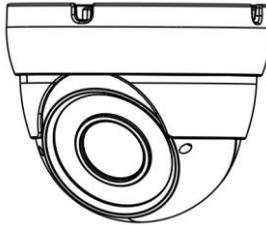
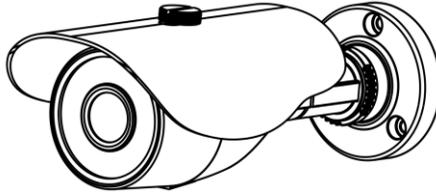


High-Resolution IR Camera User Manual



WBXID282MW(G)
WBXID284MW(G)
WBXID28122MW(G)
WBXID28124MW(G)
WBXIB362MW(G)
WBXIB364MW(G)
WBXIB28124MW(G)
WBXIB28122MW(G)

If you have any questions, please
contact your ADI salesperson.

Precautions

Precautions

Fully understand this document before using this device, and strictly observe rules in this document when using this device. If you install this device in public places, provide the tip "You have entered the area of electronic surveillance" in an eye-catching place. Failure to correctly use electrical products may cause fire and severe injuries. To prevent accidents, carefully read the following context:

Symbols

This document may contain the following symbols whose meanings are described accordingly.

Symbol	Description
 DANGER	It alerts you to fatal dangers which, if not avoided, may cause deaths or severe injuries.
 WARNING	It alerts you to moderate dangers which, if not avoided, may cause minor or moderate injuries.
 CAUTION	It alerts you to risks. Neglect of these risks may cause device damage, data loss, device performance deterioration, or unpredictable results.
 TIP	It provides a tip that may help you resolve problems or save time.
 NOTE	It provides additional information.

DANGER

To prevent electric shocks or other dangers, keep power plugs dry and clean.

WARNING

- Strictly observe installation requirements when installing the device. The manufacturer shall not be held responsible for device damage caused by users' non-conformance to these requirements.

- Strictly conform to local electrical safety standards and use power adapters that are marked with the LPS standard when installing and using this device. Otherwise, this device may be damaged.
- Use accessories delivered with this device. The voltage must meet input voltage requirements for this device.
- If this device is installed in places with unsteady voltage, ground this device to discharge high energy such as electrical surges in order to prevent the power supply from burning out.
- When this device is in use, ensure that no water or any liquid flows into the device. If water or liquid unexpectedly flows into the device, immediately power off the device and disconnect all cables (such as power cables and network cables) from this device.
- Do not focus strong light (such as lighted bulbs or sunlight) on this device. Otherwise, the service life of the image sensor may be shortened.
- If this device is installed in places where thunder and lightning frequently occur, ground the device nearby to discharge high energy such as thunder strikes in order to prevent device damage.

**CAUTION**

- Avoid heavy loads, intensive shakes, and soaking to prevent damages during transportation and storage. The warranty does not cover any device damage that is caused during secondary packaging and transportation after the original packaging is taken apart.
- Protect this device from fall-down and intensive strikes, keep the device away from magnetic field interference, and do not install the device in places with shaking surfaces or under shocks.
- Clean the device with a soft dry cloth. For stubborn dirt, dip the cloth into slight neutral cleanser, gently wipe the dirt with the cloth, and then dry the device.
- Do not jam the ventilation opening. Follow the installation instructions provided in this document when installing the device.
- Keep the device away from heat sources such as radiators, electric heaters, or other heat equipment.
- Keep the device away from moist, dusty, extremely hot or cold places, or places with strong electric radiation.
- If the device is installed outdoors, take insect- and moisture-proof measures to avoid circuit board corrosion that can affect monitoring.
- Remove the power plug if the device is idle for a long time.
- Before unpacking, check whether the fragile sticker is damaged. If the fragile sticker is damaged, contact customer services or sales personnel. The manufacturer shall not be held responsible for any artificial damage of the fragile sticker.

Special Announcement

All complete products sold by the manufacturer are delivered along with nameplates, operation instructions, and accessories after strict inspection. The manufacturer shall not be held responsible for counterfeit products.

This manual may contain misprints, technology information that is not accurate enough, or product function and operation description that is slightly inconsistent with the actual product. The manufacturer will update this manual according to product function enhancement or changes and regularly update the software and hardware described in this manual. Update information will be added to new versions of this manual without prior notice.

This manual is only for reference and does not ensure that the information is totally consistent with the actual product. For consistency, see the actual product.

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1 Hardware Connection

Figure 1-1 shows the power and network cables.

Figure 1-1 Power and network cables

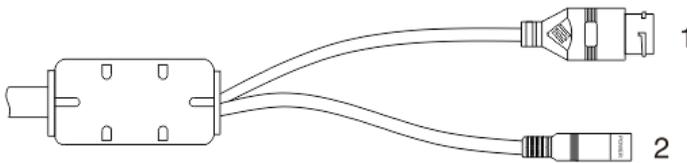


Table 1-1 shows the description of the cable.

Table 1-1 description of the cable

ID	Core	Description
1	Network access port	Connects to a standard Ethernet cable.
2	Power supply (DC 12V)	Connects to a 12V(-15%~+10%) direct current (DC) power supply.

2 Eyeball Camera

2.1 Dimensions

Figure 2-1 shows the camera dimensions of WBXID282MW(G).

Figure 2-1 Dimensions of WBXID282MW(G) (unit: mm)

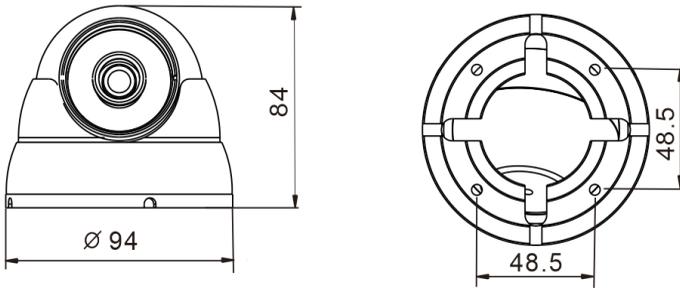
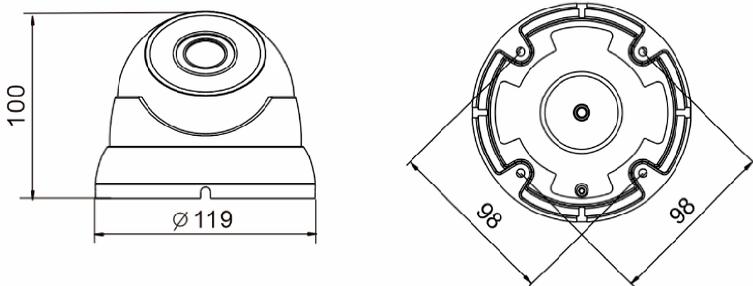


Figure 2-2 shows the camera dimensions of WBXID28122MW(G) , WBXID28124MW(G) and WBXID284MW(G).

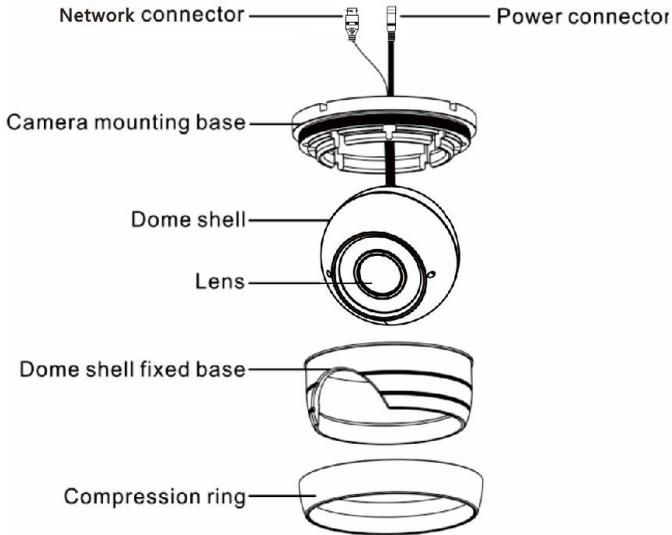
Figure 2-2 Dimensions of WBXID28122MW(G) , WBXID28124MW(G) and WBXID284MW(G) (unit: mm)



2.2 Device Installation

Step 1 Open a package, take out the camera, unscrew the camera compression ring, and disassemble the camera, the camera components is shown in Figure 2-3.

Figure 2-3 Camera components



Step 2 Use the base as drill template, drill holes on the ceiling or wall, and reserve the cable entries of the video/power cables.

Figure 2-4 and Figure 2-5 shows the dimensions of the camera mounting base.

Figure 2-4 Dimensions of the WBXID282MW(G) mounting base

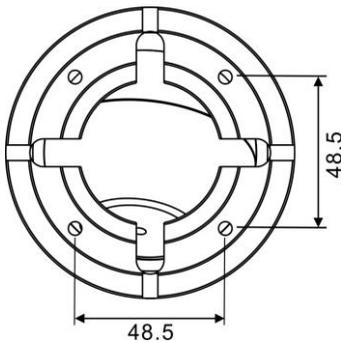
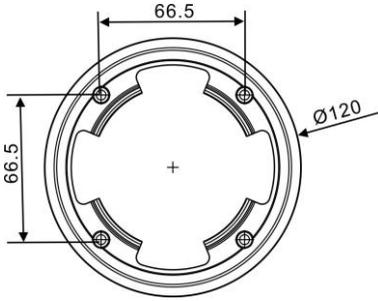


Figure 2-5 Dimensions of WBXID28122MW(G) , WBXID28124MW(G) and WBXID284MW(G) mounting base

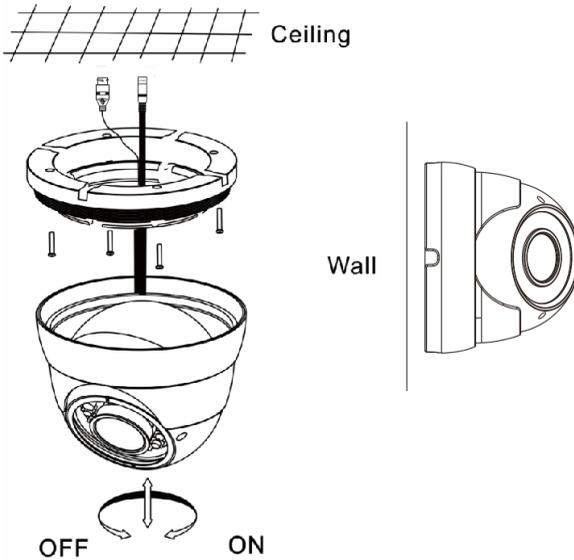


Step 3 Nail swell plastic buttons in to drilled holes, and fix the camera mounting base to the ceiling (or wall) by use of self-tapping screws.

Step 4 Install the compression ring, the dome shell, and the dome shell fixed base on the camera mounting base.

Figure 2-6 shows camera installation.

Figure 2-6 Camera installation



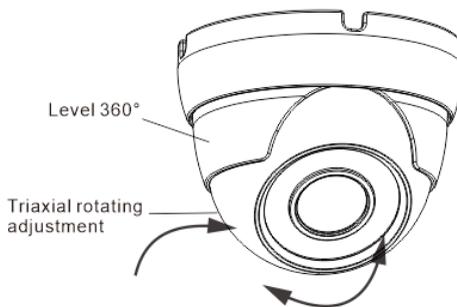
Step 5 Turn the main body, adjust the lens direction, and note the position of the dome cover window.

 **NOTE**

- Connect the BNC connector of the power or video cable to a video signal cable and connect the other connector to a low-voltage power cable. After installing the camera, directly connect the video cable and power cable.
- Adjust the position of the camera by triaxial rotation: rotating horizontally, rotating up and down, and performing lens axial rotation, and adjust the camera direction and lens alignment target.

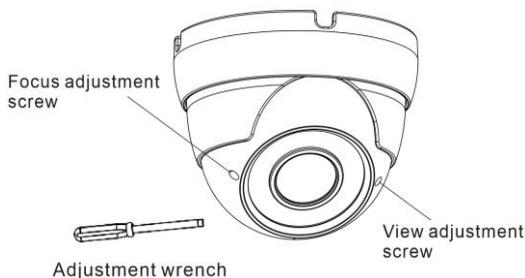
Figure 2-7 shows monitoring direction adjustment.

Figure 2-7 Monitoring direction adjustment



Step 6 Adjust view angle and focal length by using an adjusting tool, as shown in Figure 2-8. (This step is only for WBXID28122MW(G) and WBXID28124MW(G))

Figure 2-8 View angle and focal length adjustment



Step 7 Use soft cloth to wipe the lens front glass which is likely to be soiled due to installation for cleaning the camera, and complete product installation and debugging.

----End

3 Bullet camera

3.1 Dimensions

Figure 3-1 shows the dimensions of WBXIB362MW(G).

Figure 3-1 dimensions of WBXIB362MW(G)

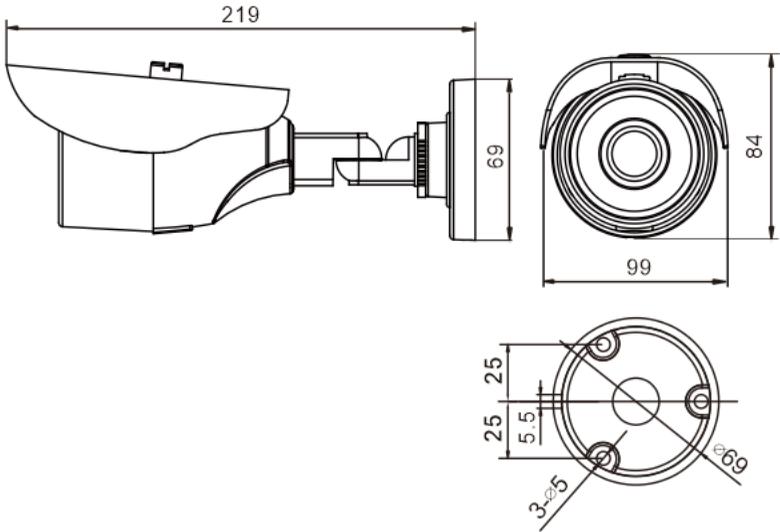
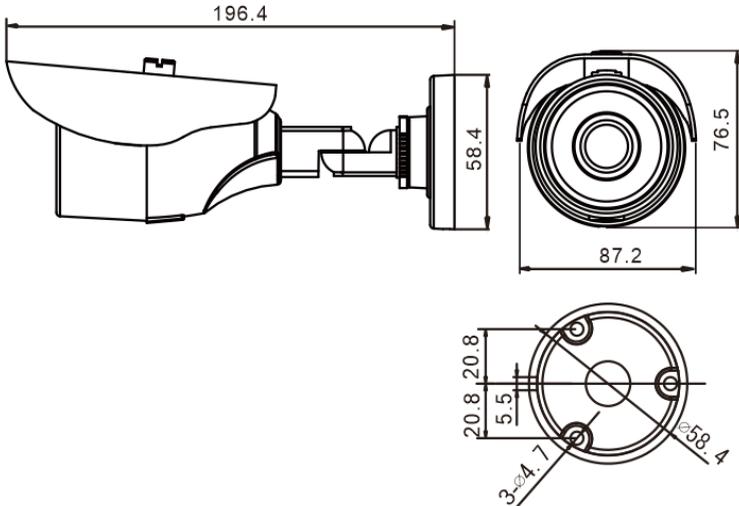


Figure 3-2 shows the dimensions of WBXIB364MW(G), WBXIB28124MW(G) and WBXIB28122MW(G).

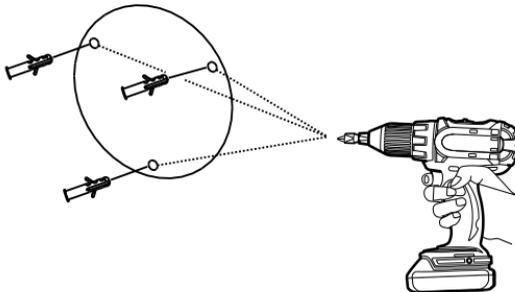
Figure 3-2 dimensions of WBXIB364MW(G), WBXIB28124MW(G) and WBXIB28122MW(G)



3.2 Device Installation

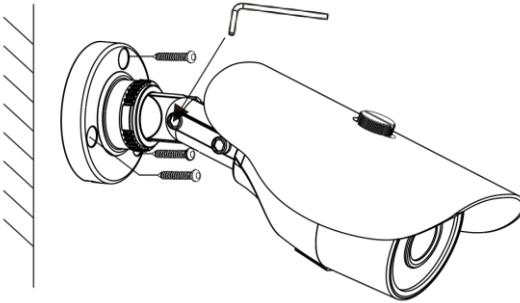
- Step 1 Stick the Installation location sticker on the ceiling or wall, Drill three holes based on the marks on the sticker. Drive the swell plastic buttons into the holes, as shown in Figure 3-3.

Figure 3-3 Drilling holes



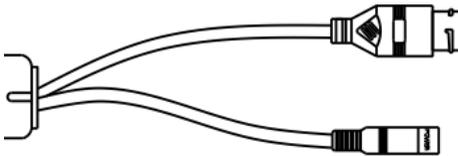
- Step 2 Loosen the locking screw with L-Hex Wrench and rotate the camera, then attach the camera to the surface, as shown in Figure 3-4.

Figure 3-4 Installing camera



Step 3 Connect the Power and video cable, as shown in Figure 3-5.

Figure 3-5 Connecting cable



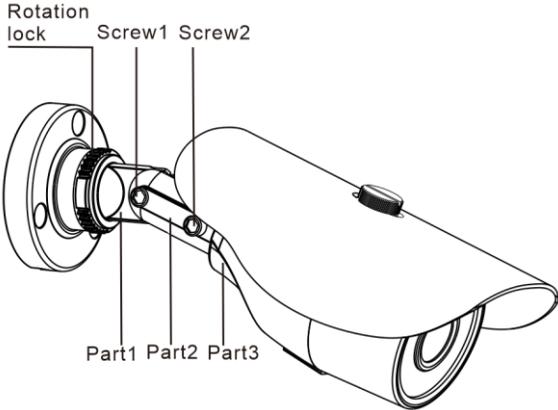
Step 4 Loosen the locking screw with L-Hex Wrench, rotate the camera to adjust the position and image so that the camera faces the monitored area, then tighten the locking screw, as shown in Figure 3-6.

To rotate the part 1 of the camera for 360 °, loosen rotation lock.

To rotate the part 2 of the camera for 180 °, loosen screw 1.

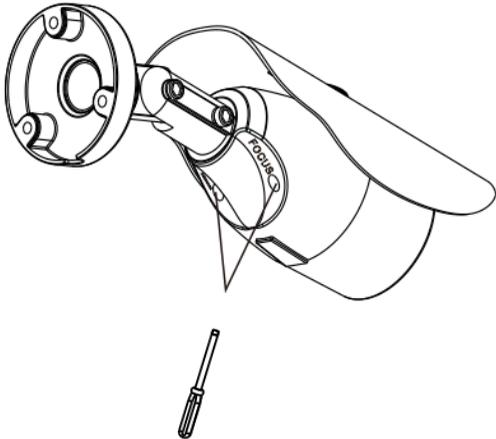
To rotate the part 3 of the camera for 360 °, loosen screw 2.

Figure 3-6 Adjusting monitored area



Step 5 Adjust zoom & focus using an focusing tool, as shown in Figure 3-7. (This step is only for WBXIB28124MW(G) and WBXIB28122MW(G)).

Figure 3-7 Adjusting zoom & focus



----End

4 Web Operation

4.1 Quick start

4.1.1 Login and Logout



CAUTION

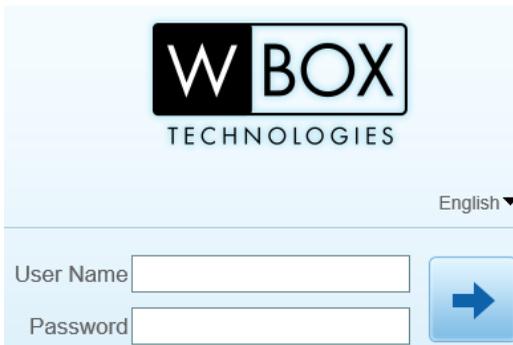
You must use Internet Explorer 7, and more to access the web management system; otherwise, some functions may be unavailable.

Login

Step 1 Open Internet Explorer, enter the IP address of the IP camera (default value: 192.168.1.64) in the address box, and press **Enter**.

The login page is displayed, as shown in Figure 4-1.

Figure 4-1 Login page



Step 2 Enter the user name, and password.

 **NOTE**

- The default user name is admin. The default password is admin.
- Change the password to ensure system security.
- You can change the system display language on the login page.

Step 3 Click .

The main page is displayed.

----End

Logout

To log out of the system, click  in the upper right corner of the main page. The login page is displayed after you log out of the system.

4.1.2 Changing the Password

Description

The change password page will be displayed as shown in Figure 4-2, when you login the system for the first time.

Figure 4-2 Change the default password page



Or click  to change the password for login the system, as show in Figure 4-3.

Figure 4-3 Change the password page

Change Password [X]

Old Password

New Password

Confirm

Password Advice:

1. Advice the password length of eight characters.
2. Advice the password includes numbers, capital letters, lowercase letters and special characters.
3. Advice the password can not be the same as username.

[OK] [Cancel]

Step 1 Enter the old password, new password, and confirmation password.

Step 2 Click **OK**.

If the message "Change password success" is displayed, the password is successfully changed. If the password fails to be changed, the cause is displayed. (For example, the new password length couldn't be less than eight.)

Step 3 Click **OK**.

The login page is displayed.

4.1.3 Main Page Layout

On the main page, you can view real-time videos, receive alarm and fault notifications, set parameters, change the password, and log out of the system. Figure 4-4 shows the main page layout. Table 4-1 describes the elements on the main page.

Figure 4-4 Main page layout



Table 4-1 Elements on the main page

No.	Element	Description
1	Real-time video area	Real-time videos are played in this area. You can also set sensor parameters.
2	Playback	You can query the playback videos in this area. NOTE Only when the SD card or NAS have videos that you can query the playback videos.
3	Device configuration	You can choose a menu to set device parameters, including the device information, audio and video streams, alarm setting, and privacy mask function.
4	Alarm icon	When the device generates an alarm, the alarm icon  is displayed. You can click the icon to view the alarm information. NOTE When the device accepts an alarm signal, the alarm icon will display within 10s in the web management system.

5	Fault icon	When the device encounters an exception, the fault icon  is displayed. You can click the icon to view the fault information.
6	Change password	You can click  to change the password.
7	Sign Out	You can click  to return to the login page.

----End

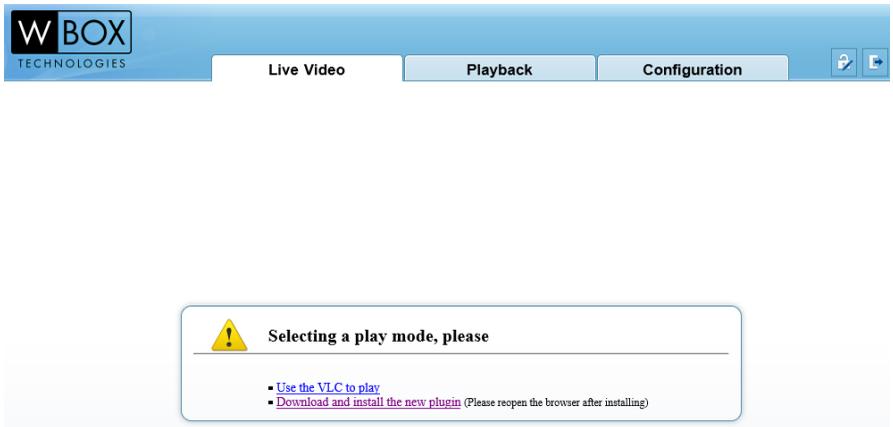
4.2 Browsing Real-Time Videos

You can browse real-time videos in the web management system.

Preparation

You will be prompted with a message "download and install the new plugin" as shown in Figure 4-5 when you log in to the web management system for the first time:

Figure 4-5 Download the plug-ins page



Step 1 Click "download and install the new plugin", download and setup the plug-ins and the install the plugin following the prompt.

Step 2 Reopen the browser after installing.

 **NOTE**

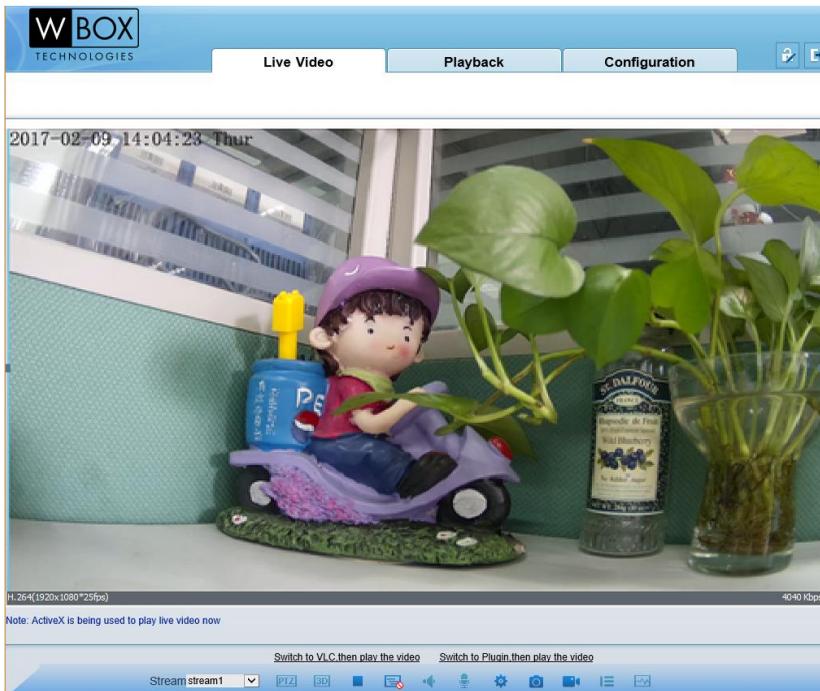
If the repair tips displayed when installing the control , please ignore the prompt, and continue the installation.

----End

Description

To browse real-time videos, click **Live Video**. The **Live Video** page is displayed, as shown in Figure 4-6.

Figure 4-6 Live Video page



On the **Live Video** page, you can perform the following operations:

- Click  to stop playing a video.
- Click  to play a video.
- Double-click in the video area to enter the full-screen mode, and double-click again to exit.
- Switch among preset streams 1, 2, and 3. For details about how to configure streams, see
- Setting Video and Audio Stream Parameters.
- Click  to snapshot and save the photos.

- Configure the sensor.

You can right-click in the video area. A shortcut menu is displayed and allows you to enter the full-screen mode, set sensor parameters, zoom in or out, and return to the default view.

To set sensor parameters, click  to open the **Sensor Setting** page. On the **Sensor Setting** page, you can adjust the time segment, image, scene, exposure, white balance, focus setting, Iris setting, white balance, and noise filter as prompted.

4.3 Configuring the Device

4.3.1 Configuring the Device Information

Description

The device information includes:

- Device ID, name, type, model, and MAC address.
- Hardware and software versions.
- Number of video channels, number of alarm input channels, number of alarm output channels, and number of serial ports.



NOTE

- You can modify the device name. All other parameters can only be viewed.
- When the device is upgraded, the device information is updated automatically.

Procedure

Step 1 Click **Configuration > Device Info**.

The **Device Info** page is displayed, as shown in Figure 4-7.

Figure 4-7 Device Info page

 **Device Info**

Device ID	5404C2
Device Name	<input type="text" value="IPCamera"/> ✓
MAC Address	00:1C:27:54:04:C2

Camera Type	IPCAMERA
Product Model	0E-13D28
Manufacturer Name	WBOX

Hardware Version	V070012_1
Firmware Version	v3.5.0806.1003.157.2.27.1.7

Channel Quantity	1
Alarm Input Quantity	0
Alarm Output Quantity	0
Serial Port Quantity	0
Network Card Quantity	1

Step 2 View the device information, set the device ID and name according to Table 4-2.

Table 4-2 Device parameters

Parameter	Description	Setting
Device ID	Unique device identifier used by the platform to distinguish the devices.	[Setting method] These parameters cannot be modified.
Device Name	Name of the device. NOTE The device name cannot exceed 32 bytes or 10 simplified characters; otherwise, the modification fails.	[Setting method] Enter a value manually.
MAC Address	N/A	[Setting method] These parameters cannot be modified.
Camera Type		
Product Model		
Manufacturer Name		

Parameter	Description	Setting
Hardware Version		
Firmware Version		
Video Channel(s)		
Channel Quantity		
Alarm Input Quantity		
Alarm Output Quantity		
Serial Port Quantity		
Network card Quantity		

Step 3 Click .

- If the message "Apply success!" is displayed, click OK. The system saves the settings.
- If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see **4.10.1**

4.4 Setting Video and Audio Stream Parameters

Procedure

Step 1 Click **Configuration > Stream > Base Stream**.

The **Stream Configuration** page is displayed, as shown in Figure 4-8.

Figure 4-8 Stream Configuration page

 Stream

Stream ID	1
Name	stream1
Video Encode Type	H264
Video Encode Level	High
Audio Encode Type	G711_ALAW
Resolution	1920x1080
Frame Rate(fps)	25
I Frame Interval(Unit: Frame)	50
Bit Rate Type	CBR
Bit Rate(kbps)(500-12000)	4096
Smart Encode	<input type="checkbox"/> OFF

Step 2 Set the parameters according to Table 4-3.

Table 4-3 Stream configuration parameters

Parameter	Description	Setting
Stream ID	<p>The device supports 3 streams.</p> <ul style="list-style-type: none"> Streams 1 and 2 use the H.264 codec. The maximum resolution can be set for streams 1. 	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Name	<p>Stream name.</p> <p>NOTE</p> <p>The stream name is combined with Chinese character, number, character and underline.</p>	<p>[Setting method]</p> <p>Enter a value manually. The value cannot exceed 32 bytes.</p> <p>[Default value]</p> <p>stream1</p>

Parameter	Description	Setting
Video Encode Type	<p>The video codec determines the image quality and network bandwidth required by a video. Currently, the following codec standards are supported:</p> <ul style="list-style-type: none"> • MJPEG <p>MJPEG is a standard intra-frame compression codec. The compressed image quality is good. No mosaic is displayed on motion images. MJPEG does not support proportional compression and requires large storage space. Recording and network transmission occupy large hard disk space and bandwidth. MJPEG is not applicable to continuous recording for a long period of time or network transmission of videos. It can be used to send alarm images.</p> <ul style="list-style-type: none"> • H.264 <p>H.264 consists of H.264 Base Profile, H.264 Main Profile, and H.264 High profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate codec based on the decoding performance of the device.</p> <p>H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements on the hardware performance.</p> <p>H.265</p> <p>H.265 is the new video encoding standard ,it's the improvement standard from H.264. H.265 improves the streams, encoding quality and algorithm complexity to make configuration as optimization.</p>	<p>[Setting method] Select a value from the drop-down list box. [Default value] H.264</p> <p>NOTE</p> <p>The H.264 High Profile codec means high requirements on the hardware. If the hard decoding capability is low, use H.264 Main Profile or H.264 Base Profile.</p>
Audio Encode Type	The following audio codec standards are supported:	[Setting method] Select a value from the

Parameter	Description	Setting
	<ul style="list-style-type: none"> • G711_ULAW: mainly used in North America and Japan. • G711_ALAW: mainly used in Europe and other areas. • RAW_PCM: codec of the original audio data. This codec is often used for platform data. 	drop-down list box.
Resolution	<p>A higher resolution means better image quality.</p> <p>NOTE</p> <p>IP cameras support the different resolutions based on the model.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Frame Rate(fps)	<p>The frame rate is used to measure displayed frames. A higher frame rate means smoother videos. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes.</p> <p>Frame rates for different frequencies are as follows:</p> <ul style="list-style-type: none"> • 50 Hz: 1–25 f/s • 60 Hz: 1–30 f/s <p>NOTE</p> <p>The frequency is set on the Device Configuration > Camera page. The biggest MJPEG coding format frame rate is 12 frames per second.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
I Frame Interval(Unit:Frame)	<p>I frames do not require other frames to decode.</p> <p>A smaller I frame interval means better video quality but higher bandwidth.</p>	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>
Bit Rate Type	<p>The bit rate is the number of bits transmitted per unit of time.</p> <p>The following bit rate types are supported:</p> <ul style="list-style-type: none"> • Constant bit rate (CBR) <p>The compression speed is fast; however, improper bit rate may cause vague motion images.</p> <ul style="list-style-type: none"> • Variable bit rate (VBR) 	<p>[Setting method]</p> <p>Select a value from the drop-down list box.</p>

Parameter	Description	Setting
	The bit rate changes according to the image complexity. The encoding efficiency is high and the definition of motion images can be ensured.	
Bit Rate(500-12000)	Indicates the value of the bit rate.	[Setting method] Enter a value manually.
Image Quality	The video quality the camera output.	[Setting method] Select a value from the drop-down list box.

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see **4.10.1**

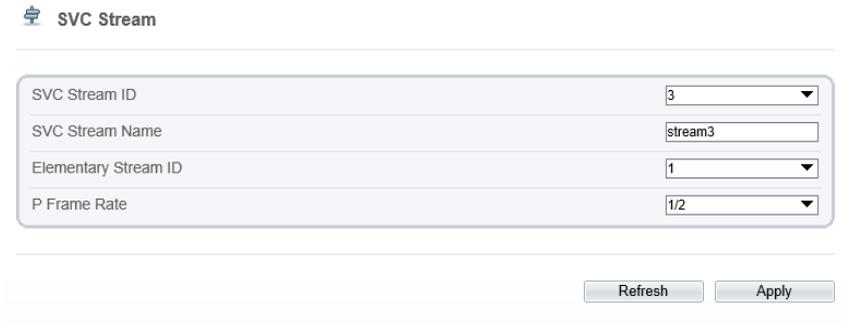
4.4.2 Setting SVC Stream Parameters

Procedure

Step 1 Click **Configuration > Stream > SVC Stream**.

The **SVC Stream** page is displayed, as shown in Figure 4-9.

Figure 4-9 SVC Stream Configuration page



Step 2 Set the parameters according to Table 4-4.

Table 4-4 Stream configuration parameters

Parameter	Description	Setting
SVC Stream ID	The ID of the SVC stream.	[Setting method] Select a value from the drop-

Parameter	Description	Setting
		down list box. [Default value] 4
SVC Stream Name	Stream name. NOTE The stream name is combined with Chinese character, number, character and underline.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes. [Default value] Stream4
Elementary Stream ID	ID of the elementary stream.	[Setting method] Select a value from the drop-down list box.
P Frame Rate	The P frame rate of SVC stream and elementary stream.	[Setting method] Select a value from the drop-down list box.

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator. For details, see **4.10.1**

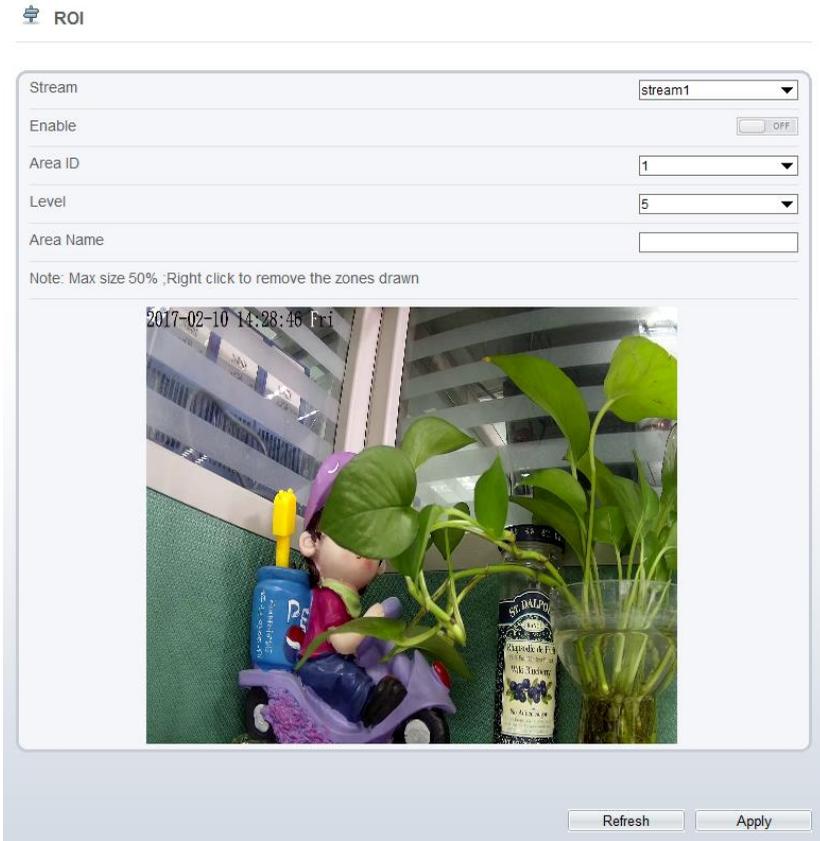
4.4.3 Region of Interest

Procedure

Step 1 Click **Configuration > Stream > ROI**.

The Region of Interest page is displayed, as shown in Figure 4-10.

Figure 4-10 ROI Configuration page



Step 2 Set the parameters according to Table 4-5

Table 4-5 ROI configuration parameters

Parameter	Description	Setting
Stream	Stream ID.	[Setting method] Select a value from the drop-down list box. [Default value] Stream1
Enable	Enable the ROI	[Setting method] Click the button. [Default value]

Parameter	Description	Setting
		OFF
Area ID	ROI area ID	[Setting method] Select a value from the drop-down list box. [Default value] 1
Level	Visual effect of ROI. The higher the grade is, the more clearly areas inside and the vaguer areas outside are..	[Setting method] Select a value from the drop-down list box. [Default value] 5
Area Name	The marked name used for areas.	[Setting method] Enter a value manually. The value cannot exceed 32 bytes.

Step 3 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

4.4.4 Setting Local Network Parameters

Description

Local network parameters include:

- IP protocol
- IP address
- Subnet mask
- Default gateway
- Dynamic Host Configuration Protocol (DHCP)
- Preferred Domain Name System (DNS) server
- Alternate DNS server
- MTU

Procedure

Step 1 Choose Device Configuration > Local Network.

The **Local Network** page is displayed, as shown in Figure 4-11.

Figure 4-11 Local Network page

 **Local Network**

Network Card ID

IP Protocol

DHCP OFF

IP Address

Subnet Mask

Default Gateway

Preferred DNS Server

Alternate DNS Server

MTU(800-1500)

Step 2 Set the parameters according to Table 4-6.

Table 4-6 Local network parameters

Parameter	Description	Setting
IP Protocol	IPv4 is the IP protocol that uses an address length of 32 bits.	[Setting method] Select a value from the drop-down list box. [Default value] IPv4
DHCP	The device automatically obtains the IP address from the DHCP server.	[Setting method] Click the button on to enable DHCP . NOTE To query the current IP address of the device, you must query it on the platform based on the device name.
DHCP IP	IP address that the DHCP server assigned to the device.	N/A

Parameter	Description	Setting
IP Address	Device IP address that can be set as required.	[Setting method] Enter a value manually. [Default value] 192.168.1.64
Subnet Mask	Subnet mask of the network adapter.	[Setting method] Enter a value manually. [Default value] 255.255.255.0
Default Gateway	This parameter must be set if the client accesses the device through a gateway.	[Setting method] Enter a value manually. [Default value] 192.168.1.1
Preferred DNS Server	IP address of a DNS server.	[Setting method] Enter a value manually. [Default value] 8.8.8.8
Alternate DNS Server	IP address of a domain server. If the preferred DNS server is faulty, the device uses the alternate DNS server to resolve domain names.	[Setting method] Enter a value manually. [Default value] blank
MTU	Set the maximum value of network transmission data packets.	[Setting method] Enter a value manually. NOTE The MTU value is range from 800 to 1500, the default value is 1500, Please do not change it arbitrarily.

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings. The message "Set network parameter success, Please login system again" is displayed. Use the new IP address to log in to the web management system.
- If the message "Invalid IP Address", "Invalid Subnet Mask", "Invalid default gateway", "Invalid primary DNS", or "Invalid space DNS" is displayed, set the parameters correctly.

----End

4.4.5 Configuring Device Ports

Description

You must configure the HTTP port, control port, Real Time Streaming Protocol (RTSP) port and RTMP port for device route mapping in a LAN.

Procedure

Step 1 Choose Configuration > Device > Device Port.

The **Device Port** page is displayed, as shown in Figure 4-12.

Figure 4-12 Device Port page

 **Device Port**

Control Port	<input type="text" value="30001"/>
Http Port	<input type="text" value="80"/>
RTSP Port	<input type="text" value="554"/>

Step 2 Set the parameters according to Table 4-7.

Table 4-7 Device port parameters

Parameter	Description	Setting
Control Port	Port used for audio and video transfer and signaling interaction.	[Setting method] Enter a value manually. [Default value] 30001
HTTP Port	Port used in web access.	[Setting method] Enter a value manually. [Default value] 80
RTSP Port	RTSP protocol port.	[Setting method] Enter a value manually. [Default value] 554

**NOTE**

It's not recommended to modify the control port, for details about the value ranges of the control port, HTTP port and RTSP port, see the communication matrix.

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If the message "Invalid Control Port, Please input an integer between 1025 and 65535" is displayed, enter correct port numbers.

----**End**

4.4.6 Configuring the Date and Time

Description

On the **Date and Time** page, you can modify the date and time. Parameters that can be set include:

- Time zone and daylight saving time (DST)
- Date and time
- Network Time Protocol (NTP) server

Procedure

Step 1 Choose Configuration > Device > Date and Time.

The **Date and Time** page is displayed, as shown in Figure 4-13. Table 4-8 describes the parameters.

Figure 4-13 Date and Time page

 Date and Time

Time Zone (GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London▼

Daylight Savings Time ON

Begin Time Mar ▼ 5th ▼ Sun ▼ 1:00 ▼

End Time Oct ▼ 5th ▼ Sun ▼ 2:00 ▼



Device Time 01/01/2000 00:12:59

Current PC Time 

Set Manually 

NTP ON

NTP Server Addr

NTP Port

Check the time interval(at least 10s)



Table 4-8 Date and Time parameters

Parameter	Description	Setting
Time Zone	N/A	[Setting method] Select a value from the drop-down list box. [Default value] Greenwich mean time

Parameter	Description	Setting
Daylight Saving Time	<p>When the DST start time arrives, the device time automatically goes forward one hour. When the DST end time arrives, the device time automatically goes backward one hour.</p> <p>NOTE</p> <p>DST is the practice of advancing clocks so that evenings have more daylight and mornings have less. Currently, about 110 countries in the world use DST. Different countries have different DST provisions. Since March 27, 2011, Russia has started to use permanent DST.</p>	<p>[Setting method]</p> <p>Click the button on to enable Daylight Saving Time.</p>
Device Time	Device display time.	<p>[Setting method]</p> <ul style="list-style-type: none"> • Synchronize the time from the PC. • Enter a value manually.
Current PC Time	Time on the current PC.	N/A
Set Manually	Enables you to manually set the device time.	<p>[Setting method]</p> <p>Click Set Manually and set the date and time in the format <i>MM-DD-YYYY HH:MM:SS</i>.</p>
NTP	IP address or domain name of the NTP server.	<p>[Setting method]</p> <p>Click the button on to enable NTP and enter a value manually.</p>
NTP Server Addr	The NTP server IP.	<p>[Setting method]</p> <p>Enter a value manually.</p>
NTP Port	Port number of the NTP server.	<p>[Setting method]</p> <p>Enter a value manually.</p> <p>[Default value]</p> <p>123</p>
Check the time interval(at least 10s)	Set time interval to check if the device time synchronizes with the NTP server time.	<p>[Setting method]</p> <p>Enter a value manually.</p> <p>[Default value]</p> <p>3600</p>

- Step 2 Select a time zone from the Time Zone drop-down list box.
- Step 3 (Optional) Click the button on to enable Daylight Saving Time and specify the DST start time and end time.
- Step 4 Modify the device time.
 - Synchronizing time from the PC
Click **Current PC Time**.
 - Manually setting the device time
 - Click Set Manually.
A time setting control is displayed.
 - Set the date and time.
- Step 5 Configure the NTP.
 1. Click the button on to enable NTP.
 2. Enter the IP address or domain name of the NTP server, the port number and the time interval.
- Step 6  Click  .
The message "Apply success!" is displayed and the system saves the settings.
----End

4.4.7 Setting the Channel Name, Video System, and Source Resolution

Procedure

- Step 1 Choose Configuration > Device > Camera.
The **Camera** page is displayed, as shown in Figure 4-14. Table 4-9 describes the parameters.

Figure 4-14 Camera page



Table 4-9 Camera parameters

Parameter	Description	Setting
Channel Name	Channel name within the length of 0 to 32 bytes.	[Setting method] Enter a value manually.
Video System	The options are as follows: <ul style="list-style-type: none"> • PAL: Used in Europe and China mainland. • NTSC: Used in USA and Japan. 	[Setting method] Select a value from the drop-down list box. [Default value] PAL NOTE Whether the video system can be changed depends on the device model.
Video Refresh Frequency	The options are as follows: <ul style="list-style-type: none"> • 50 Hz: corresponds to the PAL system. • 60 Hz: corresponds to NTSC system. 	[Setting method] Corresponds to the video system.

Step 2 Enter a channel name.



NOTE

The channel name must be within the length of 0 to 32 bytes, it is combined with digital and character (except for some special character).

Step 3 Click .

The message "Apply success!" is displayed.



NOTE

If the video system is modified, the message "The device will be restart, are you sure to modify?" is displayed, and the system automatically saves the settings. The settings take effect after the device restarts.

----End

4.4.8 Setting OSD Parameters

Description

The on-screen display (OSD) function allows you to display the device name, channel ID and name, time, and other customized contents on videos.

- When the resolution is D1 and CIF, the OSD customized in web interface can show at most 22 words normally.
- The OSD support simplified Chinese, English, digital and some special character only.

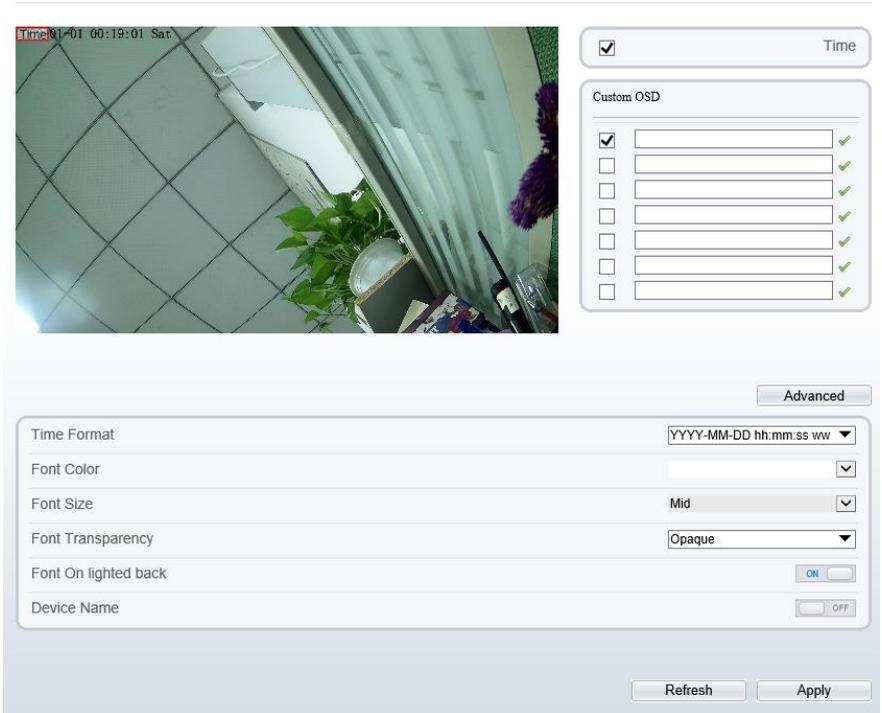
Procedure

Step 1 Choose Configuration > Device > OSD.

The OSD page is displayed, as shown in Figure 4-15.

Figure 4-15 OSD page

🔗 OSD



Step 2 Set the parameters according to Table 4-10.

NOTE

The size of characters that can be displayed in a row or column varies according to the resolution. When the OSD font is auto:

- If the resolution is 1920 x 1080 and the size of each character is 48 x 48, then the maximum row of OSD is 22 (1080/48), and the maximum column is 40 (1920/48);
- If the resolution is 704 x 576 and the size of each character is 32 x 32, then the maximum row of OSD is 18 (576/32), and the maximum column is 22 (704/32);
- If the resolution is 640 x 360 and the size of each character is 16 x 16, the maximum row of OSD is 22(360/16) characters, and a maximum column is 40(640/16).

Table 4-10 OSD parameters

Parameter	Description	Setting
Time	Indicates whether to display the time.	[Setting method] Tick the time.
Custom OSD	Enables you to enter a line of characters.	[Setting method] 1. Tick the custom OSD list. 2. Enter the characters. 3. Click  to save the value.
Time Format	Format in which the time is displayed.	[Setting method] Select a value from the drop-down list box. [Default value] YYYY-MM-DD hh:mm:ss ww
Font Color	Set the font color.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Font Size	Set the font size.	[Setting method] Select a value from the drop-down list box. [Default value] Mid
Font Transparency	Set the font transparency.	[Setting method] Select a value from the drop-down list box. [Default value] Opaque
Font on lighted back	Enable the font on lighted	[Setting method]

Parameter	Description	Setting
	back.	Click the button on to enable Font on lighted back .
Device Name	Indicates whether to display the device name.	[Setting method] Click the button on to enable Device Name

Step 3 Click **Apply**.

The message "Apply success!" is displayed And the system saves the settings.

----**End**

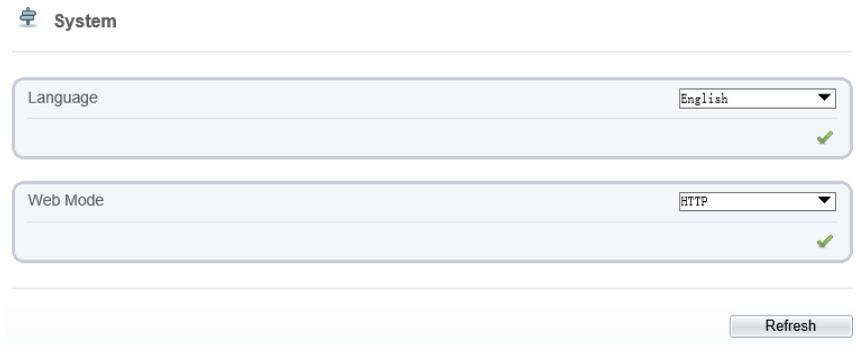
4.4.9 System Service

Procedure

Step 1 Choose Configuration > Device > System.

The **System Service** page is displayed, as shown in Figure 4-16.

Figure 4-16 System Service page



Step 2 Select a language from the Language drop-down list box.

Step 3 Click , the message "Apply success" is displayed.

Step 4 Click OK, the system saves the settings.

Step 5 Select a Web Mode from the Web Mode drop-down list box.

Step 6 Click , the message "This operation will lead to the device to restart, continue?" is displayed.

Step 7 Click **OK**, the device restarts and saves the settings automatically.

----End

4.5 Configuring the Alarm Function

4.5.1 Setting Disk Alarm Parameters

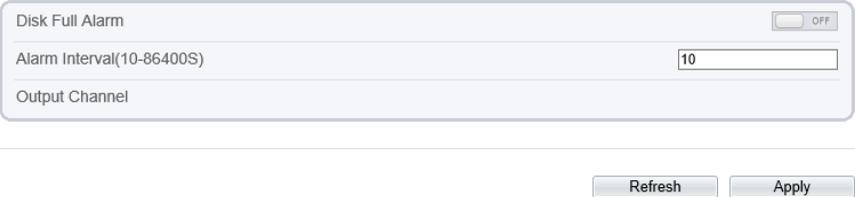
Procedure

Step 1 Choose **Configuration > Alarm > Disk Alarm**.

The **Disk Alarm** page is displayed, as shown in Figure 4-17.

Figure 4-17 Disk Alarm page

Disk Alarm



Disk Full Alarm OFF

Alarm Interval(10-86400S)

Output Channel

Step 2 Click the button on to enable disk alarm.

Step 3 Configure the **alarm interval** parameters.

Step 4 Click **Apply**.

The message "Apply succeed" is displayed and the system saves the settings.

----End

4.5.2 Setting Network Alarm Parameters

Procedure

Step 1 Choose **Configuration > Alarm > Network Alarm**.

The **Network Alarm** page is displayed, as shown in Figure 4-18.

Figure 4-18 Network Alarm page



- Step 2 Click the button on to enable exceptional alarm.
- Step 3 Configure the network exceptional **alarm interval**.
- Step 4 Tick the **Output Channel** number.
- Step 5 Click the button on to enable **Alarm Record** alarm.
- Step 6 Click Apply.

The message "Apply succeed" is displayed and the system saves the settings.

----End

4.5.3 Setting Motion Alarm Parameters

Description

On the **Motion Alarm** page, you can perform the following operations:

- Enable the motion alarm function.
- Set the motion alarm interval.
- Set the motion detection area.
- Set motion alarm the sensitivity
- Configure the motion alarm output channel.

When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm and triggers linkage alarm output.

- Enable the Alarm record.
- Enable SMTP.

- Enable FTP Upload.

Procedure

Step 1 Choose **Configuration > Alarm > Motion Alarm**.

The **Motion Alarm** page is displayed, as shown in Figure 4-19.

Figure 4-19 Motion Alarm page

 Motion Alarm



Enable

Alarm Interval(1-1800S)

Sensitivity

Output Channel

Alarm Record

SMTP

FTP Upload

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Sun																									
Mon																									
Tues																									
Wed																									
Thur																									
Fri																									
Sat																									

Step 2 Click the button on to enable motion alarm.

Step 3 Configure the motion interval.

Step 4 Configure the sensitivity.

Step 5 Configure the schedule time setting.

Method 1: Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday as shown in Figure 4-19.

Method 2: Hold down the left mouse button, drag and release mouse to select the schedule within 0:00-24:00 from Monday to Sunday.

 **NOTE**

When you select time by dragging the cursor, the cursor cannot be moved out of the time area. Otherwise, no time can be selected.

Method 3: Click  in the schedule page to select the whole day or whole week.

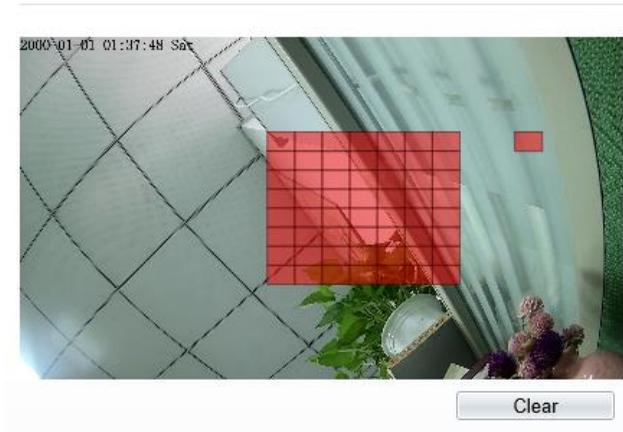
Deleting deployment time: Click  again or inverse selection to delete the selected schedule.

Step 6 Configure the detection area.

Press and hold the left mouse button, and drag in the video area to draw a detection area, as shown in Figure 4-20.

Figure 4-20 Motion Area Setting page

 **Motion Alarm**



 **NOTE**

Click **Clear** to delete a detection area.

Step 7 Click **Apply**.

The message "Apply succeed" is displayed. the system saves the settings.

----**End**

4.5.4 Setting push message Parameters

Description

When enable push message button, the alarm information will be pushed to app if the device is managed by App.

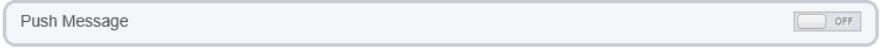
Procedure

Step 1 Choose **Configuration > Alarm > Push Message**.

The **Push Message** page is displayed, as shown in Figure 4-21.

Figure 4-21 Push message page

Push Message



At the beginning, the alarm information will be pushed to app if the device is managed by app.

Refresh

Apply

Step 2 Click the button on to enable push message.

Step 3 Click **Apply**.

The message "Apply succeed!" is displayed, and the system saves the settings.

----End

4.6 Configuring the Recording Function

4.6.1 Configuring a Recording Policy

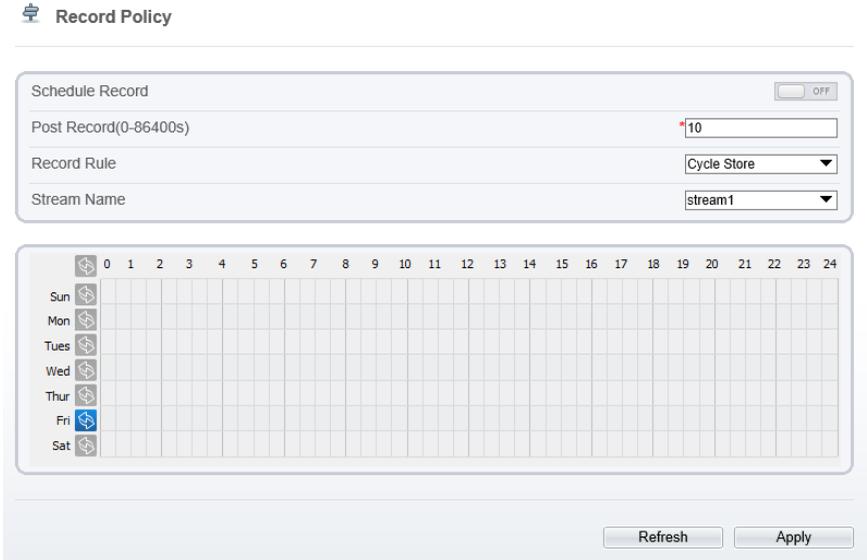
You can configure the scheduled recording function, alarm recording function, recording quality, and recording rules.

Procedure

Step 1 Choose **Configuration > Device Record > Record Policy**.

The **Record Policy** page is displayed, as shown in Figure 4-22.

Figure 4-22 Record Policy page



Step 2 Set the parameters according to Table 4-11.

Table 4-11 Recording policy parameters

Parameter	Description	Setting
Schedule Record	Enables schedule record that you can configure the time policy.	[Setting method] Click the button on to enable schedule record. [Default value] OFF
Post Record	Recording duration (in seconds) after an alarm is generated.	[Setting method] Enter a value manually.
Record Rule	Rule for saving recordings. The options are as follows: <ul style="list-style-type: none"> • Cycle Store: Saves recordings in cycles. • Save Days: Duration (in days) for saving a recording. The duration can be a maximum of 99999 days. NOTE The value 0 indicates that recordings are not overwritten.	[Setting method] Select a value from the drop-down list box.

Parameter	Description	Setting
Stream Name	Name of the stream.	[Setting method] Select a value from the drop-down list box.

Step 3 Configure a recording plan.

You can configure the system to record videos around the clock or in schedule.

For details about how to set **Schedule**, see **4.5.3 Step 5**.

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, the system saves the settings.
- If other information is displayed, set the parameters correctly.

-----**End**

4.6.2 Configuring a Recording Directory

Description

Recordings can be stored in a NAS.

Procedure

Step 1 Choose **Configuration > Device Record > Record Directory**.

The **Record Directory** page is displayed, as shown in Figure 4-23.

Figure 4-23 Record Directory page



Step 2 Set the parameters according to Table 4-12.

Table 4-12 Recording directory parameters

Parameter	Description	Setting
Disk Type	Recording directory type, which can be a NAS.	[Setting method] The parameter cannot be set manually.
Disk ID	Indicates the Disk ID.	
Group ID	Indicates the group HID.	
Enable	Indicates whether to enable the recording directory.	
Total Space	Total disk space.	
Usable Space	Maximum disk space read automatically.	
Alarm Threshold (%)	The camera will alarm when used Space achieves the alarm threshold.	
State	Status of the connection between the current camera and recording directory detected automatically.	

4.6.3 Configuring the SD Card or NAS Recording

Procedure

- Step 1 Choose Configuration > Device Record > Record Directory.
- Step 2 Click **Modify**.

The **Record Path Modify** page is displayed, as shown in Figure 4-24.

Figure 4-24 SD card Record Path Modify page



- Step 3 Set the parameters according to Table 4-13.

Table 4-13 SD card recording parameters

Parameter	Description	Setting
NAS	Enable NAS to enable record.	[Setting method] Click button to enable NAS.
IP Address	IP address of NAS	[Setting method] Enter a value manually.
Path	Path of NAS.	
User Name	N/A	
Password		
Confirm		
File System		[Setting method] Select a value from the drop-down list box.

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

-----End

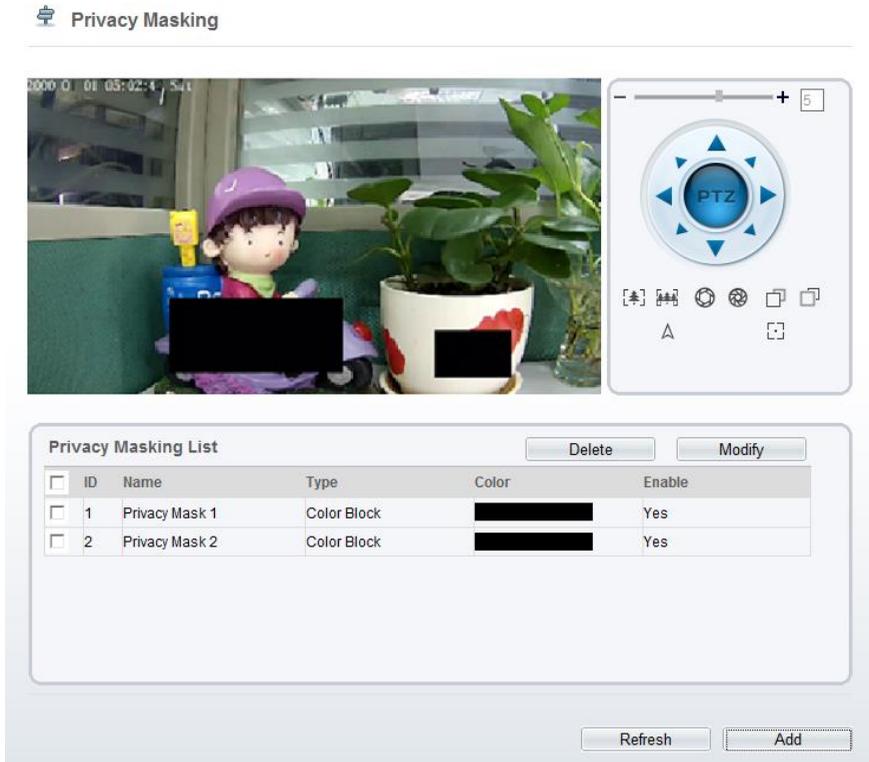
4.7 Configuring the Privacy Mask Function

Procedure

Step 1 Choose **Configuration > Privacy Masking**.

The **Privacy Masking** page is displayed, as shown in Figure 4-25.

Figure 4-25 Privacy Masking page



Step 2 Press and hold the left mouse button, and drag on the preview image to cover the part to be masked.

 **NOTE**

- The maximum percentage of an image that can be masked depends on the device model. Read the tip displayed on the page. A maximum of five areas can be masked.
- You can click Reset to configure the masked areas again.

Step 3 Set the parameters according to Table 4-14.

Table 4-14 Privacy Masking parameters

Parameter	Description	Setting
ID	ID of Privacy Masking.	N/A
Name	Name of privacy Masking.	[Setting method] Click the name and enter a value manually. [Default value] Blank
Type	Type of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Color Block
Color	Color of privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Black
Enable	Indicates whether to enable the privacy masking.	[Setting method] Select a value from the drop-down list box. [Default value] Yes
Delete	Delete a privacy masking.	[Setting method] 1. 1.Select a privacy masking from the Privacy Masking List. 2. 2.Click Delete, the privacy masking is deleted successfully

Parameter	Description	Setting
Modify	Modify a privacy masking.	[Setting method] 1. Select a privacy masking from the Privacy Masking List. 2. Click a parameter and modify it. 3. Click Modify , the privacy masking is modified successfully

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

4.8 Configuring the Network Service

4.8.1 Setting 802.1x Parameters

Preparation

802.1x authentication must be configured on the access port, which controls to access network resources for the connected user devices on the port.

Procedure

Step 1 Choose **Configuration > Network Service > 802.1x**.

The **802.1x** page is displayed, as shown in Figure 4-26.

Figure 4-26 802.1x page

 802.1x



- Step 2 Click the button on to enable **802.1x**.
 - Step 3 Enter the account name.
 - Step 4 Enter the password and confirm password..
 - Step 5 Click **Apply**.
 - Step 6 The message "Apply success!" is displayed, and the system saves the settings.
- End**

4.8.2 Setting DDNS Parameters

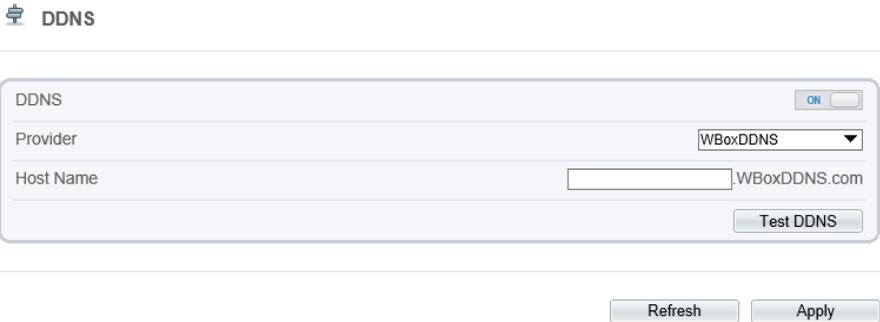
Preparation

Connect the specified camera to the Internet, and obtain the user name and password for logging into the Dynamic Domain Name System (DDNS) server.

Procedure

- Step 1 Choose **Configuration > Network Service > DDNS**.
The **DDNS** page is displayed, as shown in Figure 4-27.

Figure 4-27 DDNS page



- Step 2 Click the button on to enable **DDNS**.
- Step 3 Set the parameters according to Table 4-15.

Table 4-15 DDNS parameters

Parameter	Description	Setting
DDNS	Indicates whether to enable the DDNS service.	[Setting method] Click the button on to enable DDNS. [Default value] OFF

Parameter	Description	Setting
Provider	DDNS service provider. Currently, only 3322 and DynDns are supported.	[Setting method] Select a value from the drop-down list box. [Default value] WBoxDDNS NOTE Set this parameter based on the site requirements.
Host Name	Host name customized by a user.	[Setting method] Enter a value manually. [Default value] Blank
Test DDNS	Test if the device connects to DDNS successfully.	[Setting method] Click Test, if the device connects to DDNS successfully, the message "Test CGI alarm success" is displayed.

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If other information is displayed, set the parameters correctly.

----End

4.8.3 Setting PPPoE Parameters

Preparation

Obtain the PPPoE user name and password from the network carrier.

Description

If a PPPoE connection is used, you need to enter the user name and password on the **PPPoE** page. After you restart the device, the PPPoE settings take effect and the device obtains a public IP address.

Procedure

Step 1 Choose **Configuration > Network Service > PPPoE**.

The **PPPoE** page is displayed, as shown in Figure 4-28.

Figure 4-28 PPPoE page

PPPoE ON

Account

Password

IP Address

Refresh Apply

Step 2 Click the button on to enable **PPPoE**.

Step 3 Set the parameters according to Table 4-16.

Table 4-16 PPPoE parameters

Parameter	Description	Setting
PPPoE	Indicates whether to enable the PPPoE service.	[Setting method] Click the button on. [Default value] OFF
Accounts	User name of PPPoE provided by the network carrier.	[Setting method] Enter a value manually.
Password	Password of PPPoE provided by the network carrier.	[Setting method] Enter a value manually.

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If other information is displayed, set the parameters correctly.

----End

4.8.4 Setting Port Mapping Parameters

Description

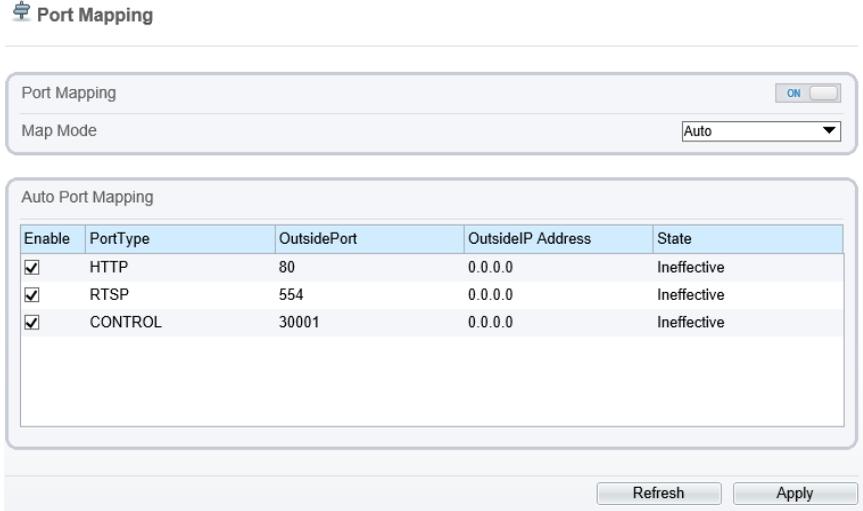
With port forwarding can setup the connection between privacy network and public network. Enable the port forwarding to access the privacy network devices from public network.

Procedure

Step 1 Choose **Configuration > Network Service > Port Mapping**.

The **Port Mapping** page is displayed, as shown in Figure 4-29.

Figure 4-29 Port Mapping page



Step 2 Click the button on to enable **Port Mapping**.

Step 3 Set the parameters according to Table 4-17.

Table 4-17 Port mapping parameters

Parameter	Description	Setting
Port Mapping	Indicates whether to enable the Port Mapping service.	[Setting method] Click the button on. [Default value] OFF
Map Mode	Mode of port mapping, includes auto and manual.	[[Setting method] Select a value from the drop-down list box. [Default value] Auto
Port Type	Port Type includes: HTTP, RTSP and Control	N/A

Outside Port	Port of outside network.	[Setting method] Enter a value manually in map mode.
Outside IP Address	IP address of outside network.	N/A
State	Mapping status	N/A

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If other information is displayed, set the parameters correctly.

----**End**

4.8.5 Setting SMTP Parameters

Description

If the Simple Mail Transfer Protocol (SMTP) function is enabled, the device automatically sends JPG images and alarm information to specified email addresses when an alarm is generated.

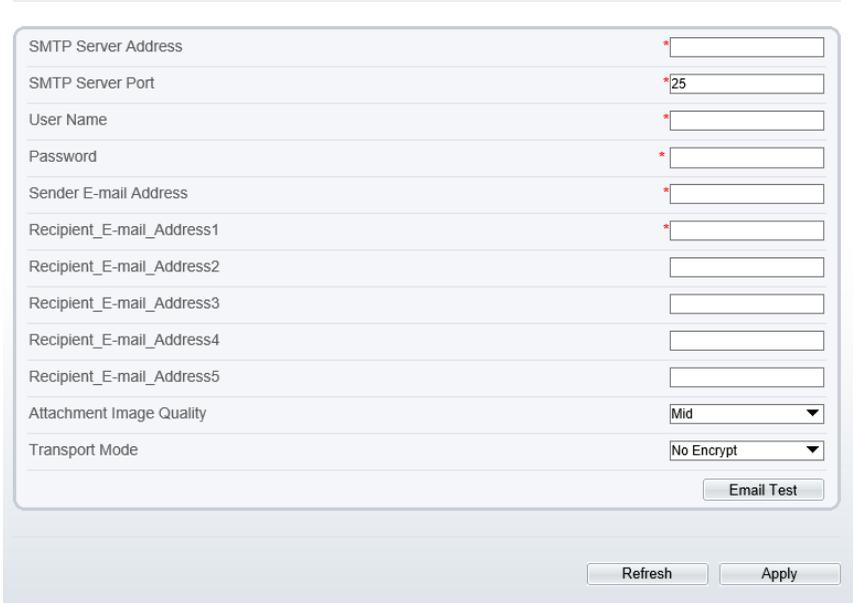
Procedure

Step 1 Choose **Configuration > Network Service > SMTP**.

The **SMTP** page is displayed, as shown in Figure 4-30.

Figure 4-30 SMTP page

 SMTP



The screenshot shows a web interface for SMTP configuration. It contains the following fields and controls:

- SMTP Server Address: (marked with a red asterisk)
- SMTP Server Port: (marked with a red asterisk)
- User Name: (marked with a red asterisk)
- Password: (marked with a red asterisk)
- Sender E-mail Address: (marked with a red asterisk)
- Recipient_E-mail_Address1: (marked with a red asterisk)
- Recipient_E-mail_Address2:
- Recipient_E-mail_Address3:
- Recipient_E-mail_Address4:
- Recipient_E-mail_Address5:
- Attachment Image Quality: (dropdown menu)
- Transport Mode: (dropdown menu)
- Email Test:
- Refresh:
- Apply:

Step 2 Set the parameters according to Table 4-18.

 **NOTE**

Parameters marked with  are mandatory.

Table 4-18 SMTP parameters

Parameter	Description	Setting
SMTP Server Address	IP address of the SMTP server.	[Setting method] Enter a value manually.
SMTP Server Port	Port number of the SMTP server.	[Setting method] Enter a value manually. [Default value] 25
User Name	User name of the mailbox for sending emails.	[Setting method] Enter a value manually.
Password	Password of the mailbox for sending emails.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Sender E-mail Address	Mailbox for sending emails.	[Setting method] Enter a value manually.
Recipient_Email_Address 1	(Mandatory) Email address of recipient 1.	[Setting method] Enter a value manually.
Recipient_Email_Address 2	(Optional) Email address of recipient 2.	
Recipient_Email_Address 3	(Optional) Email address of recipient 3.	
Recipient_Email_Address 4	(Optional) Email address of recipient 4.	
Recipient_Email_Address 5	(Optional) Email address of recipient 5.	
Attachment Image Quality	A higher-quality image means more storage space. Set this parameter based on the site requirement.	N/A
Transport Mode	Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server.	[Setting method] Select a value from the drop-down list box. [Default value] No Encrypted

Step 3 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If other information is displayed, set the parameters correctly.

----**End**

4.8.6 Setting FTP Parameters

Description

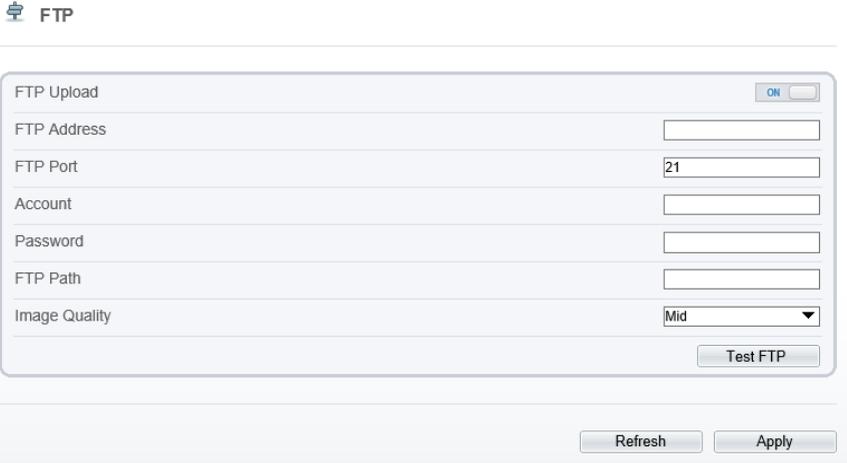
If the File Transfer Protocol (FTP) button is enabled, the device automatically sends the snapped alarm JPG images to specified FTP server.

Procedure

Step 1 Choose **Configuration > Network Service > FTP**.

The **FTP** page is displayed, as shown in Figure 4-31.

Figure 4-31 FTP page



Step 2 Click the button on to enable **FTP**.

Step 3 Set the parameters according to Table 4-19.

Table 4-19 FTP parameters

Parameter	Description	Setting
FTP Upload	Indicates whether to enable the FTP service.	[Setting method] Click the button on. [Default value] OFF
FTP Address	IP address of FTP server.	[Setting method] Enter a value manually.
FTP Port	Port of FTP server.	[Setting method] N/A [Default value] 21
Account	FTP server account.	[Setting method] Enter a value manually.
Password	FTP server Password.	[Setting method] Enter a value manually.
FTP Path	FTP Path to save the JPG image.	[Setting method] Enter a value manually.

Parameter	Description	Setting
Image Quality	A higher-quality image means more storage space. Set this parameter based on the site requirement.	[Setting method] Select a value from the drop-down list box. [Default value] Mid

Step 4 Click **Apply**.

- If the message "Apply success!" is displayed, and the system saves the settings.
- If other information is displayed, set the parameters correctly.

----End

4.8.7 Setting IP Filter Parameters

Description

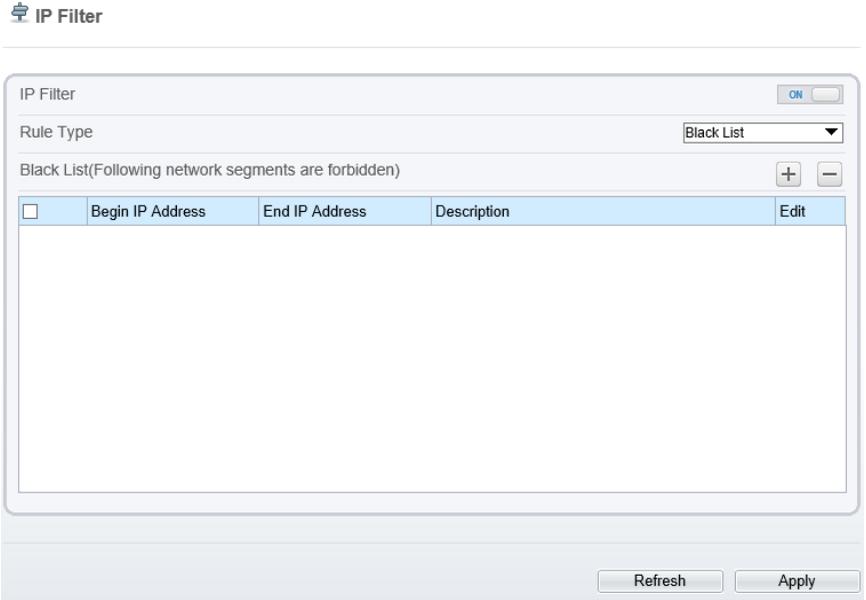
Set the IP address in specified network segment to allow access or prohibit access.

Procedure

Step 1 Choose **Configuration > Network Service > IP Filter**.

The **IP Filter** page is displayed, as shown in Figure 4-32.

Figure 4-32 IP Filter page



Step 2 Click the button on to enable **IP Filter**.

Step 3 Set the parameters according to Table 4-20

Table 4-20 IP Filter parameters

Parameter	Description	Setting
IP Filter	Indicates whether to enable the IP Filter.	[Setting method] Click the button on. [Default value] OFF
Rule Type	IP filter type, includes black list and white list.	[Setting method] Select a value from the drop-down list box. [Default value] Black List

Parameter	Description	Setting
Black List	Specified network segment to allow access	<p>[Setting method]</p> <ol style="list-style-type: none"> 1. Click  to enter the add black/white list page, as shown in Figure 4-33 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Description. 5. Click OK, the black list added successfully.
White List	Specified network segment to prohibit access	<p>[Setting method]</p> <ol style="list-style-type: none"> 1. Click  to enter the add black/white list page, as shown in Figure 4-33 2. Enter Begin IP Address. 3. Enter End IP Address. 4. Enter Description. 5. Click OK, the white list added successfully.

Figure 4-33 Add IP Filter page

The screenshot shows a dialog box titled "New" with a close button (X) in the top right corner. Inside the dialog, there are three input fields stacked vertically: "Begin IP Address", "End IP Address", and "Description". Below these fields, there are two buttons: "OK" and "Cancel".

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

4.8.8 Setting CGI Alarm Service Center Parameters

Description

Device will push the alarm message by CGI with Start URL and End URL, and send to data to CGI Server by HTTP protocol. CGI alarm message is the head of User-Agent of HTTP. Use HTTP protocol get and send to CGI Server. When need to integrate the CGI alarm message, need to resolve the HTTP Head "User-Agent" to get the data of CGI alarm message.

Procedure

Step 1 Choose **Configuration > Network Service > CGI Alarm Service Center**.

The **CGI Alarm Service Center** page is displayed, as shown in Figure 4-34.

Figure 4-34 CGI Alarm Service Center page

 **CGI Alarm Service Center**

CGIAlarm ON

Name

Type HTTP ▼

URL Start

URL End

User Name

Password

Proxy Setting ON

Address

Port

platform User Name

platform Password

Test the connection to the specified HTTP server

Step 2 Click the button on to enable **CGI Alarm**.

Step 3 Set the parameters according to Table 4-21.

Table 4-21 CGI Alarm Service Center parameters

Parameter	Description	Setting
CGI Alarm	Indicates whether to enable the CGI Alarm.	[Setting method] Click the button on. [Default value] OFF
Name	Name of CGI Alarm.	[Setting method] Enter a value manually.
Type	Type of CGI Alarm.	[Setting method] Select a value from the drop-down list box. [Default value] HTTP

Parameter	Description	Setting
URL Start	Push the alarm message by CGI with start URL	[Setting method] Enter a value manually. For example: http://192.168.35.74:80/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description
URL End	Push the alarm message by CGI with end URL	[Setting method] Enter a value manually. For example: http://192.168.35.74:80/MajorAlarmType&MinorAlarmType&SourceName&DeviceID&DeviceIP&AlarmTime&Description
User Name	User name of device.	[Setting method] Enter a value manually.
Password	Password of device.	[Setting method] Enter a value manually.
Proxy Setting	Indicates whether to enable the Proxy. Forwarder server of CGI alarm to forward the CGI alarm.	[Setting method] Click the button on. [Default value] OFF
Address	IP address of Forwarder server.	[Setting method] Enter a value manually.
Port	Port of Forwarder server.	[Setting method] Enter a value manually.
platform User Name	User name of forwarder server.	[Setting method] Enter a value manually.
platform Password	Password of forwarder server.	[Setting method] Enter a value manually.
Test the connection to the specified HTTP server	Test if the device connects to the proxy successfully.	[Setting method] Click Test, if the device connects to the proxy successfully, the message "Test CGI alarm success" is displayed.

Step 4 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

4.8.9 Setting SNMP Parameters

Description

Simple Network Management Protocol (SNMP) is an Internet Standard protocol, supports SNMP v1, SNMPv2c and SNMPv3 network protocol. Choose the proper SNMP protocol version and set the SNMP protocol parameter to collect and organize information about managed devices on IP networks.

Procedure

Step 1 Choose **Configuration > Network Service > SNMP**.

The **SNMP** page is displayed, as shown in Figure 4-35.

Figure 4-35 SNMP page

 **SNMP**

SNMPv1	<input type="checkbox"/>
SNMPv2c	<input checked="" type="checkbox"/>
Write Community	<input type="text"/>
Read Community	<input type="text"/>
Trap Address	<input type="text"/>
Trap Port	162
Trap Community	<input type="text"/>

SNMPv3	<input type="checkbox"/>
Read Security Name	<input type="text"/>
Security Level	<input type="text"/>
Auth Algorithm	<input type="text"/>
Auth Password	<input type="text"/>
Encry Algorithm	<input type="text"/>
Encry Password	<input type="text"/>
Write Security Name	<input type="text"/>
Security Level	<input type="text"/>
Auth Algorithm	<input type="text"/>
Auth Password	<input type="text"/>
Encry Algorithm	<input type="text"/>
Encry Password	<input type="text"/>

SNMP Port	161
-----------	-----

Step 2 Click the button on to enable **SNMPv1**, **SNMPv2C** and **SNMPv3**.

Table 4-22 Set the parameters according to Table 4-23.

Table 4-23 SNMP parameters

Parameter	Description	Setting
SNMPv1	Version of SNMP. SNMPv1 and SNMPv2c use communities to establish trust between managers and agents.	[Setting method] Click the button on.
SNMPv2c	Agents support three community names, write community, read community and trap.	[Default value] OFF
Write Community	Name of write community. The write community only can modify data.	[Setting method] Enter a value manually.
Read Community	Name of read community. The write community only can read data.	
Trap Address	IP address of the trap.	
Trap Port	Management port of accepting message from trap.	
Trap Community	community string of trap. The trap community string allows the manager to receive asynchronous information from the agent.	
SNMPv3	Version of SNMP. SNMPv3 uses community strings, but allows for secure authentication and communication between SNMP manager and agent.	[Setting method] Click the button on. [Default value] OFF
Read Security Name	Name of read security.	[Setting method] Enter a value manually.
Write Security Name	Name of write security.	
Security Level	Security Level between SNMP manager and agent, includes three levels: Noauth: No authentication and no encryption Auth: Authentication but no encryption Priv: Authentication and encryption	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Auth Algorithm	Authentication Algorithm, includes MD5 and SHA.	[Setting method] Select a value from the drop-down list box. [Default value] Blank

Parameter	Description	Setting
Auth Password	Authentication password.	[Setting method] Enter a value manually.
Encry Algorithm	Encryption Algorithm, includes DES and AES.	[Setting method] Select a value from the drop-down list box. [Default value] Blank
Encry Password	Encryption password.	[Setting method] Enter a value manually.
SNMP Port	Port of SNMP.	[Setting method] Enter a value manually. [Default value] 161

Step 3 Click **Apply**.

The message "Apply success!" is displayed, and the system saves the settings.

----End

4.9 Privilege Manager

Description

You can add, modify, and delete a user in privilege manager page.

Procedure

Step 1 Choose **Configuration > Privilege Manager > User**.

The **User** page is displayed, as shown in Figure 4-36. Table 4-24 describes the parameters.

Figure 4-36 User page

 User

ID	User Name	Groups	Notes	Operate
0	admin	SuperAdmin	admin	

Table 4-24 User parameters

Parameter	Description	Setting
ID	User ID	N/A
User Name	User name for logging in to the camera.	[Setting method] Select a value from the drop-down list box.
Groups	<p>Permission group where a user belongs. The default permission groups are Super Admin, Administrators, Operator, and Media user. Their permissions are described as follows:</p> <ul style="list-style-type: none"> • Super Admin: Includes all privileges. • Administrators: Live Video, Video Control, PTZ control, Audio, Playback, Backup, Record Policy, Disk Configure, Privilege Manage, Parameter Configure, System Maintenance and Log, • Operator: System Maintenance, Parameter Configure, playback, Live Video and Video Control. • Media user: Live Video 	[Setting method] Click Add , then select a value from the drop down list box.

Parameter	Description	Setting
Notes	Notes of the User.	[Setting method] Click Add , then enter a value manually.
Operate	The operation of the user, includes view user, modify user and delete user. NOTE Super Admin can be viewed only.	[Setting method] Click the icon as required.

Step 2 Add, modify, or delete a user as required.

Table 4-25 describes the operations.

Table 4-25 Operation description

Function	Procedure	Description
Add	<ol style="list-style-type: none"> Click Add. The Add User page is displayed, as shown in Figure 4-37. Enter a user name, password, confirm password. Select a group from the drop down list box. Enter the notes (Optional). Check the privilege. Click OK. The user is added successfully. 	Add an administrator or a common user as shown in Figure 4-37.
Modify	<ol style="list-style-type: none"> Click . The Modify User page is displayed. Modify the user name, password, group or privilege. Click OK. The user is modified successfully. The User page is displayed. 	Modify the user name, password, group or privilege.

Function	Procedure	Description
Delete	Select the user from the User list. Click X , the message “Confirm to delete?” is displayed, click OK , then the group is deleted successfully.	Delete a user.

Figure 4-37 Add user page

Add User [X]

User Name

Password

ConfirmPassword

Group **Administrators** ▼

Notes

Privilege	Live VideoPrivilege Detail
<input checked="" type="checkbox"/> Live Video	Watching real-time video and switch stream.
<input checked="" type="checkbox"/> Video Control	
<input checked="" type="checkbox"/> PTZ Control	
<input checked="" type="checkbox"/> Audio	
<input checked="" type="checkbox"/> Playback	
<input checked="" type="checkbox"/> Backup	
<input checked="" type="checkbox"/> Record Policy	
<input checked="" type="checkbox"/> Disk Config	

[OK] [Cancel]

----End

4.10 Configuring Protocol Parameters

4.10.1 Checking Protocol Information

Description

You can view the existing protocol name and version number of the current device on the **Configuration > Protocol > Protocol Info** page, as shown in Figure 4-38. Table 4-26 describes the protocol-related parameters.

Figure 4-38 Protocol Info page

Protocol Info

Protocol Name	ONVIF
Protocol Version	v2.6
Protocol Software Version	v2.6_build004234
RTSP Rule	rtsp://ip.port/snl/live/cameraid/streamid
RTSP Example	rtsp://192.168.0.120:554/snl/live/1/1

Refresh

Table 4-26 Protocol-related parameters

Parameter	Description
Protocol Name	Type of the access protocol.
Protocol Version	Version number of the access protocol.
Protocol Software Version	Software version number of the access protocol.
RTSP Rule	URL rule of Real Time Streaming Protocol.
RTSP Example	URL example of Real Time Streaming Protocol.

4.10.2 Setting Security Authentication

Description

When an ONVIF-compliant device connects to the platform, you must authenticate the user name and password to ensure the connection security.

Procedure

Step 1 Choose Configuration > Protocol > Security.

The **Security** page is displayed as shown in Figure 4-39. Table 4-27 describes the parameters on the **Security** page.

Figure 4-39 Security page



Table 4-27 Parameter description

Parameter	Description	Setting
User Verification	<p>When you select the User Verification check box, the user name and password must be the same as those for logging in to the device web page.</p> <p>NOTE</p> <p>The default user name is admin, and the default password is admin.</p>	<p>[Setting method]</p> <p>Click the button on to enable User Verification.</p>

Step 2 Click **Apply**.

A dialog box is displayed, indicating the parameter configuration success. To make the configuration take effect, click **Confirm** to restart the device.

----End

4.10.3 Setting Multicast Parameters

Description

You can set multicast IP, video port, audio port and source port in multicast parameter page.

Procedure

Step 1 Choose Configuration > Protocol > **Multicast Param**.

The **Multicast Param** page is displayed as shown in Figure 4-40. Table 4-28 describes the parameters on the **Multicast Param** page.

Figure 4-40 Multicast Param page

 **Multicast Param**

Stream ID	1
IP	238.255.255.255
Video Port	25330
Source Port	25530

Table 4-28 Parameter description

Parameter	Description	Setting
Stream ID	ID of stream.	[Setting method] Select a value from the drop-list box. [Default value] 1
IP	IP address that receive multicast data.	[Setting method] Enter a value manually. [Default value] 238.255.255.255
Video Port	Port that receive video data.	[Setting method] Enter a value manually. [Default value] 25330
Source Port	Port that receive source data.	[Setting method] Enter a value manually. [Default value] 25530

Step 2 Click **Apply**.

The message "Apply success, effective after restart!" is displayed, when the device restarts, the system will save the settings.

----End

3. Set the start time and end time as required.
4. Enter the corresponding user name that is registered with the device from the **User Name** drop-down list box.

Step 3 Click **Query**.

The operation logs related to the specified user are displayed.

Step 4 Download the operation logs.

1. Set the start time, end time and log type.
2. Click **Download** on the right of the page.

The log link and the message "Please download log by ' save as ' in the right key" are displayed.

3. Right-click the link and save the logs.



NOTE

An operation log is named as **Operation Log** by default and in the following format:

Operation time user(User name) Operation information

For example:

2012-06-20 13:40:39 user() StartUpDevice

2012-06-20 13:42:46 user(admin) ConfigureDeviceName

2012-06-20 13:43:16 user(admin) ConfigureAlarmIn

----End

4.11.3 Querying Alarm Logs

Description

An alarm log records information about an alarm generated on a device, including the security, disk, and recording alarms.

Procedure

Step 1 Choose **Configuration > Device Log > Alarm Log**.

The **Alarm Log** page is displayed, as shown in Figure 4-42.

Figure 4-42 Alarm Log page

 Alarm Log

Alarm Type All ▼

Begin Time

End Time

Alarm Begin Time	Alarm End Time	Log Info	Source ID

[<<](#) [>>](#)

Step 2 Set the search criteria.

1. Click the **Begin Time** and **End Time** text boxes respectively.
A time setting control is displayed.
2. Set the start time and end time as required.
3. Select the type of the alarm logs to be queried from the **Alarm Type** drop-down list box.

Step 3 Click **Query**.

The alarm logs of the specified type are displayed.

Step 4 Download the alarm logs.

1. Set the start time and end time.
2. Select a log type.
3. Click **Download** on the right of the page.
The log link and the message "Please download log by save as in the right key" are displayed.
4. Right-click the link and save the logs.

 **NOTE**

An alarm log is named as **Alarm Info** by default and in the following format:

Alarm start time -> Alarm end time Alarm information SourceID

For example:

2012-03-17 16:31:17 -> 2012-03-17 16:32:29 occur motion detect alarm SourceId(1:1)

2012-03-17 16:35:31 -> 2012-03-17 16:35:41 occur motion detect alarm SourceId(1:1)

----End

4.11.4 Reporting Logs

Description

You can collect logs about a device, which help you analyze and solve possible problems occurring on the device. The logs include overview information, key parameters, operation logs, alarm logs, upgrade logs, and debugging logs.

Procedure

Step 1 Choose **Configuration > Device Log > Collect all Log**.

The **Collect all log** page is displayed, as shown in Figure 4-43.

Figure 4-43 Collect Log page

 **Collect all log**



Step 2 Collect logs with one click.

1. Click **Collect**, the download page is displayed.
2. Select the path to save the logs.

----End

4.12 Maintaining the Device

4.12.1 Restarting a Device

Description

You can restart a device in situations including the following:

- The device parameters are set incorrectly, and the device cannot work properly.
- A user needs to reset device parameters and make the settings to take effect.
- A device needs to be restarted remotely.

Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Camera Maintenance** page is displayed, as shown in Figure 4-44.

Figure 4-44 Camera Restart page



Step 2 Click .

The message "Are you sure to restart?" is displayed.

Step 3 Click **OK**.

The device is restarted successfully five minutes later.

----End

4.12.2 Updating the software package

Description

You can update the software package from web.

Procedure

Step 1 Choose **Configuration > Maintenance**.

The **Device Maintenance** page is displayed.

Step 2 Click  to select the upgrade file.

Step 3 Click **Update**.

- If the message "Upgrade success! The device is rebooting, please login late!" is displayed, the program update successfully and the device is rebooted.
- If other information is displayed, select the upgrade package correctly.

----End

4.12.3 Restoring a Device to Factory Settings

Description

You can restore a device to factory settings in situations including the following:

- The device parameters are set incorrectly, and the device cannot work properly.
- A user needs to reset device parameters.
- All parameters must be restored to the factory settings.



CAUTION

After you click , all parameters (you can choose whether to reserve the IP address) will be restored to the factory settings. Use this function carefully.

Procedure

Step 1 Choose **Maintenance**.

The **Device Maintenance** page is displayed.

Step 2 Click the button to enable Reserve IP setting.



: Reserve IP address of the device.



:Restore to default IP address of the device.

Step 3 Click .

The message "Are you sure to restore?" is displayed.

Step 4 Click **OK**.

The device is restored to the factory settings.

----End

4.13 Local Configuration

Description

You can save the snapshots and records to local.

Procedure

Step 1 Choose Configuration > **Local Config**.

The **Local Config** page is displayed, as shown in Figure 4-45.

Figure 4-45 Local Config page

 **Local Config**

Snapshot picture format	<input type="text" value="jpg"/>
SnapShot Save Path	<input type="text" value="D:\LocalStorage\"/>
Local Record Save Path	<input type="text" value="D:\LocalStorage\"/>
Local Record File Size(8-128M)	<input type="text" value="64"/>

Step 2 Select snapshot picture format from the drop-down box..

Step 3 Set snapshot save path.

Step 4 Set local record save path

Step 5 Set local record file size(8-128M), the default value is 64.

Step 6 The message "Apply success!" is displayed, and the system saves the settings.

----End

5 Technical Specifications

Table 5-1 lists the technical specifications of the camera.

Table 5-1 Technical specifications

Specifications	WBXID282MW WBXID282MG	WBXIB362MW WBXIB362MG
CAMERA		
Image Sensor	1/2.7" Progressive Scan CMOS	
Min. illumination	Color :0.2Lux@(F1.2,AGC ON)	
	B/W: 0 Lux@(IR LED ON)	
Day & Night	ICR	
Shutter Speed	1/5-1/20000	
Auto Iris	Fixed	
Wide Dynamic Range	WDR >120dB	
Digital Noise Reduction	2D/3D	
Lens	2.8mm	3.6mm
FOV	90 °	85 °
IR LED	18pcs	
IR Range	30m	
IMAGE		
Video Compression	H.265/H.264/MJPEG	
Bit Rate (CBR/VBR)	Main stream: 1080P: 500Kbps-12Mbps, 720P:200Kbps-8Mbps ;	
	Sub stream: 100kb-6000kb	
Audio Compression	G.711 ,RAW_PCM	
Max. Resolution	1920*1080/30fps	
Stream	Stream 1 1920*1080 /1280*720	
	Stream 2 D1 to QVGA	
	Stream 3 1920*1080/1280*720/D1/VGA/640*360/CIF/QVGA	
Image Setting	Rotate Mode, Saturation, Brightness, Contrast ,Sharpness	

Specifications	WBXID282MW WBXID282MG	WBXIB362MW WBXIB362MG
HLC	Yes	
9:16 Corridor mode	Yes	
ROI	Yes	
Defog	N/A	
NETWORK		
Network Protocols:	IPv4,802.1x,HTTP,HTTPS,TCP/IP,UDP/IP,RTSP,DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, ICMP, IGMP, Unicast and Multicast	
Alarm Trigger	Motion Detection, Network Disconnect, Disk Alarm	
RTSP Video	Standard RFC2326, Support QuickTime/VLC Player	
Security	User security authentication, Reset, Hardware Watch Dog	
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian	
System Compatibility	Onvif	
Interface		
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector	
GENERAL		
Power Supply	DC12V/POE	
Power Consumption	2.5W(IR LED OFF); 5W (IR LED ON)	
Operating Temperature	Starting Temperature: -10 °C ~ 50 °C (14 °F ~ 122 °F)	
	Working Temperature: -20 °C ~ 50 °C (-4 °F ~ 122 °F)	
Operating Humidity	0% - 90% RH	
Ingress Protection	IP67	
Product Dimensions	Φ94*84mm	Φ196.5*62mm
Product Weight	360g	

Specifications	WBXID284MW WBXID284MG	WBXIB364MW WBXIB364MG
CAMERA		
Image Sensor	1/3" Progressive Scan CMOS	
Min. illumination	Color :0.05Lux@(F1.2,AGC ON)	
	B/W: 0 Lux@(IR LED ON)	
Day & Night	ICR	
Shutter Speed	1/5-1/20000	
Auto Iris	Fixed	
Wide Dynamic Range	WDR >120dB	
Digital Noise Reduction	2D/3D	
Lens	2.8mm	3.6mm
FOV	90 °	85 °
IR LED	24pcs	
IR Range	30m	
IMAGE		
Video Compression	H.265/H.264/MJPEG	
Bit Rate (CBR/VBR)	Main stream: 1080P: 500Kbps~12Mbps, 720P: 200Kbps ~8Mbps ;	
	Sub stream 100Kbps~6Mbp	
Audio Compression	G.711, RAW_PCM	
Max. Resolution Stream	2592*1520/20fps	
Stream	Stream 1 2592*1520/2560*1440/2304*1296/1920*1080 /1280*720	
	Stream 2 D1 to QVGA	
	Stream 3 2592*1520/2560*1440/2304*1296/1920*1080/ 1280*720/D1/VGA/ 640*360/CIF/QVGA	
Image Setting	Rotate Mode, Saturation, Brightness, Contrast, Sharpness	
HLC	Yes	
9:16 Corridor mode	Yes	
ROI	Yes	
Defog	N/A	
NETWORK		

Specifications	WBXID284MW WBXID284MG	WBXIB364MW WBXIB364MG
Network Protocols	IPv4,802.1x,HTTP,HTTPS,TCP/IP,UDP/IP,RTSP,DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, ICMP, IGMP, Unicast and Multicast	
Alarm Trigger	Motion Detection, Network Disconnect, Disk Alarm	
RTSP Video	Standard RFC2326, Support QuickTime/VLC Player.	
Security	User security authentication, Reset, Hardware Watch Dog	
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian	
System Compatibility	Onvif	
INTERFACE		
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector	
GENERAL		
Power Supply	DC12V/POE	
Power Consumption	2.5W(IR LED OFF); 5W (IR LED ON)	
Operating Temperature	Starting Temperature: -10 ℃ ~ 50 ℃ (14 ℉ ~ 122 ℉)	
	Working Temperature: -20 ℃ ~ 50 ℃ (-4 ℉ ~ 122 ℉)	
Operating Humidity	0% - 90% RH	
Ingress Protection	IP67	
Product Dimensions	Φ119*100mm	Φ228*69mm
Product Weight	650g	520g

Specifications	WBXID28122MW WBXID28122MG	WBXIB28122MW WBXIB28122MG
CAMERA		
Image Sensor	1/2.7" Progressive Scan CMOS	
Min. illumination	Color :0.2Lux@(F1.2,AGC ON)	
	B/W: 0 Lux@(IR LED ON)	
Day & Night	ICR	
Shutter Speed	1/5-1/20000	
Auto Iris	Fixed	
Wide Dynamic Range	WDR >120dB	
Digital Noise Reduction	2D/3D	
Lens	2.8mm-12mm	
FOV	90 °-35 °	
IR LED	24pcs	
IR Range	30m	
IMAGE		
Video Compression	H.265/H.264/MJPEG	
Bit Rate (CBR/VBR)	Main stream: 1080P: 500Kbps-12Mbps, 720P:200Kbps-8Mbps ;	
	Sub stream: 100kb-6000kb	
Audio Compression	G.711, RAW_PCM	
Max. Resolution	1920*1080/30fps	
Stream	Stream 1 1920*1080 /1280*720	
	Stream 2 D1 to QVGA	
	Stream 3 1920*1080/1280*720/D1/VGA/640*360/CIF/QVGA	
Image Setting	Rotate Mode, Saturation, Brightness, Contrast ,Sharpness	
HLC	Yes	
9:16 Corridor mode	Yes	
ROI	Yes	
Defog	N/A	
NETWORK		
Network Protocols:	IPv4,802.1x,HTTP,HTTPS,TCP/IP,UDP/IP,RTSP,DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, ICMP, IGMP, Unicast and Multicast	

Specifications	WBXID28122MW WBXID28122MG	WBXIB28122MW WBXIB28122MG
Alarm Trigger	Motion Detection, Network Disconnect, Disk Alarm	
RTSP Video	Standard RFC2326, Support QuickTime/VLC Player	
Security	User security authentication, Reset, Hardware Watch Dog	
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian	
System Compatibility	Onvif	
Interface		
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector	
GENERAL		
Power Supply	DC12V/POE	
Power Consumption	2.5W(IR LED OFF); 5W (IR LED ON)	
Operating Temperature	Starting Temperature: -10 °C ~ 50 °C (14 °F ~ 122 °F)	
	Working Temperature: -20 °C ~ 50 °C (-4 °F ~ 122 °F)	
Operating Humidity	0% - 90% RH	
Ingress Protection	IP67	
Product Dimensions	Φ119*100mm	Φ228*69mm
Product Weight	650g	520g

Specifications	WBXID28124MW WBXID28124MG	WBXIB28124MW WBXIB28124MG
CAMERA		
Image Sensor	1/3" Progressive Scan CMOS	
Min. illumination	Color :0.05Lux@(F1.2,AGC ON)	
	B/W: 0 Lux@(IR LED ON)	
Day & Night	ICR	
Shutter Speed	1/5-1/20000	
Auto Iris	Fixed	
Wide Dynamic Range	WDR >120dB	
Digital Noise Reduction	2D/3D	
Lens	2.8mm-12mm	
FOV	90 °±35 °	
IR LED	24pcs	
IR Range	30m	
IMAGE		
Video Compression	H.265/H.264/MJPEG	
Bit Rate (CBR/VBR)	Main stream: 1080P: 500Kbps~12Mbps, 720P: 200Kbps ~8Mbps ;	
	Sub stream 100Kbps~6Mbp	
Audio Compression	G.711, RAW_PCM	
Max. Resolution Stream	2592*1520/20fps	
Stream	Stream 1 2592*1520/2560*1440/2304*1296/1920*1080 /1280*720	
	Stream 2 D1 to QVGA	
	Stream 3 2592*1520/2560*1440/2304*1296/1920*1080/ 1280*720/D1/VGA/ 640*360/CIF/QVGA	
Image Setting	Rotate Mode, Saturation, Brightness, Contrast, Sharpness	
HLC	Yes	
9:16 Corridor mode	Yes	
ROI	Yes	
Defog	N/A	
NETWORK		

Specifications	WBXID28124MW WBXID28124MG	WBXIB28124MW WBXIB28124MG
Network Protocols	IPv4,802.1x,HTTP,HTTPS,TCP/IP,UDP/IP,RTSP,DHCP, NTP, RTCP/RTP, PPPoE, SMTP, DNS, UPnP, FTP, ICMP, IGMP, Unicast and Multicast	
Alarm Trigger	Motion Detection, Network Disconnect, Disk Alarm	
RTSP Video	Standard RFC2326, Support QuickTime/VLC Player.	
Security	User security authentication, Reset, Hardware Watch Dog	
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish. Russian, French, Czech, Hungarian	
System Compatibility	Onvif	
INTERFACE		
Ethernet	1 Ethernet (10/100 Base-T) RJ-45 Connector	
GENERAL		
Power Supply	DC12V/POE	
Power Consumption	2.5W(IR LED OFF); 5W (IR LED ON)	
Operating Temperature	Starting Temperature: -10 ℃ ~ 50 ℃ (14 ℉ ~ 122 ℉)	
	Working Temperature: -20 ℃ ~ 50 ℃ (-4 ℉ ~ 122 ℉)	
Operating Humidity	0% - 90% RH	
Ingress Protection	IP67	
Product Dimensions	Φ119*100mm	Φ228*69mm
Product Weight	650g	520g