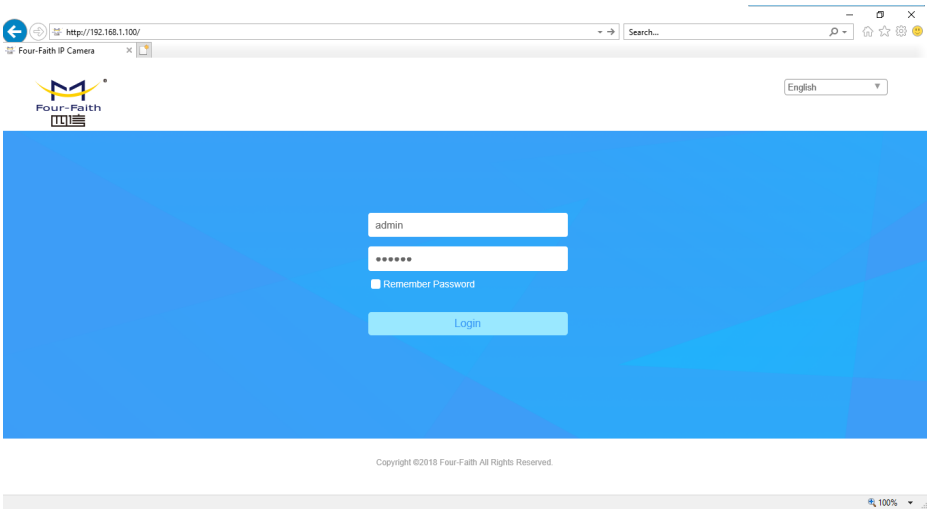
4.2 Local Web Management Portal

We recommend using Windows Internet Explorer to get the best user experience. You may require installing some plug-ins before you use the web portal.

4.2.1 Login

The default login credential is printed on a tag on your camera. The login IP address is 192.168.1.100, username is admin, and password is xmsx1234 unless you have changed them before.

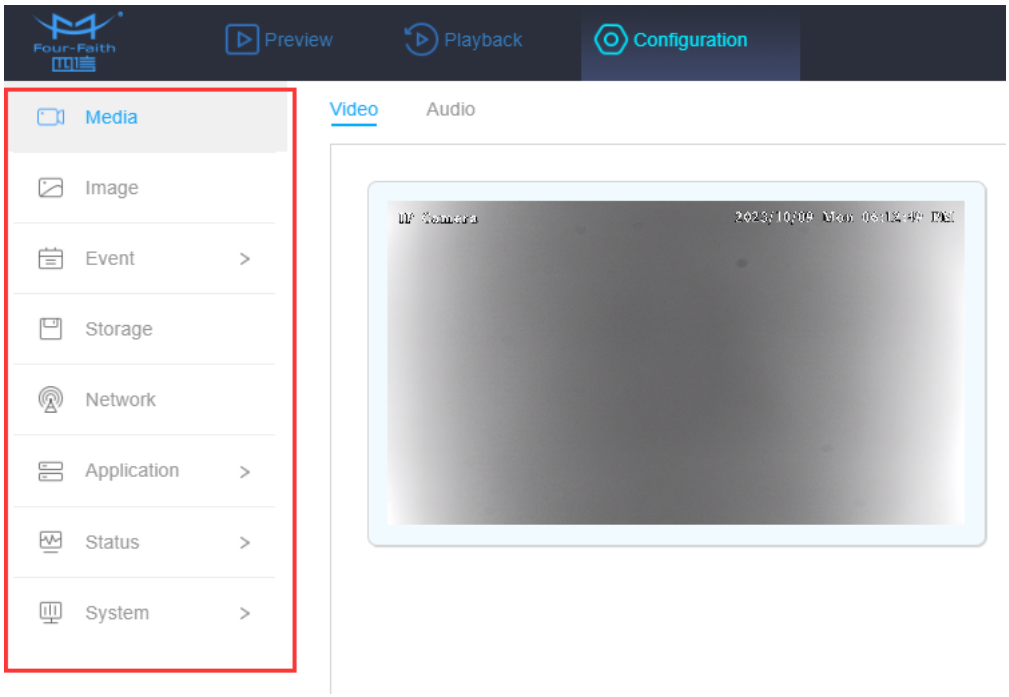
Type in the address and user info, click login to enter the management portal.



4.2.2 Configuration

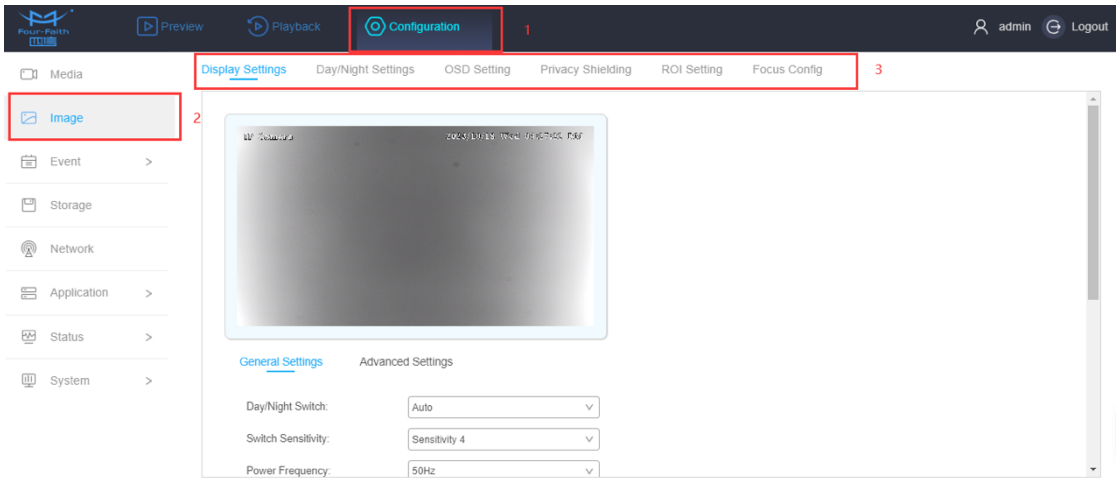
Click the 'Configuration' tab on the top menu, user can manage the IPC from the following page.

The side menu has list out all the items that user can configure. User can do detail configuration on the right side of the side menu after clicking the related item.



4.2.3 Display Setting

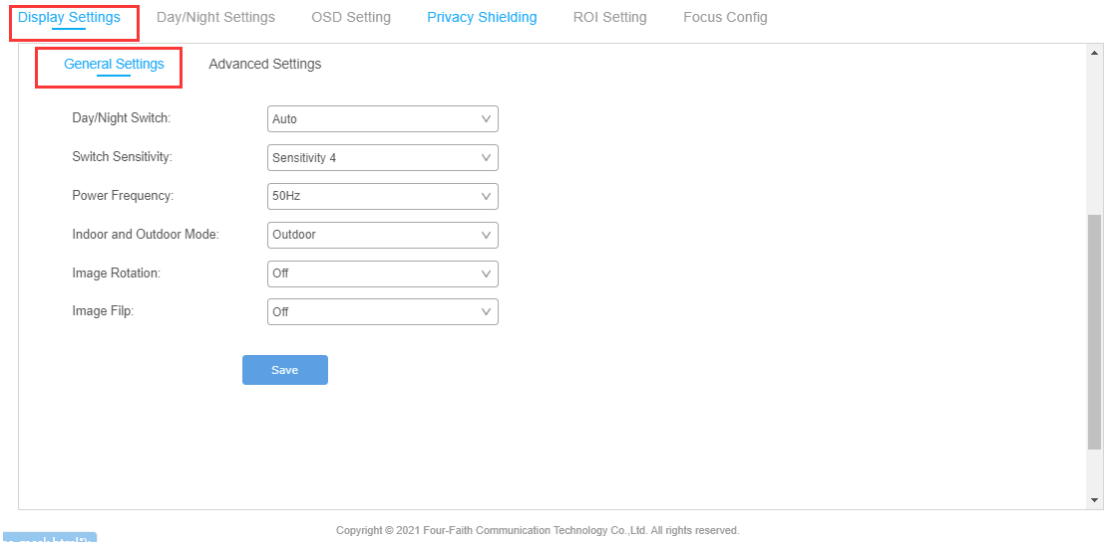
Support web video image adjustment, including Basic Settings, Day & Night Switch, OSD, Private Shielding, ROI, Focus Config, etc.

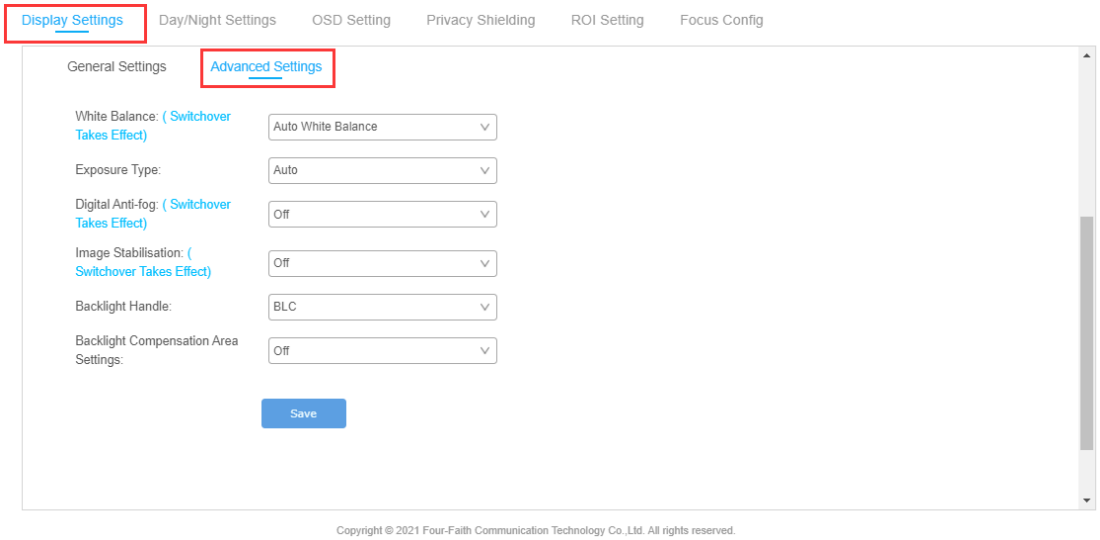


Basic Settings (Display Settings):

Basic Settings include Day/Night Switch, Sensitivity Switch, Power Frequency Settings, Indoor and Outdoor Mode Switch and Image Rotation/Flip. (Advanced

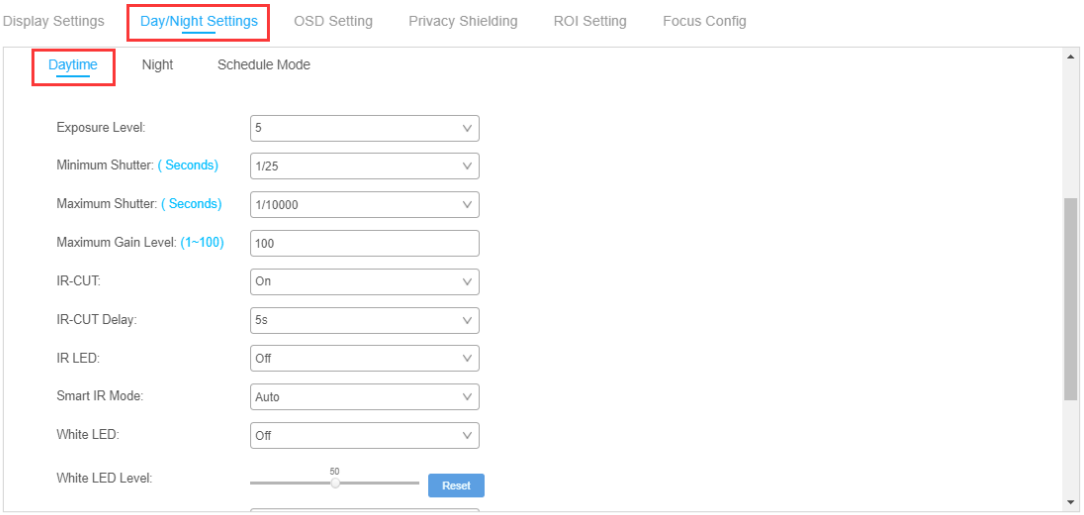
Settings: White Balance Settings, Exposure Type Settings, Backlight Handle Settings, etc.)

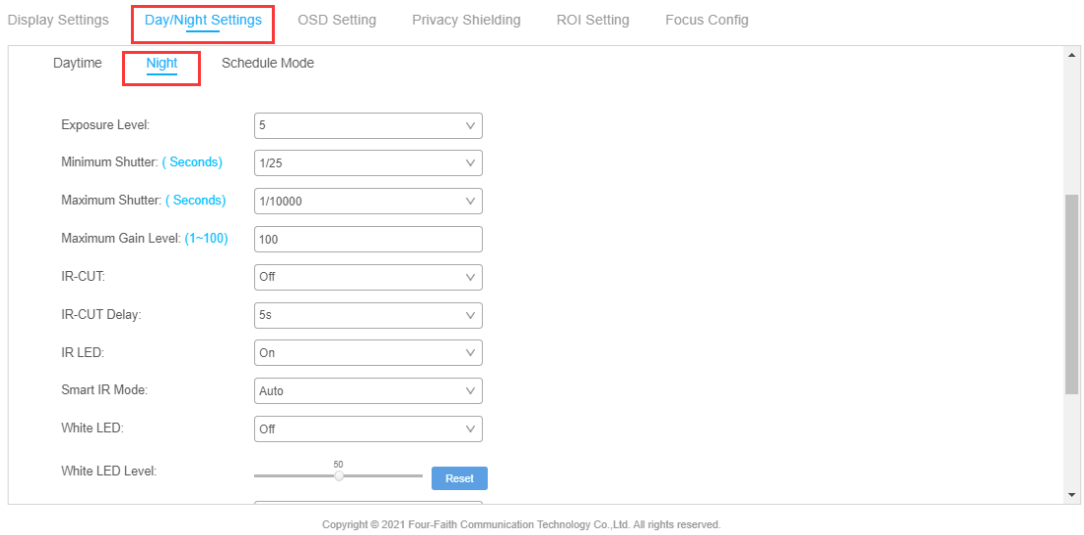




Day/Night Settings:

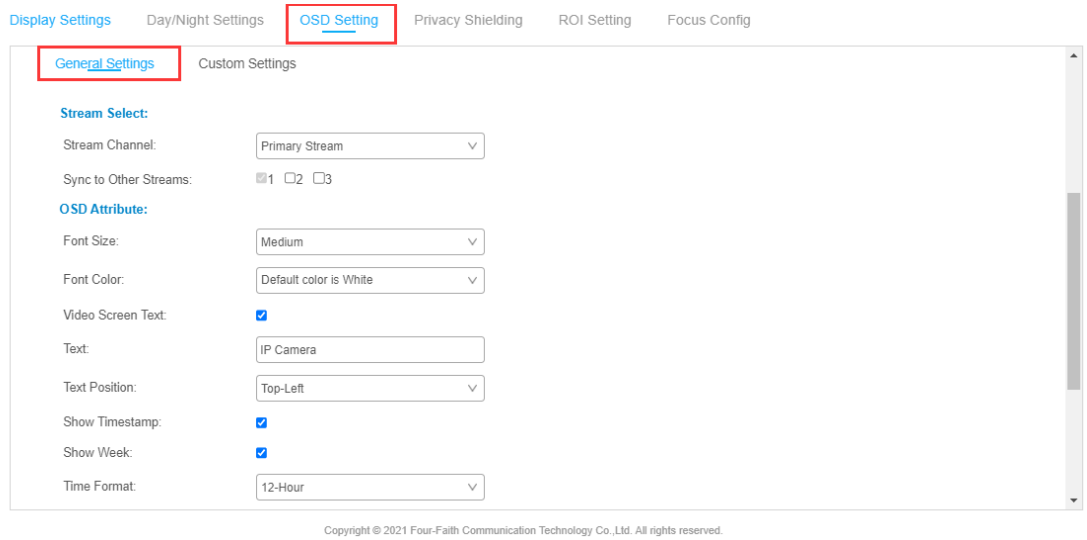
Users can customize camera parameters for day and night modes, including Exposure Level, Shutter, IR-CUT, White LED, Color Mode, etc., through Day/Night Settings.

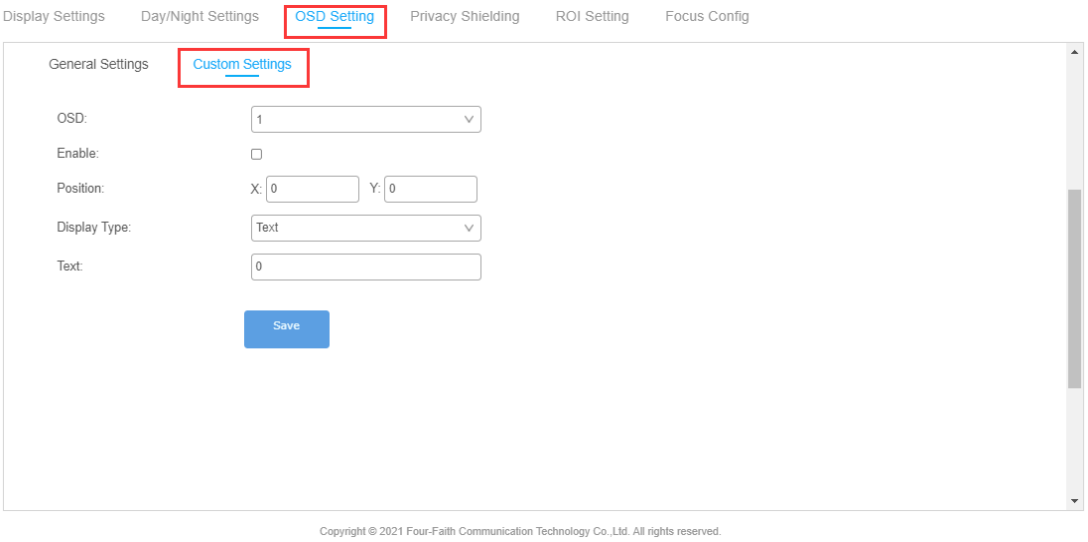




OSD Setting:

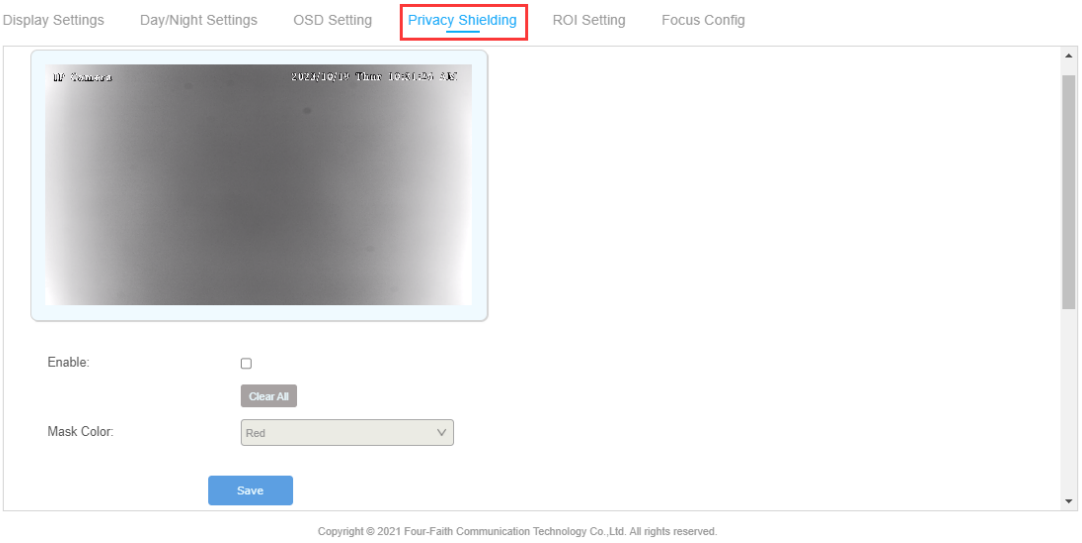
Users can use OSD Setting to configure the camera parameters and other information displayed on the video screen, such as date, time, camera name, etc. Through OSD Setting, users can display the desired information on the monitoring screen to meet specific monitoring needs.





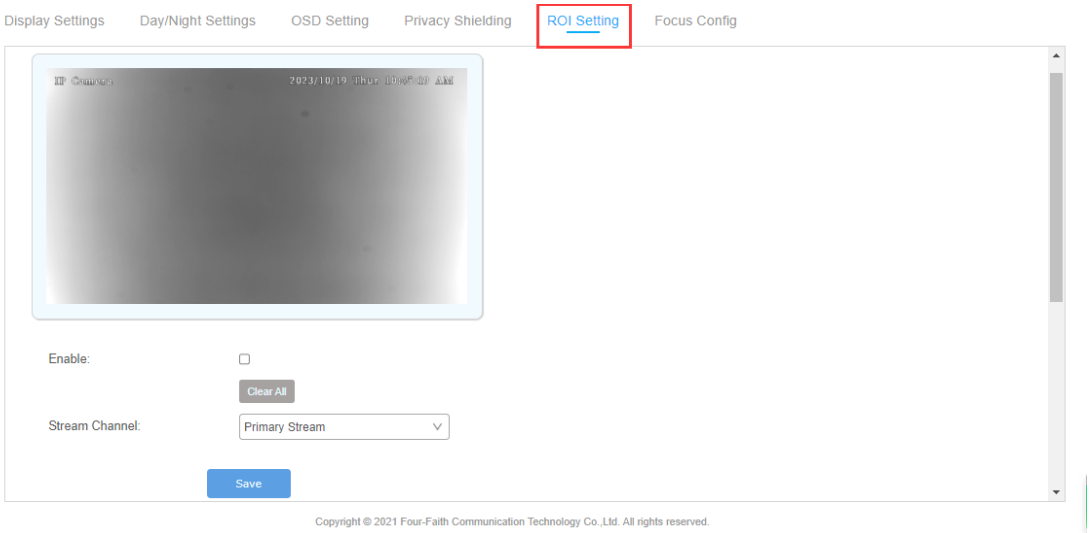
Privacy Shielding:

Users can set privacy masking on their own.



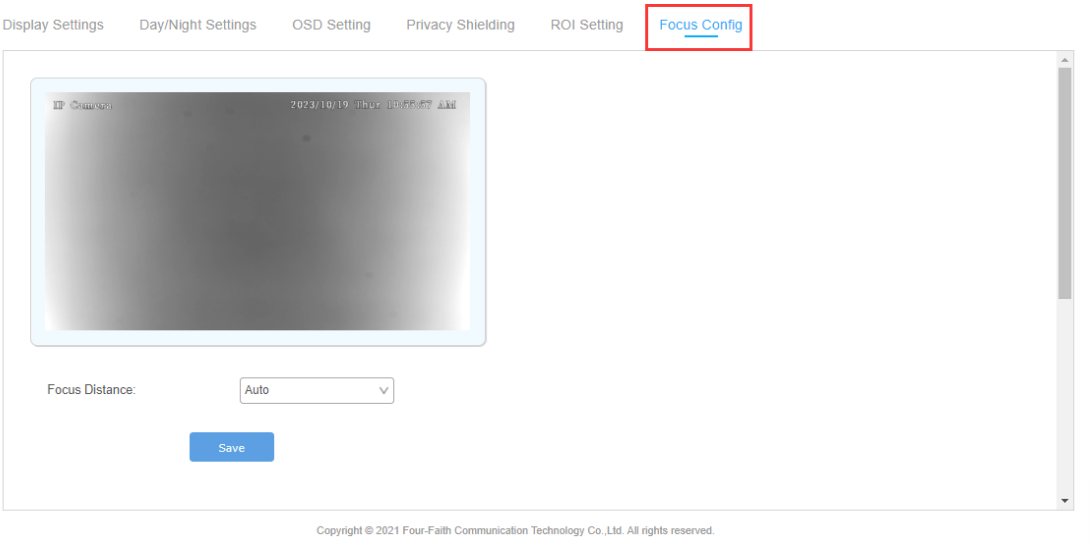
ROI Setting:

ROI Setting allows users to select specific areas in the image for focused attention.



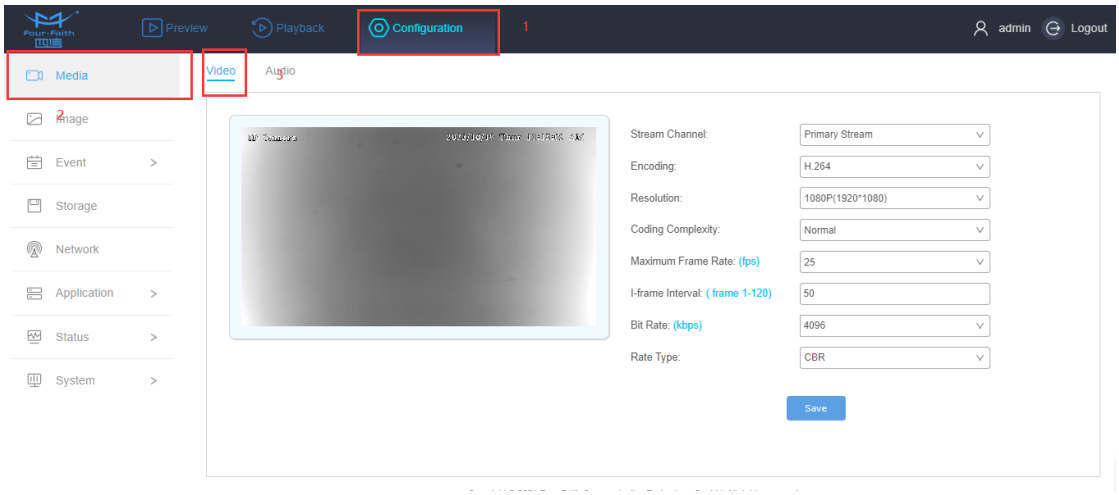
Focus Config:

Users can set the focus distance.

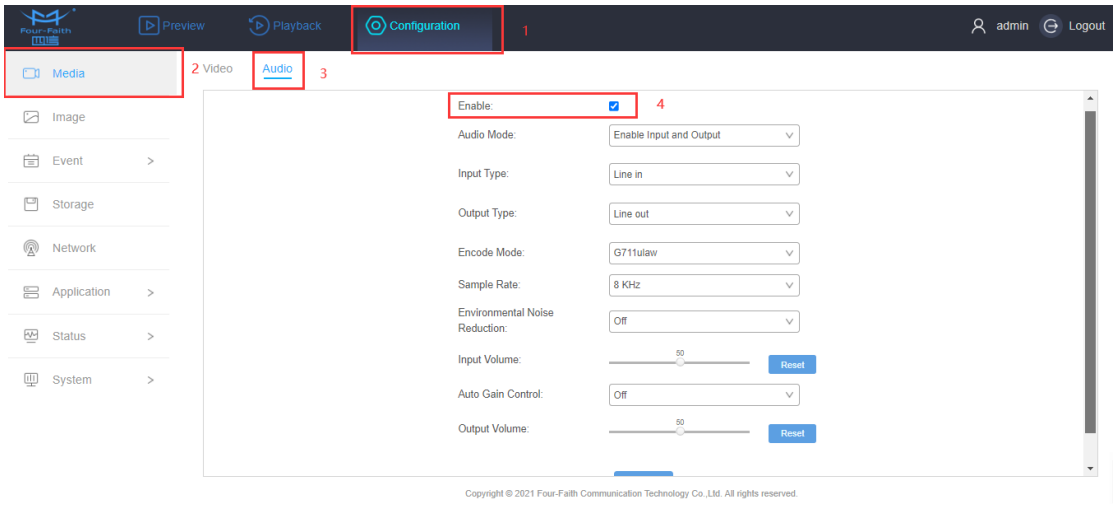


4.2.4 Video and Audio Setting

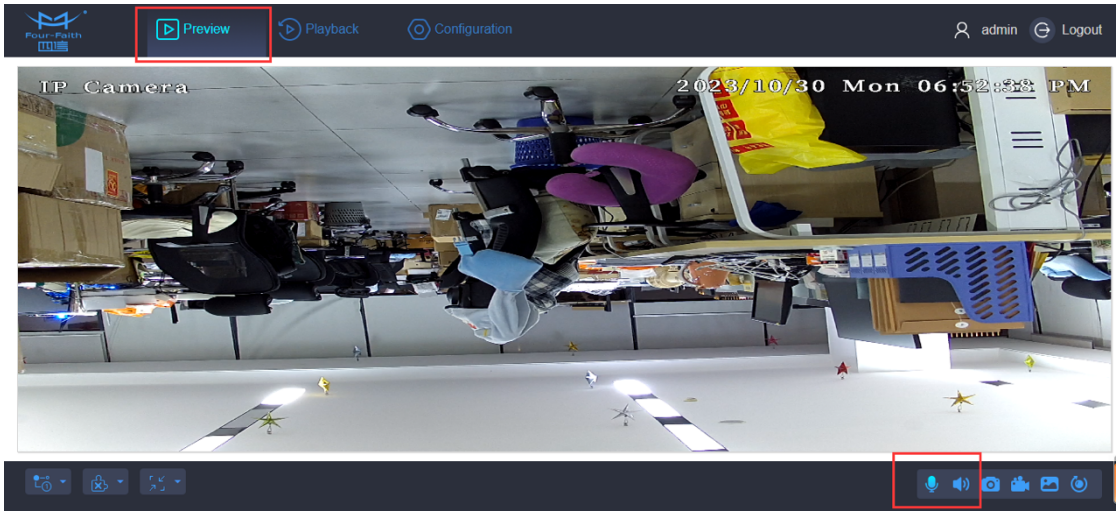
The configuration page supports video format settings, including Stream Type, Video Format, Resolution, Quality, Frame Rate, I-frame Interval, Bit Rate, CBR/VBR Type, etc.



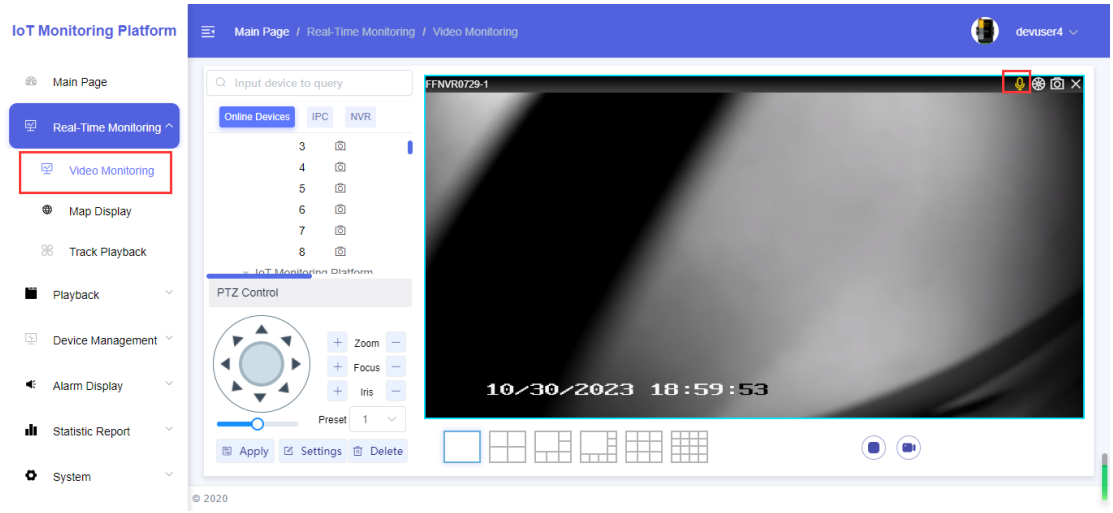
The configuration page supports audio format settings, including input/output enablement, encode Mode (G711a/G711u/AAC), sample rate, noise reduction, volume control, auto gain control, etc.



Click on Preview - bottom right corner of the page - enable microphone and audio. Local voice broadcast is available.



The Four-Faith Video Cloud Platform also supports two-way audio communication.

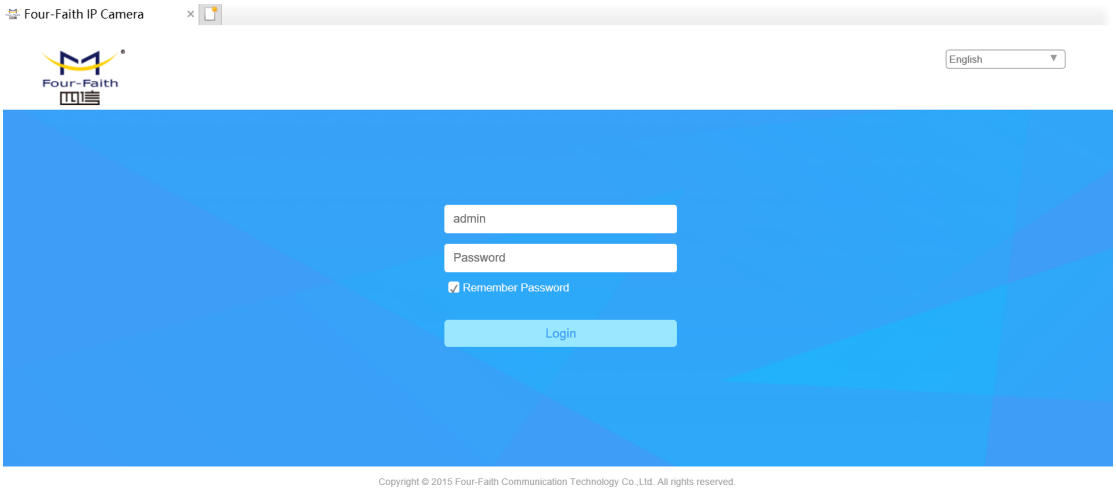


4.2.5 Real-time Video

Real-time video is supported in IPC web interface and user can control the IPC remotely at the same time.

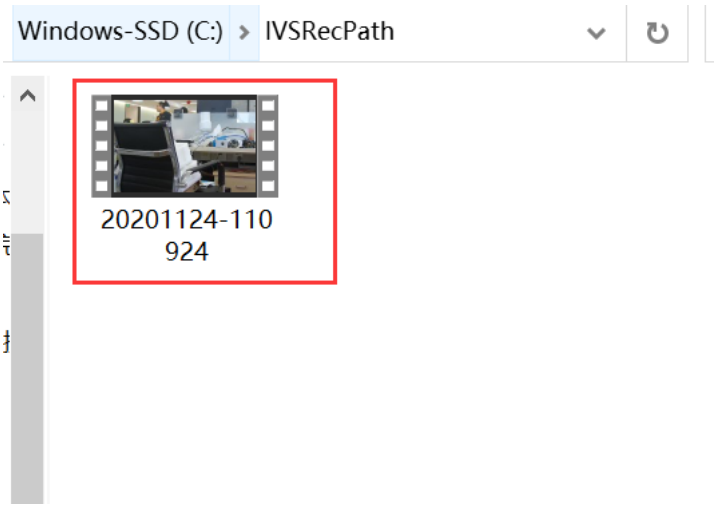
Processes:

1. Login the IPC web interface.

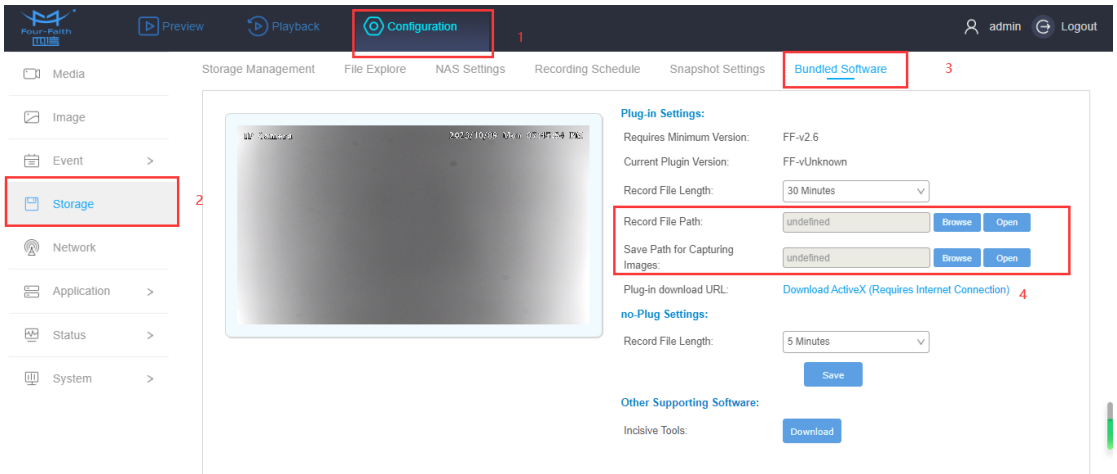


2. Click preview option on the top of the menu. At the lower right corner, user can remote control IPC such as snapshots, video recording. Some cameras can support lens zoom, focus and other features.

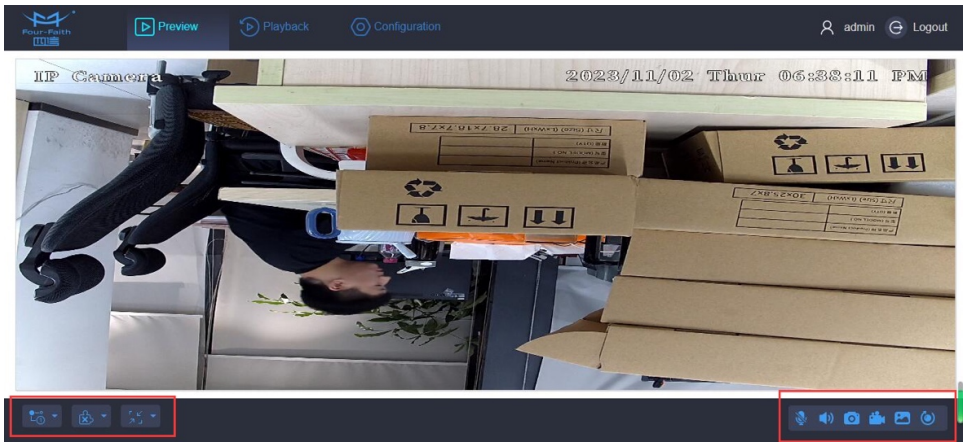
3. On the video preview interface, the recording videos and snapshot are stored on the local disk. After finish record the video or snapshot, the system will automatically pop up the local disk window of the recording video/snapshot so that users can view it at the same time.



4. User can setting the record video storage path on the IPC web interface.



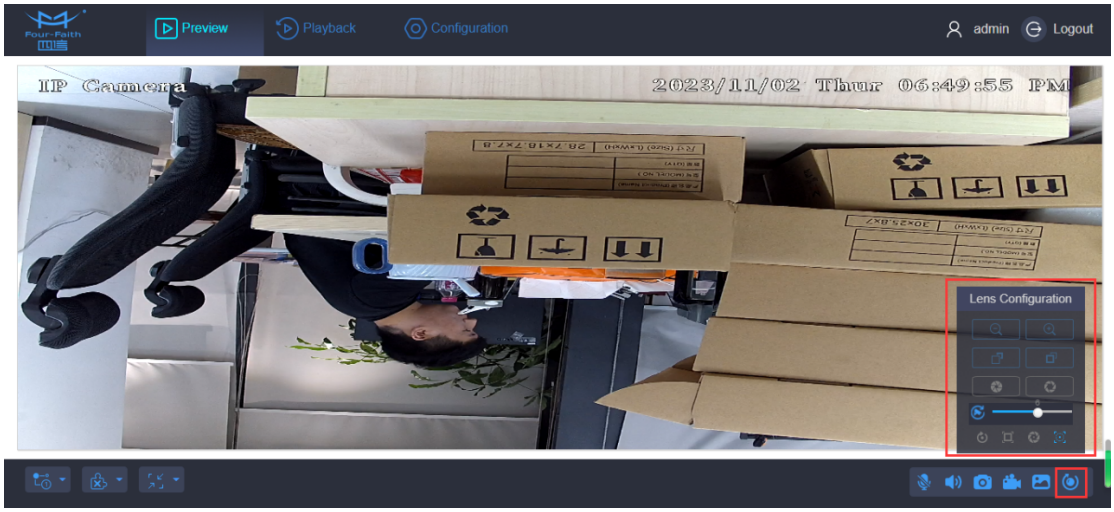
Buttons of image setting:

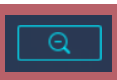


Button	Description
	Primary stream
	Secondary stream
	Window size
	Real size
	Full scream size
	Play Mode
	Play
	Stop
	Snapshot
	Brightness
	Contrast

	Sharpness
	Noise reduction level
	Default
	Video recording
	Saturation

Buttons of IPC remote control:



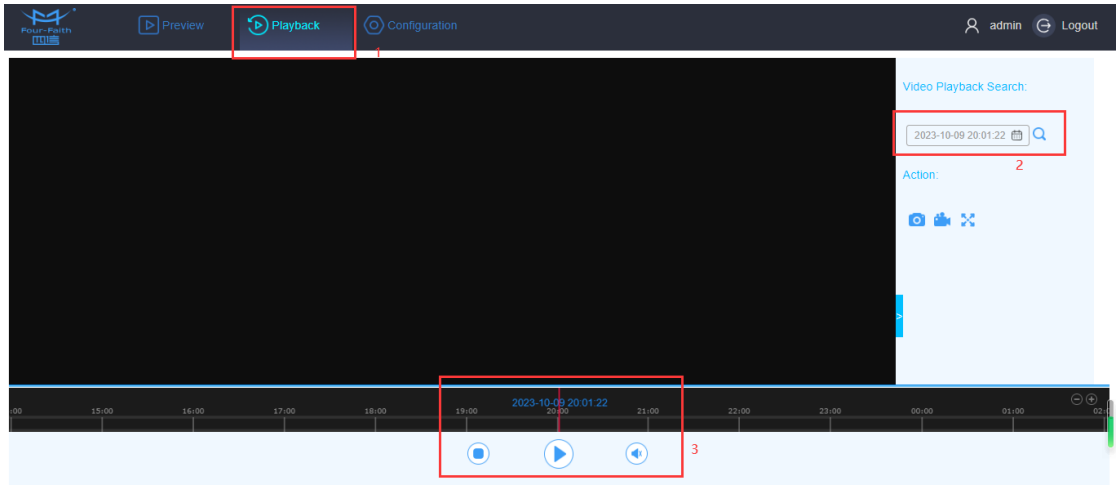
Button	Description
	Len configuration
	Zoom in
	Zoom out
	Focus increase
	Focus reduce
	Iris increase
	Iris reduce
	Focus speed
	Lens initialization
	Auxiliary focus
	Auto iris

4.2.6 Video Playback

The IPC web interface supports video playback function. User can use the IPC web interface to play the recorded video from the IPC storage directly. You may require to install plug-ins before you use this function.

Processes:

1. Click the playback on the top of menu.
2. Select the date and time on the right side.
3. Click the play button to playback the video.

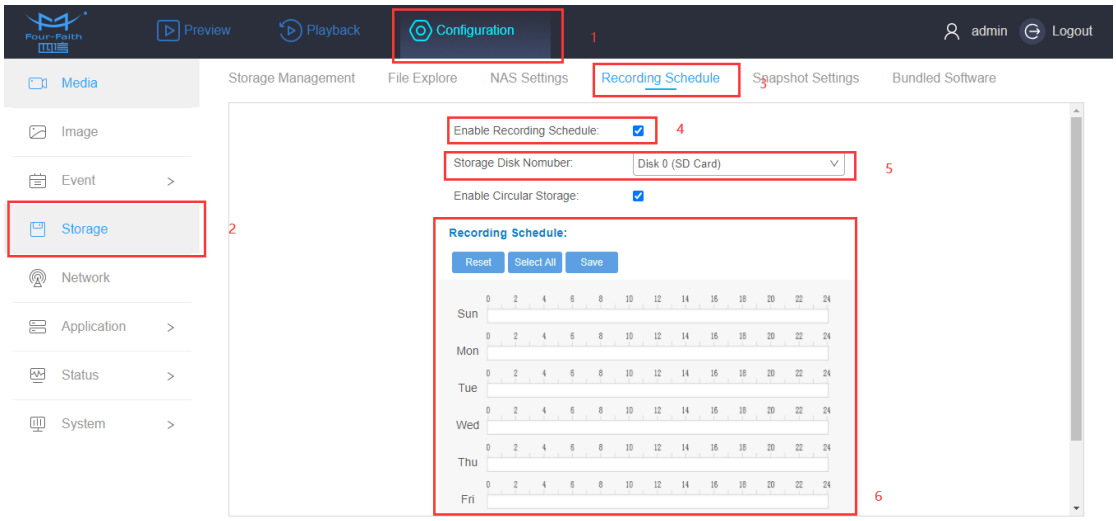


4.2.7 Video Record Schedule

User can set the recording schedule so that the IP camera can record automatically at regular intervals.

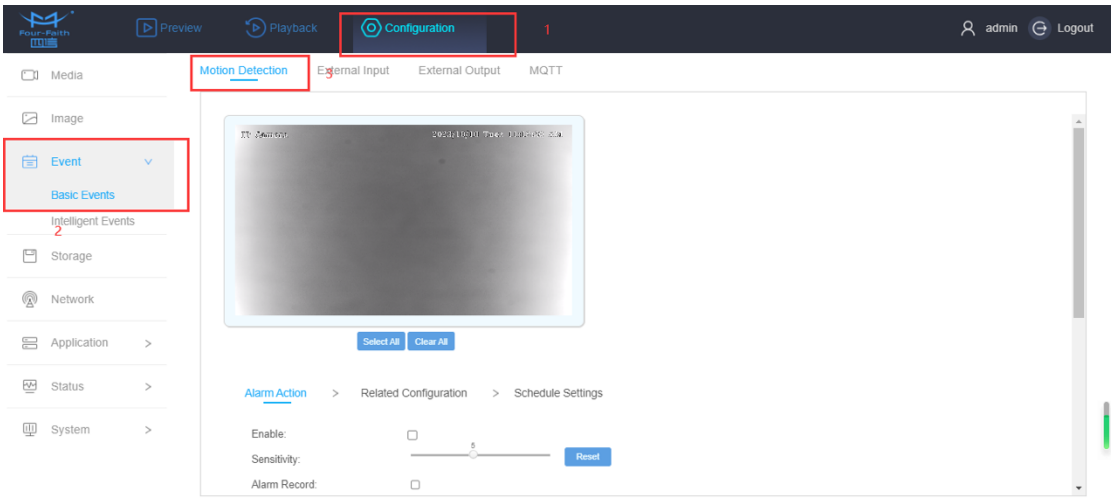
Processes:

1. Click the configuration on the top of menu.
2. Select the storage option on the left side.
3. Choose Recording Schedule on the top.
4. Enable the Recording Schedule.
5. Choose the disk.
6. Select the recording day & time period and save.

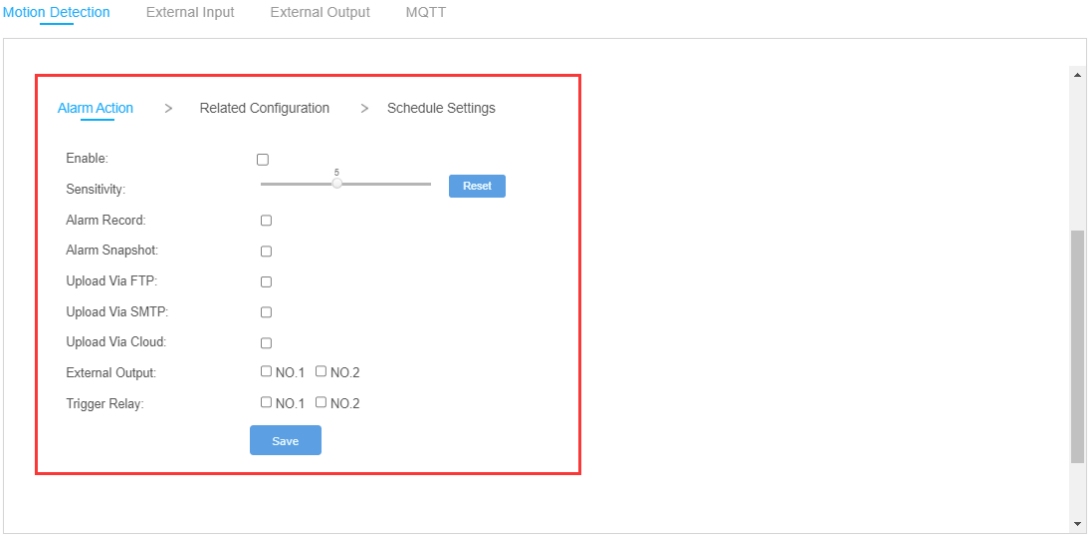


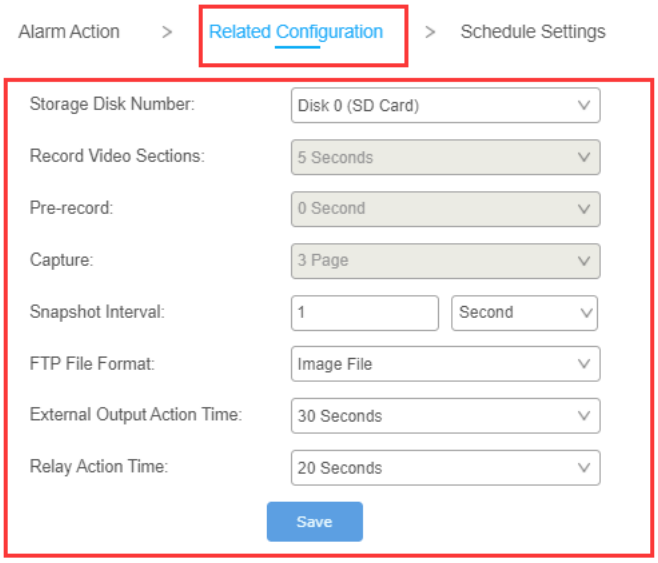
4.2.8 Alarm

The product supports various event alarm functions, by setting up some trigger conditions and the related actions to inform user to check and take action.

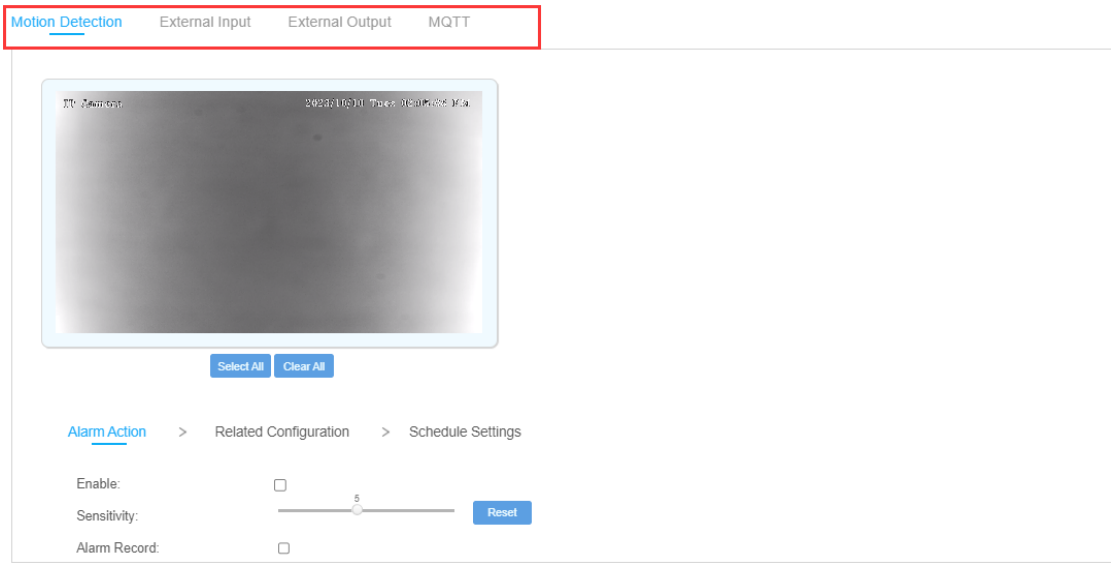


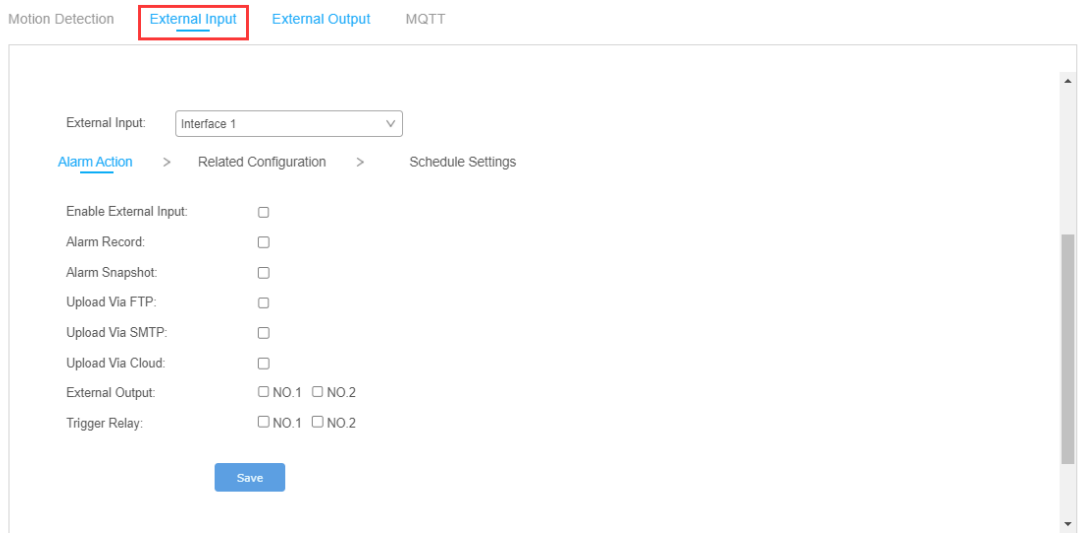
Users can configure a series of settings for event trigger conditions and post-trigger processing, including sensitivity, upload method, storage location, screenshot interval, FTP file format, etc.

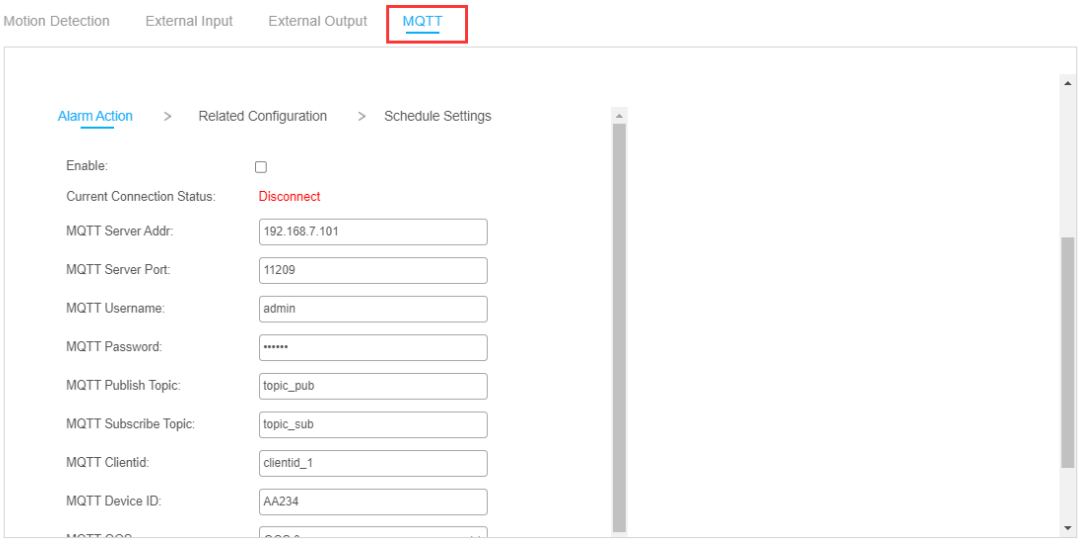




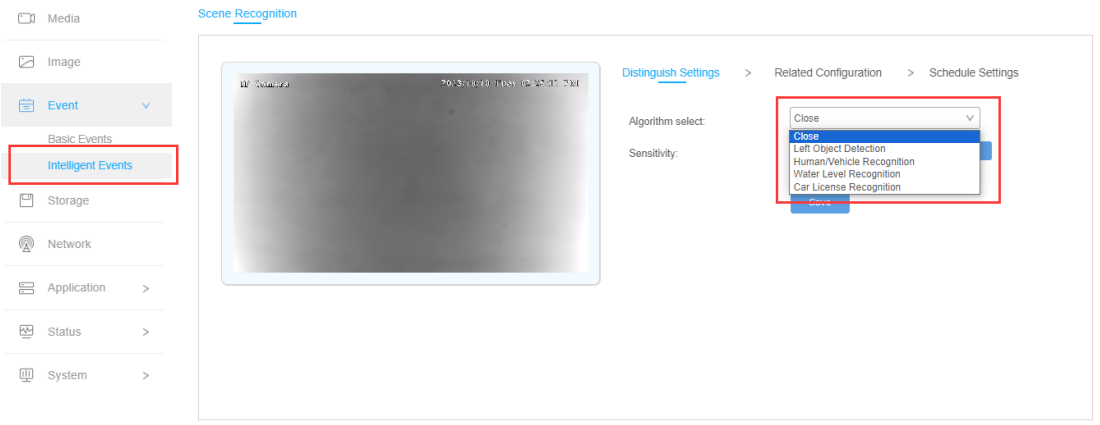
Additionally, configurations can be made for external input/output and MQTT.







The camera simultaneously supports intelligent recognition of alarm events and a series of configurations, including Left Object Detection, Human/Vehicle Recognition, Water Level Recognition, and Car License Recognition.

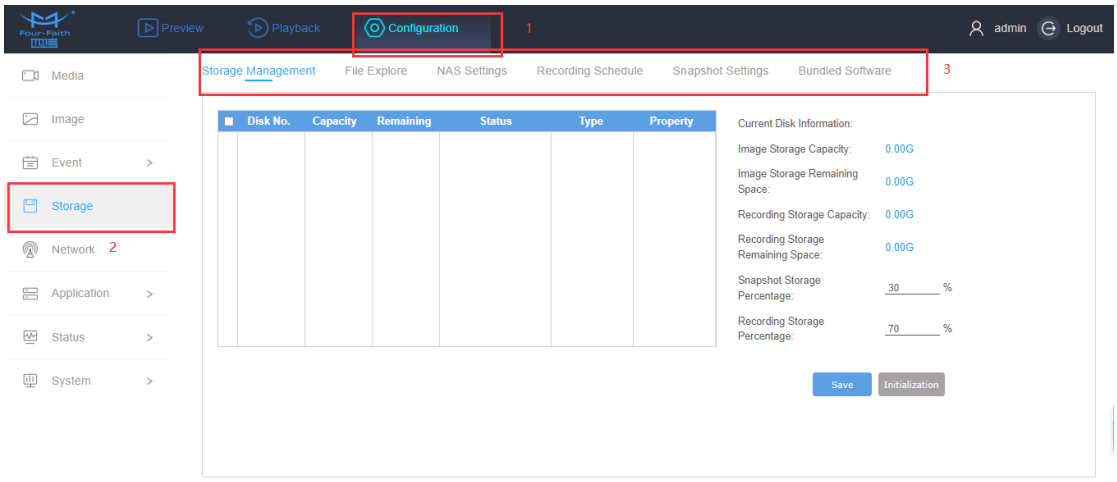


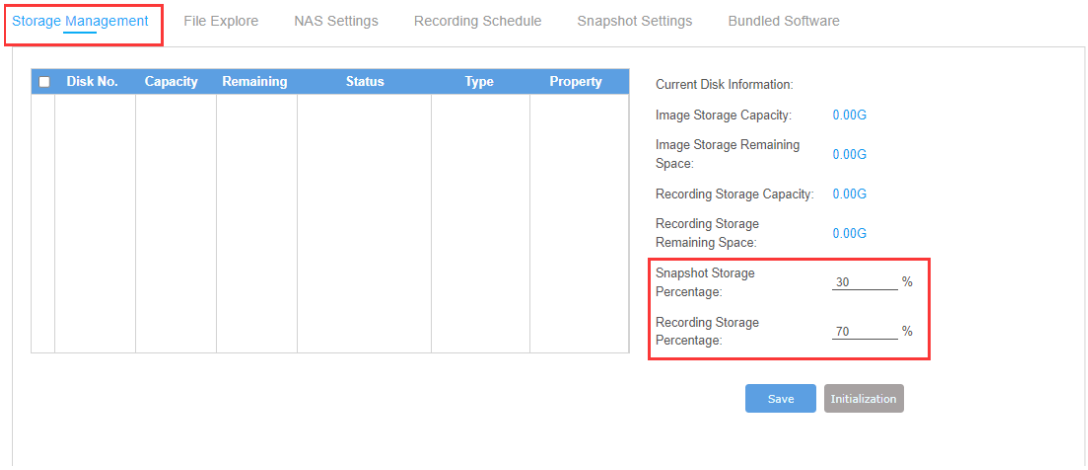
4.2.9 Storage Configuration

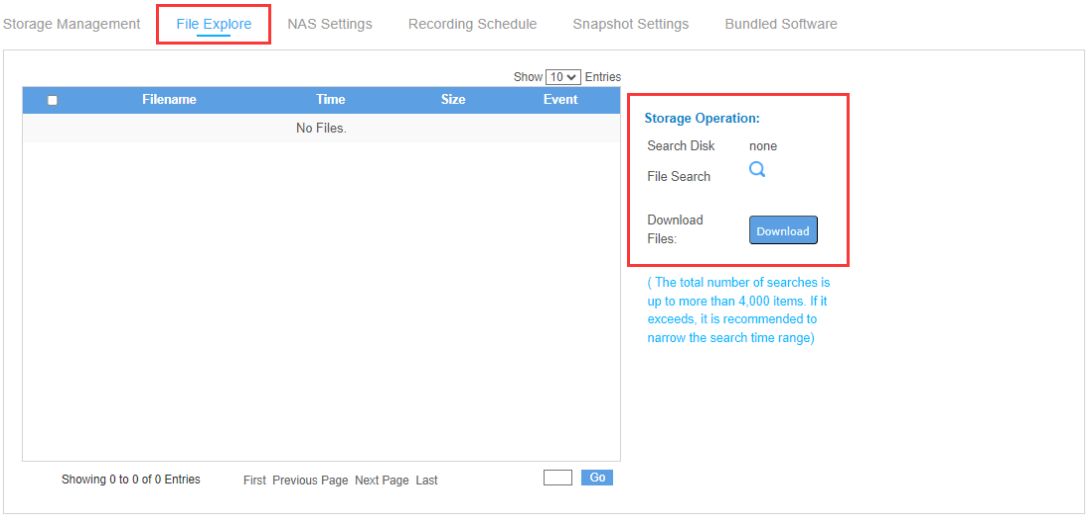
The product support storage management, storage configuration, file search, NAS

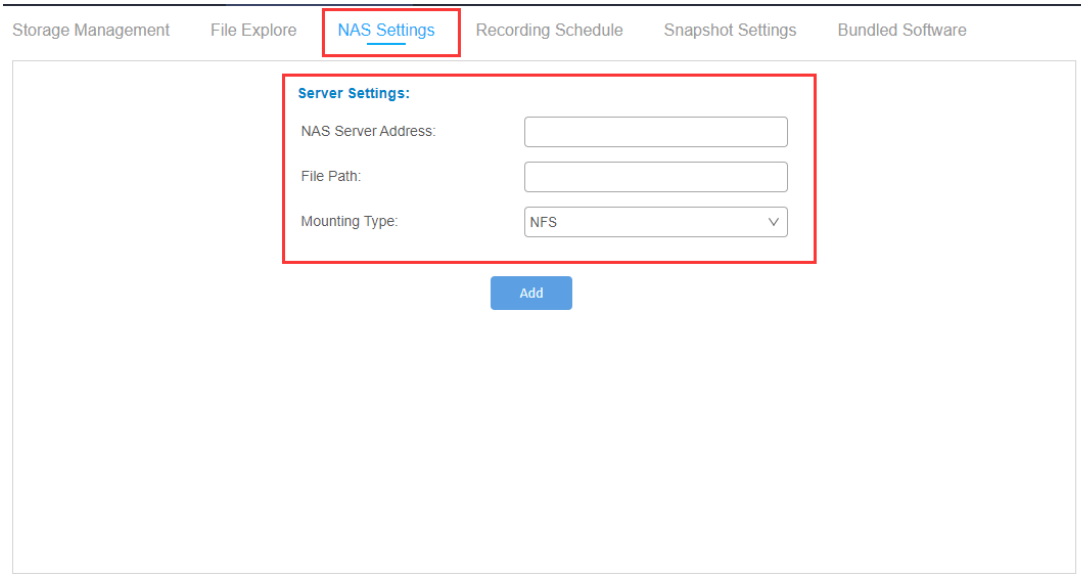
Settings, Recording Schedule, Snapshot Settings and Bundled Software(Local), etc.

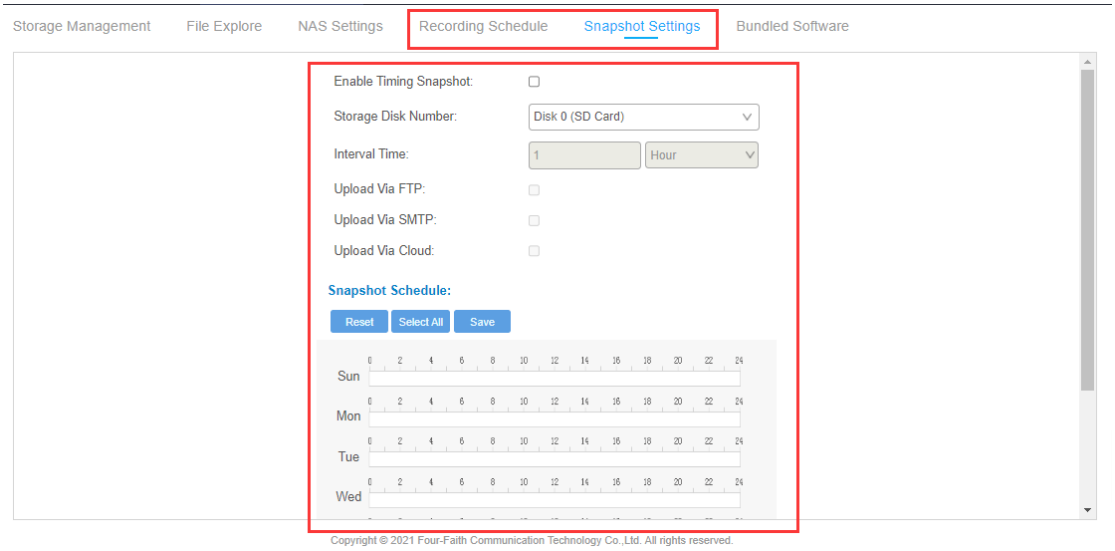
Users can manage and configure external storage devices, search and download files from external storage devices, set NAS, schedule regular video recording and image capture with storage, and configure local paths for video and image storage.








Storage Management
File Explore
NAS Settings
Recording Schedule
Snapshot Settings
Bundled Software
Server Settings:
NAS Server Address:
File Path:
Mounting Type:
NFS
Add


Storage Management
File Explore
NAS Settings
Recording Schedule
Snapshot Settings
Bundled Software
Enable Timing Snapshot:
Storage Disk Number:
Disk 0 (SD Card)
Interval Time:
1
Hour
Upload Via FTP:
Upload Via SMTP:
Upload Via Cloud:
Snapshot Schedule:
Reset
Select All
Save
Sun
Mon
Tue
Wed
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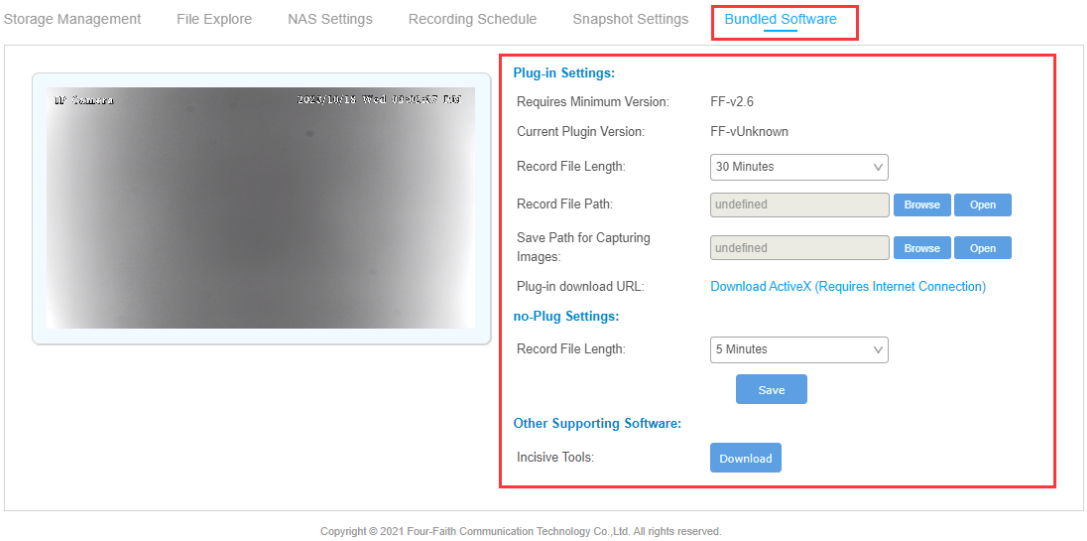
Storage Management
File Explore
NAS Settings
Recording Schedule
Snapshot Settings
Bundled Software
Plug-in Settings:
Requires Minimum Version:
FF-v2.6
Current Plugin Version:
FF-vUnknown
Record File Length:
30 Minutes
Record File Path:
undefined
Browse
Open
Save Path for Capturing Images:
undefined
Browse
Open
Plug-in download URL:
Download ActiveX (Requires Internet Connection)
no-Plug Settings:
Record File Length:
5 Minutes
Save
Other Supporting Software:
Incisive Tools:
Download
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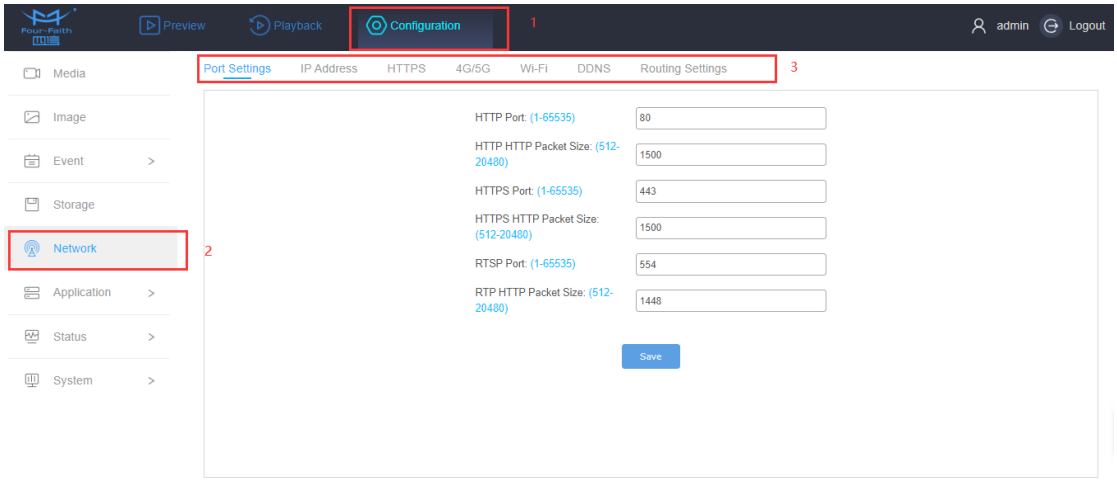
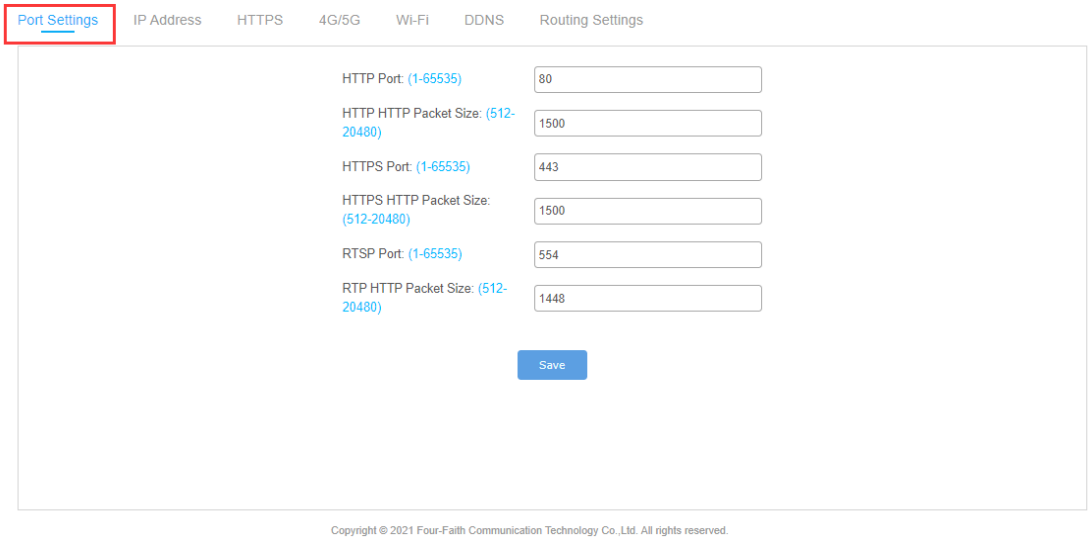
4.2.10 Network Configuration

Network configuration includes port settings, IP address settings (IPv4 and IPv6 settings), HTTPS settings, 4G/5G settings (refer to section 4.2.11), WiFi settings (refer to section 4.2.14), DDNS configuration, and routing settings.



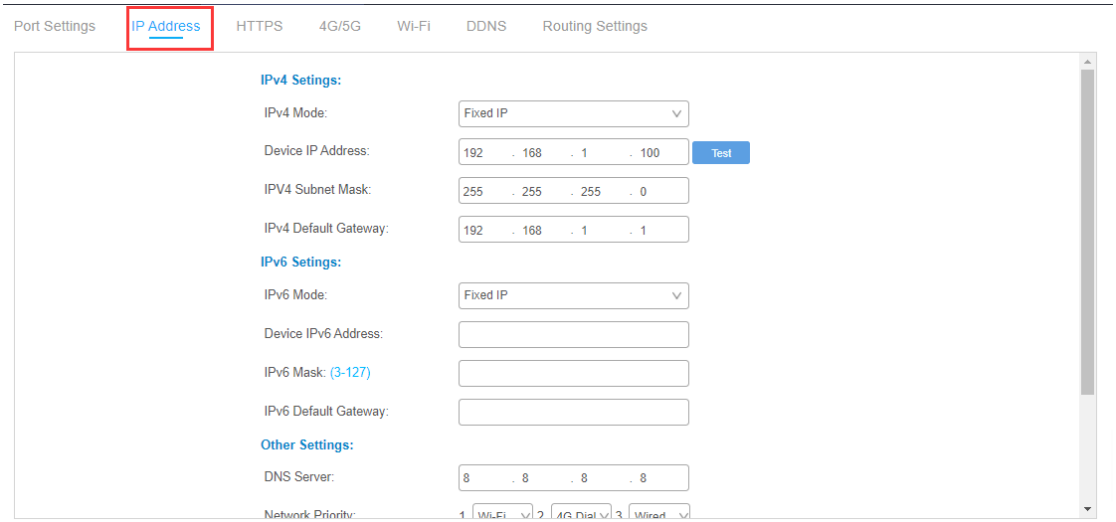
Port Settings:

Through port settings, users can adjust the communication parameters of the device to adapt to specific network environments or application scenarios.(including HTTP Port setting, HTTPS Port setting and RTSP Port setting)



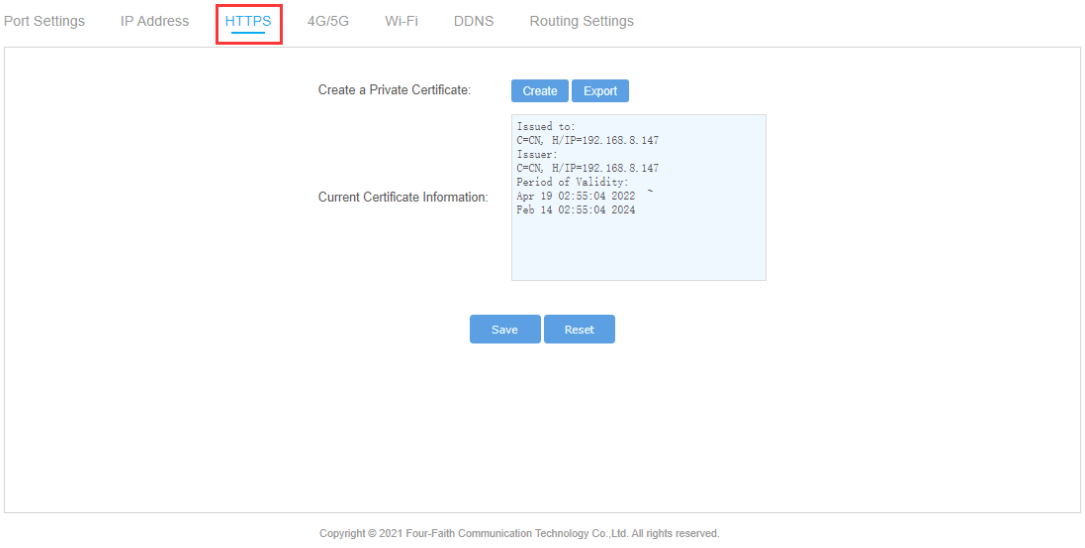
IP Address Settings:

IP Address Settings include Mode Setting, IP Address, Subnet Mask, Gateway, DNS Setting, Network Priority, etc.(including IPv4 and IPv6 settings)



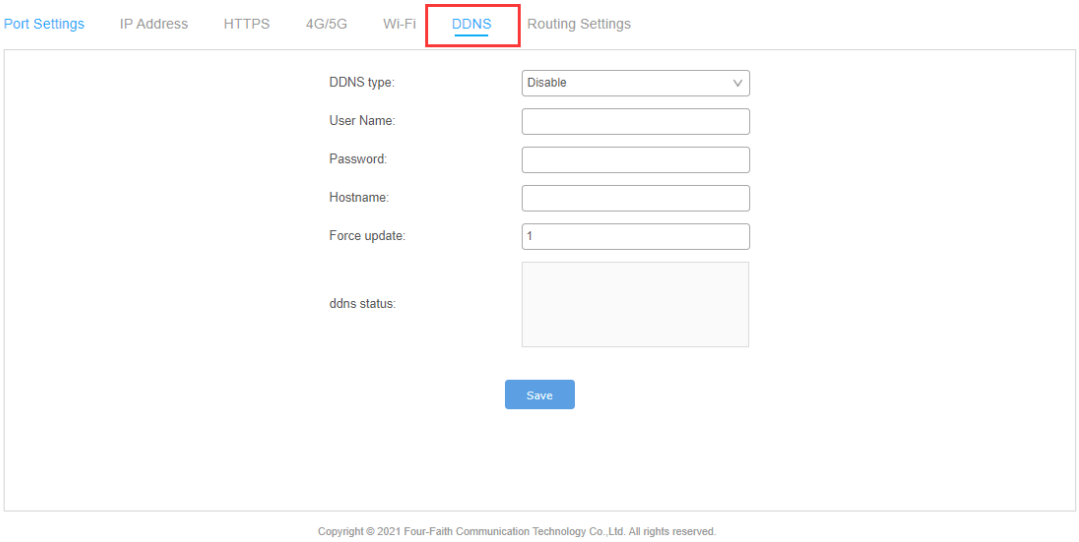
HTTPS Settings:

HTTPS Settings typically include configuring the necessary certificates, keys, and other parameters for encrypted communication to ensure that the communication of devices or websites is secure.



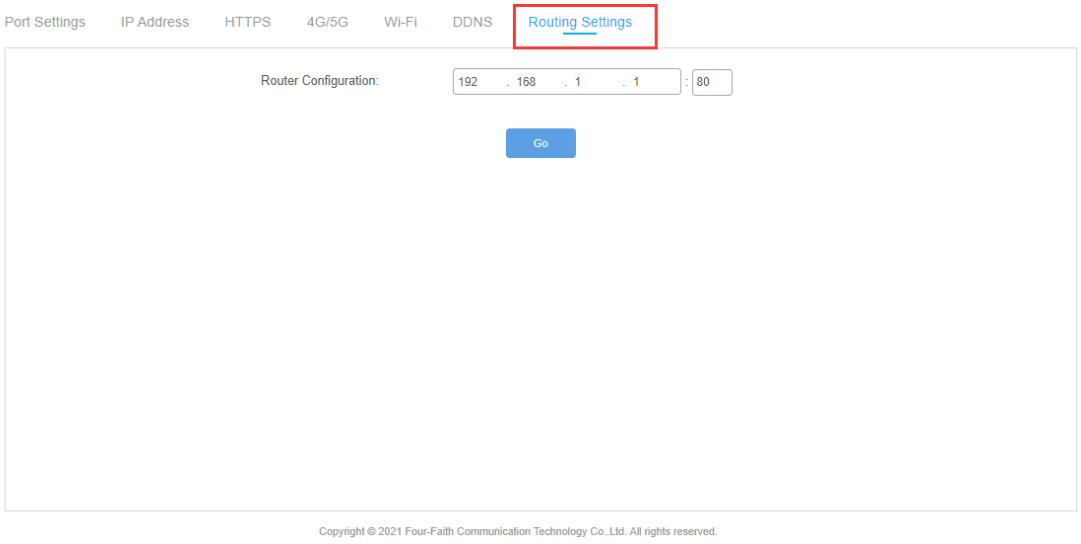
DDNS Settings:

DDNS Settings include configuring relevant information from the DDNS service provider, such as domain name, username, password, etc., to ensure that the domain name resolution of the device is dynamically updated.



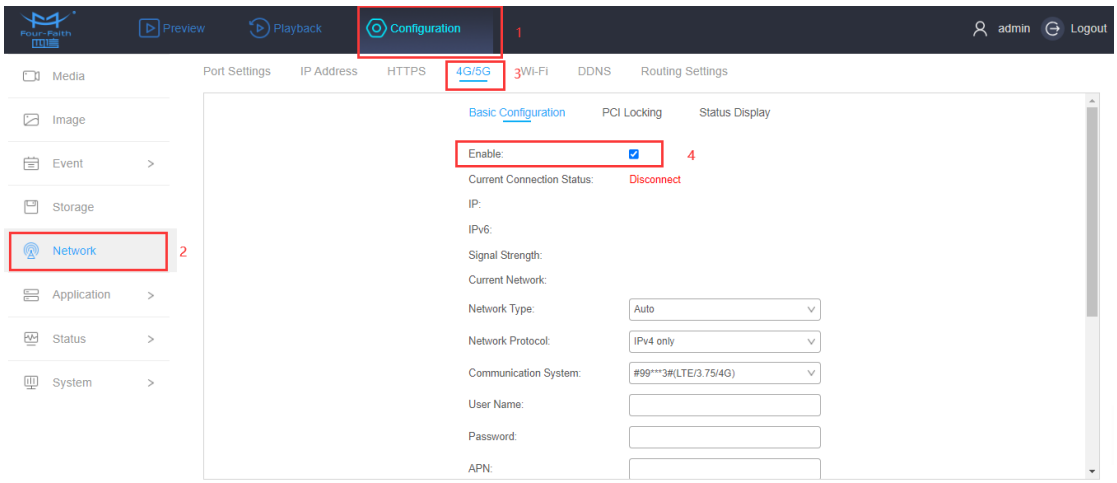
Routing Settings:

Through Routing Settings, users can adjust the device's routing configuration to efficiently transmit data in complex network environments.



4.2.11 4G/5G Configuration

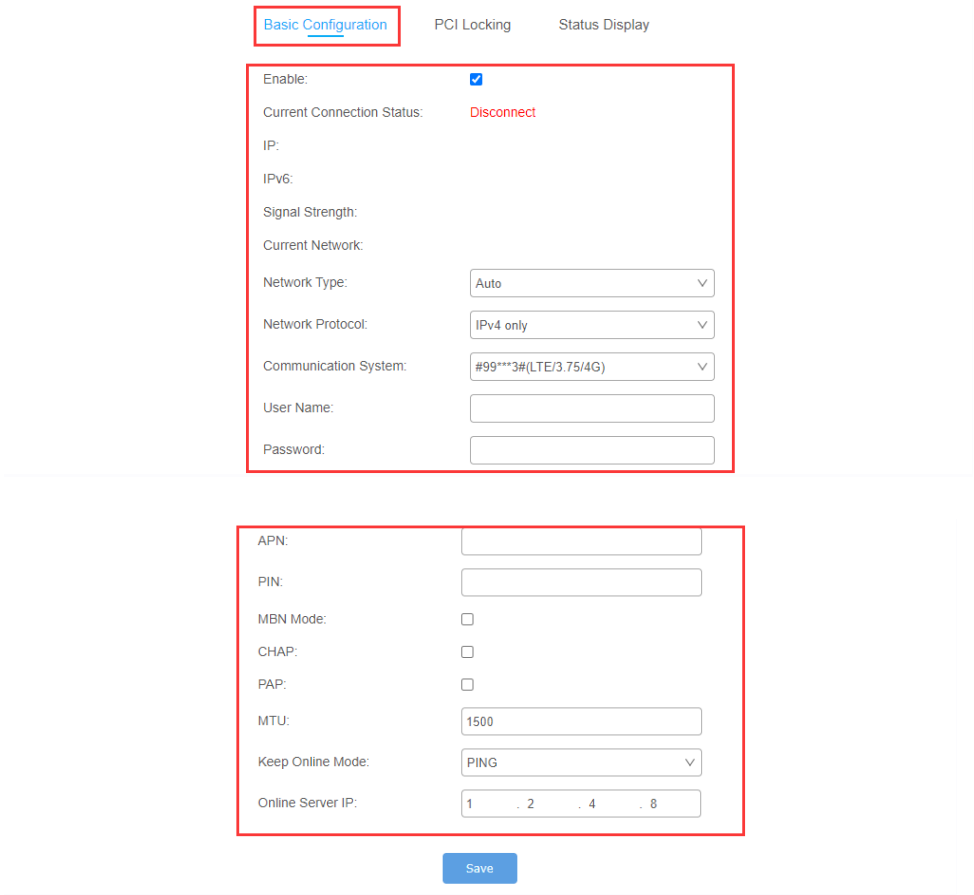
1. Insert the SIM card to the IPC. Click the ‘Network’ option on the left side of the IPC Web interface and choose 4G/5G on the top of the menu. Enable the 4G/5G



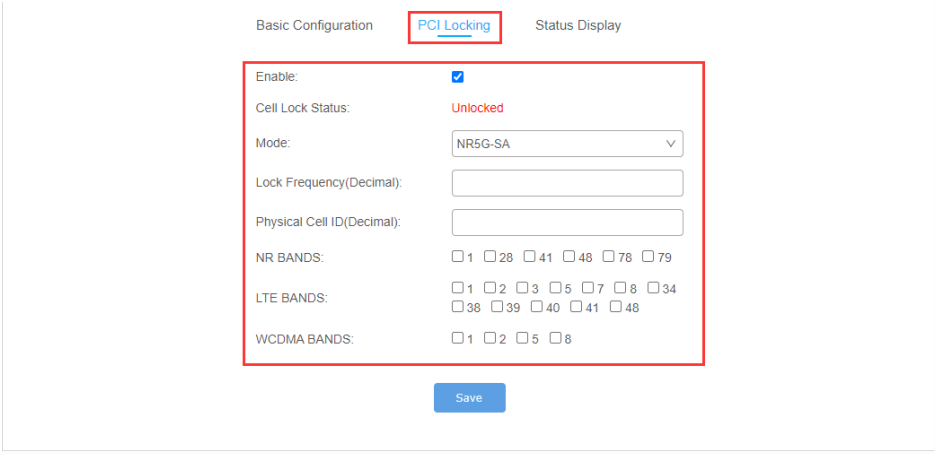
Notice:

Make sure the network state is connected, has an IP address and the signal value is above 15. The network state is at least 4G or LTE.

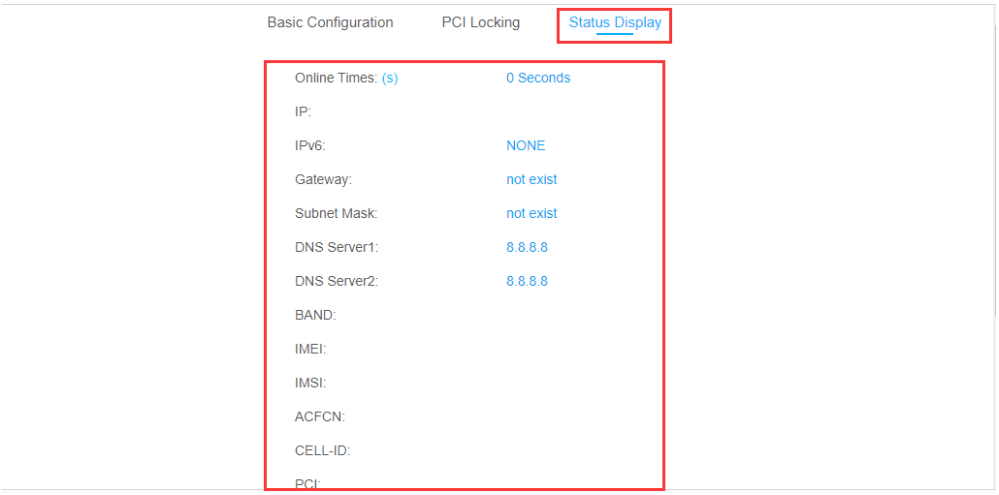
2. Basic Configuration: The basic configuration includes the display of the current connection status, IP and IPv6, signal strength, and the current network. It also involves selecting the network type, choosing the network protocol, selecting the communication system, entering the username, password, APN, and PIN. Additionally, determining the MTU and online server IP, and choosing the keep-online mode are part of this setup.



3. PCI Locking: PCI locking includes the display of Cell Lock Status, mode selection, determination of Lock Frequency and Physical Cell ID, selection of NR BANDS, LTE BANDS, and WCDMA BANDS.

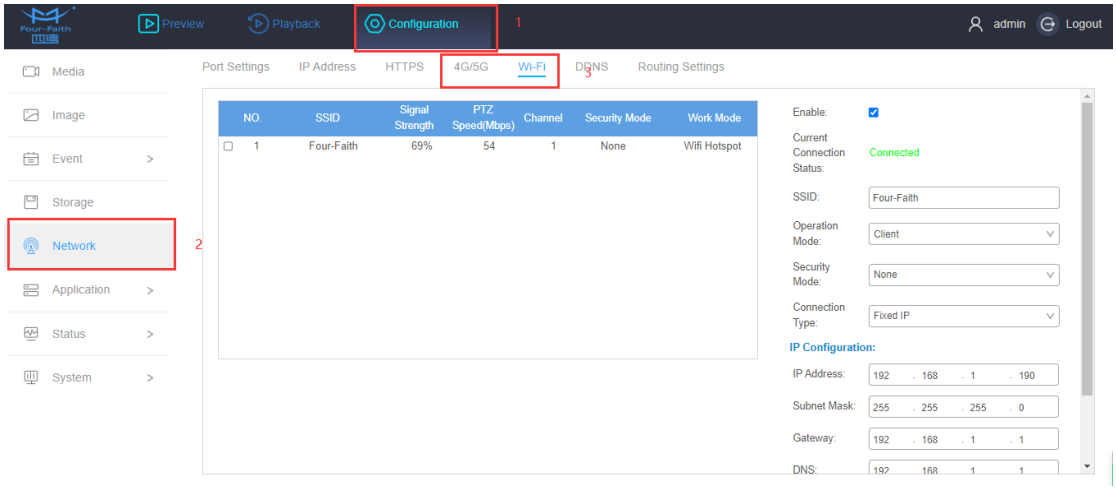


4. Status Display: The status display includes the presentation of online time, IP and IPv6, gateway, subnet mask, DNS, BAND, and more.

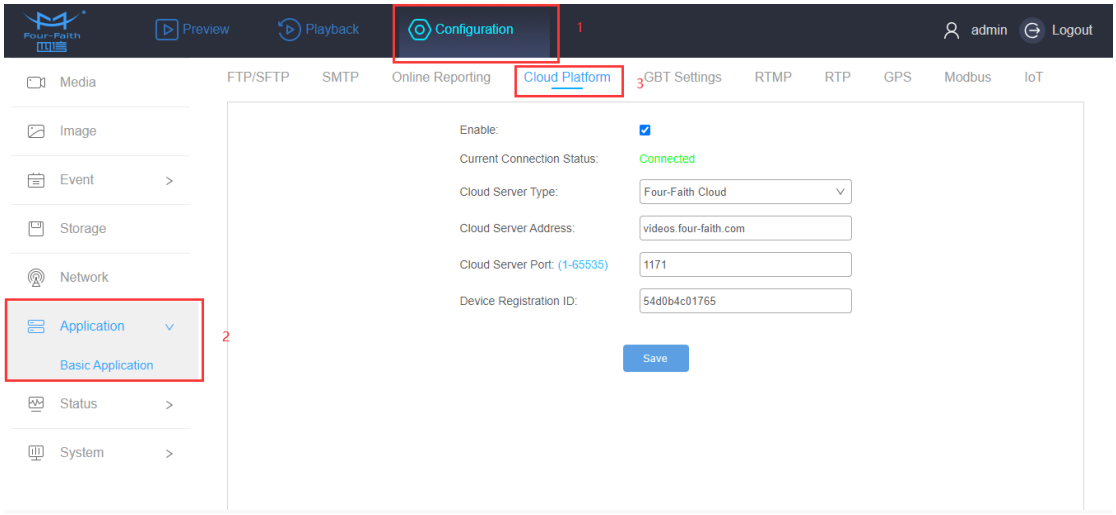


4.2.12 Cloud Platform Configuration

Before configuring the cloud platform, users must connect the device to the network, which can be done through 4G/5G, WiFi, or through Router methods.



Select Configuration—Application—Basic Application and click the ‘Cloud Platform’ on the top of the menu.



1. Enable it

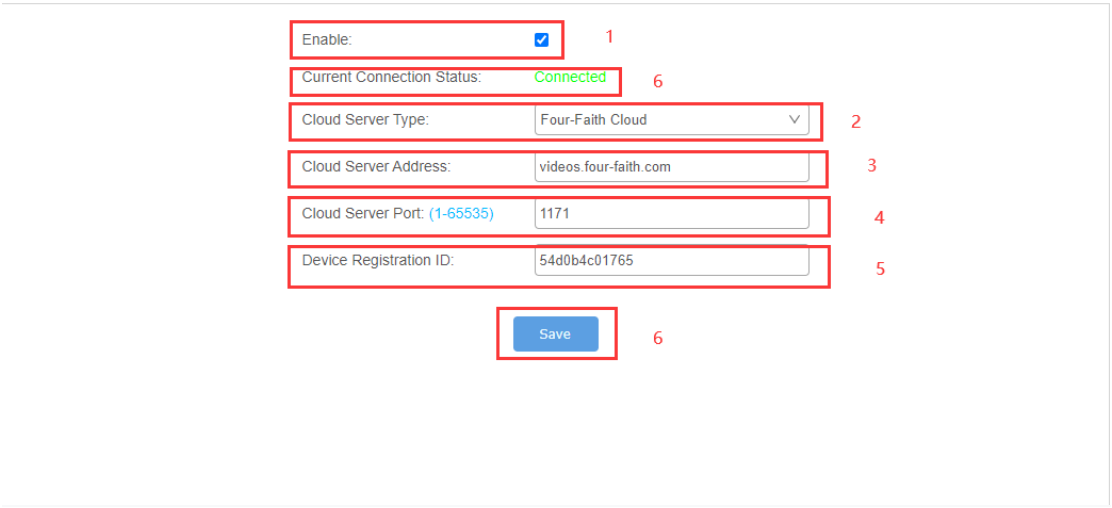
2. Cloud Server Type: Select Four-Faith Cloud

3. Cloud Server Address: Input “videos.four-faith.com”

4. Cloud Server Port: Input 1171(The cloud server address and server port may change by the customer’s local server and local port, customer could check with the technician)

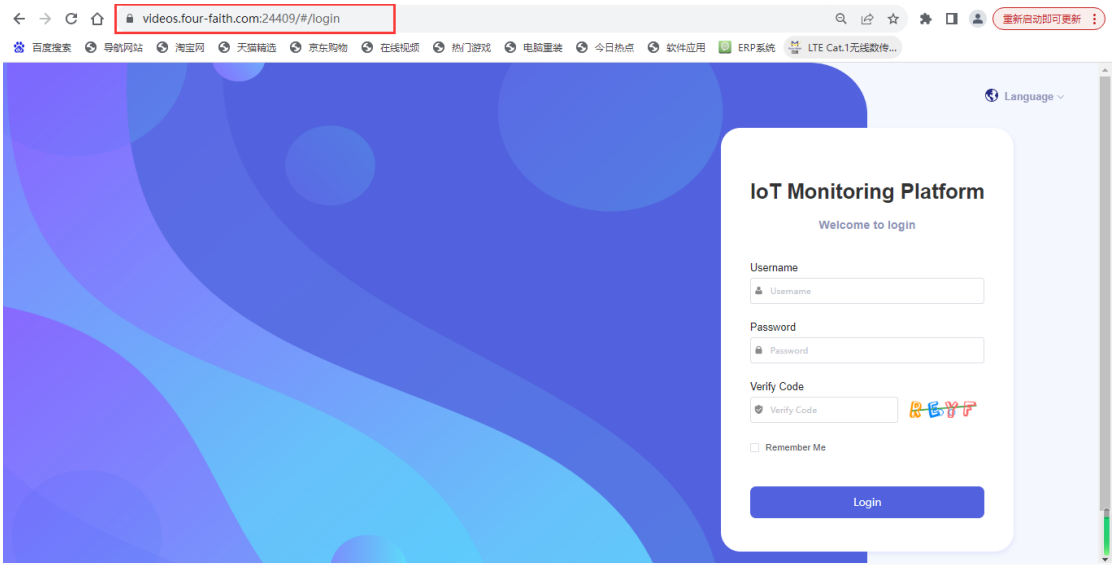
5. Copy the Device Registration ID(make sure that the device registration ID is the same as the ID newly added on the platform and that the capital and small letter must be the same)

6. Click the “Save” button, and check “Current Connection Status”, to see if it is connected.

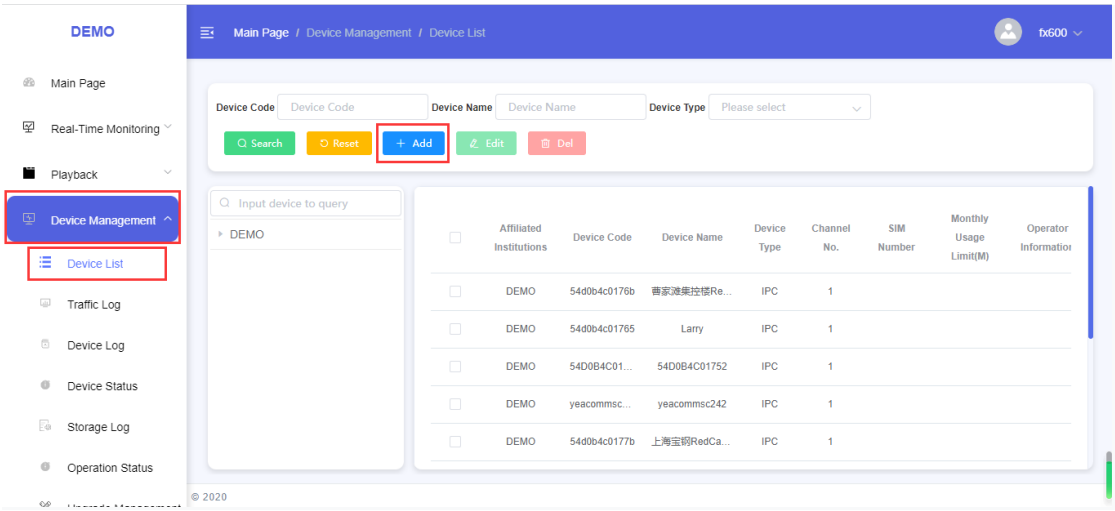


1. Enter the Four-Faith Cloud Platform address on the IE and login to the Four-Faith Cloud Platform. (To use the Four-Faith cloud platform, you need to register an ID in advance, and the account must be applied for beforehand)

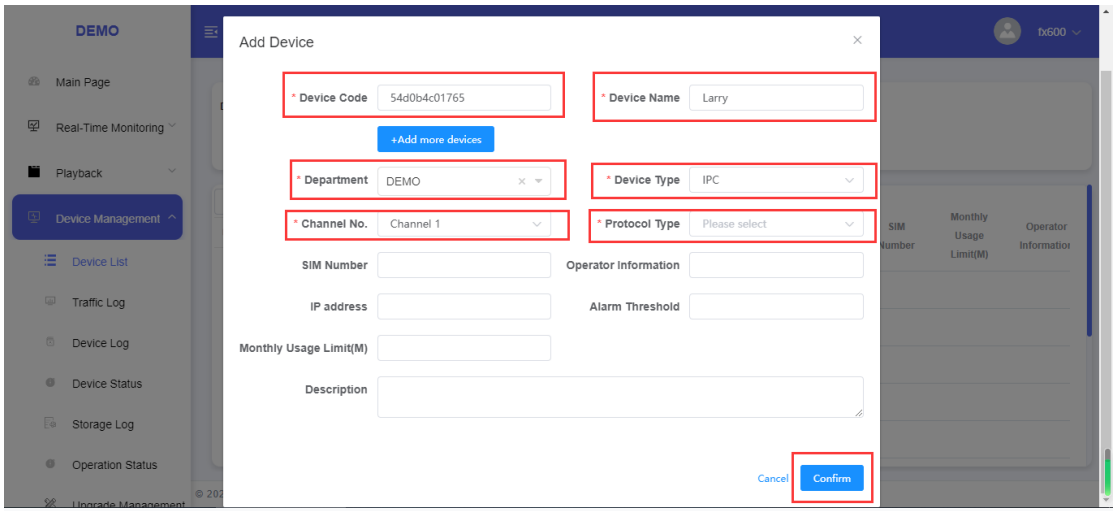
Four-Faith Cloud Platform Address: https://videos.four-faith.com:24409/#/login (The Cloud Platform Address may change by the customer's local server and local port, customer could check with the technician. To ensure that the device can successfully connect to the cloud platform, the cloud server address on the device configuration page must match the cloud platform address here.)



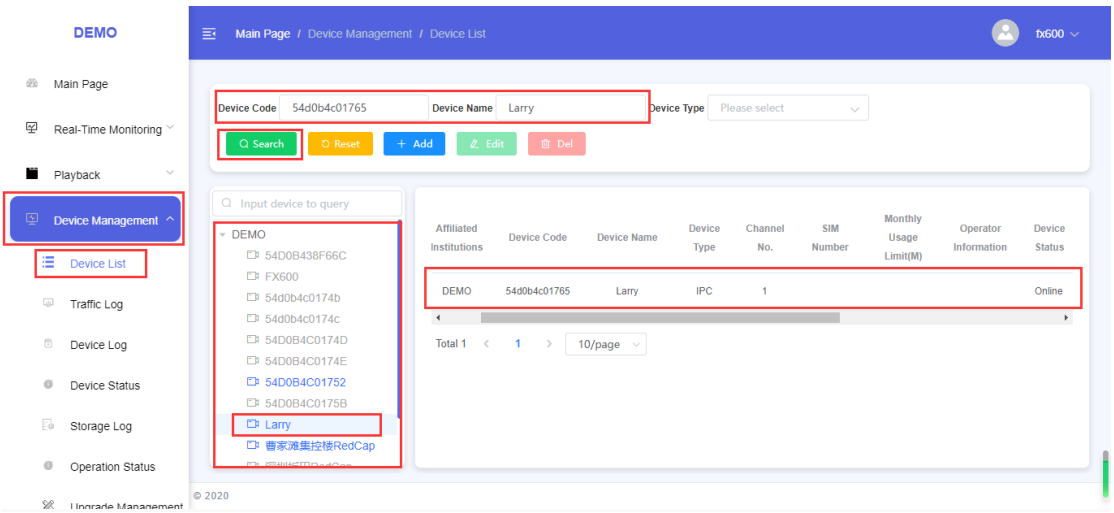
2. Click the Device Management – Device List and choose add option for adding the IPC device to the Four-Faith Cloud Platform.



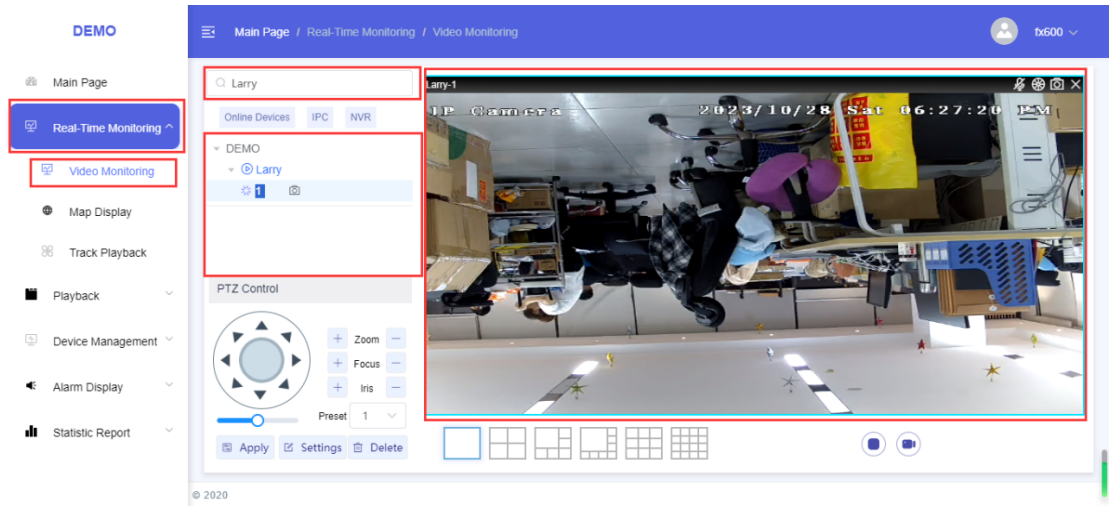
3. Paste the Device Registration ID that copy on the IPC Configuration Page to the Device Code. Create a Device Name. Select the Department, Device Type, Channel No. and Protocol Type. For adding IPC, we choose IPC in Device Type, Channel 1 in Channel No. and Four-Faith in Protocol Type. And then, click Confirm.



4. Check the status of the IPC device. Select Device Management – Device List. Select the Department to which the newly added device belongs or enter the Device Name or Device Code to search for the device and inspect the current status of the new device.

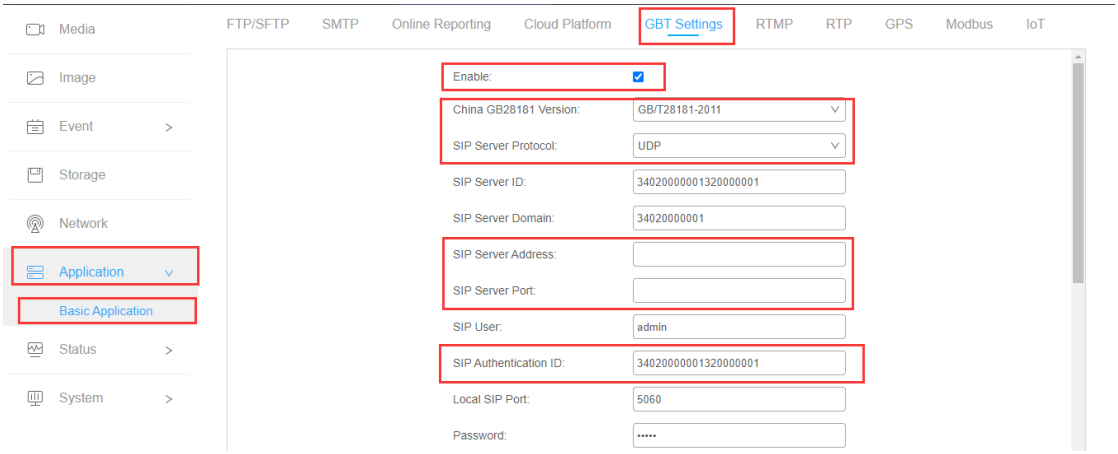


5. Select Real-Time Monitoring – Video Monitoring. Choose Department on the left side and select the IPC user just added or use the Device Name to search. Watch the live stream video on the Four-Faith Cloud Management Platform.



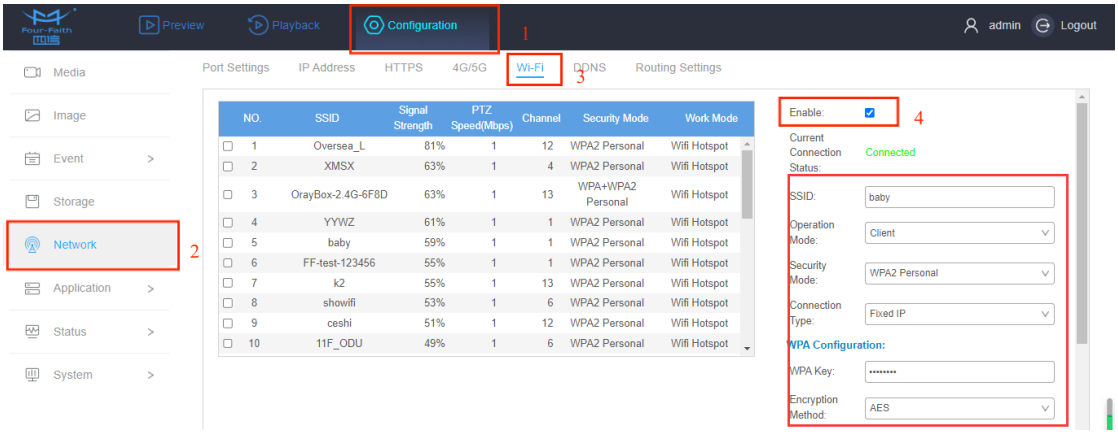
4.2.13 GBT Settings

Select Application – Basic Application. Choose GBT Settings on the top. Enable it and choose the Version, SIP Server Protocol (usually UDP). Set SIP Server Address and SIP Server Port. Set SIP Authentication ID.



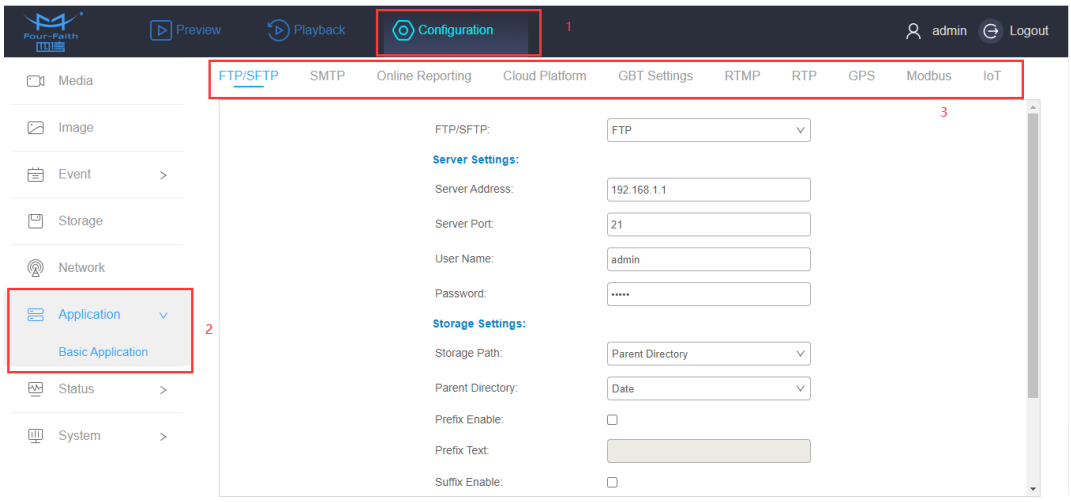
4.2.14 WIFI Configuration

1. AP Mode: After the client connects, it can only access the IPC page to configure parameters and cannot access the internet.
2. Client Mode: Can connect to an AP for internet access.
   a) Network priority can be changed to prioritize WiFi.
   b) Change WiFi to client mode, other parameters need to be consistent with the AP to connect, remember to connect the WiFi antenna.

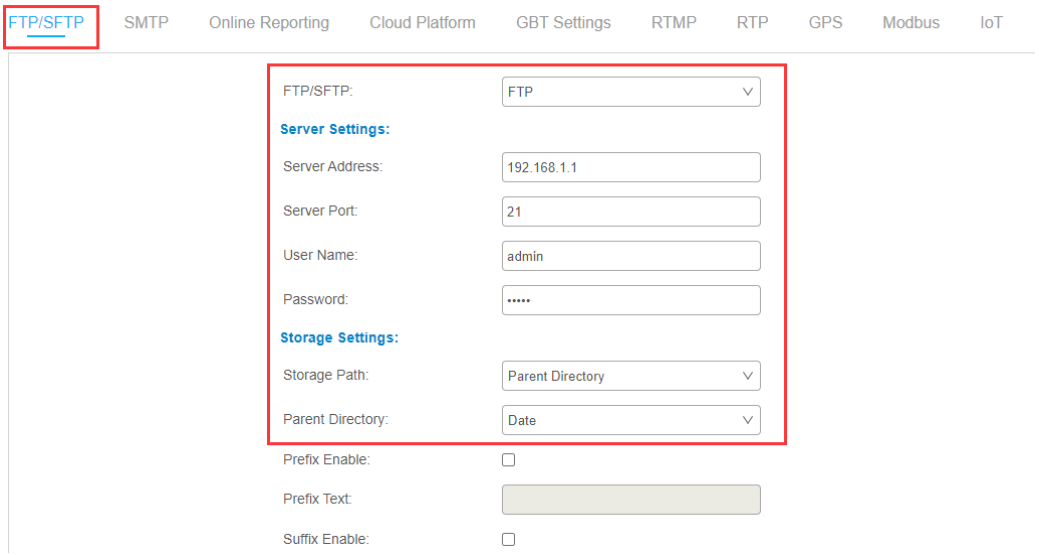


4.2.15 Application

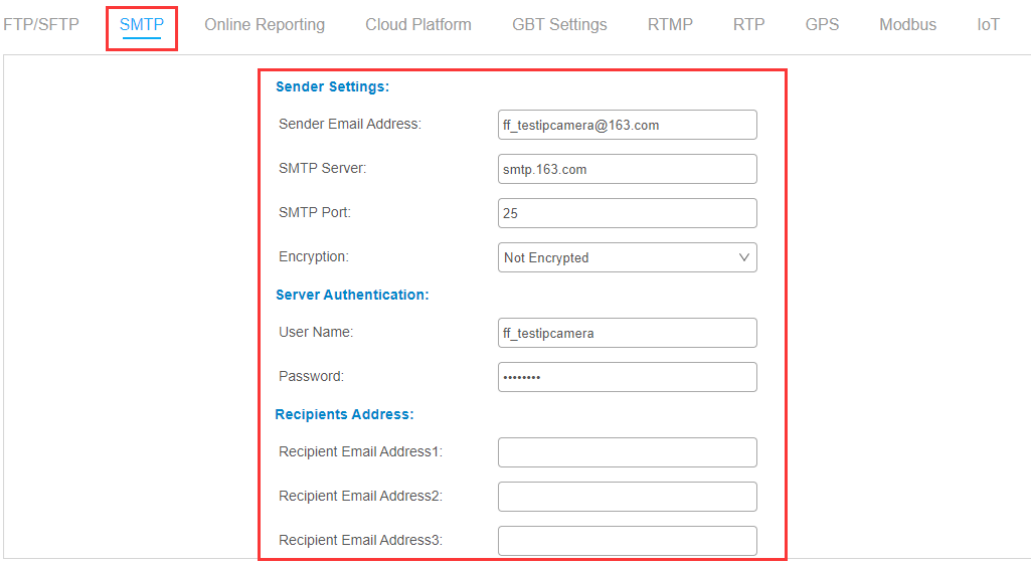
Select Configuration on the top of the page, then choose Application – Basic Application in the left side. Application Configuration includes FTP/SFTP setting, SMTP setting, Online Reporting, Cloud Platform Configuration (refer to 4.2.12), GBT settings(refer to 4.2.13), RTMP Configuration, RTP Configuration, GPS settings, Modbus and IoT Configuration.



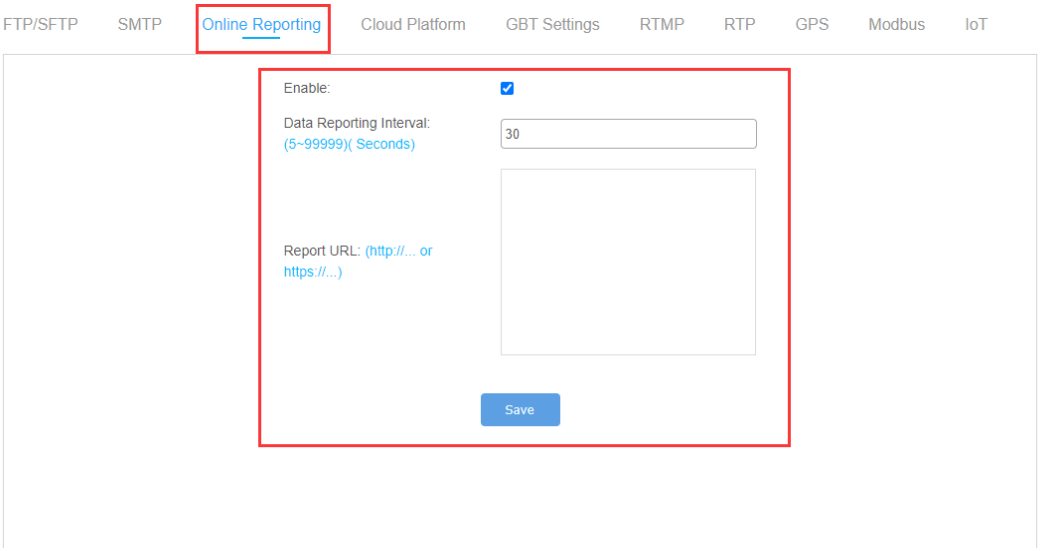
FTP/SFTP settings include the selection of FTP/SFTP, the FTP/SFTP server's address and port information, the username and password used to connect to the FTP/SFTP server, and specifying the storage path of files on the IPC device, and more.



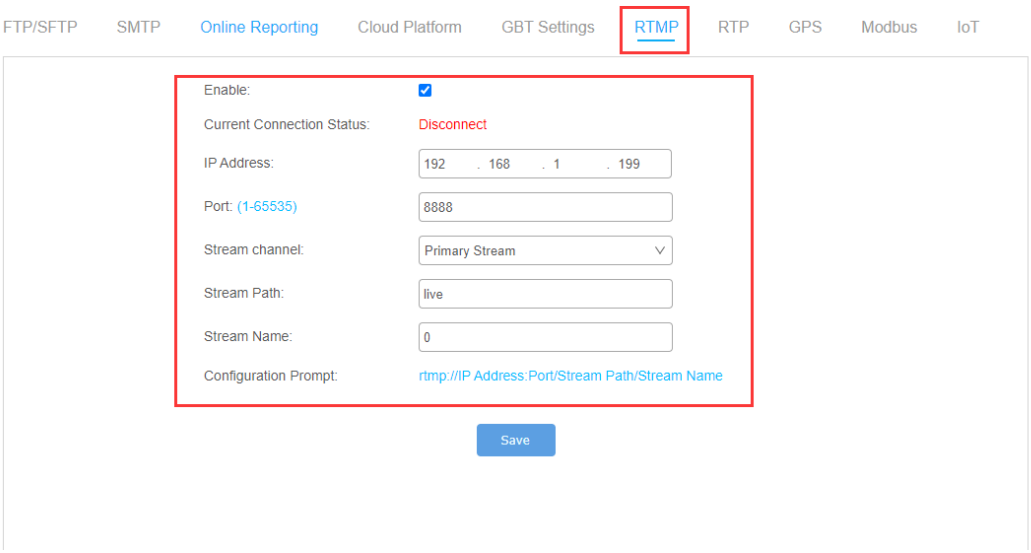
SMTP settings typically include the SMTP server's address and port information, the email address and password for sending emails, the recipient's email address, and so on.



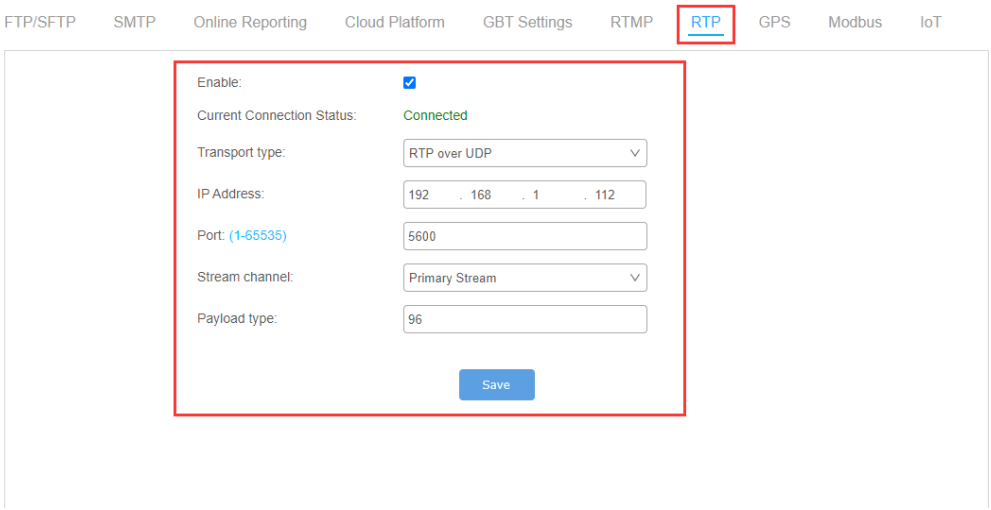
Online Reporting settings in IPC devices typically include options for enabling or disabling online reporting, specifying the reporting interval, and providing details such as the reporting server's address and port.



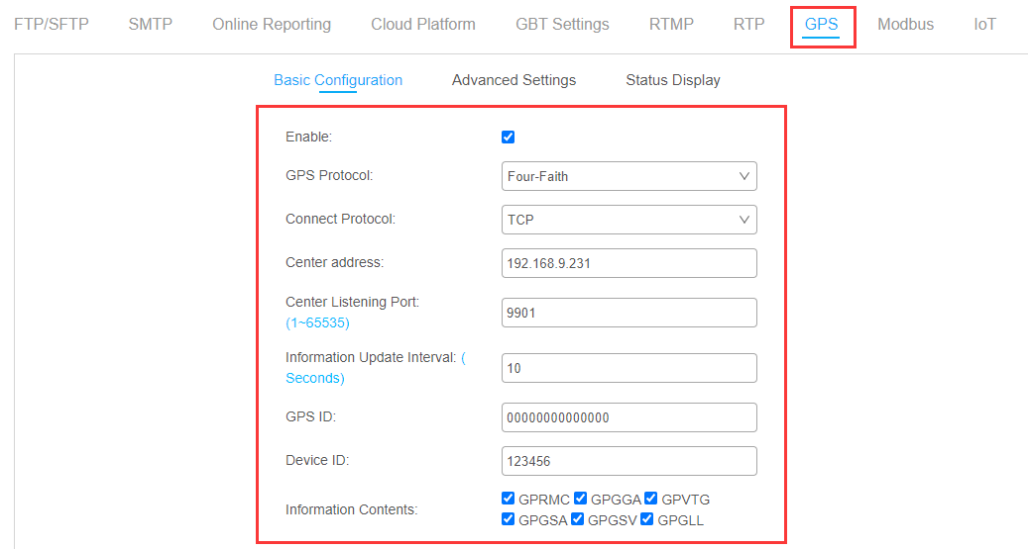
RTMP configuration in IPC devices typically includes settings related to Real-Time Messaging Protocol (RTMP) for streaming. This involves specifying the RTMP server's address and port, stream name, and other relevant parameters. Additionally, it includes options for enabling or disabling RTMP streaming.



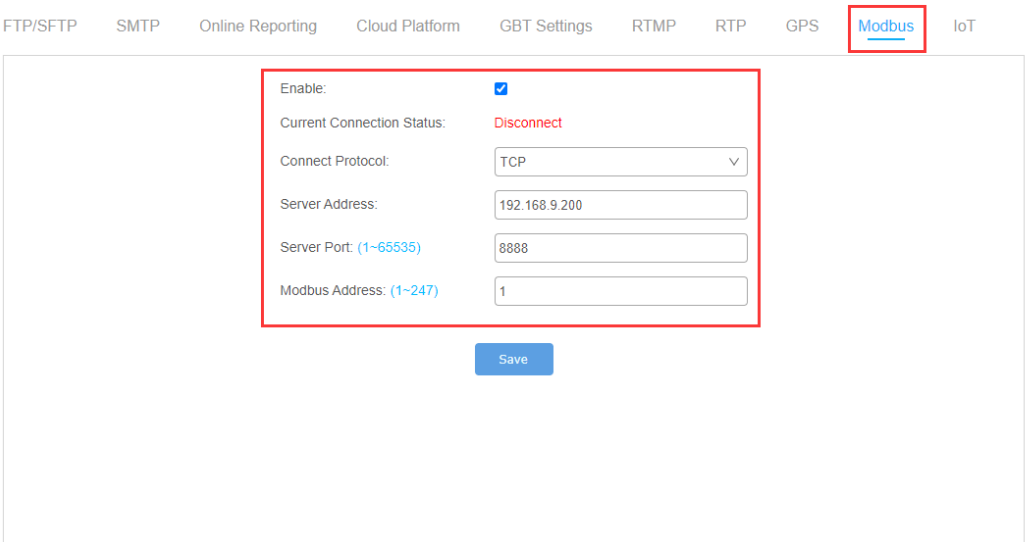
RTP configuration in IPC devices usually involves settings related to Real-Time Transport Protocol (RTP) for audio and video streaming. This includes specifying the RTP server's address and port, stream-related parameters, and options for enabling or disabling RTP streaming.



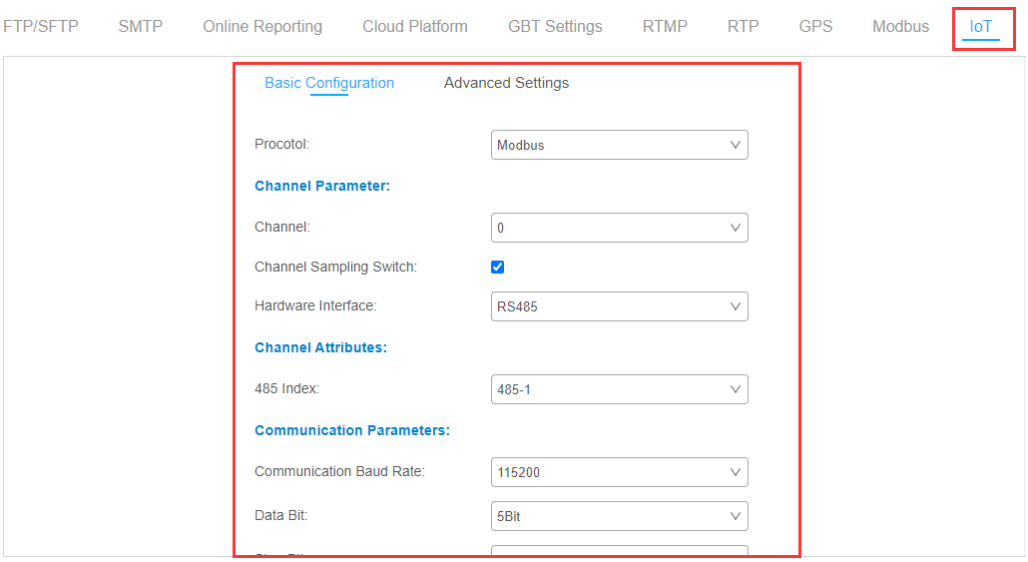
The GPS settings include GPS Protocol, Connect Protocol, Center address, Center Listening Port, GPS ID, and Device ID etc.



Modbus configuration includes Connect Protocol, Server Address, Server Port, and Modbus Address.

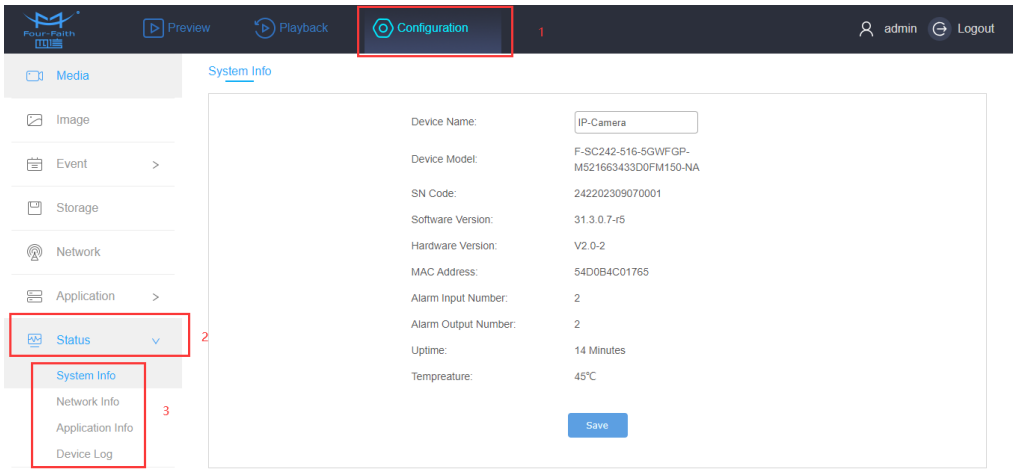


IoT configuration includes Protocol selection, Channel Parameter settings, Channel Attributes settings and Communication Parameters settings.

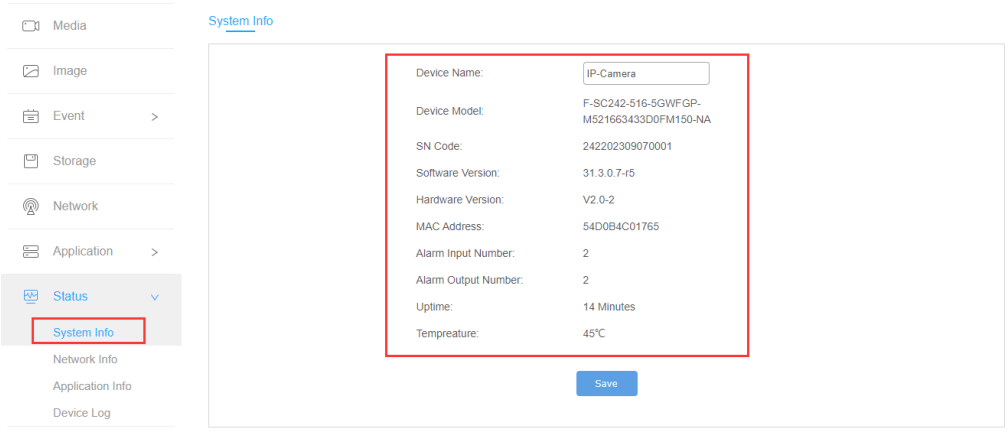


4.2.16 Status

The status display includes System Info, Network Info, Application Info, and Device Log. Select Configuration on the top of the page, then select Status in the left side.

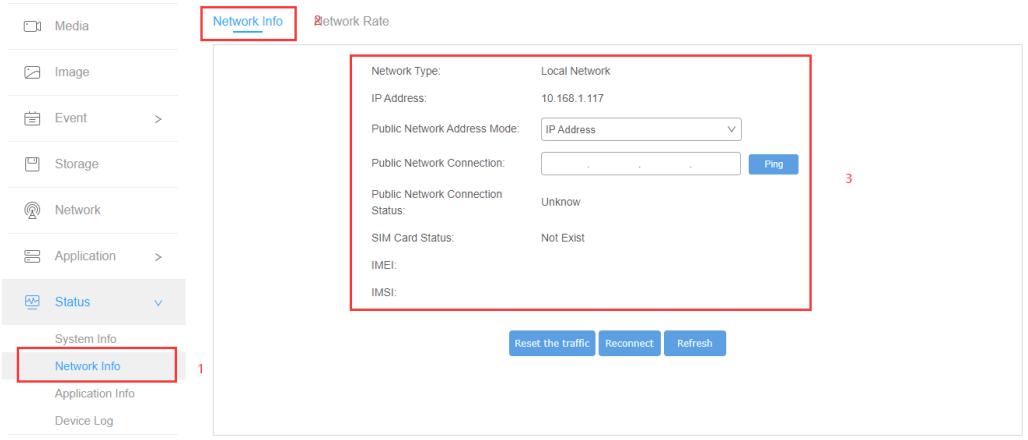


System Info: In System Info, you can edit the device name, view the device model, SN Code, software and hardware versions, Mac address, temperature, and more.

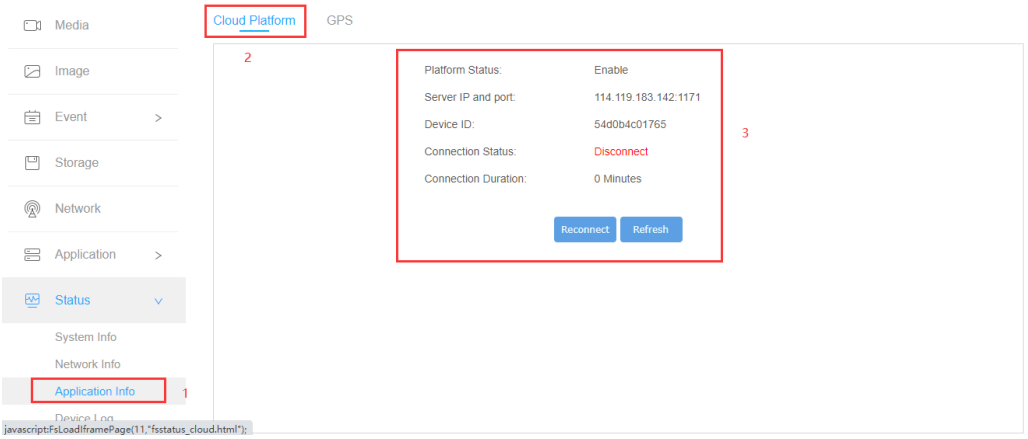


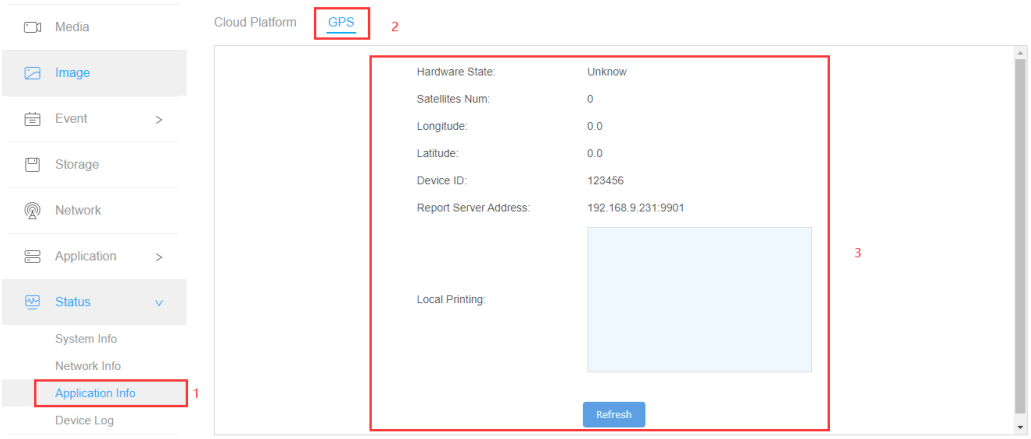
Network Info: Network Info includes Network Info and Network Rate. Users can view

the Network Type and IP Address, choose the Network Address Mode, ping Network Connection, view Network Connection Status and SIM Card Status in Network Info. Users can view the real-time rate of 4G/5G uplink and downlink through charts in Network Rate.

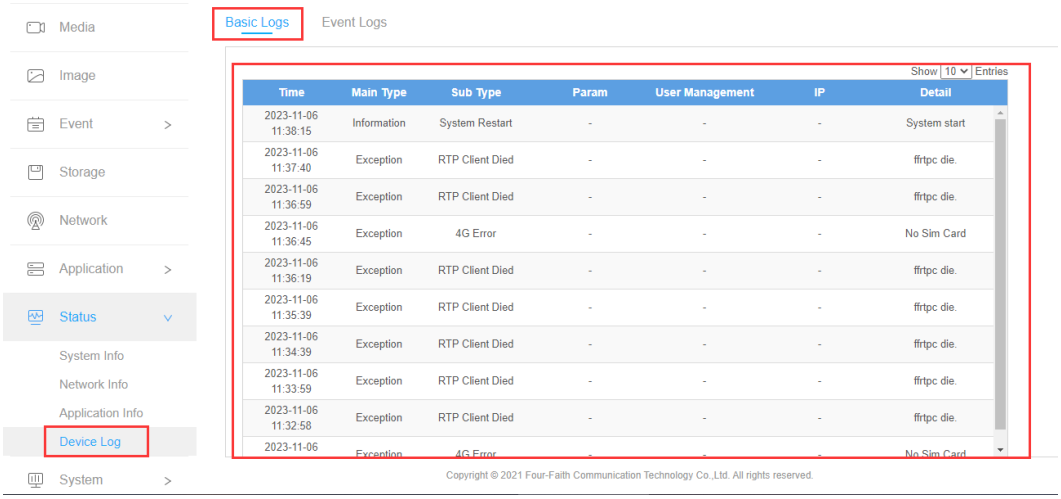


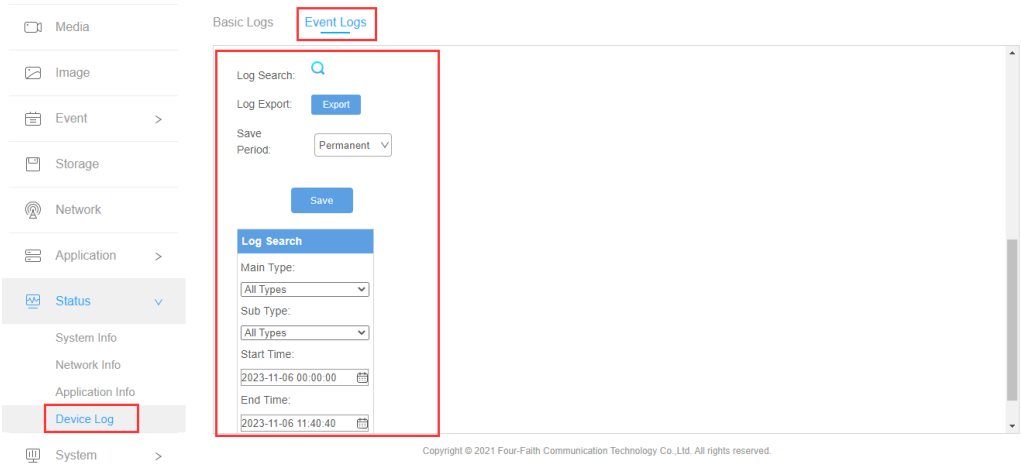
Application Info: Cloud Platform includes the presentation of Platform Status, Server IP and port, Device ID, Connection Status and Connection Duration. GPS includes Hardware State, Satellites Num, Longitude, Latitude, Device ID and Report Server Address.





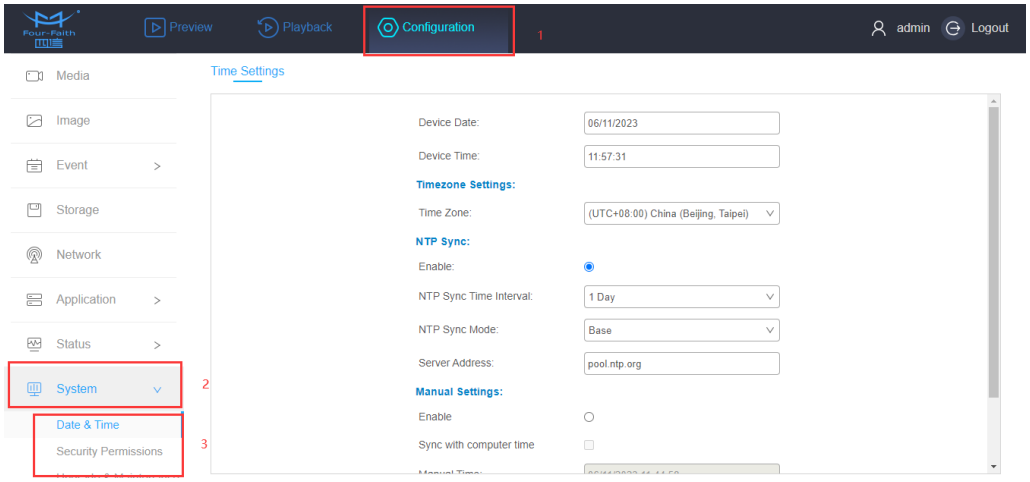
Device Log: The Basic Log displays all error messages from newest to oldest, allowing custom log searches and exports. The Event Log shows all alarm events with detailed information and supports searching and exporting.



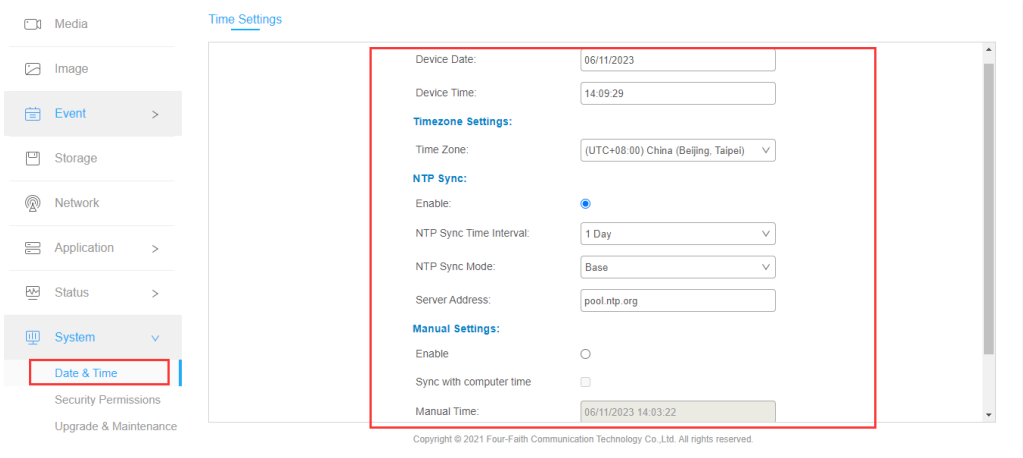


4.2.17 System

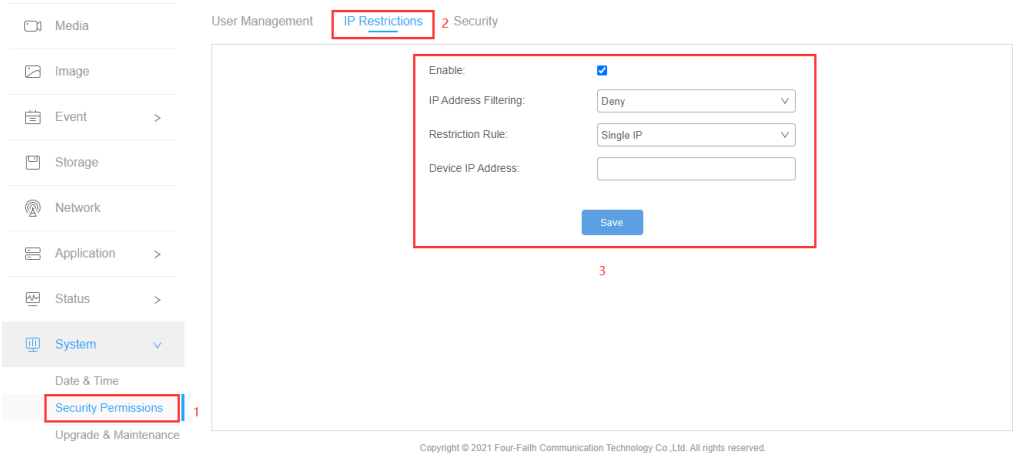
System includes Date & Time Settings, Security Permissions Settings and Upgrade & Maintenance (refer to 4.2.18). Select Configuration on the top of the page, then choose System on the left side.

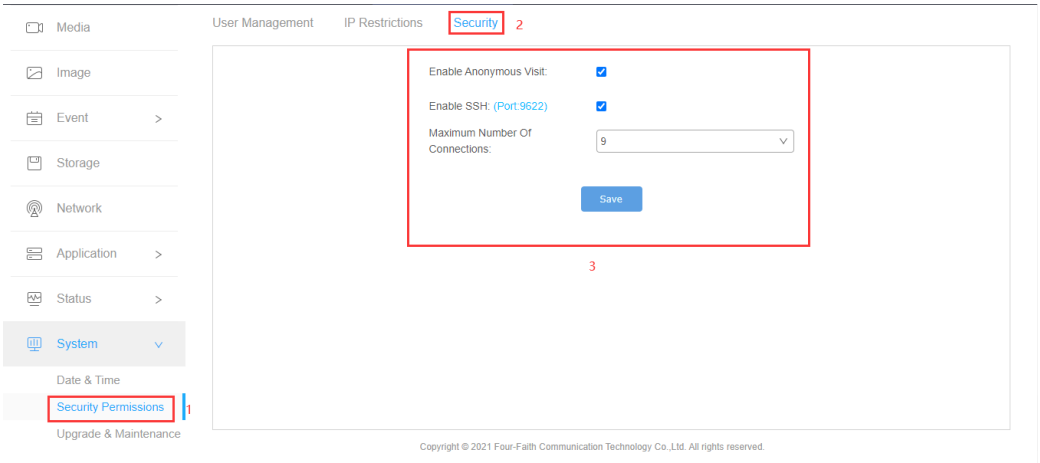


Date & Time: Users can set the device date and time, including timezone selection, NTP sync, and manual settings, through Date & Time Settings.



Security Permissions: Users can manage the user list through User Management. IP Restrictions allow the selection of filtering and restriction rules for IP addresses. In the Security section, users can enable Anonymous Visit and SSH.

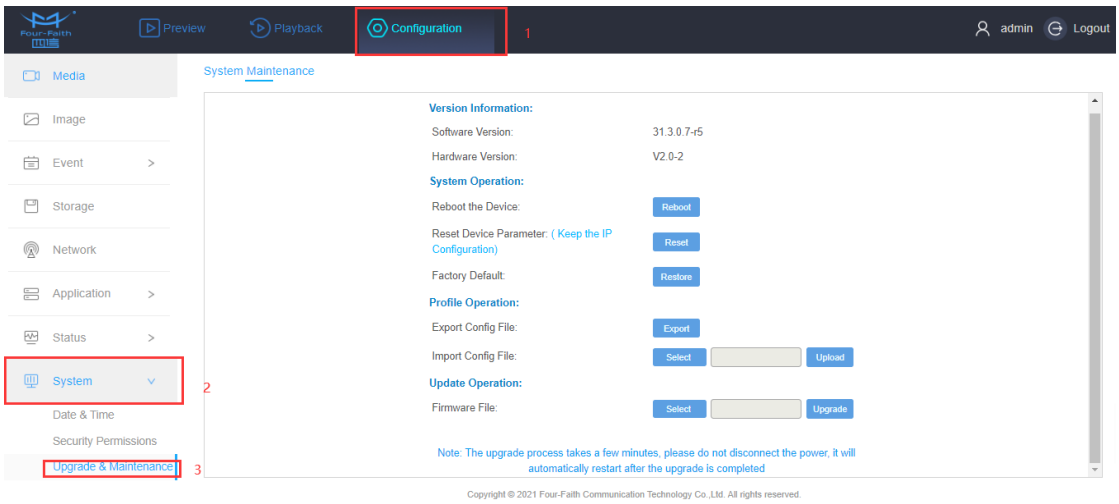




4.2.18 Device Upgrade

1. **Remote Upgrade:** Upload the new firmware through the cloud server API, click the upgrade button on the related web page. The cloud server will automatically send the firmware to the IPC to finish the upgrade. After the upgrade, it will return the result to the web server.

2. **Local Upgrade:** Upgrade the firmware to be updated directly through the local webpage. The webpage will transmit the firmware to the IPC, and then the IPC will automatically upgrade based on the firmware version and verification results. After a successful upgrade, the IPC will restart and prompt the webpage with the upgrade result.



4.3 Video Coding

IPC system provides RTSP protocol to streaming video through network. By typing the RTSP address and port, verify the username and password, user will be able to watch the real-time video streaming on web page, VLC or network video players.

It also supports video streaming through cloud server or from APP. By configuring cloud platform parameters, you can subsequently use the cloud platform to achieve remote video viewing over the public network. Contact your sales for cloud server license.