AT20 Online Thermal Camera

Web Client Operation Manual

V1.0.1

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Statement

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Special Statement

Please strictly abide by the applicable laws and regulations for the use and maintenance of the monitoring interface. Using equipment for illegal purposes or snooping on the privacy of others are all illegal surveillance.

Symbol Description

For the symbols that appear in the document, the description is as follows.

⚠ Cautions: general warning signs, reminding things that should be paid attention to during operation.

📖 Instructions: instructions are emphasis and supplement to the main text.

Table of Contents

1. Preparations for Web Login

1. The default IP address of the camera is192.168.1.20.

2. Modify the IP address of your computer to the same network segment with the camera. For example 192.168.1.100.

3. In the case of normal connection, observe whether the camera can start normally. If the power indicator is always on in blue and the network indicator is flashing in green, it indicates that the host network connection is normal.

Instruction
Google Chrome browser is recommended.

2. Introductions to Web Interfaces

2.1 Login Interface

Enter http://192.168.1.20 in the address bar of the browser, and then enter the login interface. Input the default user name (admin), password (admin), and click "Login".
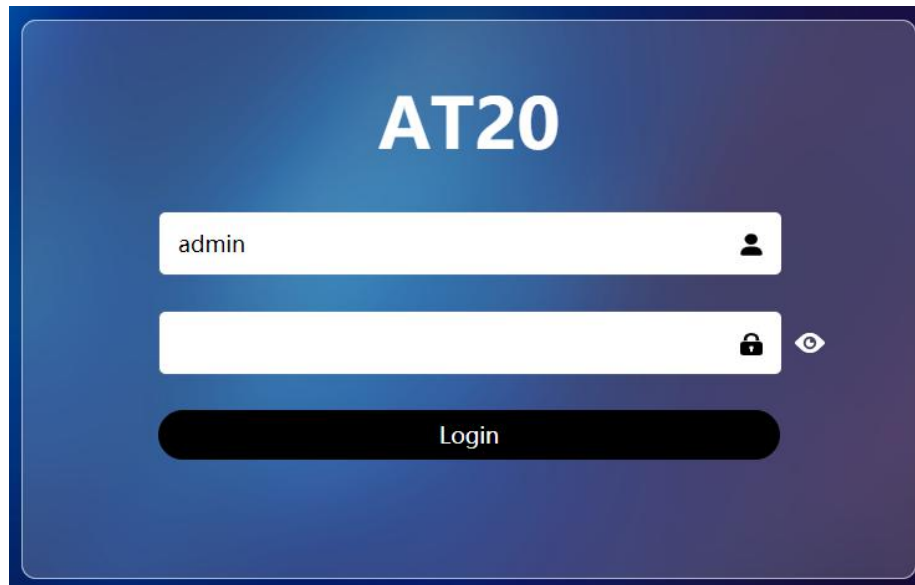

Figure 2.1 Login Interface
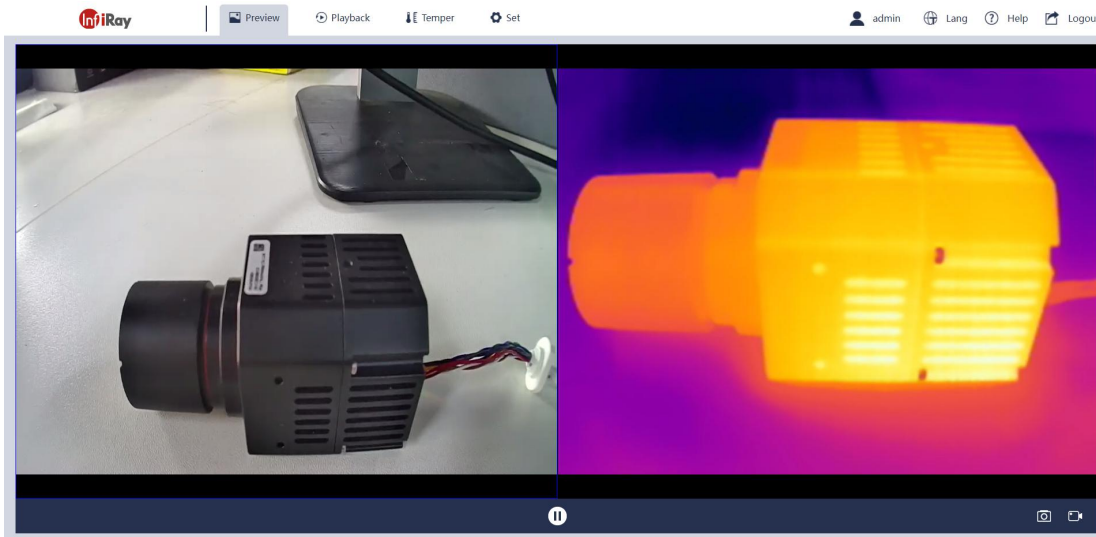
2.2 Preview Interface

Figure 2.2 Preview Interface

Click to select the [Preview] menu to enter the preview interface, as shown in the figure, which contains the following functions.

Display area: visible light/infrared area.

1.Paly ▶ : click the "play" button, the preview window will play the real-time video. Click the "play" button again, and the image will be paused.

2.Snap 📷 : after selecting the infrared image or visible light image by clicking the left mouse, click the "snap" button, and you can save the infrared image or visible light image in the computer in *.JPG format. The naming format for infrared images is "Thermal_year, month, day, hour, minute and second", and naming format for the visible images is "Visible_year, month, day, hour, minute and second".

3.Video 📹 : after selecting the infrared image or visible light image by clicking the left mouse, click the "video" button, the video button will turn to bright blue and start recording, and the video file will be stored in the computer in the *.MP4 format. The infrared video is named in the format "Thermal_ year, month, day, hour, minute and second", and the naming format of visible light video is "Visible_ year, month, day, hour, minute and second".

2.3 Playback Interface

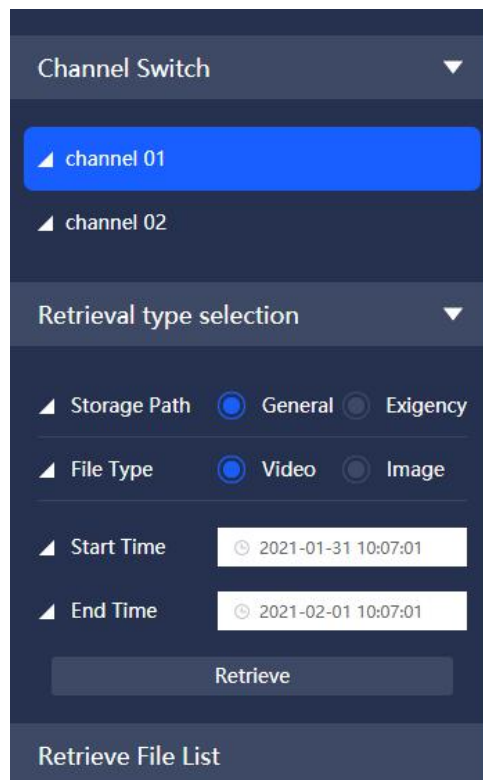Click to select the [Playback] menu to enter the playback interface, which contains the following functions.

Figure 2.3 Playback Interface

Retrieval: retrieval type selection-select the storage path (general or exigency) and file type (video or image), enter the start/end time of the query video, and click the "Retrieve" button to display the video files that meet the query conditions in the list.

2.4 Temperature Interface

Click to select the [Temper] menu to enter the temperature setting interface, which contains the following functions.

1.Thermometry: the thermometry function is closed by default. After the thermometry, function is turned on, the point, line, and region setting functions will be displayed at the bottom of the thermometry page.

2.Temperature Rate: the frame rate of temperature measurement can be manually set, ranging from 1 to 10.

3.Temperature Gear: the temperature measurement range of the thermal camera can be manually set, and it supports switching between -20℃～150℃ and 100～550℃.

4.Environmental Parameters: you can manually set the temperature measurement parameters of the object here.
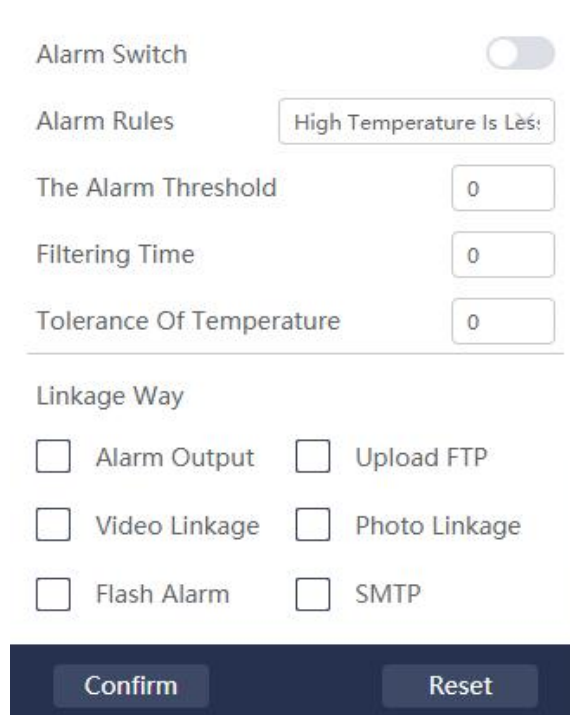
Parameters to be set:

（1）Emissivity: 0.01～1.0

（2）Refl. Temp.: -10℃～50℃

（3）Atmospheric Tem.: -10℃～50℃

（4）R.H.: 0～1

（5）Distance: 0.25m～4m

5.Measurement Analysis: with the measurement analysis, you can not only monitor the temperature at the set temperature measurement tools in real time, but also do the alarm configuration at each temperature measurement tool, including alarm switches, alarm rules, alarm thresholds, filter time, tolerance temperature, and alarm linkage way. You can also delete the temperature measurement tool.

Figure 2.4 Measurement Tool-Alarm Interface

6. Measurement Tools: three different temperature measurement tools can be set in the lower left corner.

(1) Point temperature: click this button, and then click the left mouse button in the infrared image area to complete temperature measurement point drawing.

(2) Line temperature: click this button, and then click the left mouse button in the infrared image area. Move the mouse to draw measurement line, and click the left mouse button again to complete the drawing of the temperature line.

(3) Regional temperature: click this button, and then click the left mouse button in the infrared image area. Move the mouse to draw rectangle, and click the left mouse button again to complete the drawing of the regional temperature.

📖 Instructions
Maximum 16 measurement tools can be drawn.

7. Display temperature bar 🌡️ : click this button to open/close temperature bar.

8. Pseudo Color 🌈▾ : you can switch 13 kinds of pseudo-colors such as WhiteHot\BlackHot\Rainbow\Rainbow HC\iron \lava\sky.

⚠️ Cautions
To switch the pseudo-color function, you first need to enable the pseudo-color function in the "Camera Settings". For details, please refer to 2.5.1.

2.5 Set Interface

2.5.1 Camera Setting

1. Click [Set] menu to select [Camera Setting] and enter the setting interface, and click the camera parameters.

This menu contains:

1) Channel Switch: default channel 1(visible light) can be switched to channel 2(infrared).

2) Video Flip: default status is "not flip". You can manually switch to "flip vertical" mode, and the image can be turned upside down. Infrared imaging also supports the below functions.

1）Pseudo Color: it contains pseudo-color enable (open pseudo-color switching) and pseudo-color switching functions.

2) Dual Spectrum: it contains dual spectrum enable and mode switching (switchable dual spectrum fusion or detail enhancement) functions.

2. Click the video and select the video stream. This menu contains two parts: main stream and auxiliary stream.

Main stream and auxiliary stream include the following functions.

1) Resolution: the resolution of the camera can be set.

2) Video Frame Rate: the video frame rate can be set from 1 to 30.

3) Encoding Scheme: the way of encoding scheme can be modified.

4) Reference Stream: display the reference stream value.

5) Stream Limit: set the upper limit of the transmission speed of the code stream.

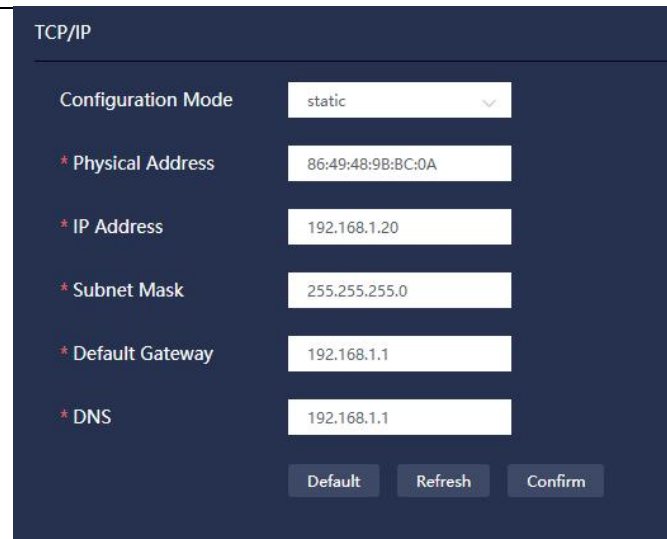**6) Frame Spacing**: set the spacing between key frames.

Select video overlay, the channel overlay function can be set under this menu, including:

1) Channel Title: manually select whether or not to enable the channel title. If enabled, you can manually enter the channel title.

2) Time Title: manually select whether or not to enable the time title.

2.5.2 Network Settings

1. Click the [Set] menu to select [Network Settings] and enter the setting interface. Click TCP/IP, and the interface is as shown in the figure below.

Figure 2.5 TCP/IP Interface

It includes the following functions.

1) Configuration Mode: default is static.

2) Physical Address: read the MAC address of the camera.

3）IP Address: read and modify the IP address of the camera, and you need to log in to the Web again after modification.

4) Subnet Mask: read and modify the subnet mask of the camera.

5) Default Gateway: read and modify the default gateway of the camera.

6) DNS: read and modify DNS of the camera.

 2. Click SMTP and the interface is as follows:

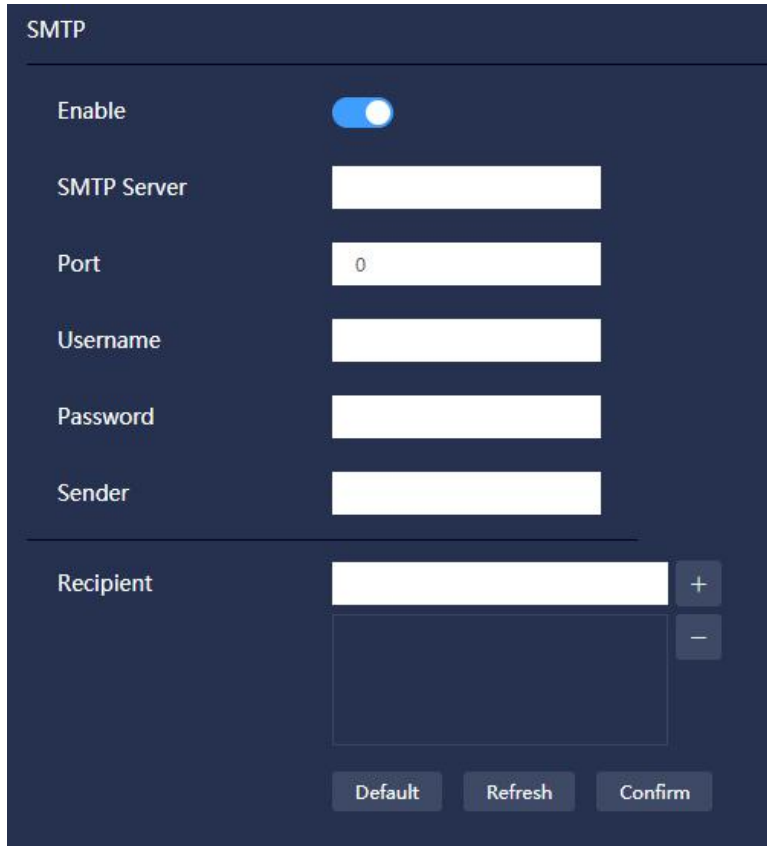**Figure 2.6 SMTP Interface**

The interface includes the below functions：

1) Enable: enable the email alarm linkage function.

2) Settings: SMTP server, port, user name, password, sender and recipient can be set.

⚠ Cautions
Alarm email can be triggered once a minute.

3. Click platform access to set the related information which includes the below functions.

1）**Modbus**

2）**MQTT**

4. Click WLAN hotspot to set the related information which includes the below functions.

1) Enable: enable the WLAN function of the camera.

2) SSID: set the SSID of the camera.

3) Password: set the password of the WLAN.

4) Encryption: set the encryption method of the WLAN, the default is WPA-PSK, and you can choose "No Encryption".

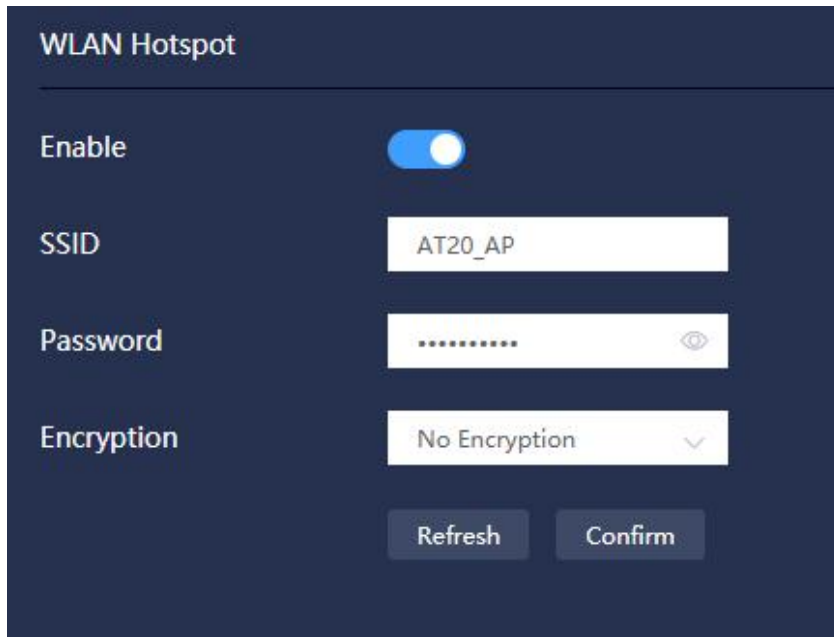**The device access address through WiFi is** 192. 168. 2. 100.

Figure 2.7 Network Settings-WLAN Hotspot Interface

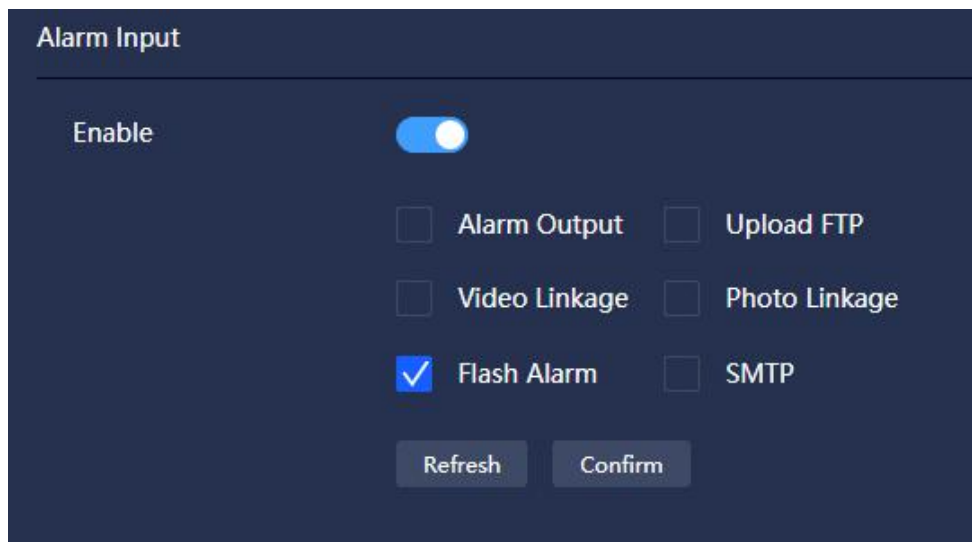| ⚠ Cautions |
|---|
| After turning on the camera hotspot, use a mobile phone or computer to connect to the hotspot and enter the IP address 192.168.2.100 in the browser to access Web interface of the camera. |

2.5.3 Peripherals Settings

1. Click the [Set] menu to select [Peripheral Settings] to enter the setting interface. Click fill light, you can set the fill light information there, which contains the following functions.

1) Enable: if enabled, the camera will automatically turn on the fill light at night.

2. Click the [Set] menu to select [Peripheral Settings] to enter the setting interface. Click alarm input, you can set the alarm information there, which contains the following functions.

1) Enable: enable the function of alarm input.

2) After alarm input is enabled, you can select the alarm input trigger functions below, including alarm output, upload FTP, video linkage, photo linkage, flash alarm, and SMTP.

Figure 2.8 Peripherals Settings-Alarm Input
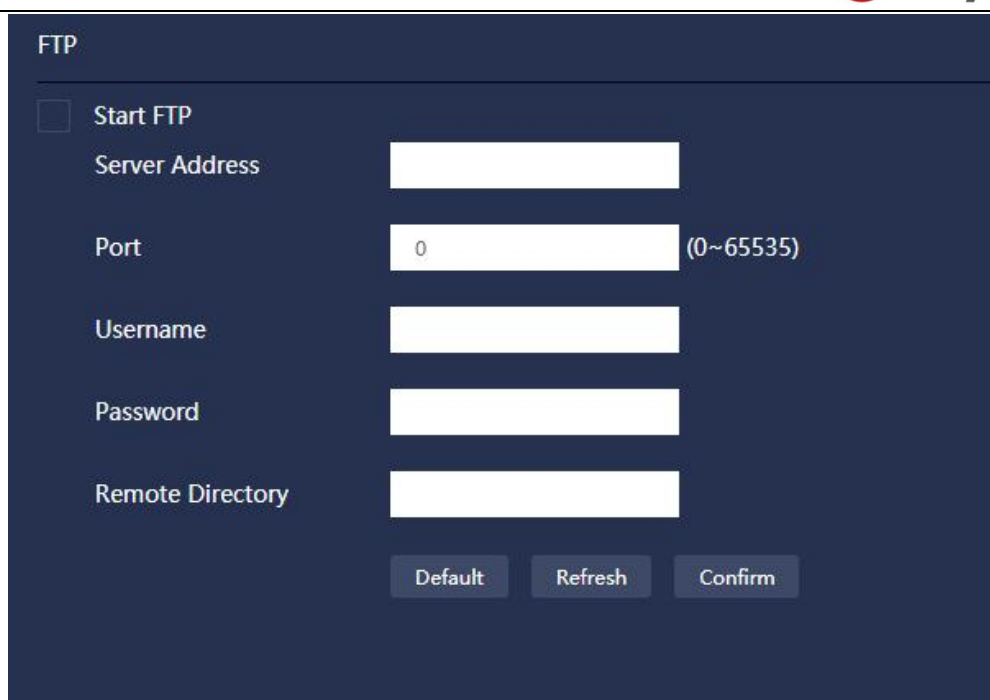
2.5.4 Storage Management

1. Click [Set] menu to select [Storage Management] and enter the setting interface. Click "Confirm" to set the storage information in this interface:

Under this menu, check the "Start FTP" button, and enter the server address in sequence: such as ftp://10.10.18.10, port, user name, password, remote directory, and click the "Confirm" button after input.

⚠ Cautions
After setting FTP, you need to check the upload FTP function in the alarm option in the temperature measurement analysis, and then the pictures or videos triggered by the alarm will be uploaded to the set FTP directory.

Figure 2.9 Storage Management-FTP Interface

2. Click "Video Control" to set video-related functions.

1) **Video Split Size**: set the size of the video.

2) **Video Split Time**: set the time of the video.

3) **Video Split Type**: default status is "Both".

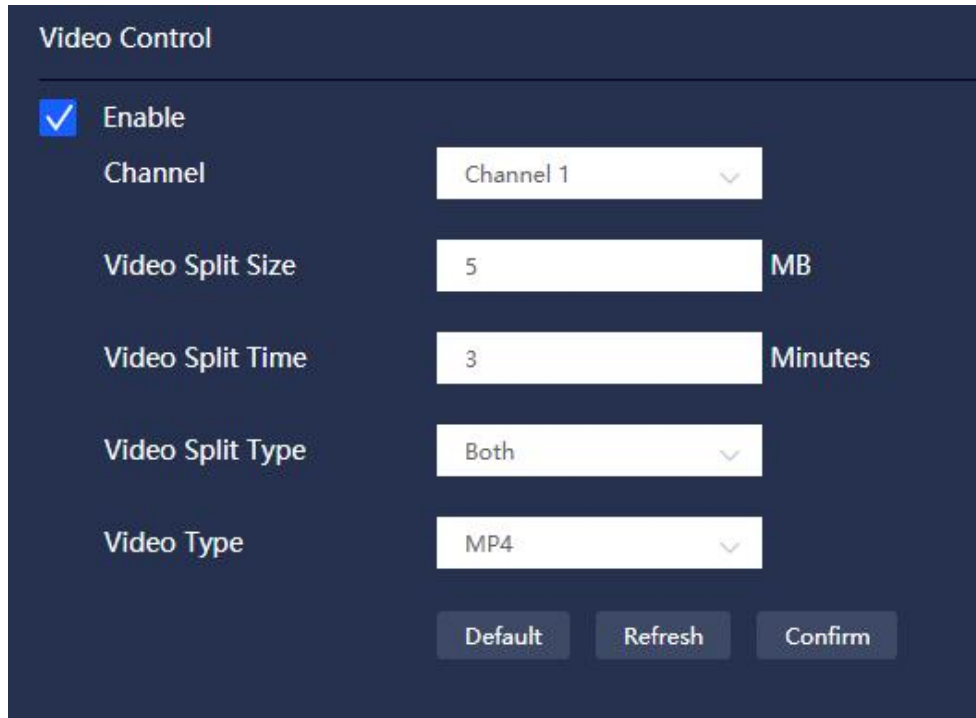4) **Video Type**: default status is "MP4".

Figure 2.10 Storage Management-Video Control Interface

2.5.5 System Management

1. Click [Set] menu to select [System Management] and enter the setting interface, and click "Local Setting". There are two sub-function columns under this function. The camera information can be set in the local setting, the menu contains:

1) Device Name: the name of the device can be read, modified and displayed on the device page.

2) Language: simplified Chinese or English can be selected.

3) Video Formats: modify the current video format, and support 50Hz/60Hz switching.

The current display time can be modified in date and time

interface. The system time can be set or synchronized with the computer time through the Sync PC button.

📖 Instructions
The current settings can be saved after synchronization, and no need to repeat settings.

2. Click "User Management" page to add and configure users. User management operations can only be performed when the user has the management permissions.

User:

1. The system has a default user admin which is the highest authority user by default at the factory (the admin user cannot be deleted). Other non-admin users can be customized to add.

2. Admin users can delete and modify non-admin users, and non-admin users can only modify their own login password.
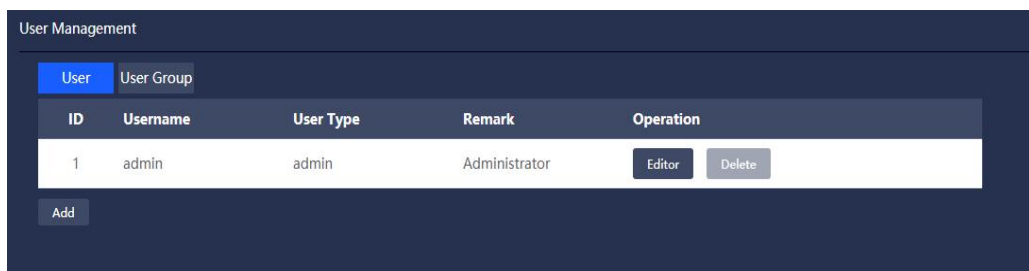

Figure 2.11 User Management-User Interface

User Group:

1. The system has a default admin user group which has the highest authority and cannot be deleted. Other non-admin user group can be customized to add.

2. Admin user group can delete and modify non-admin user group (when there is no user in the non-admin user group), and admin user group can view the information of all user groups information as shown in the figure below.
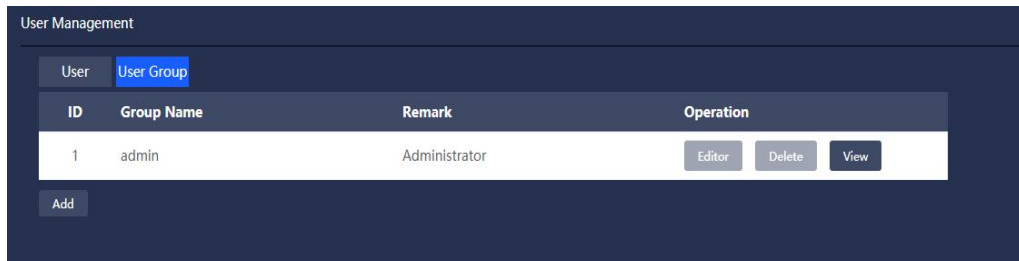

Figure 2.12 User Management-User Group Interface

2.5.6 System Maintenance

1. Click [Set] to select [System Maintenance] and enter the setting interface, and then click "Backup and Restore". The menu contains the following functions.

1) Factory Data Reset: the parameters of the camera can be restored to the factory status.

2) Restart: you can restart the camera.

2. Click the "System Upgrade" interface, and you can import the upgrade file to upgrade here. The specific operation process is as follows. Select format, click import, select the file that needs to be imported, and click upgrade. After the upgrade is completed, the camera will automatically restart which will take about two minutes. Please wait patiently till the upgrade is complete.

3. Click the "Version Information" interface, which contains the following functions.

Read the PN number, Sensor ID, serial number, core firmware version, software version, and Web version of the current camera.

2.6 Other Settings

1. Click "language" in the upper right corner of the Web terminal to switch the language to Chinese/English.

2. Click "help" in the upper right corner of the Web terminal to get the camera specification.

3. Click "logout" in the upper right corner of the Web terminal to log out of the current login.

FAQ

1. The camera can not be accessed through browser.

(1) Possible cause: network failure?

Solution: connect a PC to the network to test whether the network access can work normally. Firstly, eliminate cable faults and network faults caused by PC viruses until the PCs can ping each other.

(2) Possible cause: the IP address is occupied by other devices ?

Solution: disconnect the network video server from the network, connect the network video server and the PC separately, and reset the IP address according to the appropriate recommended operation.

(3) Possible reasons: IP addresses are located in different subnets ?

Solution: Check the server's IP address, subnet mask address and gateway settings.

2. After the program is upgraded, the video cannot be played normally.

Solution: reconnect the camera with a browser.