1.3 Megapixel

NETWORK CAMERA

User Manual

Please read this instruction carefully before operating the unit and keep it for further reference

Notes on Safety

- This product is intended to be supplied by a Listed Power Unit, marked with 'Limited Power Source', 'LPS' on unit, output rated minimum 12V/2 A or POE 48V/ 350mA(depending on models), no more than 2000m altitude of operation and Tma=60 Deg.C.
- As for the modes with PoE function, the function of the ITE being investigated to IEC 60950-1 standard is considered not likely to require connection to an Ethernet network with outside plant routing, including campus environment and the ITE is to be connected only to PoE networks without routing to the outside plant.
- Risk of explosion if battery is replaced by an incorrect type. Dispose of used batteries according to the instructions.
- 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 from incorrect operation, shock vibration, heavy pressing 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, 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 it in case 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 manual is for using and managing the product. 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.
- All pictures, charts, images in this manual are only for description and explanation of our products. 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 cameras.

Table of Contents

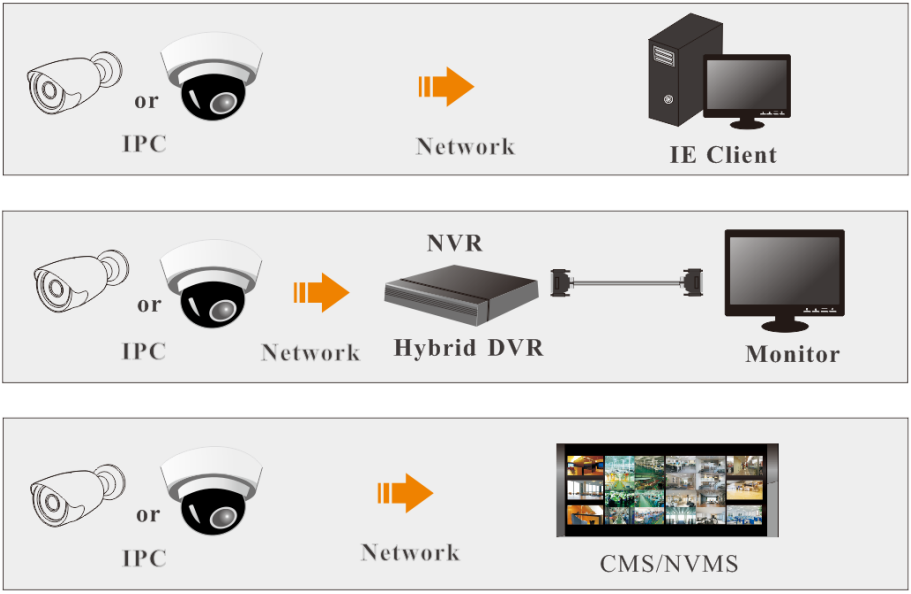
1 Introduction

This IP-CAMERA (short for IP-CAM) 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 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, true WDR
- ROI coding
- Support BLC, Defogging
- Support smart phone, iPad, remote monitoring

Surveillance Application



2 IE Remote Access

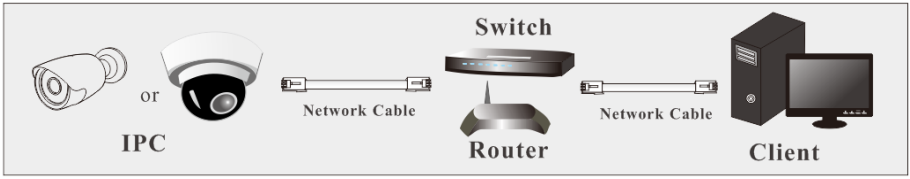
You may connect IP-Cam via LAN or WAN. Here only take IE browser (6.0) for example. The details are as follows:

2.1 LAN

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

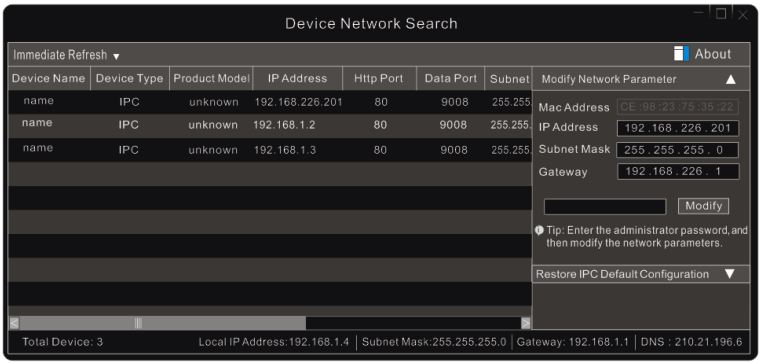
2.1.1 Access through IP-Tool

Network connection:

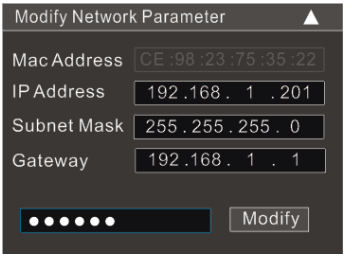


① Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

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 that of the computer. Please modify the IP address of your device according to the practical situation.



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. Download, install and run the Active X control.

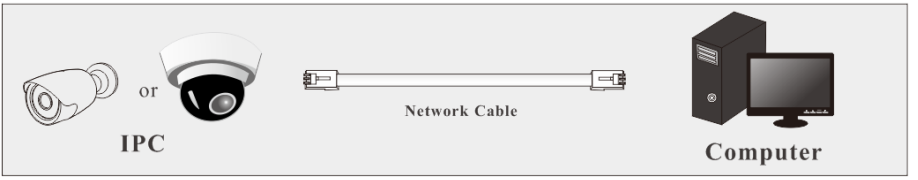
Input the username and password in the login window to log in. (You can modify the default username and password for your first login for some versions)

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

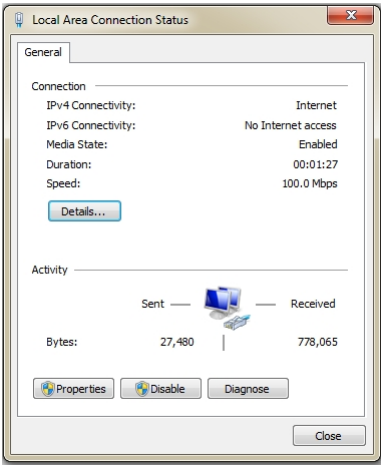
2.1.2 Directly Access through IE

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**

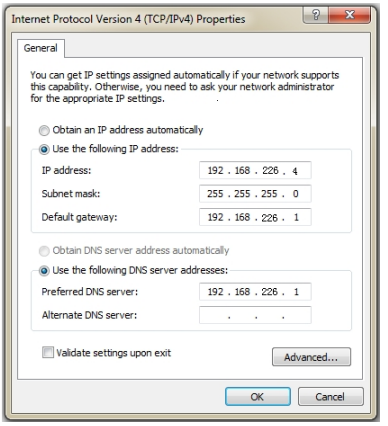
You may use the above default settings when you log in the camera for the first time. You may directly connect the camera to the computer through network cable.



① Manually set the IP address of the PC and the network segment should be as the same as the default settings of the IP camera. Open the network and share center. Click “Local Area Connection” to pop up the following window.



Select “Properties” and then select internet protocol according to the actual situation (for example: IPv4). Next, click “Properties” button to set the network of the PC.



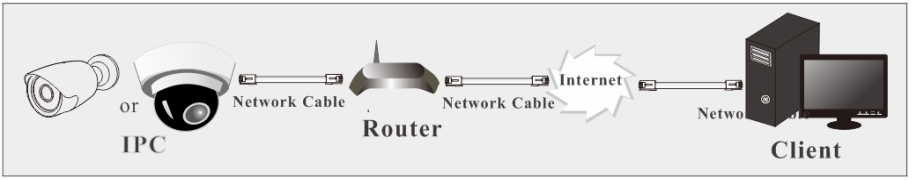
② Open the IE browser and input the default address of IP-CAM and confirm.

③ Download, install and run the Active X control.

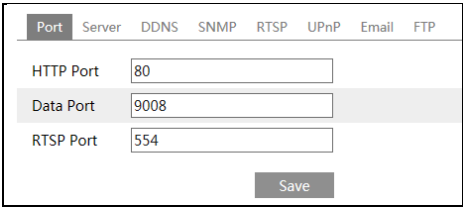
④ Input the default username and password in the login window and then enter to view.

2.2 WAN

➢ **Access through the router or virtual server**

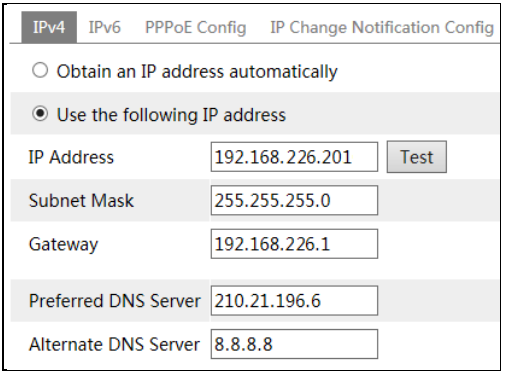


① Make sure the camera is well connected via LAN and then log in the camera via LAN and go to Config→Network→Port menu to set the port number.



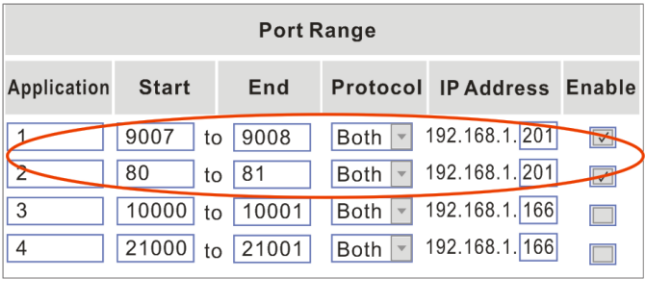
Port Setup

② Go to Config →Network→TCP/IP 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 in the "Virtual Server".

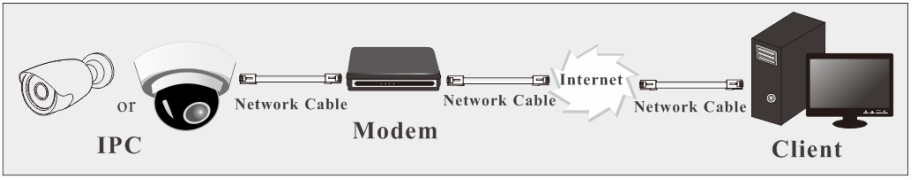


Router Setup

④ Open the IE browser and input its WAN IP and http port to access. (for example, if you change your http port as 81, you may input "192.198.1.201:81" in the address bar of web browser to access).

➢ **Access through PPPoE dial-up**

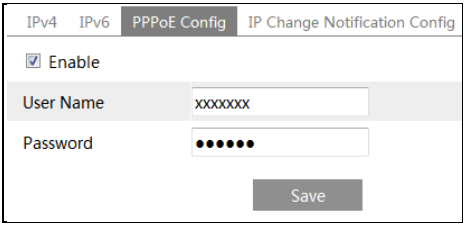
Network connection



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

① Go to Config→Network→Port menu to set the port number.

② Go to Config →Network→TCP/IP→PPPoE Config menu. Enable PPPoE and then input the user name and password which you can get from your internet service provider.

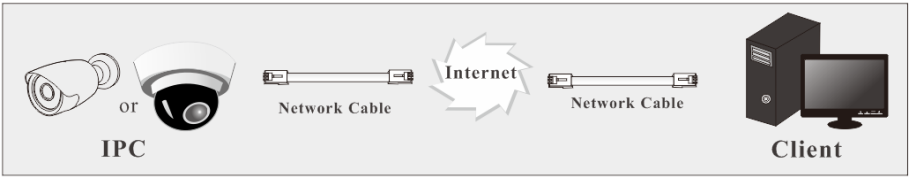


③ Go to Config →Network→DDNS menu. Before you configure the DDNS, please apply for a domain name first. Please refer to DDNS configuration for detail information.

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:

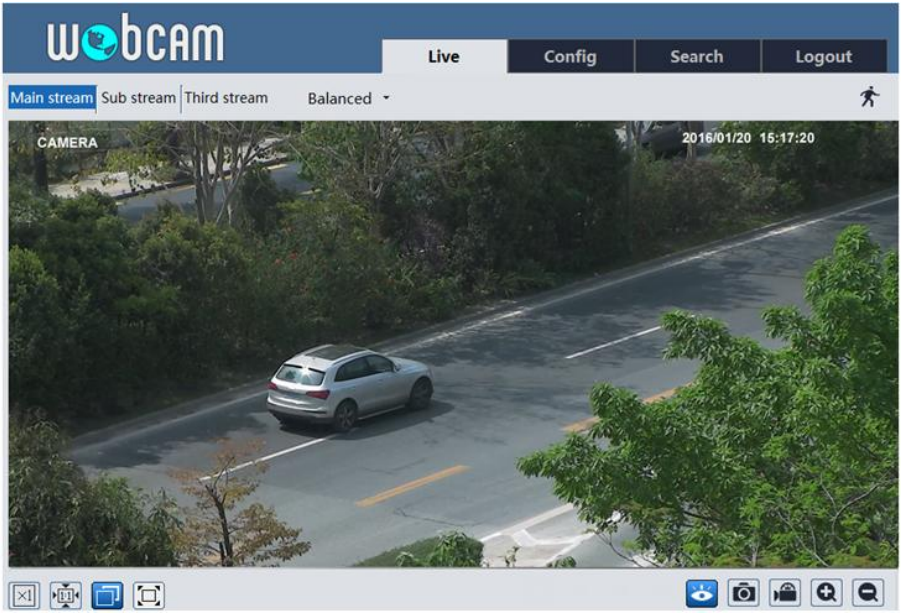
① Go to Config→Network→Port menu to set the port number.

② Go to Config →Network→TCP/IP 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 Live View

After you log in, you will see the following window.



The following table is the instructions of the icons on the live view interface.

Icon	Description	Icon	Description
	Original size		Snap
	Appropriate size		Start/stop recording
	Auto		Zoom in
	Full screen		Zoom out
	Start/stop live view		Motion alarm indicator icon

- In full screen mode, double click to exit.

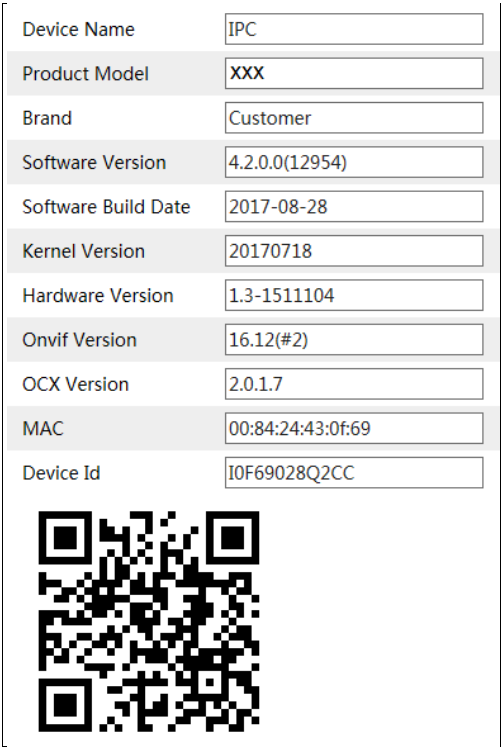
4 Network Camera Configuration

In the Webcam client, choose “Config” to go to the configuration interface.
Note: You shall click “Save” button in the corresponding configuration interfaces except few of auto-saving configurations after setups. Thus, we will not remind you of saving the settings repeatedly.

4.1 System Configuration

4.1.1 Basic Information

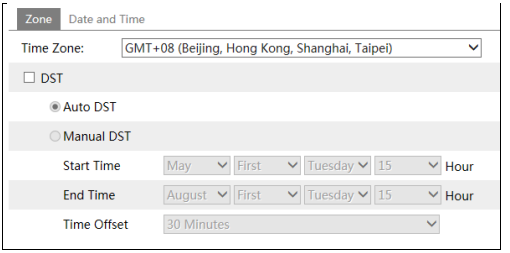
In the “Basic Information” interface, you can check the relevant information of the device.



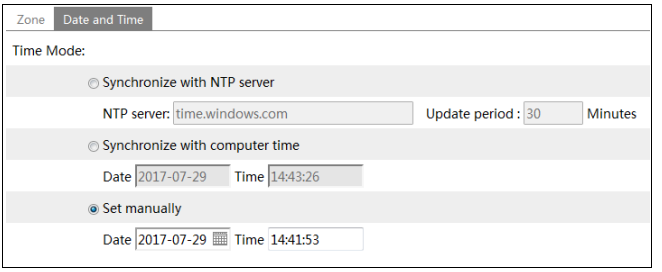
The above QR code is for reference only. Having enabled P2P (see Network Configuration-P2P), you can quickly add the network camera to mobile surveillance client by scanning the QR code.

4.1.2 Date and Time

Go to Config→System→Date and Time. Please refer to the following interface.

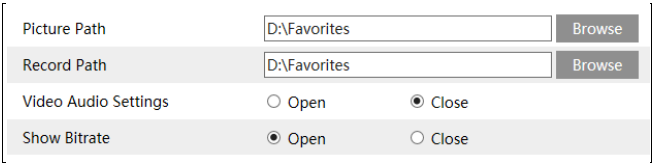


You can select the time zone and DST as required.
Click "Date and Time" tab to set the time mode. For some version, you can set update period.



4.1.3 Local Config

Go to Config→System→Local Config. You can set the storage path of the captured pictures and video records. You can also enable or disable the bitrate display in the live view interface and the audio of record files.

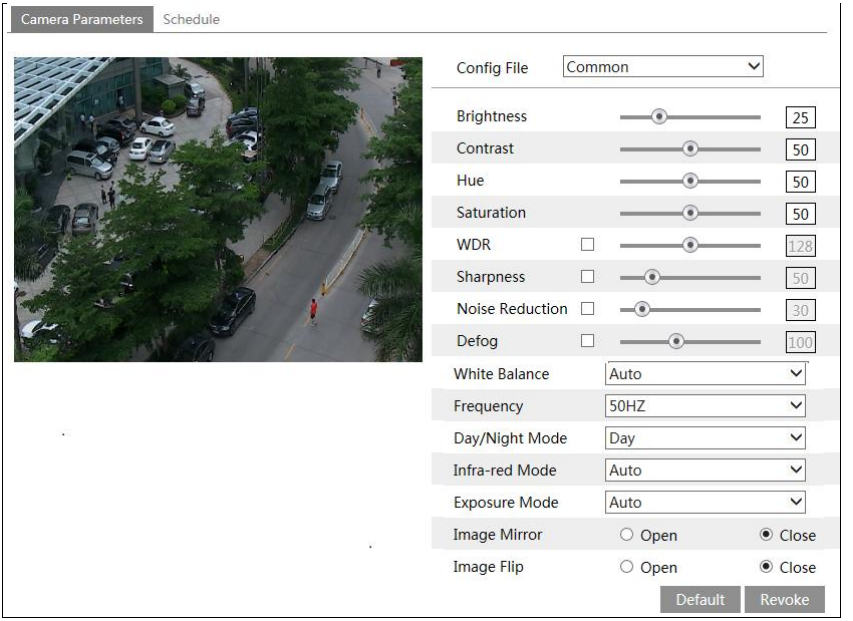


4.2 Image Configuration

Image Configuration includes Display, Video/Audio, OSD, Video Mask and ROI Config.

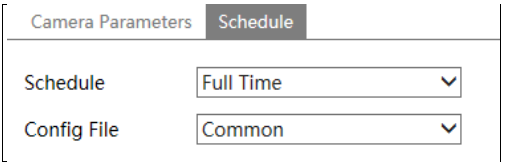
4.2.1 Display Configuration

Go to Image→Display interface as shown below. You can set and adjust the picture's brightness, contrast, hue and saturation and so on for common, day and night mode separately. Then you can quickly see the image effect by switching the configuration file.

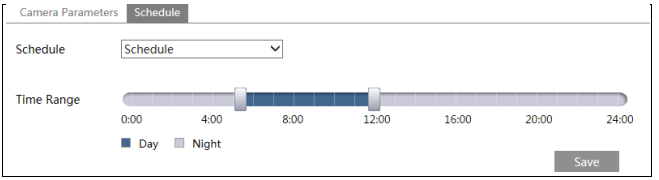


Brightness: Set the brightness level of the camera's image.
Contrast: Set the color difference between the brightest and darkest parts.
Hue: Set the total color degree of the image.
Saturation: Set the degree of color purity. The purer the color is, the brighter the image is.
WDR: WDR will help the camera provide clear images when there are both very bright and very dark areas simultaneously in the field of the view by lowering the brightness of the highlight area and increasing the brightness of the lowlight area. Please set the range as needed. There will be some record lost in a few seconds during mode changing from non-WDR to WDR mode.
Sharpness: Set the resolution level of the image plane and the sharpness level of the image edge.
Noise Reduction: Decrease the noise and make the image more thorough. Increasing the value will make the noise reduction effect better but it will reduce the image resolution.
Defog: Activating this function and setting an appropriate value as required in foggy, dusty, smoggy or rainy environment helps you to get clear images.
White Balance: Adjust the color temperature according to the environment automatically.
Frequency: 50Hz and 60Hz can be optional.
Day/night Mode: Please choose the mode as needed.
Infrared Mode: You may choose "ON", "OFF" and "Auto" as required. (**Some models may not support the infrared mode**).
Exposure Mode: You may choose "Auto" or "Manual" as required.
Image Mirror: Reverse the current video image right and left.
Image Flip: Turn the current video image upside down.

Schedule Settings of Image Parameters:
Click “Schedule” tab as shown below.



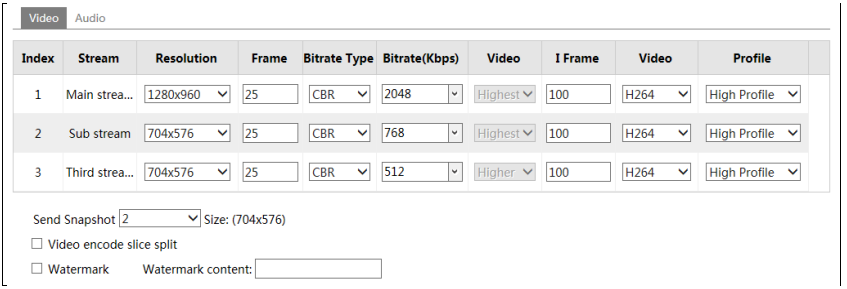
You may set full time schedule for common, day, night mode and specified time schedule for day and night. Choose “Schedule” in the drop-down box of schedule as shown below.



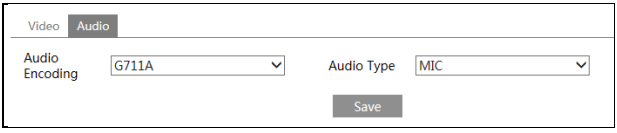
Drag “ ” icons to set the time of day and night. Blue means day time and blank means night time. If the current mode of camera parameters is set to schedule, the image configuration mode will automatically switch between day and night according to the schedule.

4.2.2 Video / Audio Configuration

Go to Image→Video / Audio interface as shown below. In this interface, you can set the resolution, frame rate, bitrate type, video quality and so on subject to the actual network condition.



Click “Audio” tab to go to the interface as shown below.



Three video streams can be adjustable.

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

Frame rate: The higher the frame rate is, the more fluent 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 adjustable according to the change of the video resources. This will help to optimize the network bandwidth.

Bitrate: Please choose it according to the actual network situation.

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.

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

Video Compression: 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 the hardware is required.

Profile: Baseline, main/high profiles 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.

Send Snapshot: Please select it according to the actual situation.

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

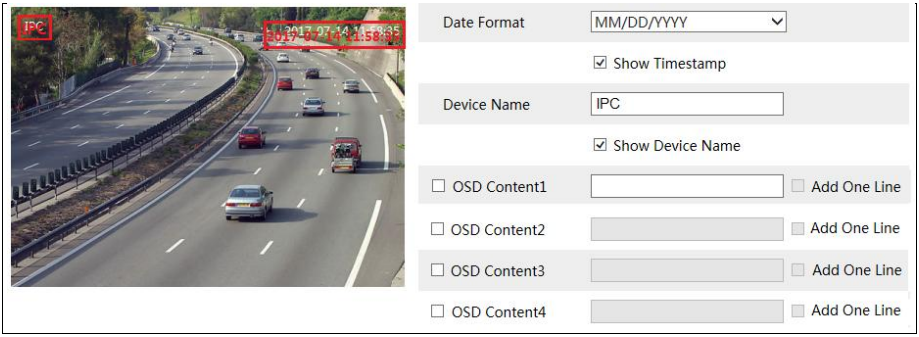
Watermark: Check it and input the watermark content. You may see the watermark when playing back the local record in the search interface, lest the record files is tampered.

Audio Encoding: G711A and G711U are selectable.

Audio Type: MIC and LIN are selectable.

4.2.3 OSD Configuration

Go to Image→OSD interface as shown below.

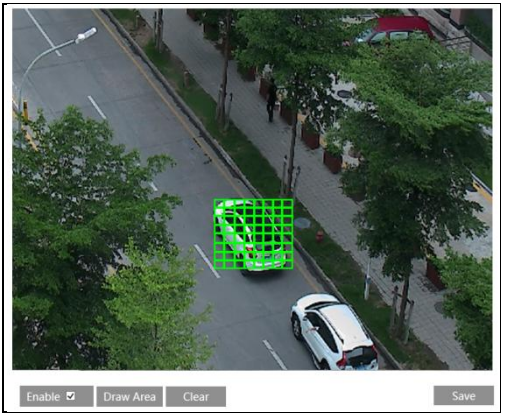


You may set time stamp, device name, OSD content and picture overlap here. After enabling

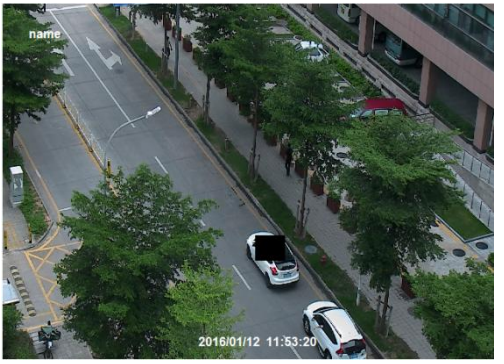
the corresponding display and inputting the content, drag them to change their position. Then click “Save” button to save the settings.

4.2.4 Video Mask

Go to Image→Video Mask interface as shown below. You can set 4 mask areas at most.



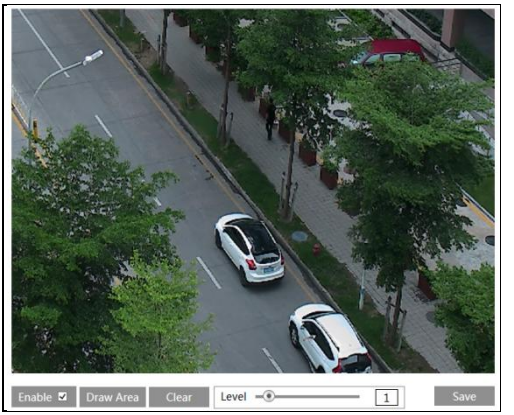
To set up video mask:
1. Enable video mask.
2. Click “Draw Area” button and then drag the mouse to draw the video mask area.
3. Click “Save” button to save the settings.
4. Return to the live to see the following picture.



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

4.2.5 ROI Configuration

Go to Image→ROI Config interface as shown below.



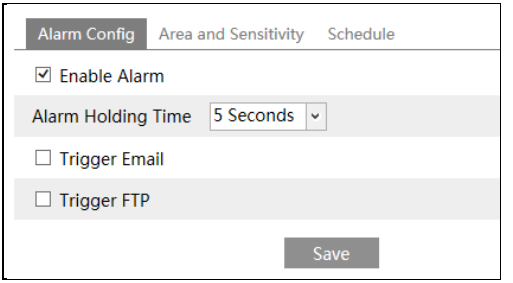
1. Check “Enable” and then click “Draw Area” button.
2. Drag the mouse to set the ROI area.
3. Set the level.
4. Click “Save” button to save the settings.

Now, you will see the selected ROI area is clearer than other areas especially in low bitrate condition.

4.3 Alarm Configuration

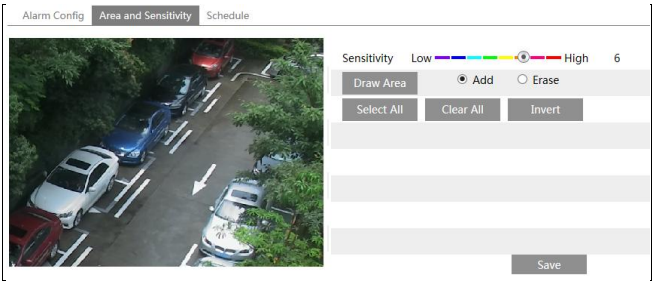
4.3.1 Motion Detection

Go to Alarm→Motion Detection to set motion detection alarm.



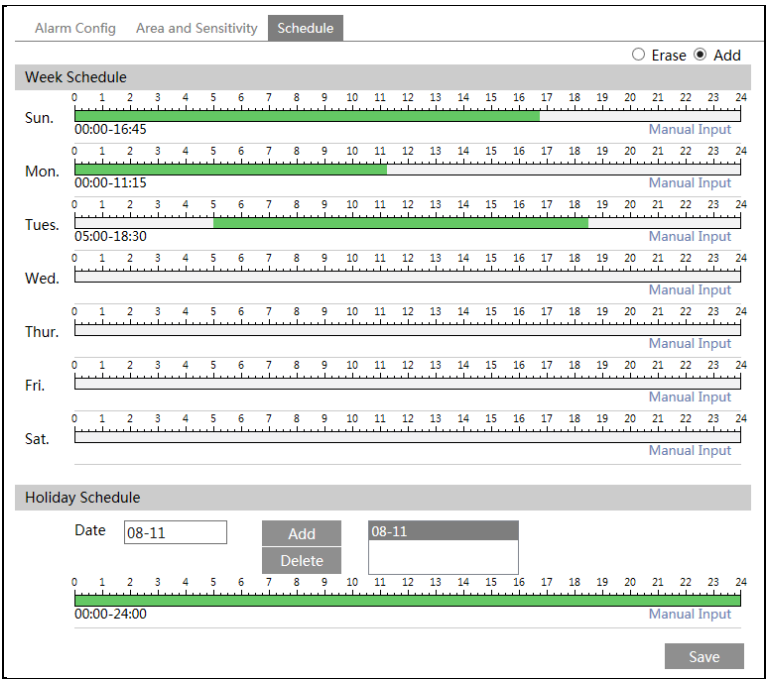
1. Check “Enable Alarm” check box to activate motion based alarm, choose alarm holding time and set alarm trigger options.
Trigger Email: If “Trigger Email” and “Attach Picture” checkbox is checked (email address shall be set first in the Email configuration interface), the captured pictures and triggered event will be sent into those addresses.
Trigger FTP: If “Trigger FTP” and “Attach Picture” checkbox is checked, the captured pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

2. Set motion detection area and sensitivity. Click “Area and Sensitivity” tab to go to the interface as shown below.



Move the “Sensitivity” scroll bar to set the sensitivity.
Select “Add” and click “Draw” button and drag mouse to select the motion detection area;
Select “Erase” and drag the mouse to clear motion detection area.
After that, click “Save” to save the settings.

3. Set the schedule of the motion detection. Click “Schedule” tab to go to the interface as shown below.



Week schedule

Set the alarm time from Monday to Sunday for alarm everyday in one week. The lengthwise means one day of a week; the rank means 24 hours of a day. Green means selected area. Blank means unselected area.

"Add": Add the schedule for a special day. Drag the mouse to set the time on the timeline.

"Erase": Delete holiday schedule. Drag the mouse to erase the time on the timeline.

Manual Input: Click it to input the specified start and end time to add or erase the time.

Day schedule

Set alarm time for alarm in some time of a special day, such as holiday.

Set a date at the "Date" box, click "Add" button to add that date to the list box on the right side and then drag the scroll bar to set the schedule of that day.

Select a date in the list box on the right side, and click "Delete" to remove the schedule on that day.

Click "Save" button to save the settings.

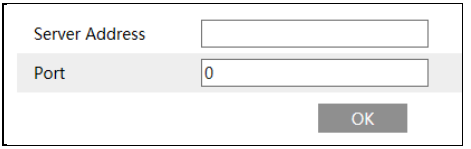
Note: Holiday schedule is prior to Week schedule.

4.3.2 Alarm Server

Go to Alarm→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

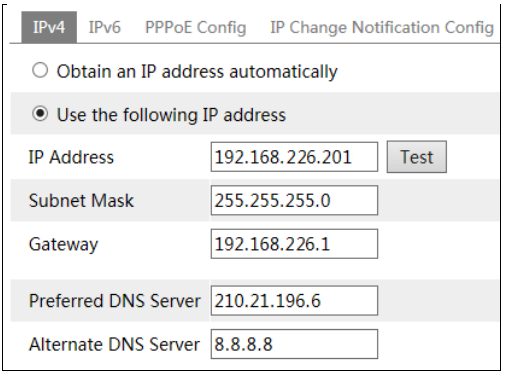
is no need for you to configure here.



4.4 Network Configuration

4.4.1 TCP/IP

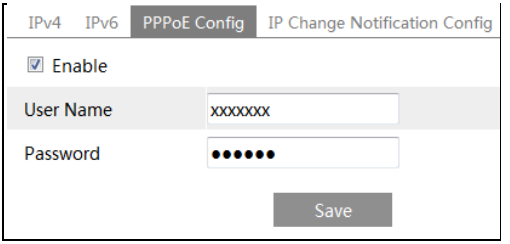
Go to Config→Network→TCP/IP interface as shown below. There are two ways for network connection.



Use IP address (take IPv4 for example)-There are two options for IP setup: obtain an IP address automatically by DHCP protocol and use the following IP address. Please choose one of the options for your requirements.

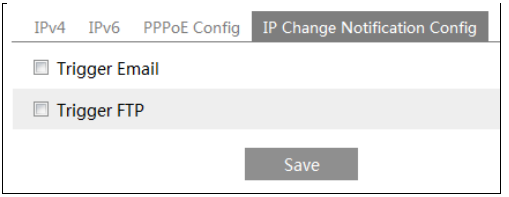
Test: You can test the effectiveness of the IP address by clicking this button.

Use PPPoE-Click "PPPoE Config" tab to go to the interface as shown below. Enable PPPoE and then enter the user name and password from your ISP.



You can choose either way of the network connection. If you use PPPoE to connect internet, you will get a dynamic WAN IP address. This IP address will change frequently. You may use the function of IP change notification.

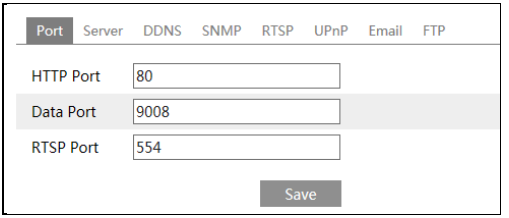
Click “IP Change Notification Config” to go to the interface as shown below.



Trigger Email: when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically
Trigger FTP: when the IP address of the device is changed, a new IP address will be sent to FTP server.

4.4.2 Port

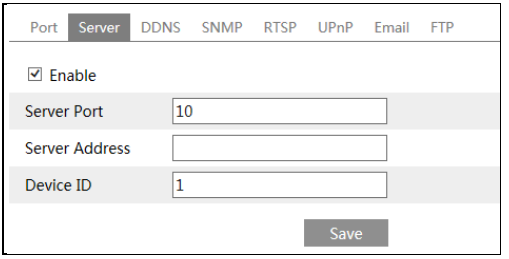
Go to Config→Network→Port interface as shown below. HTTP port, Data port and RTSP port can be set.



HTTP Port: The default HTTP port is 80. It can be changed to any port which is not occupied.
Data Port: The default data port is 9008. Please change it as required.
RTSP Port: The default port is 554. Please change it as required.

4.4.3 Server Configuration

This function is mainly used for connecting network video management system.

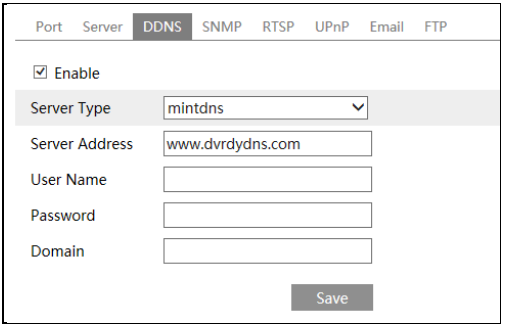


1. Check “Enable”.

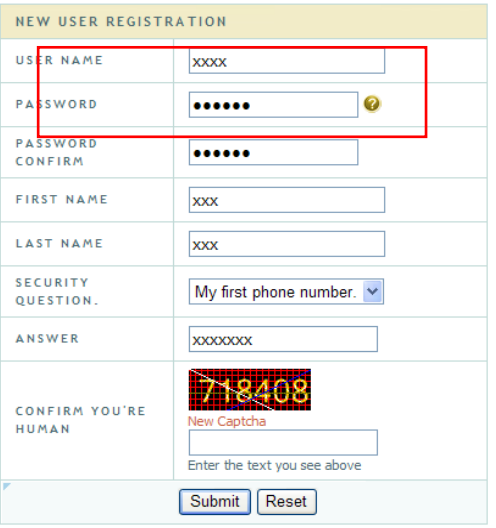
2. Check the IP address and port of the transfer media server in the ECMS/NVMS. Then enable the auto report in the ECMS/NVMS when adding a new device. Next, input the remaining information of the device in the ECMS/NVMS. After that, the system will automatically allot a device ID. Please check it in the ECMS/NVMS.
3. Input the above-mentioned server address, server port and device ID in the corresponding boxes. Click “Save” button to save the settings.

4.4.4 DDNS

If your camera is set to use PPPoE as its default network connection, DDNS should be set for network access. Before you set the DDNS, please make sure you have registered a domain name on the DDNS server.
1. Go to Config→Network→ DDNS.

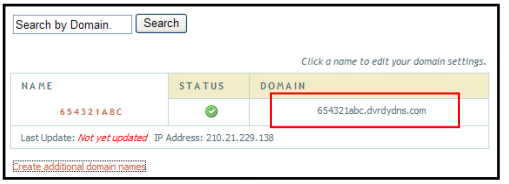


2. Apply for a domain name. Take www.dvrdyndns.com for example.
Input www.dvrdydns.com in the IE address bar to visit its website. Then click “Registration” button.



Create domain name.

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



3. Input the username, password, domain you apply for in the DDNS configuration interface.
4. Click “Save” button to save the settings.

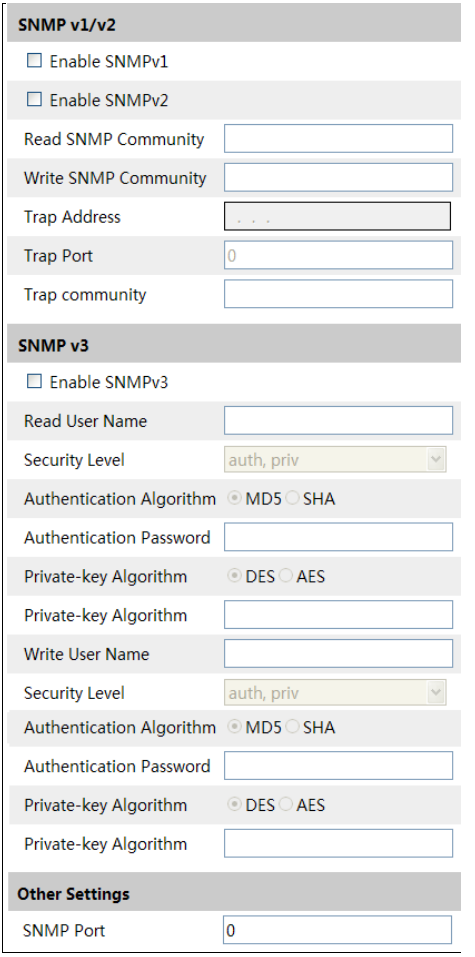
4.4.5 SNMP

To get camera status, parameters and alarm information and remotely manage the camera, you can set the SNMP function. Before using the SNMP, please download the SNMP software and set the parameters of the SNMP, such as SNMP port, trap address.

1. Go to Config→Network→SNMP.
2. Check the corresponding version checkbox (Enable SNMPv1, Enable SNMPv2, Enable SNMPv3) according to the version of the SNMP software you download.
3. Set the “Read SNMP Community”, “Write SNMP Community”, “Trap Address”, “Trap

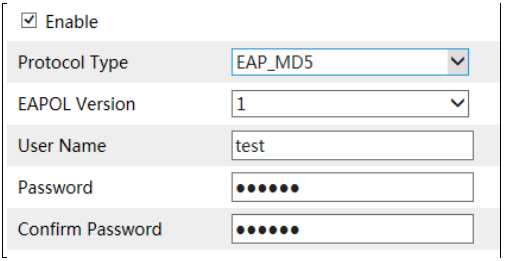
Port" and so on. Please make sure the settings are the same as that of your SNMP software.

Note: Please use the different version in accordance with the security level you required. The higher the version is, the higher the level of the security is.



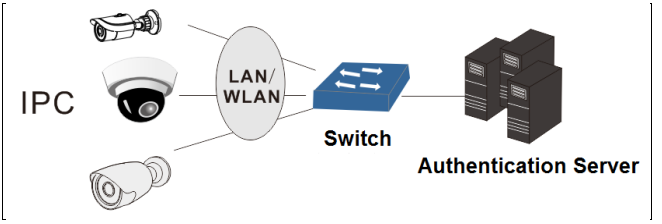
4.4.6 802.1x

IEEE802.X which is an access control protocol manages the device in connection with the local network by authentication. The setting steps are as follows:



To use this function, the camera shall be connected to a switch supporting 802.1x protocol. The switch can be reckoned as an authentication system to identify the device in a local network. If the camera connected to the network interface of the switch has passed the authentication of the switch, you can access it via LAN. If not, you can't access it.
Protocol type and EAPOL version: Please use the default settings.
User name and password: The user name and password must be the same with the user name and password applied for and registered in the authentication server.

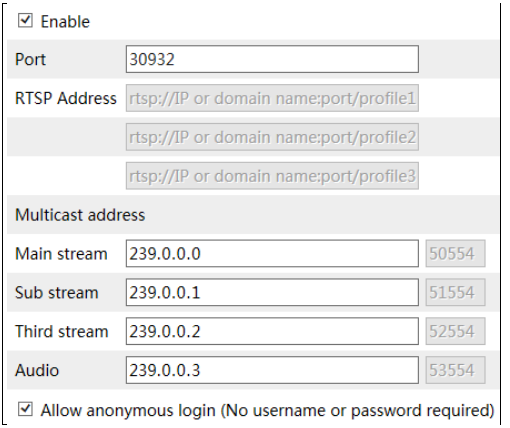
The structure of 802.1x



① The network camera initiates the authentication of 802.1x protocol via web client and then the authentication is taken by the switch supporting 802.1x protocol.
② The switch provides the camera with a physical or logic local network interface and goes on the authentication for the camera.
③ Authentication server provides the entity of authentication service for the switch, stored the relative information of web client, realizing the authentication of web client.
Please refer to the user manual of the connected switch for more details.

4.4.7 RTSP

Go to Config→Network→RTSP.



Select "Enable" to enable RTSP function.
Port: Access port of the streaming media. The default number is 554.
RTSP Address: The RTSP address (unicast) format you need to input in the media player.

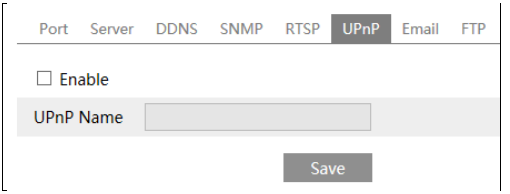
Multicast Address
Main stream: The address format is
"rtsp://IP address: rtsp port/profile1?transportmode=mcast".
Sub stream: The address format is
"rtsp://IP address: rtsp port/profile2?transportmode=mcast".
Third stream: The address format is
"rtsp://IP address: rtsp port/profile3?transportmode=mcast".
Audio: Having input the main/sub stream in a VLC player, the video and audio will play automatically.
If you check "Allow anonymous login…", there is no need for you to input the username and password in VLC player.

Note:1. This camera support local play through a VLC player. You can input the RTSP address (unicast or multicast, eg. rtsp://192.168.226.201:554/profile1?transportmode=mcast) in a VLC player to realize the simultaneous play with the web client.
2. The IP address mentioned above cannot be the address of IPV6.
3. Avoid the use of the same multicast address in the same local network.
4. When playing the video through the multicast streams in a VLC player, please pay attention to the mode of the VLC player. If it is set to TCP mode, the video cannot be played.
5. If the coding format of the video of the main stream is MJPEG, the video may be disordered at some resolutions.

4.4.8 UPNP

If you enable this function, you can quickly access the camera via LAN and you don't need to configure the port mapping when the camera is connected to the WAN via the router.

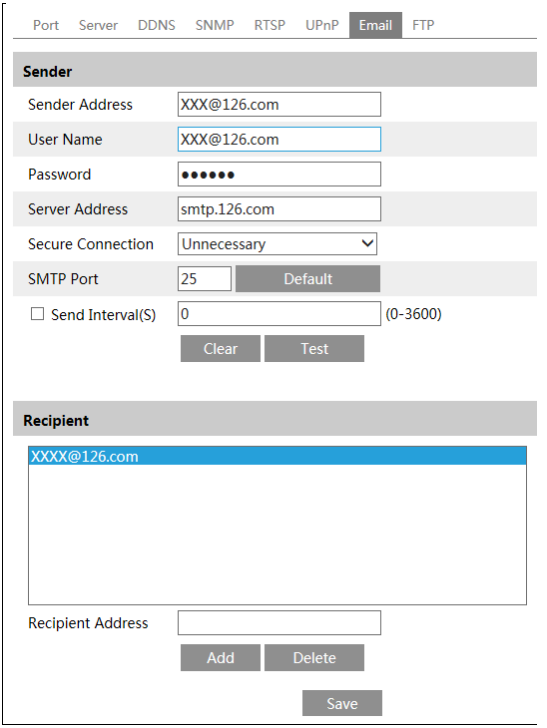
Go to Config→Network→UPnP. Enable UPNP and then input UPnP name.



After you enable it and set the UPnP name, you will see the UPnP name by clicking "Network" on the desktop of your computer which is in the same local area network with your camera. Then double click this name to access the camera quickly.

4.4.9 Email

If you need to trigger Email when an alarm happens or IP address is changed, please set the Email here first.
Go to Config→Network →Email.

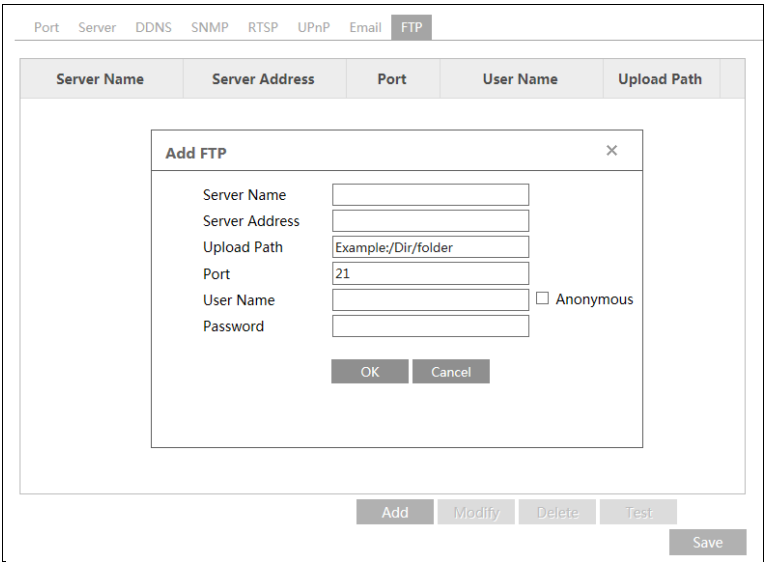


Sender Address: sender's e-mail address.
User name and password: sender's user name and password.

Server Address: The SMTP IP address or host name.
Select the secure connection type at the "Secure Connection" pull-down list according to actual needs.
SMTP Port: The SMTP port.
Send Interval(S): The time interval of sending email. For example, if it is set to 60 seconds and more than one motion detection alarms are triggered and last within 60 seconds, it will be considered as one alarm event and only one email will be sent. If one motion alarm event is triggered and then another motion detection alarm event is triggered after 60 seconds, there will be two emails sent. When the motion detection alarm and other alarms are triggered at the same time, the emails will be sent separately.
Click "Test" button to test the effectiveness of the account.
Recipient Address: receiver's e-mail address.

4.4.10 FTP

After you set the FTP server, the captured pictures on an alarm will be uploaded to the FTP server.
Go to Config→Network →FTP.



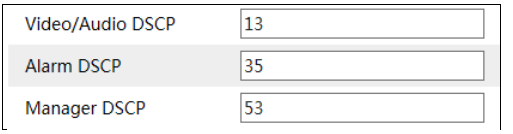
Server Name: The name of the FTP.
Server Address: The IP address or domain name of the FTP.
Upload Path: The path of uploading the files.
Port: The port of the FTP.
Use Name and Password: The username and password are used to login the FTP.

4.4.11 P2P

If this function is enabled, you can access the network camera quickly by adding the device ID in mobile surveillance client or CMS/NVMS client via WAN. You can enable this function by going to Config→Network→P2P interface.

4.4.12 QoS

QoS (Quality of Service) function is used to provide different quality of services for different needs of various network applications. With the deficient bandwidth, the router or switch will sort the data streams and transfer them by priority.
Go to Config→Network→QoS.

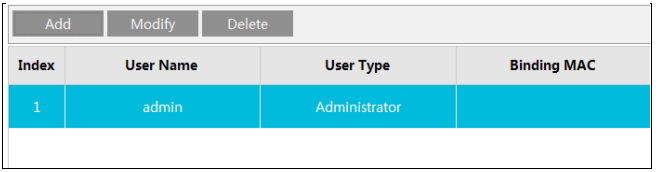


Video/Audio DSCP: The range is from 0 to 63.
Alarm DSCP: The range is from 0 to 63.
Manager DSCP: The range is from 0 to 63.
Generally speaking, the larger the number is, the higher the priority is.

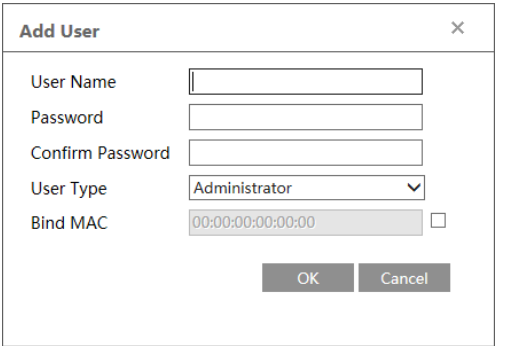
4.5 Security Configuration

4.5.1 User Configuration

Go to Config→Security→User interface as shown below.

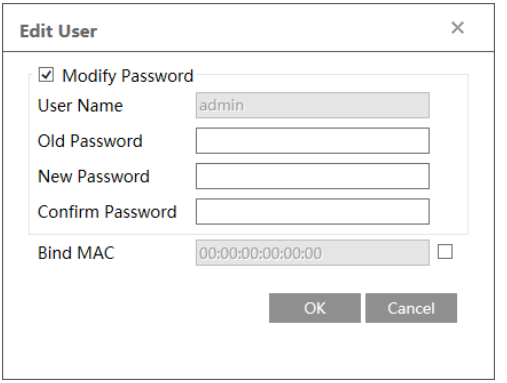


Add user:
1. Click “Add” button to pop up the following textbox.



2. Input user name in “User Name” textbox.
3. Input letters or numbers in “Password” and “Confirm Password” textbox.
4. Choose the use type. Administrator has all permissions. Common user can only view the live image. Compared administrator, advanced user cannot set user, backup settings, restore the system to the default factory settings and upgrade the software.
5. Input the MAC address of the PC in “Bind MAC” textbox.
After binding physical address to the IP-CAM, you can access the device on this PC only. If the MAC address was “00:00:00:00:00:00” which means it can be connected to any computers.
6. Click “OK” button and then the new added user will display in the user list.

Modify user:
1. Select the user you need to modify password and physical address in the user configuration list box.
2. The “Edit user” dialog box pops up by clicking “Modify” button.



3. Input old password of this user in the “Old Password” text box.
4. Input new password in the “New password” and “Confirm Password” text box.
5. Input computer’s MAC address as required.

6. Click “OK” button to save the settings.

Delete user:
1. Select the user you want to delete in the user configuration list box.
2. Click “Delete” button to delete the user.
Note: The default super administrator cannot be deleted.

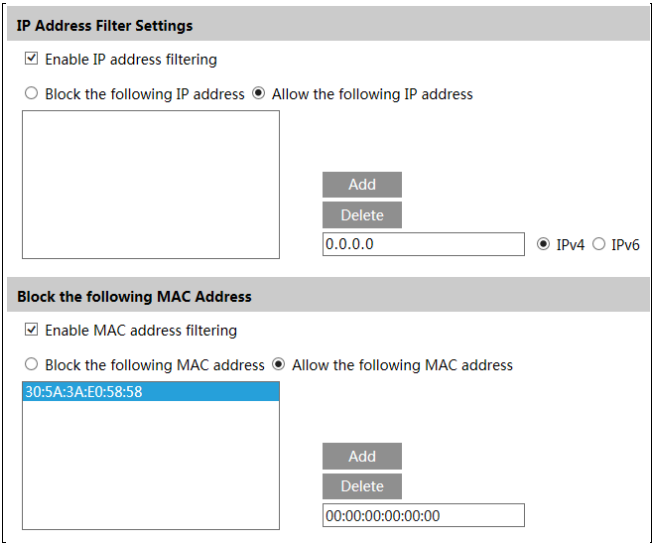
4.5.2 Online User

Go to Config→Security→Online User. You can view the user who is viewing the live video.

An administrator user can kick out all the other users (including other administrators).

4.5.3 Block and Allow Lists

Go to Config→Security→Block and Allow Lists interface as shown below.



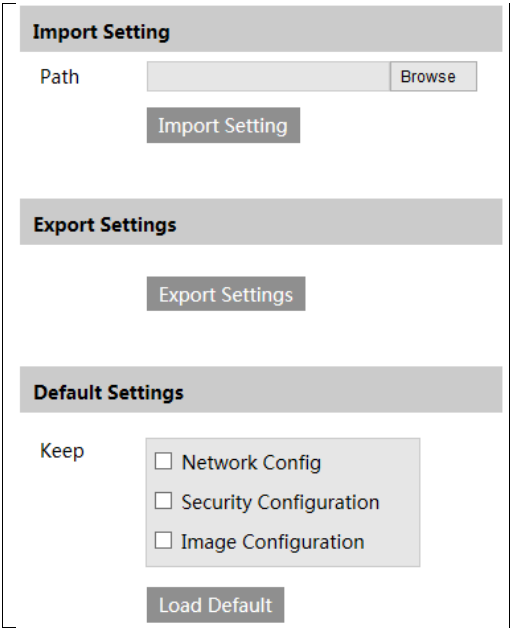
The setting steps are as follows:
Check “Enable IP address filtering” check box.
Select “Block the following IP address”, input IP address in the IP address list box and click “Add” button. The operation step of “Allow the following IP address” and MAC address filter settings are the same with “Block the following IP address”.
After you set the IP address or MAC address, the system will block or allow the user using the

added IP address or MAC address to access the camera.

4.6 Maintenance Configuration

4.6.1 Backup and Restore

Go to Config→Maintenance→Backup & Restore.



- **Import & Export Settings**

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. Click “Import Setting” or “Export Setting” button.

- **Default Settings**

You can choose the configurations you don’t want to restore to the factory default settings first. Then click “Load Default” button to restore all system settings to the default status except the items you check.

4.6.2 Reboot

Go to Config→Maintenance→Reboot.

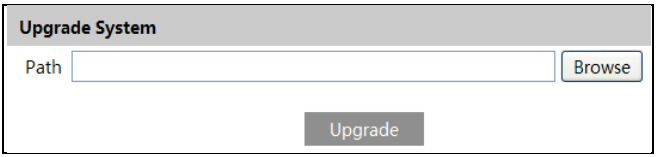
Click “Reboot” button to reboot the device.

Timed Reboot Setting:

Enable “Time Settings”, set the date and time and then click “Save” button to save the settings.

4.6.3 Upgrade

Go to Config→Maintenance→Upgrade. In this interface, you can upgrade the system.



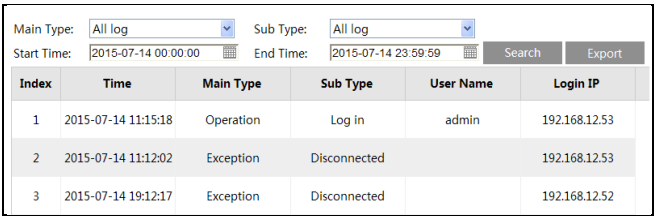
1. Click “Browse” button to select the save path of the upgrade file
2. Click “Upgrade” button to start upgrading the application program.
3. The device will restart automatically
4. After you successfully update the software, click “OK” button to close IE and then re-open IE to connect IP-Cam.

Caution! You can’t disconnect to PC or close the IP-CAM during upgrade.

4.6.4 Operation Log

To query and export log:

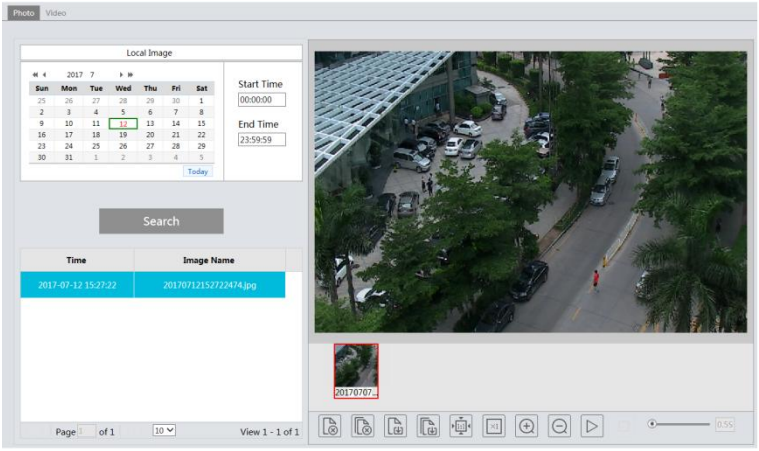
1. Go to Config→Maintenance→Operation Log.



2. Select the main type, sub type, start and end time.
3. Click “Search” to view the operation log.
4. Click “Export” to export the operation log.

5.1 Photo Search

Click Search→Photo to go to the interface as shown below. You can search the images saved both in the local computer.



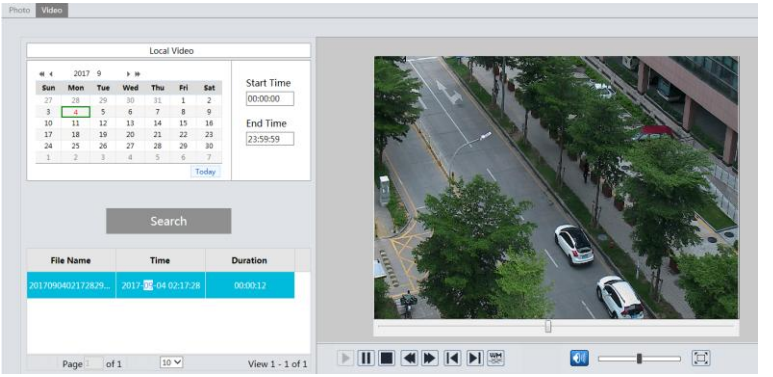
1. Set time: Select date and choose the start and end time in the top left corner.
2. Click “Search” button to search the photos.
3. Double click a file name in the list to view the captured photos as shown above.

The descriptions of the buttons are shown as follows.

Icon	Description	Icon	Description
	Close: Select a picture and click this button to close this picture.		Close all: Click this button to close all pictures viewing.
	Save: Click this button to select the save path of the picture on the PC for saving the current picture.		Save all: Click this button to select the save path of the pictures on PC for saving all pictures.
	Fit size: The picture will fit on screen by clicking this button.		Actual size: Click this button to display the actual size of the picture.
	Zoom in: Click this button to amplify the picture.		Zoom out: Click this button to zoom out the picture.
	Slide show play: Click this button to play the picture in slide show mode.		Stop: Click this button to stop slide show.
	Play speed: Play speed of the slide show.		

5.2 Video Search

Click Search→Video→Local Video to go to the interface as shown below. Before playing the local video, please set the storage path of the video record in the local configuration interface and make sure there are record files.



Choose the date and the start time and end time and then click "Search" button to search the record files. Double click the record file to play the record. The descriptions of the buttons on the playback interface are as follows.

Icon	Description	Icon	Description
	Play button. After pausing the video, click this button to continue playing.		Pause button.
	Stop button.		Speed down.
	Speed up.		Click it to play the previous record.
	Click it to play the next record.		Open/close watermark.
	Click it to enable / disable audio; drag the slider to adjust the volume after enabling audio.		Full screen. Click it to display full screen. Double click to exit full screen.

Appendix 1 Q & A

Q: How to 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：Fail to connect devices through IE browser, why?

A: Network is not well connected. 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: Exclude the above reasons. Recover default setting by IP-Tool.

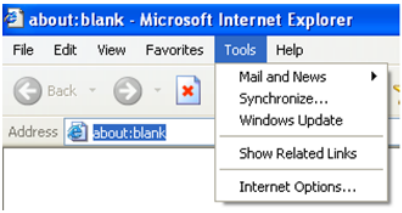
Q：IP tool cannot search devices, why?

A：It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

Q：IE cannot download ActiveX control. How can I do?

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

① Open IE browser and then click Tools-----Internet Options….

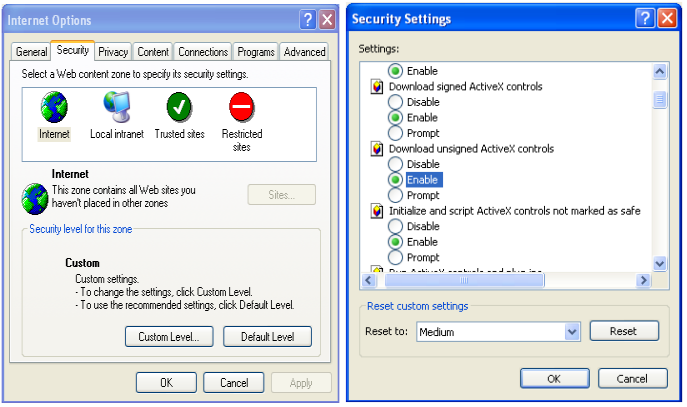


② Select Security------Custom Level….

③ Enable all the sub options under “ActiveX controls and plug-ins”.

④ Then click OK to finish setup.

b. Other plug-ins or anti-virus blocks ActiveX. Please uninstall or close them.



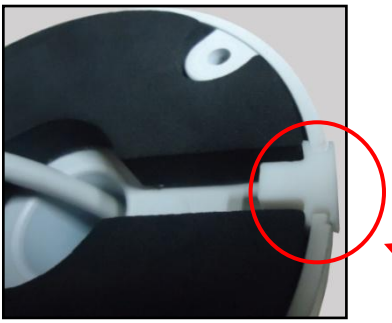
Q：No sound can be heard, why?

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

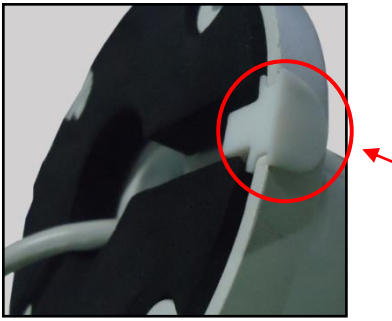
B: Audio function is not enabled at the corresponding channel. Please enable this function.

Appendix 2 Installation of Water-proof Rubber Plug

In order to improve the water-proof effect, the rubber plugs are attached to some network cameras. You may mount the rubber plugs to the mounting base of the camera as requried 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.

Appendix 3 Specifications

Specification /Model		 **IR Water-proof Bullet Network Camera**
Camera	Image Sensor	1/3 " CMOS
	Image Size	1280×960
	ElectronicShutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR
	Lens	3.6mm@F1.8, angle of view: 71°(2.8mm optional)
	Lens Mount	M12
	Day&Night	ICR
	WDR	Digital WDR
	Digital NR	3D DNR
	Angle Adjustment	Any angle
Image	Video Compression	H.264/MJPEG
	H.264 Type	Baseline profile/main profile/high profile
	Video Bit Rate	128Kbps~4Mbps
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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
	Auido	MIC IN×1
Fucntion	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 4 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
	Protection Grade	IP66
	Power	DC12V/PoE
	Power Consumption	< 4W
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%
	Dimension (mm)	Ø64mm×183mm
	Weight（net）	376g
	Installation	Wall mounting; pendent mounting

Specification /Model		 **IR Water-proof Bullet Network Camera**	 **IR Water-proof Bullet Network Camera**
Camera	Image Sensor	1/3 " CMOS	
	Image Size	1280×960	
	ElectronicShutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR	
	Lens	3.6mm@F1.8, angle of view: 71°, (2.8mm optional) 2.8~12mm@F1.8, angle of view: 89°~29°	
	Lens Mount	M12 & Ø14 (optional)	
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
	Angle Adjustment	Any angle	
Image	Video Compression	H.264/MJPEG	
	H.264 Type	Baseline profile/main profile/high profile	
	Video Bit Rate	128Kbps~4Mbps	
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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	
	Auido	MIC IN×1	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 4 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	< 5.5W	
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%	
	Dimension (mm)	Ø87mm×219mm	Ø87mm×221mm
	Weight（net）	606g	631g
	Installation	Wall mounting; pendent mounting	

Specification /Model		 **IR Water-proof Bullet Network Camera**
Camera	Image Sensor	1/3 " CMOS
	Image Size	1280×960
	ElectronicShutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR
	Lens	2.8~12mm@F1.8, angle of view: 89°~29°
	Lens Mount	Ø14
	Day&Night	ICR
	WDR	Digital WDR
	Digital NR	3D DNR
	Angle Adjustment	Any angle
Image	Video Compression	H.264/MJPEG
	H.264 Type	Baseline profile/main profile/high profile
	Video Bit Rate	128Kbps~4Mbps
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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
	Auido	MIC IN×1
Fucntion	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 4 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
	Protection Grade	IP66
	Power	DC12V/PoE
	Power Consumption	< 4.5W
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%
	Dimension (mm)	Ø109mm×284mm
	Weight (net)	1105g
	Installation	Wall mounting; pendent mounting

Specification /Model		 **IR Water-proof Bullet Network Camera**	
Camera	Image Sensor	1/3 " CMOS	
	Image Size	1280×960	
	Electronic Shutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR	
	Lens	3.6mm@F1.8, angle of view: 71°; (6mm, 8mm optional)	
	Lens Mount	M12	
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
Image	Video Compression	H.264/MJPEG	
	H.264 Type	Baseline profile/main profile/high profile	
	Video Bit Rate	128Kbps~4Mbps	
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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	
	Auido	MIC IN×1	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 4 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	30~50 m
	Protection Grade	IP66	
	Power	DC12V/PoE	
	Power Consumption	< 3W	< 4.5W
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%	
	Dimension (mm)	99×188×86 (W×D×H)	
	Weight（net）	418	
	Installation	Wall mounting	

Specification /Model		 **Water-proof Mini Dome Network Camera**
Camera	Image Sensor	1/3 " CMOS
	Image Size	1280×960
	Electronic Shutter	1/25s~1/100000s
	Iris Type	Fixed Iris
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR
	Lens	3.6mm@F1.8, angle of view: 71°; (2.8mm, 6mm optional)
	Lens Mount	M12
	Day&Night	ICR
	WDR	Digital WDR
	Digital NR	3D DNR
	Angle Adjustment	Pan: 0°~355°; Tilt: 0°~65°; Rotation: 0°~355°
Image	Video Compression	H.264/MJPEG
	H.264 Type	Baseline profile/main profile/high profile
	Video Bit Rate	128Kbps~4Mbps
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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
	Auido	MIC IN×1
Fucntion	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 4 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
	Protection Grade	IP66&IK10
	Power	DC12V/PoE
	Power Consumption	< 4W
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%
	Dimension (mm)	Ø116mm×91mm
	Weight（net）	594g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)

Specification /Model		**IR Water-proof Dome Network Camera**	**IR Water-proof Dome Network Camera**
Camera	Image Sensor	1/3 " CMOS	
	Image Size	1280×960	
	Electronic Shutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR	
	Lens	3.6mm@F1.8, angle of view: 71°; (2.8mm, 6mm optional)	
	Lens Mount	M12	
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
	Angle Adjustment	Any angle	
Image	Video Compression	H.264/MJPEG	
	H.264 Type	Baseline profile/main profile/high profile	
	Video Bit Rate	128Kbps~4Mbps	
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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	
	Auido	MIC IN×1	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 4 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	
	Protection Grade	IP66	
	Power	DC12V（PoE power supply optional）	
	Power Consumption	<4W	
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%	
	Dimension (mm)	Ø87mm×108mm	Ø84.3mm×94.6mm
	Weight（net）	416g	432g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)	

Specification /Model		 **IR Water-proof Dome Network Camera**	 **IR Water-proof Dome Network Camera**
Camera	Image Sensor	1/3 " CMOS	
	Image Size	1280×960	
	Electronic Shutter	1/25s~1/100000s	
	Iris Type	Fixed Iris	
	Min. llumination	0.01lux@F1.2, AGC ON: 0 lux with IR	
	Lens	2.8~12mm@F1.8, angle of view: 89°~29°	
	Lens Mount	Ø14	
	Day&Night	ICR	
	WDR	Digital WDR	
	Digital NR	3D DNR	
	Angle Adjustment	Any angle	
Image	Video Compression	H.264/MJPEG	
	H.264 Type	Baseline profile/main profile/high profile	
	Video Bit Rate	128Kbps~4Mbps	
	Resolution	960P (1280×960), 720P, D1, CIF, 480×240	
	Main Stream	60Hz: 1280×960 (1~30fps)/1280×720(1~30fps) 50Hz: 1280×960 (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	
	Auido	MIC IN×1	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 4 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	< 4W	
	Opterating Environment	Temperature: -20℃~50℃; Relative humidity: 10%~90%	
	Dimension (mm)	Ø109mm×130mm	Ø120.4mm×102.5mm
	Weight（net）	701g	736g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)	

A2