4 Megapixel Network Camera

User Manual

For Fixed Lens Eyeball Dome Camera

Please read this manual carefully before use of the products and preserve for reference purposes. Specifications are subject to change without notice*

Notes on Safety

- Please use the specified power supply to connect.
- Do not attempt to disassemble the camera; in order to prevent electric shock, do not remove screws or covers.
- There are no user-serviceable parts inside. Please contact the nearest service center as soon as possible if there is any failure.
- Avoid shock, vibration, and heavy pressure which can cause damage to product.
- Do not use corrosive detergent to clean main body of the camera. If necessary, please use soft dry cloth to wipe dirt; for hard contamination, use neutral detergent. Any cleanser for high grade furniture is applicable.
- Avoid aiming the camera directly towards extremely bright objects, such as the sun, as this may damage the image sensor.
- Please follow the instructions to install the camera. Do not reverse the camera or the reversing image will be received.
- Do not operate if temperature, humidity and power supply are beyond the limited stipulations.
- Keep away from heat sources such as radiators, heat registers, stove, etc.
- Do not expose the product to the direct airflow from an air conditioner.
- This is a product manual **NOT** a warranty. We may reserve the rights of amending the typographical errors, inconsistencies with the latest version, software upgrades and product improvements, interpretation, and modification. These changes will be published in the latest version without special notification.
- When this product is in use, the relevant contents of Microsoft, Apple and Google will be involved in. The pictures and screenshots in this manual are only used to explain the usage of our product. The ownerships of trademarks, logos and other intellectual properties related to Microsoft, Apple and Google belong to the above-mentioned companies.
- This manual is suitable for IR water-proof network camera. All pictures and examples used in the manual are for reference only.

Table of Contents

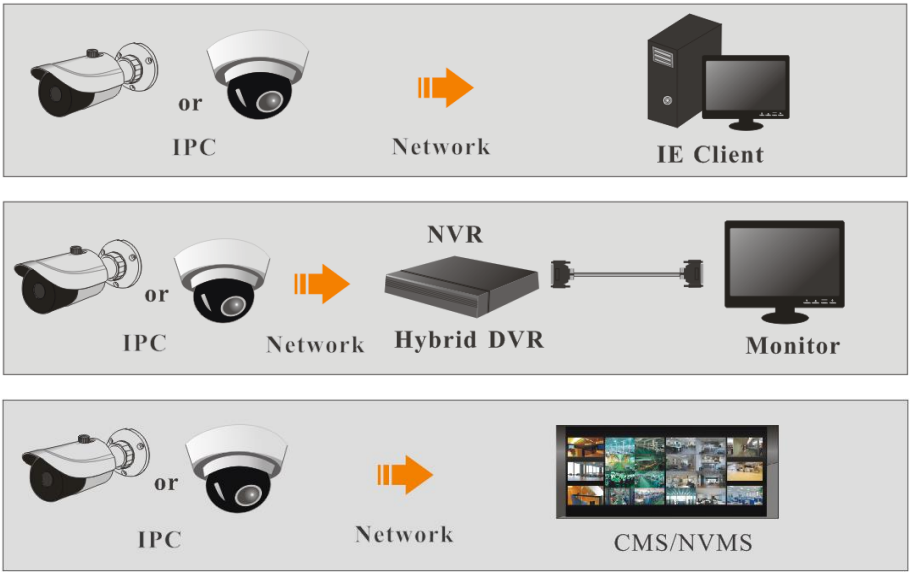
1 Introduction

This IP-CAMERA is designed for high performance CCTV solutions. It adopts state of the art video processing chips. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC, etc to ensure this system is more stable and reliable.
This product is widely used in banks, telecommunication systems, electricity power departments, law systems, factories, storehouses, uptowns, etc. In addition, it is also an ideal choice for surveillance sites with middle or high risks.

Main Features

- ICR auto switch, true day/night
- 3D DNR, digital WDR
- ROI coding
- Support smart phone, iPad, remote monitoring

Surveillance Application



2 IE Remote Access

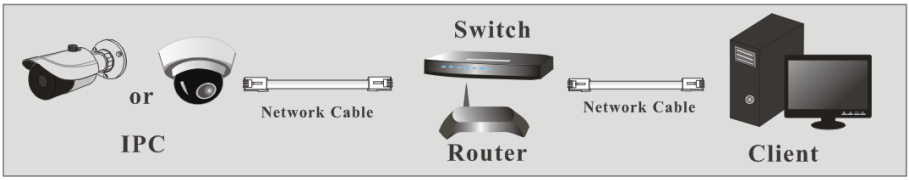
You may connect IP-Cam via LAN (Local Area Network) or WAN (Wide Area Network). The details are as follows:

2.1 LAN (Local network)

In LAN, there are two ways to access IP-Cam: 1. access through IP-Tool; 2. directly access through IE browser.

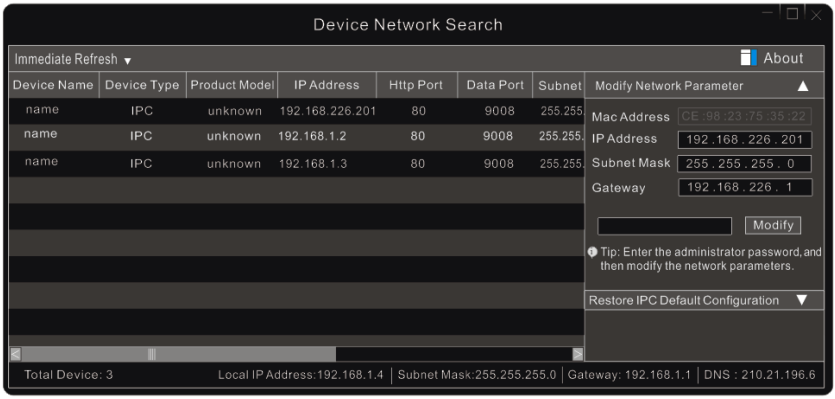
2.1.1 Access through IP-Tool

Network connection:

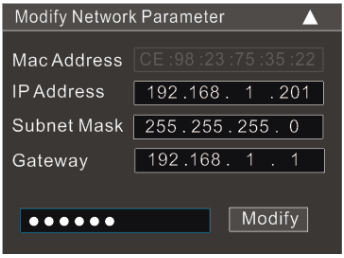


① Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

② Double click the IP-Tool icon on the desktop to run this software as shown below:



③ Modify the IP address. The **default** IP address of this camera is **192.168.226.201**. Click the information of the camera listed in the above table to show the network information on the right hand. Modify the IP address and gateway of the camera and make sure its network address is in the same local network segment as the computer's. Please modify the IP address of your device according to your local network configuration.



For example, the IP address of your computer is 192.168.1.4. So the IP address of the camera shall be changed to 192.168.1.**X**. After modification, please input the password of the administrator and click "Modify" button to modify the setting.

☞ The default password of the administrator is "***123456***".

④ Double click the IP address and then the system will pop up the IE browser to connect IP-CAM. IE browser will auto download the Active X control. After downloading, a login window will pop up as shown below.

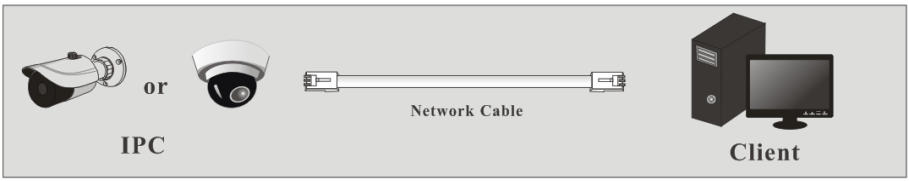
Input the username and password to log in.

☞ The default username is "***admin***"; the default password is "***123456***".

2.1.2 Directly Access through IE

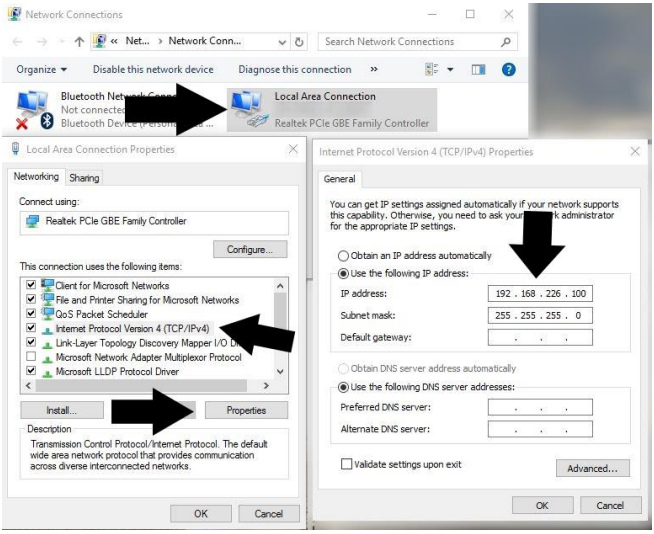
The default network settings are as shown below:
IP address: **192.168.226.201**
Subnet Mask: **255.255.255.0**
Gateway: **192.168.226.1**

HTTP: **80**
Data port: **9008**
You may use the above default settings when you log in the camera for the first time. You may directly connect the camera to the computer through network cable.



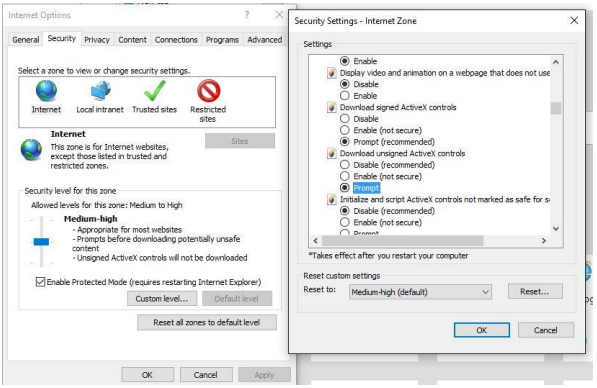
① Manually set the IP address of the PC. The network segment should be as the same as the default settings of the IP camera. Open Network and Sharing Center in Windows Control Panel. Click “Change adapter settings,” Right-click “Local Area Connection” and choose Properties, Left-click on “Internet Protocol TCP/IP v4,” and click the properties button.

Select “Use the following IP address” and manually enter the following information:
IP address: 192.168.226.4
Subnet Mask: 255.255.255.0



② Open the IE browser and input the default address of IP-Cam and connect. The IE browser will download Active X control automatically.
**IMPORTANT: You must configure IE Internet options before the Active X control will install. Proceed to do the following in Internet Explorer:
Click on Tools (cog wheel top right corner) > Internet Options > Security > Click Custom level

> Scroll to **DOWNLOAD UNSIGNED ACTIVEX CONTROLS** > set it to **PROMPT** > Click OK.

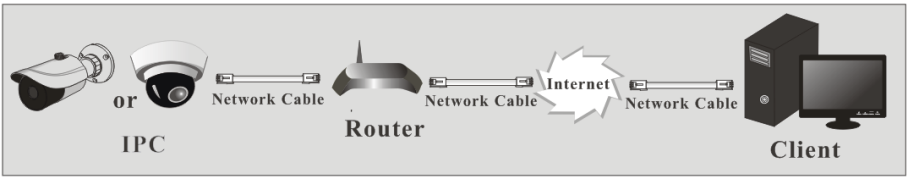


③ After downloading Active X control, the login dialog box will pop up.

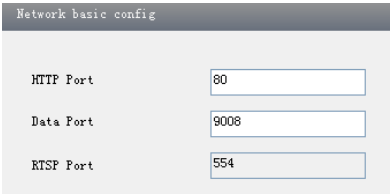
④ Input the default username and password and then enter to view camera, and access camera settings.

2.2 WAN (Router)

➢ **Access through the router**

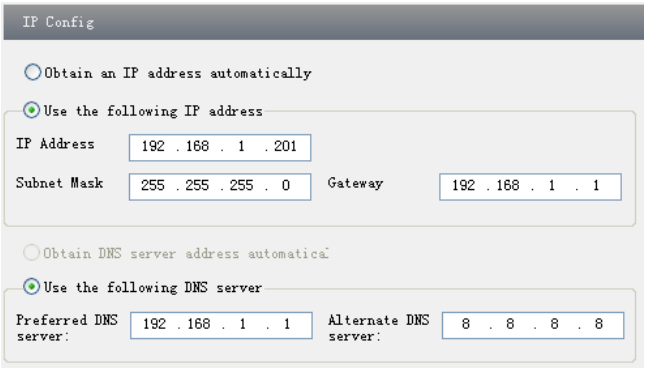


① Make sure the camera is well connected via LAN and then login the camera via LAN and go to Config❼Network Config❼Port menu to set the port number. **Note: Only change the ports if there will be more than 1 camera installed at the location.



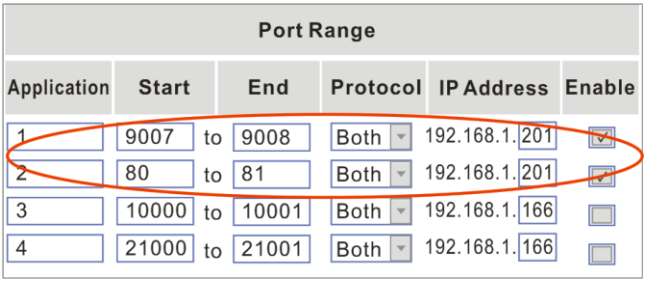
Port Setup

② Go to Config ❼Network Config❼IP Address menu to modify the IP address.



IP Setup

③ Go to the router's management interface through IE browser to forward the IP address and port of the camera. Login to the router by typing in the default gateway address into the web address bar of the browser (ex. http://192.168.1.1). Navigate to the Port forwarding, Virtual Server, Custom service, or Pinhole section in the router.

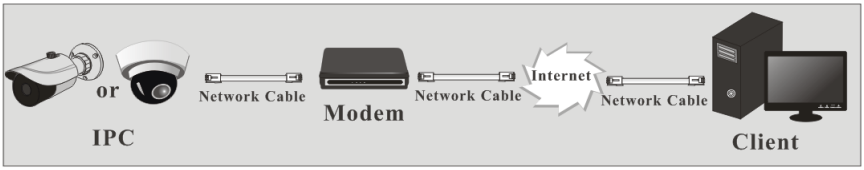


Router Setup

④ Open the IE browser and input its WAN IP and http port to access. You can find the WAN IP address under the router status page. It is also called the "Internet IP address."

➢ **Access through PPPoE dial-up**

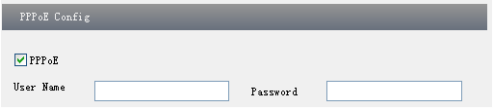
Network connection



You may access the camera through PPPoE auto dial-up. The setting steps are as follow:

① Go to Config❼Network Config❼Port menu to set the port number.

② Go to Config ❼Network Config❼IP Address menu. Check “PPPoE” and then input the user name and password which you can get from your internet service provider.

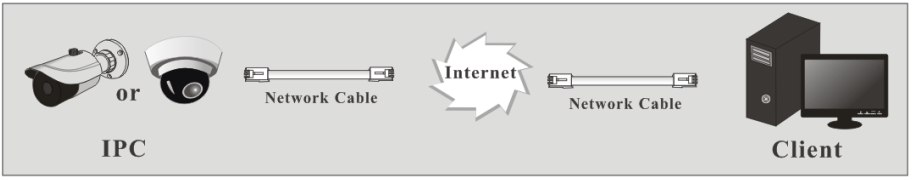


③ Go to Config ❼Network Config❼DDNS Config menu. Before you configure the DDNS, please apply for a domain name. Please refer to 4.4.5 DDNS Configuration for detail information.

④ Open the IE browser and input the domain name and http port to access.

➢ **Access through static IP**

Network connection



The setting steps are as follow:

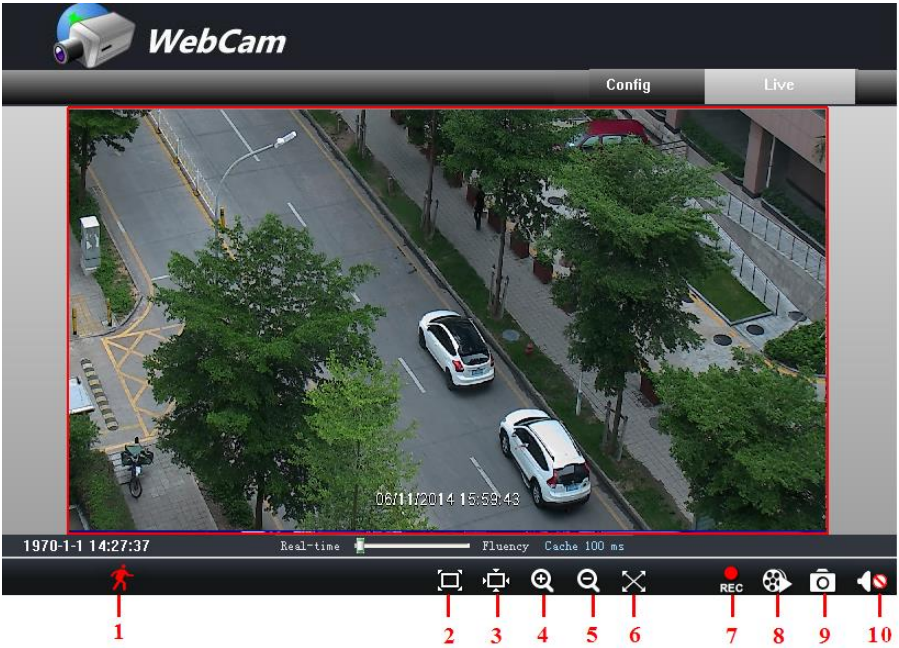
① Go to Config❼Network Config❼Port menu to set the port number.

② Go to Config ❼Network Config❼IP Address menu to set the IP address. Check “Use the following IP address” and then input the static IP address and other parameters.

③ Open the IE browser and input its WAN IP and http port to access.

3 Remote Preview

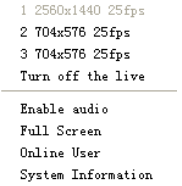
3.1 The Remote Preview Interface



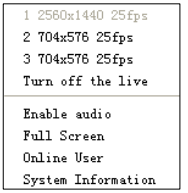
1	People icon	**6**	Full screen
2	Fix size	**7**	Start recording
3	Actual size	**8**	Playback
4	Zoom in	**9**	Snap
5	Zoom out	**10**	Enable audio

- When motion detection alarm is triggered, the people icon will turn red.

Right click to pop up a pull-down list as shown below:

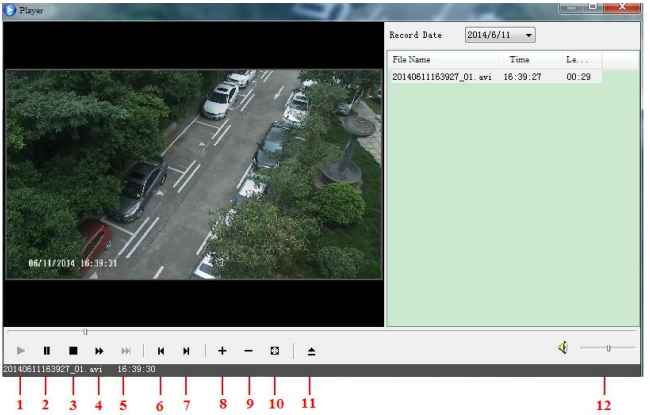


Stream: Three streams are optional.
Turn off the live: Click this item to close present live preview.
Enable audio: Open the volume control.
Full screen: The live preview picture will be full-screen display. Double click or click right mouse to return to the previous interface.
Online user: Display the current user connecting to the device.
System information: Display the device information: device name, firmware version, software build date, kernel version and hardware version.



3.2 Playback

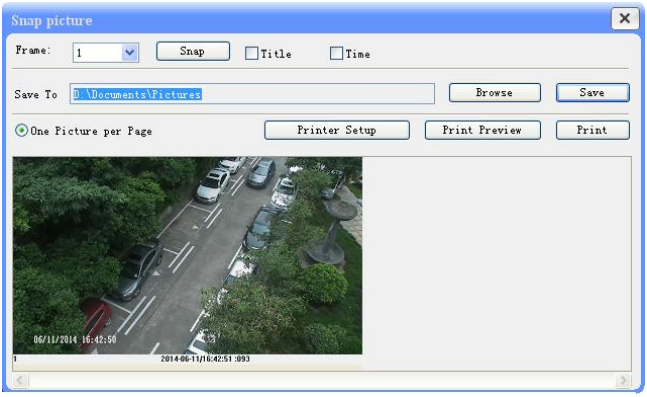
You can click REC button to record to the designated drive or folder. To playback video, click button to pop up a video player. Double click the record file to play the video as shown below.



1	Play	5	Next frame	9	Zoom out
2	Pause	6	The previous file	10	Full screen
3	Stop	7	The next file	11	Path
4	Forward	8	Zoom in	12	Volume

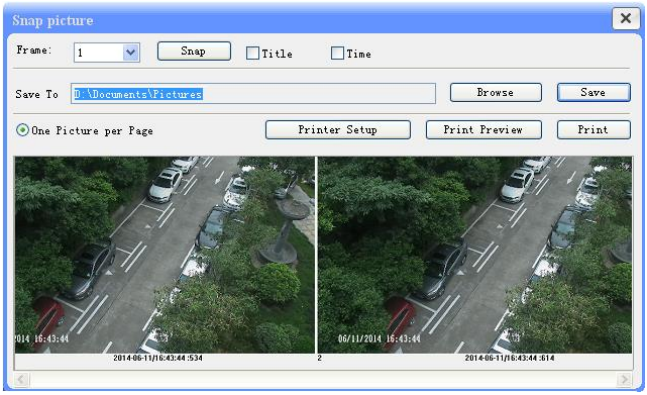
3.3 Snap Pictures

Select the image frame number, and then click “Snap” icon as shown below:



Single Snap

Snap multiple pictures:
Select the image frame number pull down list box, such as 2, and check “Title” and “Time” to show capture title and time on the snap pictures simultaneously.



Multi-picture Snap

4 Remote Live Surveillance

Functions of remote configurations include System Configuration, Video Configuration, Alarm Configuration, Network Configuration and Advanced Configuration. You should select the menu on the left and then set up the relative parameters.

4.1 System Configuration

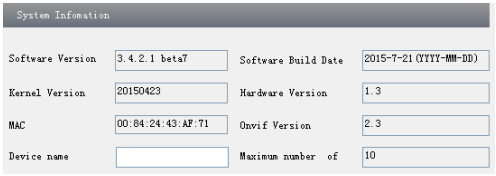
The “System configuration” includes two submenus: Basic Information and Date & Time.

4.1.1 Basic Information

In the “Basic Information” interface, you can set up the device name and can also check the relative information of the server.

Setting steps:

1. Clicking the “Config” icon will pop up pop up the menu list.
2. Clicking the “Basic Information” will pop up a window as shown below:
3. Input the name of the device in the “Device name” text box.
4. Press the “Save” button to save the settings.



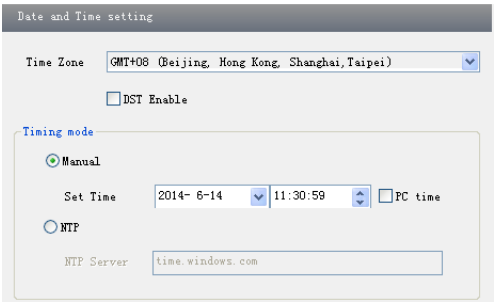
Please refer to the following table for parameters and instructions of server basic configuration.

Parameter	*Meaning*
Software version	The software of the device
Software build date	The software build date of the device
Kernel version	The kernel version of the device
Hardware version	The hardware version of the device
Mac Address	MAC address of device
Maximum number of user	Support max 10 users to access
Device name	Name of the device.

4.1.2 Date & Time

Setting steps:

1. Go to System Config❼Date & Time, menu is shown below.



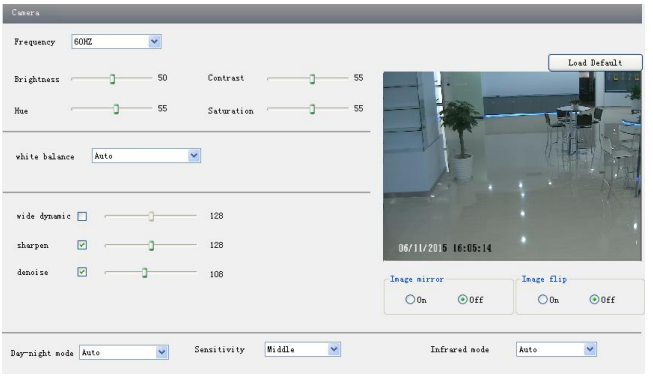
2. Set time zone.
3. Enable DST mode as required.
4. Set time. You may set time manually or enable NTP.

4.2 Video Configuration

Camera Configuration includes five submenus: Camera, Video Stream, OSD Config, Video Mask and ROI Config.

4.2.1 Camera

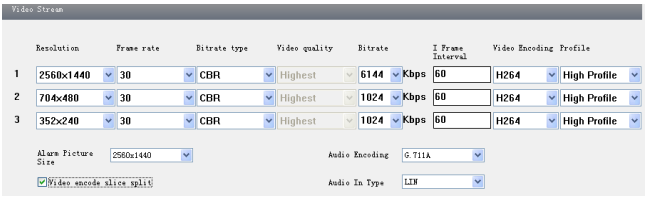
Setting steps:
1.Go to "Video Configuration" ❼ "Camera" interface as shown below.



2. You may adjust frequency, brightness, contrast, hue and saturation of the picture.
3. Select white balance mode.
4. Wide dynamic, sharpen, and denoise are adjustable.
5. Set day-night mode, sensitivity, and infrared mode.
6. You may enable the image mirror and image overturn function.
7. Press the "Save" button to save the settings.

4.2.2 Video Stream

Go to "Video configuration"❼ "Video Stream" to see an interface as shown below.



Three video streams are adjustable.

Resolution: The higher the resolution is, the clearer the image is.

Frame rate: The higher the frame rate is, the more fluency the video is. However, more storage room will be taken up.

Bitrate type: Including CBR and VBR. CBR means that no matter how changeable the video resources are, the compression bitrate keeps constant. This will not only facilitate the image quality better in a constant bitrate but also help to calculate the capacity of the recording. VBR means that the compression bitrate can be adjusted according to the change of the video resources. This will help to optimize the network bandwidth.

Video Quality: When VBR is selected, you need to choose image quality. The higher the image quality you choose, the more bitrate will be required.

Bitrate: Adjust accordingly.

I Frame interval: It is recommended to use the default value. If the value is too high, the read speed of the group of pictures will be slow resulting in quality loss of the video.

Video encoding: H264 and H265 are optional. Higher quality of image can be transferred under limited network bandwidth by using H265 video encoding. However, higher quality of hardware is required.

Profile: Baseline, main and high profile are optional. Baseline profile is mainly used in interactive application with low complexity and delay. Main/high profile is mainly used for higher coding requirement.

Alarm picture size: Please select accordingly.

Video encode slice split: If enabled, you may get a more fluent image even though using the low-performance PC.

Audio Encoding: G.711A and G.711U are selectable.

Audio In Type: MIC and LIN are selectable.

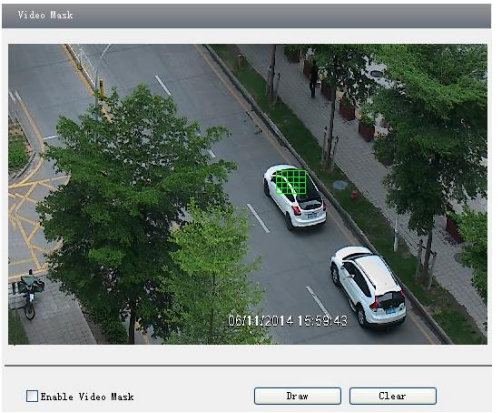
4.2.3 OSD Configuration

Go to “Video Config” ❼ “OSD Config” menu to display the interface as shown below.

You may set time stamp, device name and custom OSD here. Drag the time stamp and custom OSD to set their position. Then press the “Save” button to save the settings.

4.2.4 Video Mask

Go to “Video Config” ❼ “Video Mask” menu to display the interface. You can set 4 mask areas at most.

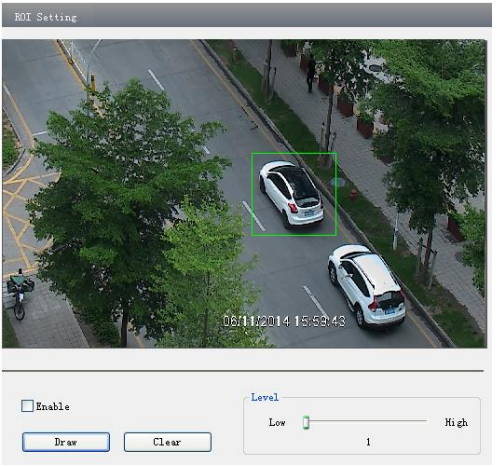


To set up video mask
1. Enable video mask.
2. Click “Draw” button and then drag the mouse to draw the video mask area.
3. Click “Save” button to save the settings.
4. Return to live view to see the following picture.

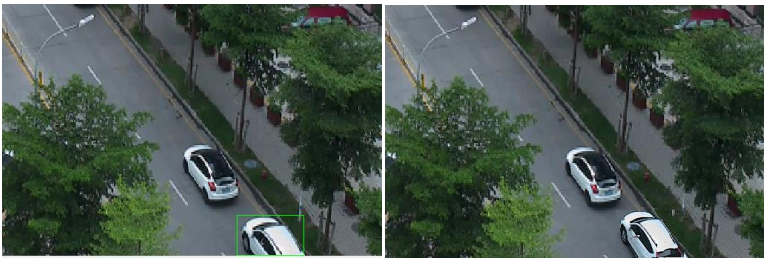
Clear the video mask:
Go to video mask menu and then click “Clear” button to delete the current video mask area.

4.2.5 ROI Configuration

To set up ROI
1. Go to Video Config➐ROI Config menu.



2. Check “Enable” and then click “Draw” button.
3. Drag the mouse to set the ROI area.
4. Set the level.
5. Click “Save” button to save the settings.
Now, you will see the selected ROI area is clearer than other areas, especially in low bitrate condition.

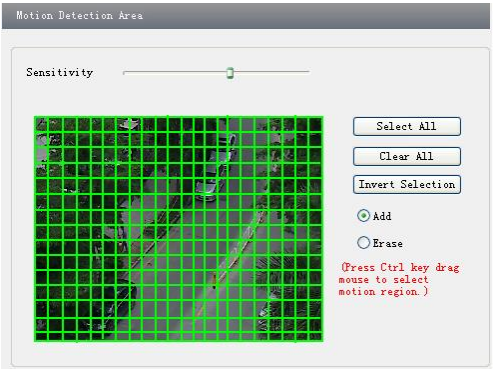


4.3 Alarm Configuration

Alarm configuration includes four submenus: Motion Detection Area, Motion Detection Trigger, Motion Detection Schedule and Alarm Server.

4.3.1 Motion Detection Area

1. Go to “Alarm configuration”❼ “Motion Detection Area” to see interface below.
2. Move the “Sensitivity” scroll bar to set up the motion trace sensitivity.
3. Check the “Add” box press the “Ctrl” button and move mouse to select the motion detection area. Select “Erase” and move the mouse to clear all motion detection area.
4. Press the “Save” button to save the settings.

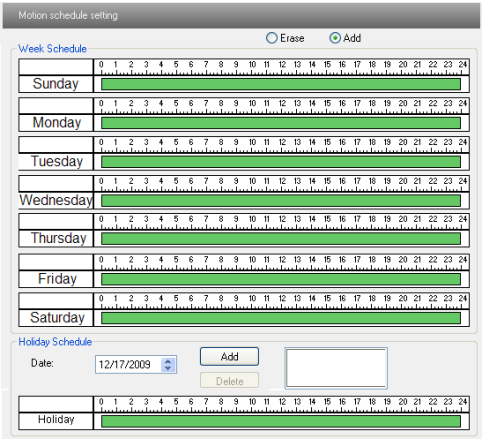


4.3.2 Motion Detection Trigger

1. Go to “Alarm Configuration” ❼ “Motion Detection Trigger” to display interface below.
2. Check “Enable alarm” check box. Then motion based alarm is activated.
3. Trigger Email: If the email and attach picture checkbox is checked (Email address shall be set first in the Mail config interface), the triggered snap pictures and event will be sent to the designated email address(es).
4. Trigger FTP: Check “Uploading picture”. Then the triggered snap pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.
5. Press the “Save” button to save the settings.

4.3.3 Motion Detection Schedule

Go to “Alarm configuration”➋ “Motion Detection schedule” interface as shown below.



Week schedule

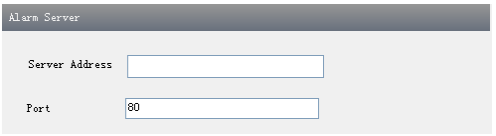
You can set an alarm schedule for any day of the week, Monday to Sunday.
Add: Add the schedule for a special day.
Erase: Delete holiday schedule.

Day schedule

You can set alarm time for a holiday or special circumstance.
1. Select a date at the “Date” pull down list, press “Add” button to add that date to the list box on the right side and then move the scroll bar to set the schedule of that day.
2. Select a date in the list box on the right side, and press “Erase” to remove the schedule on that day.
Press the “Save” button to save the settings.
Note: Holiday schedule is priority to Week schedule.

4.3.4 Alarm Server

Go to “Alarm configuration”➋ “Alarm Server” interface as shown below.
You may input the alarm server address and port. When the alarm happens, the camera will automatically transfer the alarm event to the alarm server. If the alarm server is not used, there is no need for you to configure here.

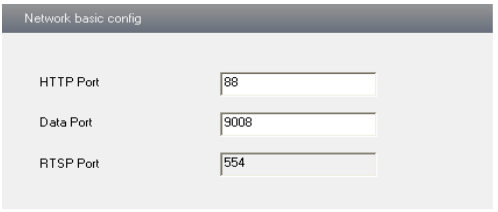


4.4 Network Configuration

Network configuration includes nine submenus: Port, IP Address, Server Configuration, IP Notify, DDNS Config, RTSP, UPNP, Mail configuration, and FTP.

4.4.1 Port

1. Go to “Network config”➐ “Port” to see interface below. *Note: you do not need to change the ports if only 1 camera is being installed.



2. Input port number for IE access in the “HTTP Port” textbox.
3. Input the port number for audio & video transmission in the “Data Port” textbox.

4.4.2 IP Address

1. Go to “Network Configuration”➐ “IP Address”.

There are two options for IP setup: obtain an IP address auto by DHCP protocol and use the following IP address. You may choose one of options as required.
Use the following IP address: display the IP address, subnet mask, gateway and DNS of the

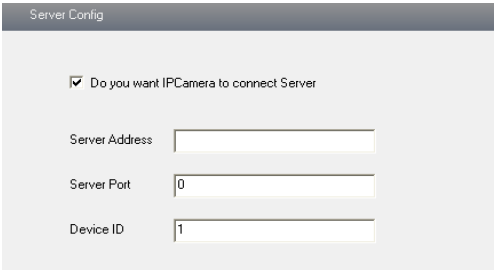
device.
PPPoE: User needs to input the username and password for dial-up internet.

1. Login to IE client and then enter username and password of PPPoE, save the setting and exit.
2. Set up IP address change notice.
3. Connect with Modem. Then the device will dial up internet automatically.

Press the "Save" button to save the settings.

4.4.3 Server Configuration

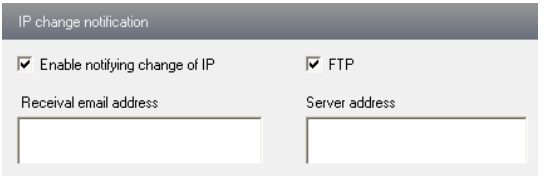
Go to "Network Configuration"❼ "Server Config".



1. Check "Do you want IP Camera to connect Server".
2. Check the IP address and port of the transfer media server in the CMS/NVMS. Enable the auto report in the CMS/NVMS when adding a new device. Next, self-define the device ID and input the remaining information of the device in the CMS/NVMS.
3. Input the above-mentioned server IP, server port and device ID in the corresponding boxes.
4. Click "Save" button to save the settings.

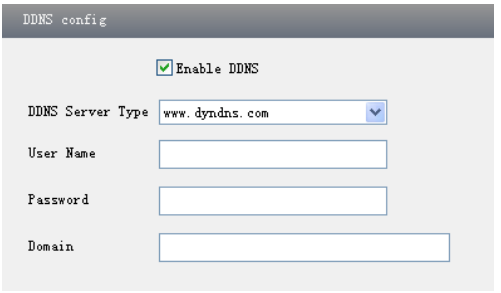
4.4.4 IP Notify

1. Go to "Network Configuration"❼ "IP Notify" to see a tab as shown below.
2. If the "Enable notifying change of IP" is selected, when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically; If "FTP" is selected, when the IP address of the device was changed, a new IP address will be sent to FTP server.

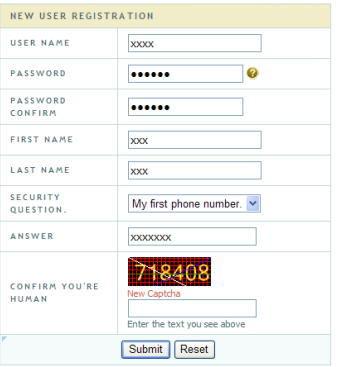


4.4.5 DDNS Configuration

1. Go to "Network Configuration" ❼ "DDNS Configuration" tab as shown below.

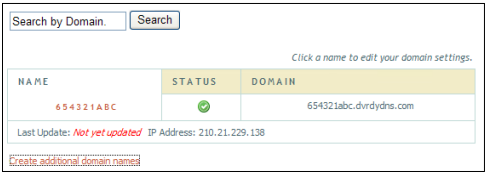


2. Apply for a domain name. Take www. dvrdydns.com for example.
Input www.dvrdydns.com in the IE address bar to visit its website. Then click “Registration” button to register as shown below.



Create domain name.

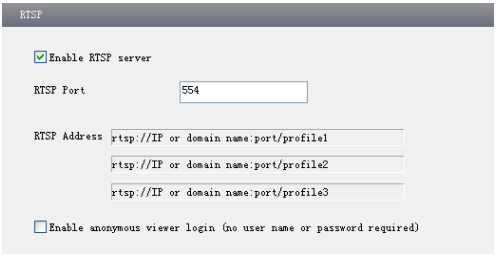
After you successfully request your domain name, you will see your domain in the list.



3. Select the server type and then input the username, password and domain name you applied for in the DDNS configuration interface.
4. Click “Save” button to save the settings.

4.4.6 RTSP

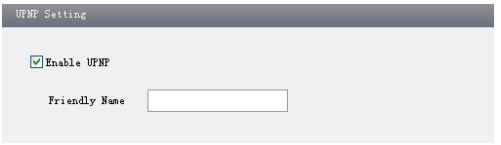
Go to “Network Configuration”❼ “RTSP” interface as shown below.



1. Select “Enable RTSP server”.
2. RTSP Port: Access Port of the streaming media. The default number is 554.
3. RTSP Address: The RTSP address you need to input in the media player.
4. You can also choose to enable anonymous viewer login

4.4.7 UPNP

Go to “Network Configuration”❼ “UPNP” interface as shown below.
Select “Enable UPNP” and then input friendly name.



Then double click “Network” icon on the desktop of the PC to see an icon with the friendly name and IP address of the camera. You may quickly access the device by double clicking this icon.

4.4.8 Mail configuration

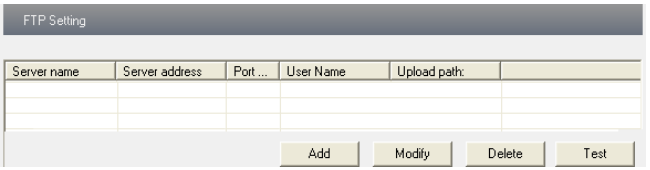
Go to “Network Configuration” ❼ “Mail configuration” interface.

1. From Email: sender's e-mail address.
2. User name and password: sender's user name and password.
3. Server address: SMTP server address (ex. smtp.gmailx.com).
4. Select the secure connection type at the Secure Connection pull down list according to the smtp server authentication requirements.
5. Receival email address list: List of all receiving email addresses
6. Receival email address: Type in a receiving email address
7. After all, parameters set up, you can click "Test your account settings". If email sent successful, a "Test Successful" window will pop up, if not, users can try other email addresses or check the smtp settings.

Notice: If you change the static IP into PPPoE and select mailbox, there will be an e-mail sent to your mailbox for notifying a new IP address.

4.4.9 FTP Setting

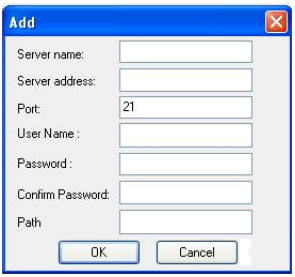
Go to Network Configuration❼FTP Setting interface as shown below.



1. Add: Click Add button to input FTP server's server name, address, port number, user name, password, and upload path, click OK to confirm the setting.
2. Modify: Click this button to change some information of the FTP server.
3. Delete: Select FTP account. Click this button to delete this account.
4. Test: Select FTP account. Click this button to test its validity.

Please refer to the following table for parameters and instructions of FTP configuration.

Parameter	*Meaning*
Server name	The name of the FTP server
Server address	The address of the FTP server
Port	The port number of the FTP server
User name	The user name of the FTP server
Password	The password of the FTP server
Path	The save path for FTP files



4.5 Advanced Configuration

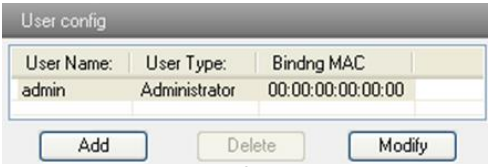
Advanced configuration includes five submenus: User Configuration, Security Configuration, Configure Backup & Restore, Reboot, and Upgrade.

4.5.1 User Configuration

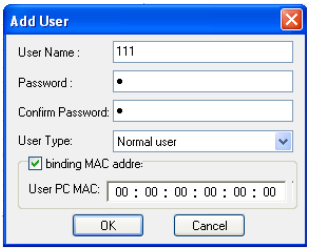
Go to Advanced configuration➐User Configuration interface.

Add user:

1. Clicking “Add” button pops up “Add user” dialog box.



User Configuration



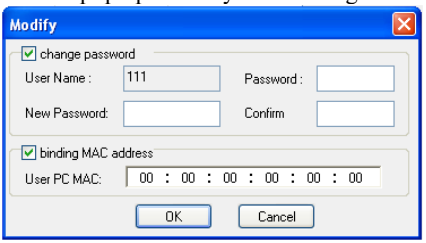
Add User

Note: After binding physical address to the IP-CAM, you can access the device on this PC in network only.

2. Input user name in “User Name” textbox (only letters).
3. Input characters in “Password” and “Confirm Password” textbox (letters or numbers).
4. Input the MAC address of the PC in “Binding MAC address” textbox.
5. Click “OK” button and then the new added user will display in the user list.

Modify user:

1. Select the user to modify.
2. Clicking “Modify” button will pop up “Modify user” dialog box as shown below.



Modify User

3. Input original password of this user in the “Password” text box.
4. Input new password in the “New password” and “Confirmation” text box.
5. Input computer’s physical address which is used to access the server in the “User PC MAC” text box.
6. Click “OK” button to modify password and binding MAC address successfully.

Delete user:

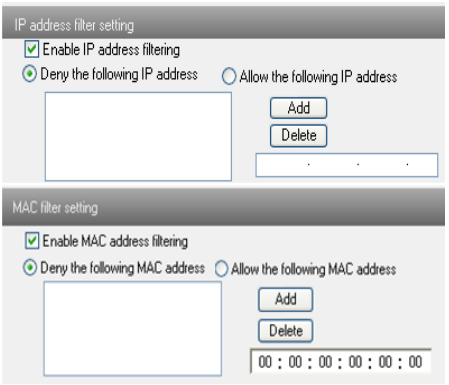
1. Select the user to delete.
2. Clicking “Delete” button will pop up a confirm dialog box. Then click “OK” to delete the user.

Note: The default super administrator cannot be deleted.

Parameter	*Meaning*
User Name	User name to operate the logon client end
User Type	Type of users, normal user, advanced user and super administrator
Binding MAC address	The MAC addresses of user access the server which should set up according to actual MAC address of server.
Password	Password to log in the client terminal
Confirm Password	Password to log in the client terminal

4.5.2 Security Configuration

1. Go to Advanced Configuration❼Security Configuration to see a tab shown below.
2. Check “Enable IP address” check box, select “Deny the following IP address”, input IP address in the IP address list box and click “Add” button. Then this IP address will display in the list box.
3. Select the IP address which needs to be deleted from the IP address list box and click “Delete” button to delete that IP address.
4. Check “Enable MAC address” check box, select “Deny the following IP address” or “Allow the following MAC address” input MAC address in the MAC address list box and click “Add” button. Then this MAC address will display in the list box.
5. Select the MAC address which needs to be deleted from the MAC address list box and click “Delete” button to delete that MAC address.
6. Click “Save” button to save the above setting.

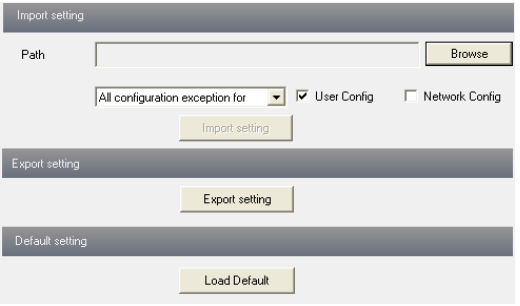


4.5.3 Configure Backup & Restore

Go to Advanced configuration❼Configure Backup & Restore Interface.

- **Import & Export Configuration**:

You can import or export the setting information from PC or to device.
1. Click “Browse” to select save path for import or export information on PC.
2. You can import or export all setting information to PC. “User Configuration” and “Network Configuration,” cannot be exported.



- **Default Configuration**

Click “Load default” button to restore all system settings to the default status.

4.5.4 Reboot

Go to Advanced configuration—Reboot to see an interface as shown below
Click “Reboot” button to reboot the device.

4.5.5 Upgrade

Go to Advanced Configuration—Upgrade interface as shown below.

1. Click “Browse” button to select the save path of the upgrade file.
2. Click “Upgrade server firmware” button to start upgrading the application program.
3. The device will restart automatically.
4. After you successfully update the software, click “OK” button to close IE and then re-open IE to connect IP-CAM.

Notice: You cannot disconnect the PC or close the IP-CAM during upgrade.

Appendix

Appendix 1 Q & A

Q: How do i find my password if I forget it?

A：Reset the device to the default factory settings.

Default IP: 192.168.226.201
User name: admin
Password: 123456

Q：I can't connect devices through IE browser, why?

A: Network is not well connected. Please check the connection and make sure it is connected well.
B: IP is not available. Reset the valid IP.
C: Web port number has been revised: contact administrator to get the correct port number.
D: Recover default setting by IP-Tool.

Note: Default IP: 192.168.226.201，mask number: 255.255.255.0

Q：IP tool won't find devices, why?

A：It may be caused by the anti-virus and Windows Firewall/Windows Defender on your computer. Please temporarily disable and try to search device again.

Q：IE cannot download ActiveX control. why?

a. IE browser blocks ActiveX. Please do setup as below.

① Refer to section 2.1.2, on how to configure IE settings

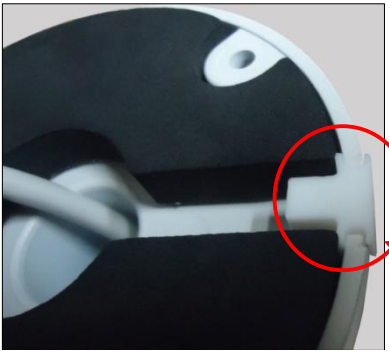
Q：No sound can be heard, why?

A：Audio input device is not connected. Please connect and try again.

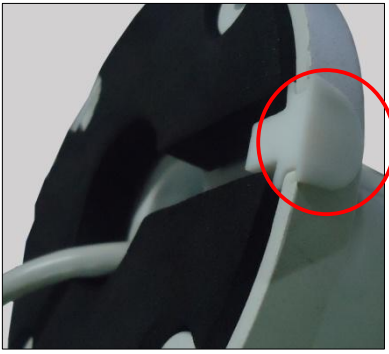
B: Audio function is not enabled at the corresponding channel. Please check AUDIO item to enable this function.

Appendix 2 Installation of Water-proof Rubber Plug

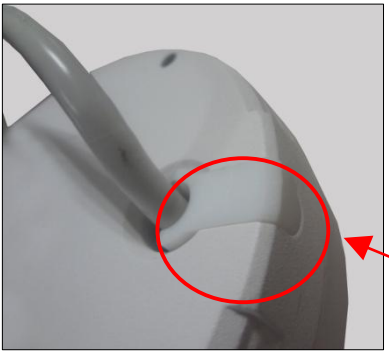
In order to improve the water-proof effect, the rubber plugs are attached to some network bullet cameras. You may mount the rubber plugs to the mounting base of the camera as required when installing. The installation instructions are as follows.



Please mount the rubber plug to the gap of the mounting base.



Please let the camber surface of the rubber plug mount outside.



Please mount the rubber plug for the mini dome like this.

Appendix 3 Specifications

Specification /Model		20m IR Water-proof Bullet Network Camera	30m IR Water-proof Bullet Network Camera	
Camera	Image Sensor	1/3 " CMOS		
	Image Size	2688×1520		
	Electronic Shutter	1/25s~1/100000s		
	Auto Iris	Fixed Iris		
	Min. illumination	0.05lux@F1.2, AGC ON: 0 lux with IR		
	Lens	3.6mm@F1.6, angle of view: 72°; (6mm, 8mm optional)	6mm@F1.6, angle of view: 50° ; (3.6mm, 8mm optional)	3.3~12mm@F1.4, angle of view: 80°~38°
	Lens Mount	M12	M12	Ø14
	Day&Night	ICR		
	WDR	Digital WDR		
	Digital NR	3D DNR		
	Angle Adjustment	Any angle		
Image	Video Compression	H.265/H.264/MJPEG		
	H.265 Type	Main Profile @Leve4.1 High Tier		
	Video Bit Rate	64Kbps~10Mbps		
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240		
	Main Stream	60Hz: 2560×1440(1~30fps)/2304×1296(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/ 2304×1296(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)		
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser		
	ROI	Support		
Interfaces	Network	RJ45		
	Video	CVBS output (BNC ×1)		
	Audio	MIC IN×1		
Function	Remote Monitoring	IE browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to10 users and multi-stream transmission		
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP		
	Interface Protocol	ONVIF, GB-T/28181-2011		
	Storge	Network remote storage		
	Smart Alarm	Motion alarm		
Others	IR Distance	10~20 m	20~30 m	
	Protection Grade	IP66		
	Power	DC12V/PoE		
	Power Consumption	< 2.5W(ICR OFF); < 6W(ICR ON)		
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%		
	Dimension (mm)	Ø64mm×183mm	Ø87mm×219mm	
	Weight (net)	386g	609g	
	Installation	Wall mounting; pendant mounting		

Specification /Model		50m IR Water-proof Bullet Network Camera	100m IR Water-proof Bullet Network Camera
Camera	Image Sensor	1/3 " CMOS	
	Image Size	2688×1520	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. illumination	0.05lux@F1.2, AGC ON: 0 lux with IR	
	Lens	8mm@F1.6, angle of view: 38°; (6mm optional)	8mm@F1.6, angle of view: 38°
	Lens Mount	M12	
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
	Angle Adjustment	Pan：0°~300°；Tilt：0°~70°	
Image	Video Compression	H.265/H.264/MJPEG	
	H.265 Type	Main Profile @Leve4.1 High Tier	
	Video Bit Rate	64Kbps~10Mbps	
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 2560×1440(1~30fps)/2304×1296(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/ 2304×1296(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	
	Video	CVBS output (BNC ×1)	
	Auido	MIC IN×1	
Function	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to10 users and multi-stream transmission	
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP	
	Interface Protocol	ONVIF, GB-T/28181-2011	
	Storge	Network remote storage	
	Smart Alarm	Motion alarm	
Others	IR Distance	30~50 m	70~100 m
	Protection Grade	IP66	
	Power	DC12V/PoE	DC12V
	Power Consumption	< 2.5W(ICR OFF); < 6W(ICR ON)	
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%	
	Dimension (mm)	W80mm × D203mm × H80mm	W106mm × D180mm × H89mm
	Weight (net)	498g	
	Installation	Wall mounting; pendant mounting	

Specification /Model		Water-proof Mini Dome Network Camera		20m IR Water-proof Dome Network Camera
Camera	Image Sensor	1/3 " CMOS		
	Image Size	2688×1520		
	Electronic Shutter	1/25s~1/100000s		
	Auto Iris	Fixed Iris		
	Min. illumination	0.05lux@F1.2, AGC ON: 0 lux with IR	Color: 0.05lux@ F1.2, AGC ON: 0 lux with IR; B/W: 0.01lux@ F1.2, AGC ON	0.05lux@F1.2, AGC ON: 0 lux with IR
	Lens	3.6mm@F1.6, angle of view: 72°; (6mm, 8mm optional)		
	Lens Mount	M12		
	Day&Night	ICR		
	WDR	Digital WDR		
	Digital NR	3D DNR		
	Angle Adjustment	Pan: 0°~240°; Tilt: 0°~68°; Rotation: 0°~220°		Pan: 0°~360°; Tilt: 0°~90°; Rotation: 0°~360°
Image	Video Compression	H.265/H.264/MJPEG		
	H.265 Type	Main Profile @Leve4.1 High Tier		
	Video Bit Rate	64Kbps~10Mbps		
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240		
	Main Stream	60Hz: 2560×1440(1~30fps)/2304×1296(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/ 2304×1296(1~25fps)/ 1920×1080(1~25fps)/ 1280×720(1~25fps)		
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser		
	ROI	Support		
Interfaces	Network	RJ45		
	Video	CVBS output (BNC ×1)		
	Audio	MIC IN×1		
Function	Remote Monitoring	IE browser, CMS remote control		
	Online Connection	Support simultaneous monitoring for up to10 users and multi-stream transmission		
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP		
	Interface Protocol	ONVIF, GB-T/28181-2011		
	Storge	Network remote storage		
	Smart Alarm	Motion alarm		
Others	IR Distance	10~20 m	NO	10~20 m
	Protection Grade	IP66&IK10		IP66
	Power	DC12V; (PoE power supply optional)		
	Power Consumption	< 2.5W(ICR OFF); < 4W(ICR ON)		
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%		
	Dimension (mm)	Ø116mm×91mm		Ø87mm×103mm
	Weight (net)	605g		380g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)		

Specification /Model		30m IR Water-proof Dome Network Camera	
Camera	Image Sensor	1/3 " CMOS	
	Image Size	2688×1520	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. illumination	0.05lux@F1.2, AGC ON: 0 lux with IR	
	Lens	6mm@F1.6, angle of view: 50° ; (3.6mm, 8mm optional)	3.3~12mm@F1.4, angle of view: 80°~38°
	Lens Mount	CS	Ø14
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
	Angle Adjustment	Pan: 0°~360°; Tilt: 0°~90°; Rotation: 0°~360°	
Image	Video Compression	H.265/H.264/MJPEG	
	H.265 Type	Main Profile @Leve4.1 High Tier	
	Video Bit Rate	64Kbps~10Mbps	
	Resolution	4MP(2560×1440), 3MP (2304×1296), 1080P, 720P, D1, CIF, 480×240	
	Main Stream	60Hz:2560×1440(1~30fps)/2304×1296(1~30fps)/ 1920×1080(1~30fps)/1280×720(1~30fps) 50Hz: 2560×1440(1~25fps)/2304×1296(1~25fps)/ 1920×1080(1~25fps)/1280×720(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	
	Video	CVBS output (BNC ×1)	
	Audio	MIC IN×1	
Function	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to10 users and multi-stream transmission	
	Network Protocol	TCP/IP, UDP, DHCP, NTP, RTSP, PPPoE, DDNS, SMTP, FTP	
	Interface Protocol	ONVIF, GB-T/28181-2011	
	Storge	Network remote storage	
	Smart Alarm	Motion alarm	
Others	IR Distance	20~30 m	
	Protection Grade	IP66	
	Power	DC12V/PoE	
	Power Consumption	< 2.5W(ICR OFF); < 5W(ICR ON)	
	Operating Environment	Temperature: -20°C~50°C; Humidity: 10%~90%	
	Dimension (mm)	Ø109mm×130mm	
	Weight (net)	689g	
	Installation	Pendent mounting (wall mounting available with junction box and bracket)	