2 Megapixel Network Camera

User Manual

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 the product.

- Do not use corrosive detergent to clean the main body of the camera. If necessary, use a 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 waterproof network camera. All pictures and examples used in the manual are for reference only.

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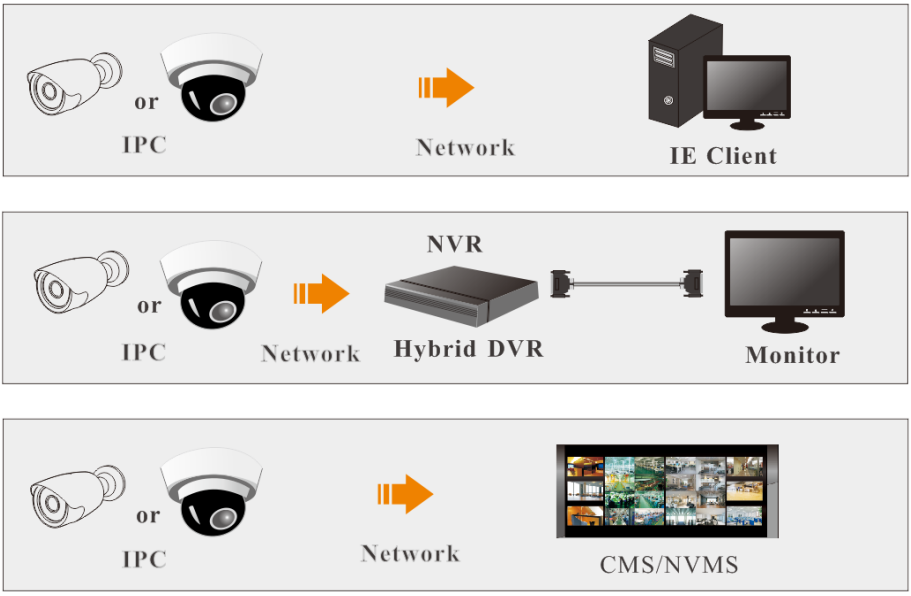
1 Introduction

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, digital WDR
- ROI coding
- Support smart phone, iPad, remote monitoring

Surveillance Application



2 IE Remote Access

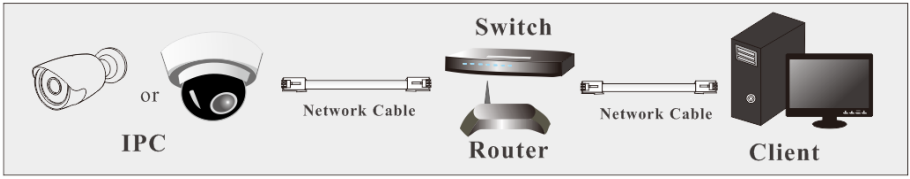
You may connect IP-Cam via LAN or WAN. Here only take IE browser (6.0) for example. The details are as follows:

2.1 LAN

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

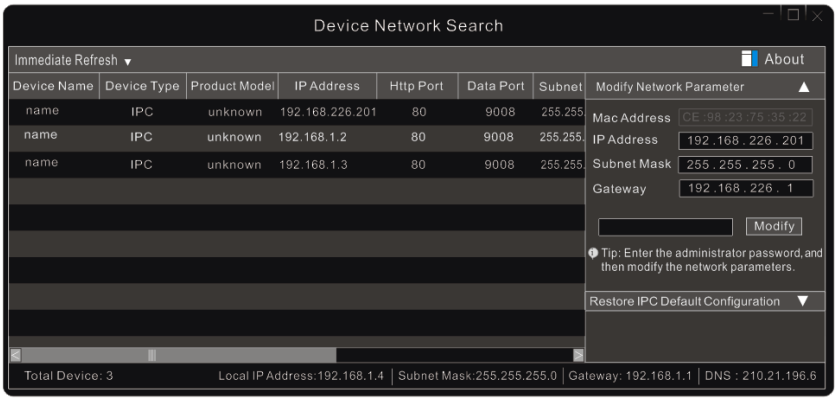
2.1.1 Access through IP-Tool

Network connection:



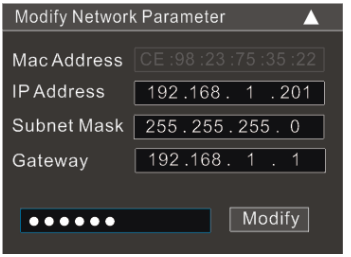
① Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.

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 the computer's. 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. IE browser will auto download the Active X control. After downloading, a login window will pop up as shown below.

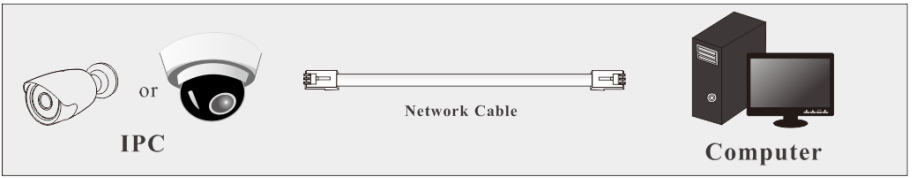
Input the username and password to log in. If you input the wrong password for the first time, you shall wait for 10 seconds and then input the right password.

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

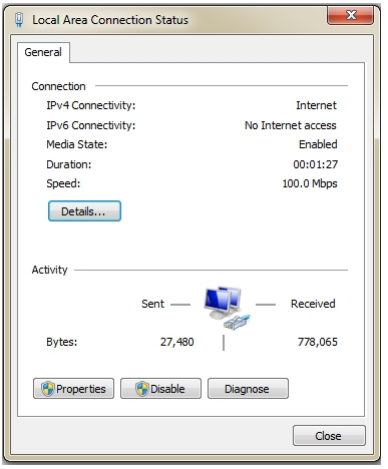
2.1.2 Directly Access through IE

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

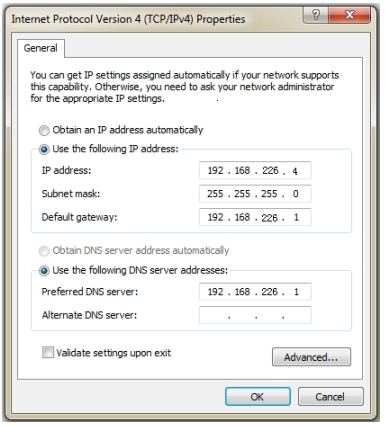
Gateway: **192.168.226.1**
HTTP: **80**
Data port: **9008**
You may use the above default settings when you log in the camera for the first time. You may directly connect the camera to the computer through network cable.



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.



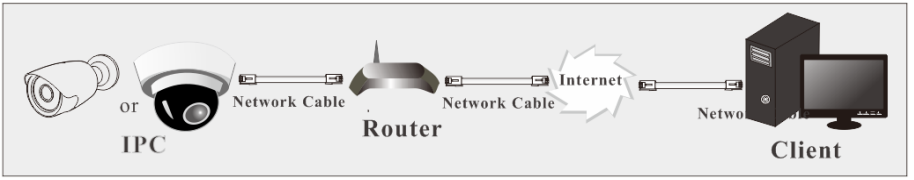
② Open the IE browser and input the default address of IP-CAM and confirm. The IE browser will download Active X control automatically.

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

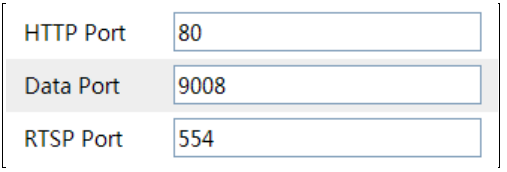
④ Input the default username and password and then enter to view.

2.2 WAN

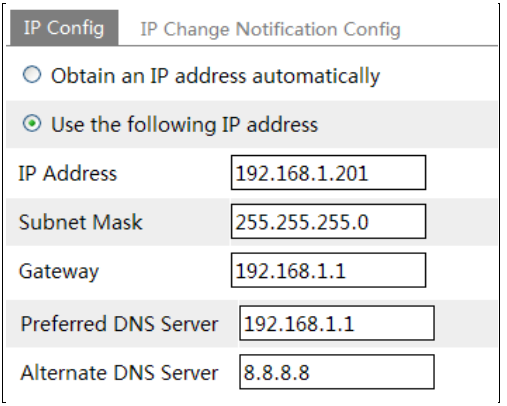
➢ **Access through the router or virtual server**



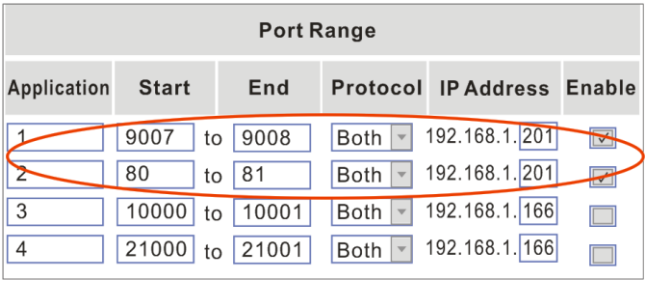
① Make sure the camera is well connected via LAN and then log in the camera via LAN. Go to Config→Network →Port menu to set the port number.



② Go to Config →Network → TCP/IPv4 menu to modify the IP address.



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".

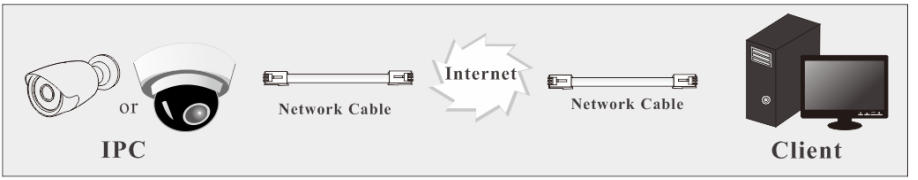


Router Setup

④ Open the IE browser and input its WAN IP and http port to access.

➢ **Access through static IP**

Network connection



The setting steps are as follow:

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

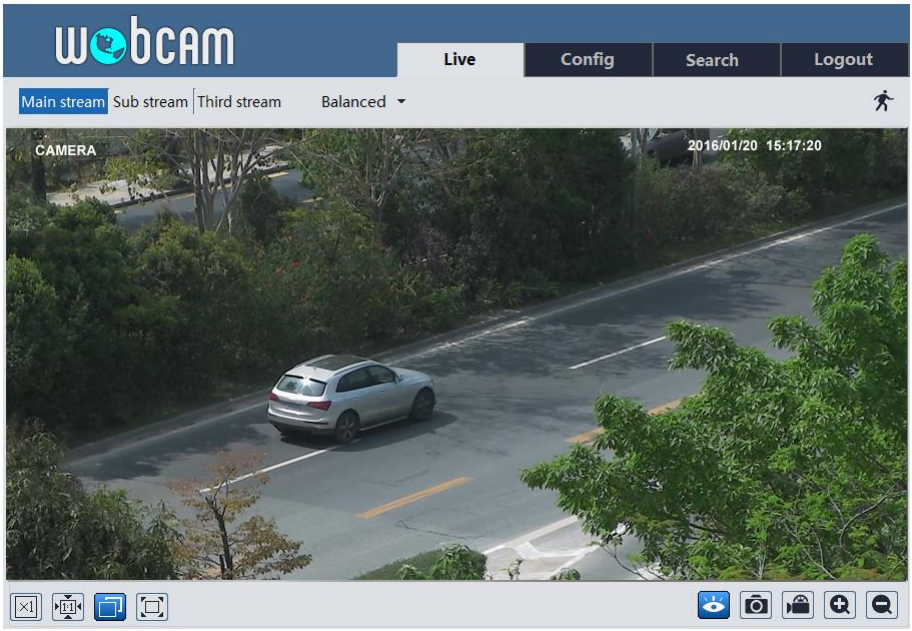
② Go to Config →Network Config→IP Address menu to set the IP address. Check "Use the following IP address" and then input the static IP address and other parameters.

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

3 Remote Preview

3.1 The Remote Preview Interface

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



The following table is the instructions of the icons on the remote preview interface.

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

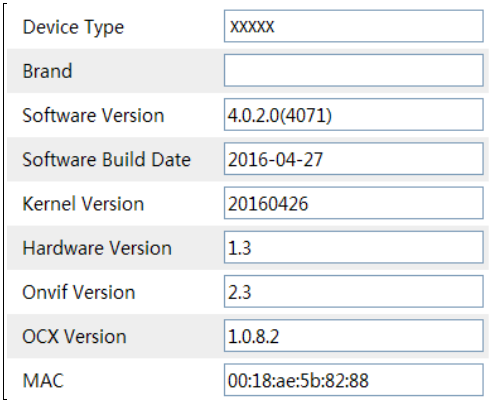
- When motion detection alarm is triggered, the people icon will turn red.
- In full screen mode, right click to exit.

4.1 System Configuration

The “System Configuration” includes three submenus: Basic Information, Date & Time and Local Configuration.

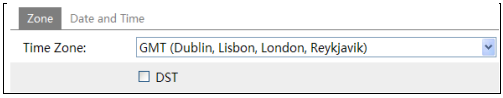
4.1.1 Basic Information

In the Basic Information interface, you can check the relative information of the device.

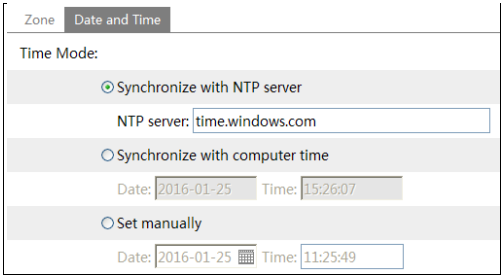


4.1.2 Date & Time

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

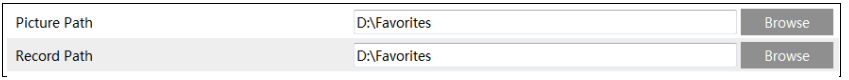


You can select the time zone and DST as required.
Click “Date and Time” to set the time mode .



4.1.3 Local Configuration

Go to Config→System→Local Config. You can set the storage path of the captured pictures and video records.

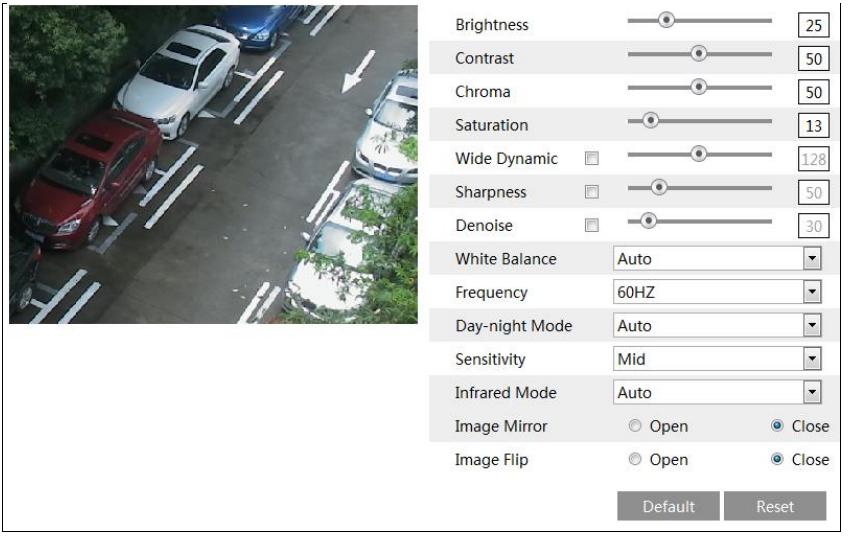


4.2 Image Configuration

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

4.2.1 Display Configuration

Many parameters of the camera can be set in display configuration interface such as brightness, contrast, chroma, saturation wide dynamic, etc.

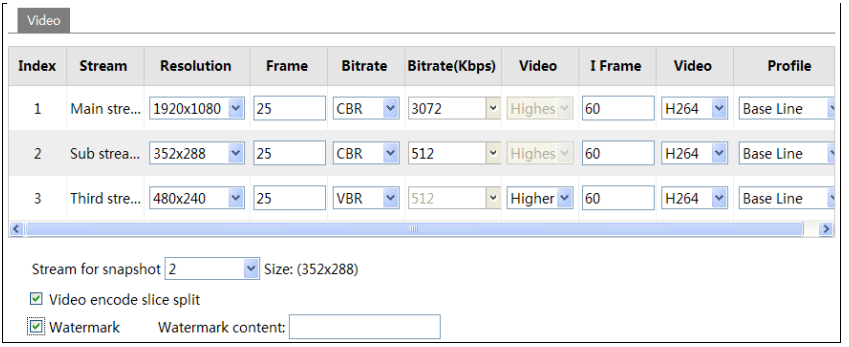


Brightness: Set the brightness level of the camera's image.
Contrast: Set the color difference between the brightest and darkest parts.
Chroma: Set the total color degree of the image.
Saturation: Set the degree of color purity. The purer the color is, the brighter the image is.
Wide Dynamic: It helps the camera provide clear images even under back light circumstances. When there are both very bright and very dark areas simultaneously in the field of view, WDR balances the brightness level of the whole image and provide clear images with details.

Sharpness: Set the resolution level of the image plane and the sharpness level of the image edge.
Denoise: 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.
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.
Sensitivity: High, middle and low can be selected.
Infrared Mode: You may choose " ON", "OFF" and "Auto" as required.
Image Mirror: Reverse the current video image right and left.
Image Flip: Turn the current video image upside down.

4.2.2 Video Stream

The following interface will be displayed by clicking Config→Image→Video/Audio.



In this interface, you can set the resolution, frame rate, bitrate type, video quality and so on subject to the actual network condition.
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 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 adjustable 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: Please choose it according to the actual network situation.
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 encoding profile: Baseline and main profile are optional. Baseline profile is mainly

used in interactive application with low complexity and delay. Main profile is mainly used for higher coding requirement.

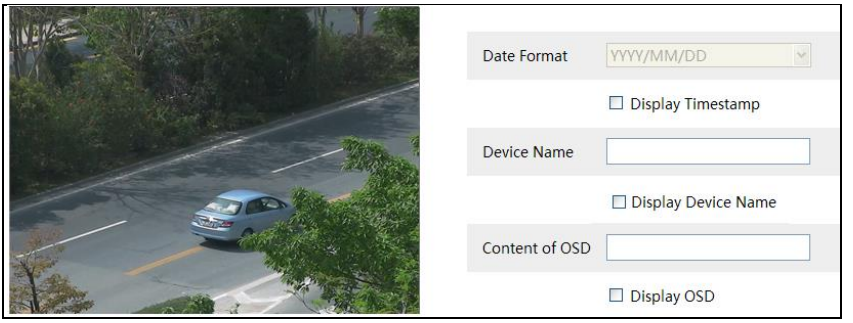
Stream of snapping photos: Please select it according to the actual situation.

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

Watermark: If selected, you can input the watermark theme. You may check the watermark when playing back the local record in the search interface, lest the record files is tampered.

4.2.3 OSD Configuration

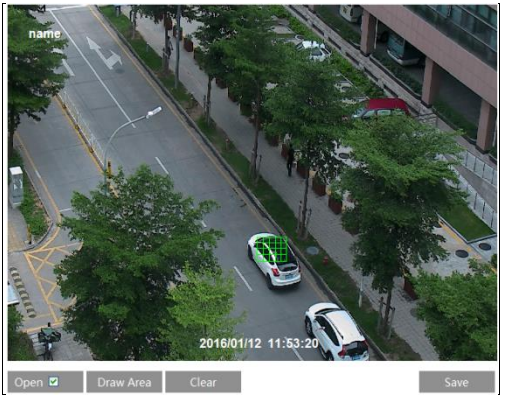
Go to Config→Image→OSD menu to display the interface as shown below:



You may set time stamp, device name and OSD here. After enabling the corresponding display and entering the content, drag them to change their position. Then press the "Save" button to save the settings.

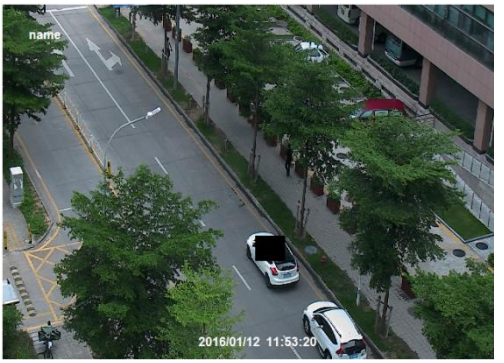
4.2.4 Video Mask

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



To set up video mask

1. Open 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.



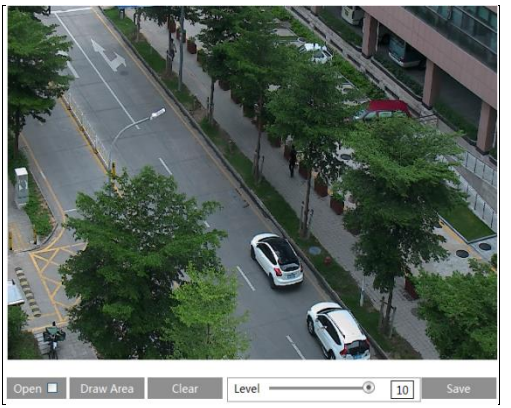
Clear the video mask:

Go to video mask 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 Config→ROI Config menu.



2. Check “Open” and then click “Draw Area” 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.

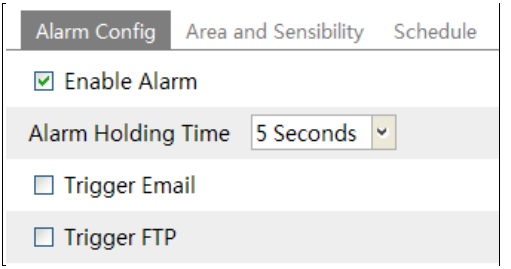
4.3 Alarm Configuration

Alarm configuration includes two submenus: Motion Detection and Alarm Server.

4.3.1 Motion Detection

To set motion detection:

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

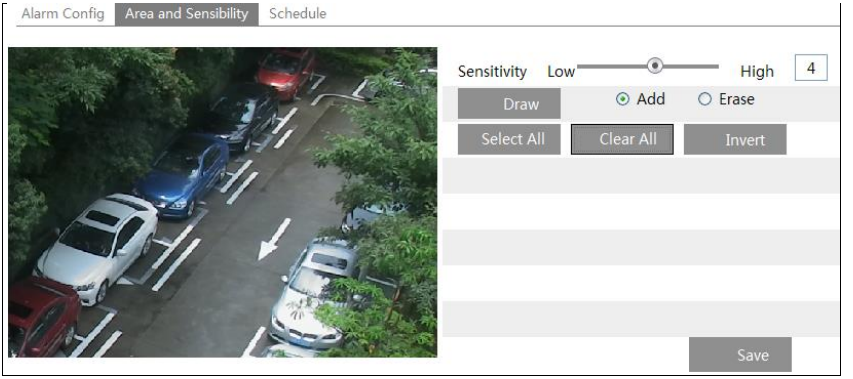


Check “Enable Alarm” check box to activate motion based alarm, choose alarm holding time and set alarm trigger options.

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 into those addresses.

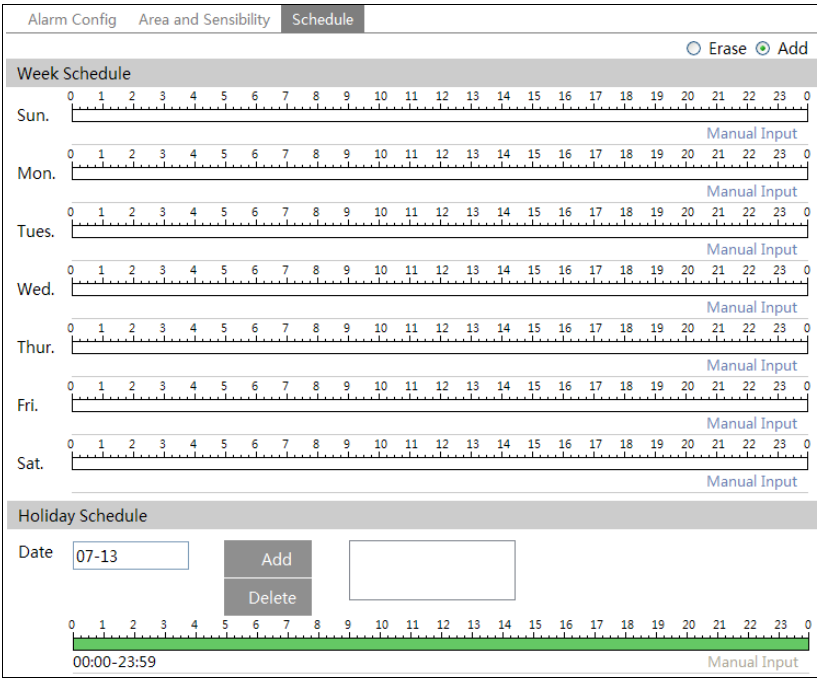
Trigger FTP: If “Uploading picture” is checked, the triggered snap pictures will be sent into FTP server address. Please refer to FTP configuration chapter for more details.

2. Set motion detection area and sensitivity. Click “Area and Sensitivity” tab to see the following sub-menu.



Move the “Sensitivity” scroll bar to set the sensitivity.
Check “Add” and click “Draw” button and move mouse to select the motion detection area; Select “Erase” and move 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 set the schedule of the motion detection.



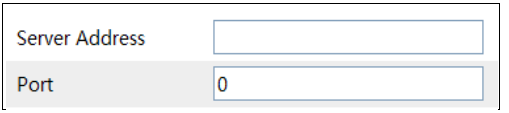
Week schedule

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.
"Erase": Delete holiday schedule.

Day schedule
Set alarm time for alarm in some time of a special day, such as holiday.
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.
Select a date in the list box on the right side, and press "Delete" to remove the schedule on that day.
Press the "Save" button to save the settings.
Note: Holiday schedule is prior to Week schedule.

4.3.2 Alarm Server

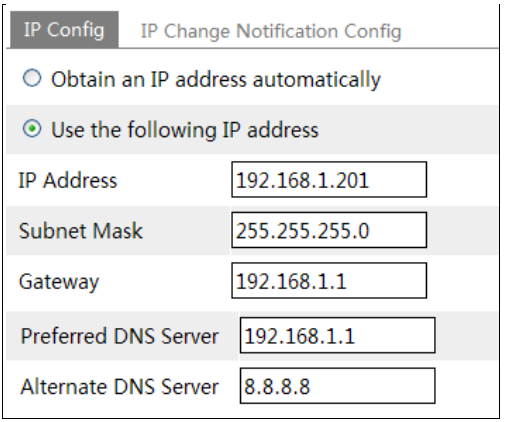
Go to "Alarm configuration"→ "Alarm Server" interface as shown below.
You may input the alarm server address and port. When the alarm happens, the camera will automatically transfer the alarm event to the alarm server. If the alarm server is not used, there is no need for you to configure here.



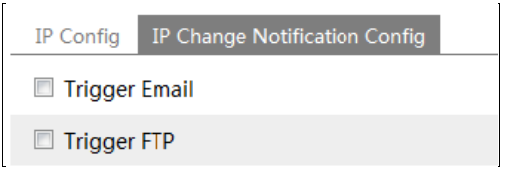
4.4 Network Configuration

4.4.1 TCP/IPv4

Go to Config→Network→TCP/IPv4. There are two ways for network connection.



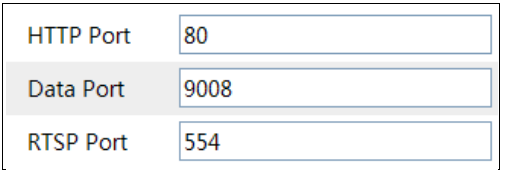
- Use IP address. There are two options for IP setup: obtain an IP address auto by DHCP protocol and use the following IP address. Please choose one of options for your requirements. If you check "Obtain an IP address automatically", the IP address may be changed frequently . Ten you can use the function of IP change notification.



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

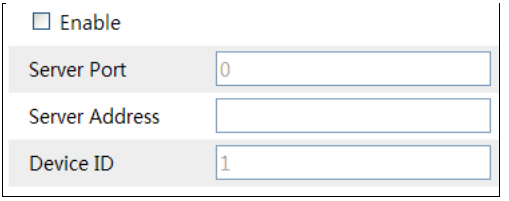
Go to Config→Network→Port. HTTP port, Data port and RTSP port can be set.



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 Central Server

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

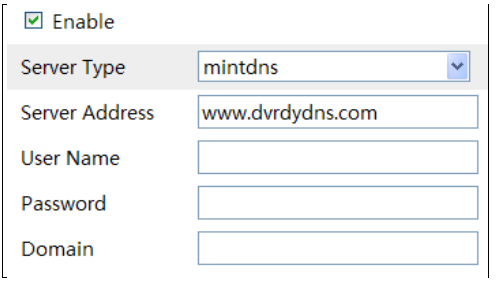


1. Check "Enable".
2. Check the IP address and port of the transfer media server in the ECMS/NVMS. Then enable the auto report in the ECMS/NVMS when adding a new device. Next, input the remaining

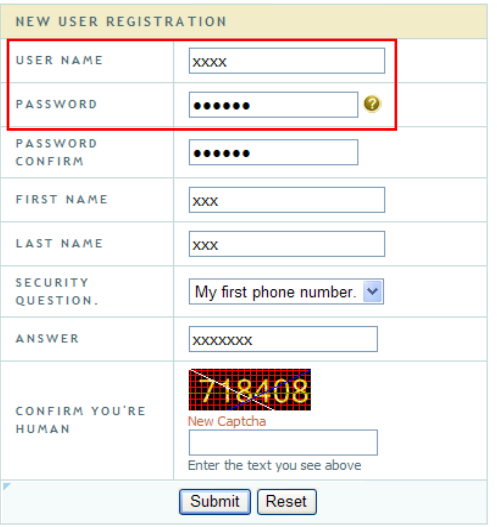
information of the device in the ECMS/NVMS. After that, the system will auto allot a device ID. Please check it in the ECMS/NVMS.
3. Input the above-mentioned server address, server port and device ID in the responding boxes. Click "Save" button to save the settings.

4.4.4 DDNS Configuration

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.

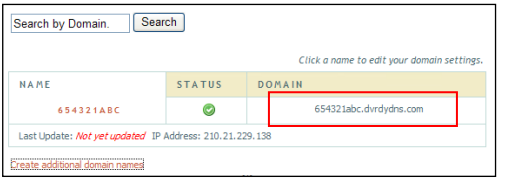


2. Apply for a domain name. Take www. dvrdyndns.com for example. Input www.dvrdydns.com in the IE address bar to visit its website. Then click "Registration" button.



Create domain name.

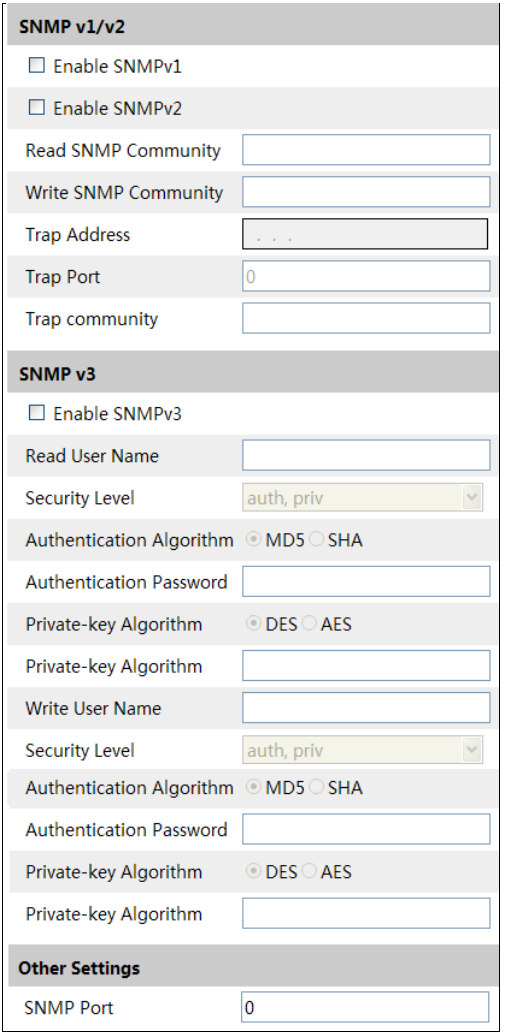
After you successfully request your domain name, you will see your domain in the list.



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

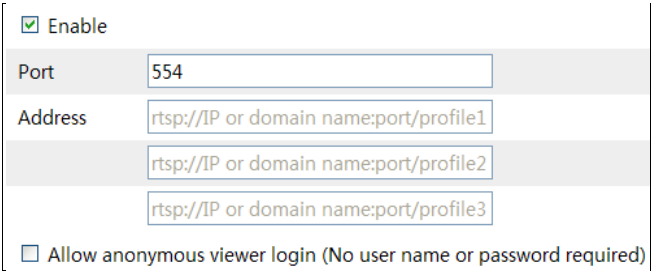
To get camera status, parameters and alarm information and remotely manage the camera, you can set the SNMP function. Before using the SNMP, please download the SNMP software and set the parameters of the SNMP, such as SNMP port, trap address.
1. Go to Config→Network→SNMP.



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 RTSP

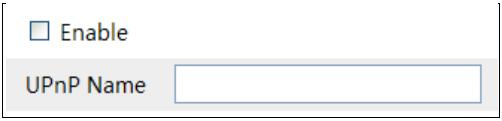
Go to Config→Network→RTSP.



1. Select “Enable”.
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. Check “Enable anonymous viewer login…”.

4.4.7 UPNP

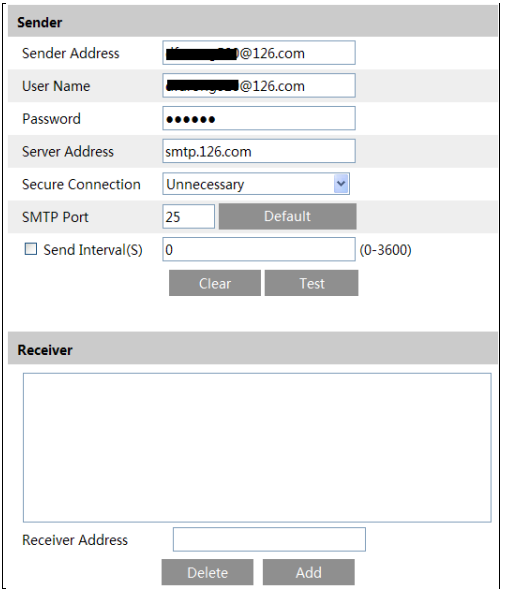
If you enable this function, you can quickly access the camera via LAN and you don’t need to configure the port mapping when the camera is connected to the WAN via the router.
Go to Config→Network→UPnP:
Select “Enable UPNP” and then input friendly name.



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. Then double click this name to access the camera quickly.

4.4.8 Mail configuration

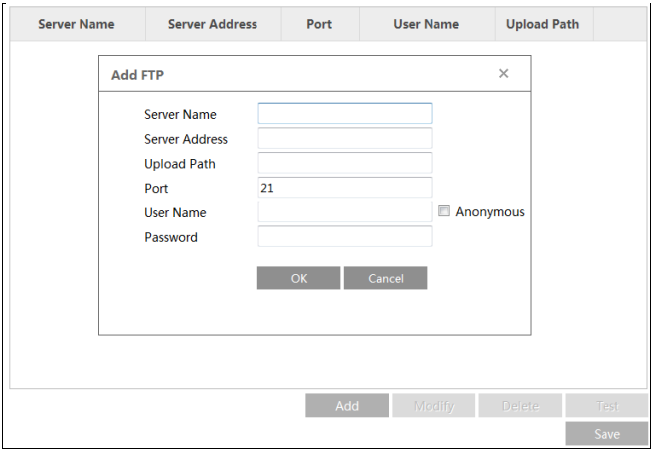
If you need to trigger E-mail when an alarm happens or IP address is changed, please set the E-mail here first.
Go to Config→Network → Email.



Sender Address: sender's e-mail address;
User name and password: sender's user name and password;
SMTP Address: The SMTP IP address or host name.
Select the secure connection type at the Secure Connection pull down list according to user' actual needs;
SMTP Port: The SMTP port.
Send Intervals: Set it as needed.
Click "Test Account Setting" to test the effectiveness of the account.
Receiver email address: receiver's e-mail address;

4.4.9 FTP Setting

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

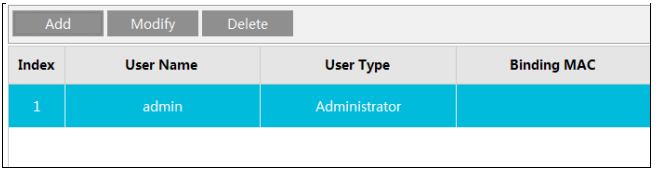


To Add FTP
Server Name：The name of the FTP.
Server Address: The IP address or domain name of the FTP.
Upload Path: The path of uploading the files.
Port: The port of the FTP.
Use Name and Password: The username and password are used to login the FTP.

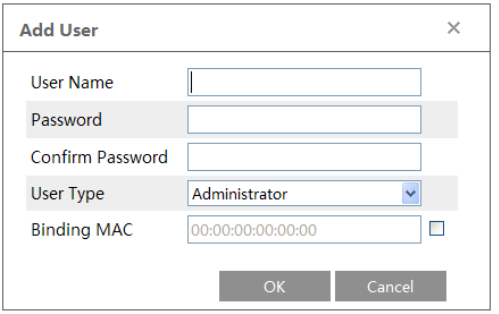
4.5 Security Configuration

4.5.1 User Configuration

Go to Config→Security.

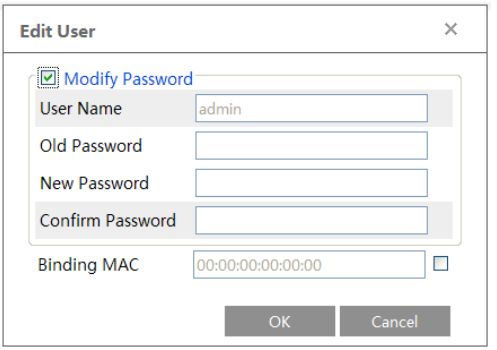


Add user:
1. Click “Add” button to pop up the following textbox.



2. Input user name in “User Name” textbox.
3. Input letters or numbers in “Password” and “Confirm Password” textbox.
4. Choose the use type.
5. Input the MAC address of the PC in “Binding MAC address” 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 “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 modify user’s password.

Delete user:
1. Select the user you want to delete in the user configuration list box.
2. Click “Delete” button to delete the user.

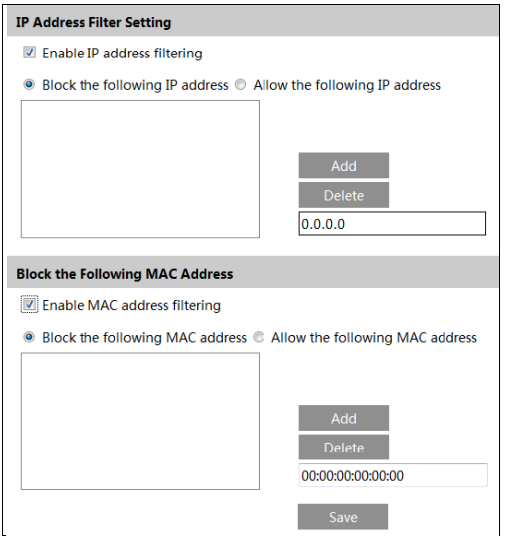
Note: The default super administrator cannot be deleted.

4.5.2 Online Video User

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

4.5.3 Block and Allow List

Go to Config→Security→Block and Allow Lists.

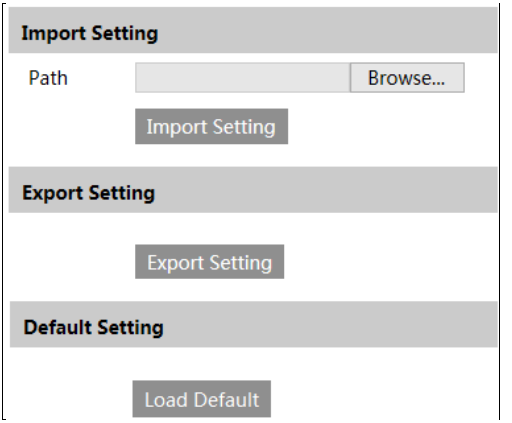


Setting steps are as follows:
Check “Enable IP address filtering” check box.
Select “Block the following IP address”, input IP address in the IP address list box and click “Add” button. The operation step of “Allow the following IP address” and MAC address filter settings are the same with “Block the 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

4.6.1 Backup & Restore

Go to Config→Maintenance→Backup & Restore.



- **Import & Export Setting**:

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 Setting**

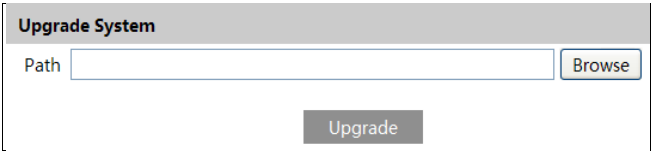
Click “Load default” button to restore all system settings to default status.

4.6.2 Reboot Device

Go to Config→Maintenance→Reboot.
Click “Reboot” button to reboot the device.

4.6.3 Upgrade

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



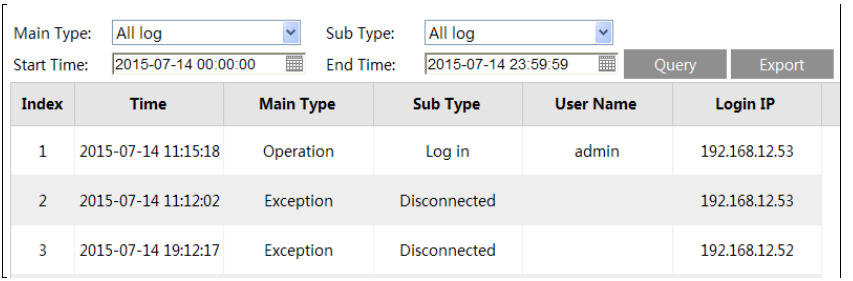
1. Click “Browse” button to select the save path of the upgrade file
2. Click “Upgrade” button to start upgrading the application program.
3. The device will restart automatically
4. After you successfully update the software, click “OK” button to close IE and then re-open IE to connect IP-Cam.

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

4.6.4 Log

To query and export log

1. Go to Config→Maintenance→Operation Log.



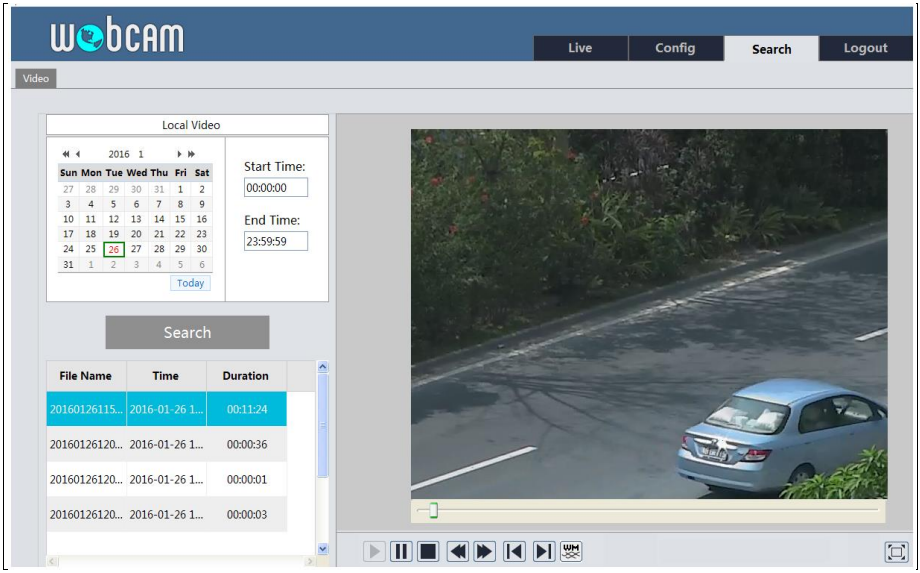
Index	Time	Main Type	Sub Type	User Name	Login IP
1	2015-07-14 11:15:18	Operation	Log in	admin	192.168.12.53
2	2015-07-14 11:12:02	Exception	Disconnected		192.168.12.53
3	2015-07-14 19:12:17	Exception	Disconnected		192.168.12.52

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

You can export and view the run log by clicking Config→Maintenance→Run Log.

5 Search

You can play the local video record through search interface. Before playing, please set the storage path of the video record in the local configuration interface and make sure there are record files. After that, click “Search” tab on the menu toolbar. The following interface will be seen.



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.

Button	Description
	Play button. After pausing the video, click this button to continue playing.
	Pause button.
	Stop button.
	Speed down.
	Speed up.
	Open/close watermark.
	Full screen. Click it to display full screen. Double click to exit full screen.

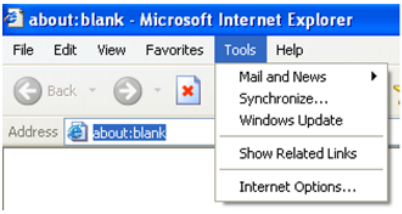
Appendix 1 Q & A

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

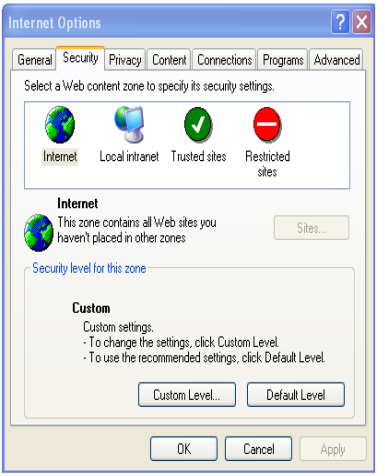
Q: Fail to connect devices through IE browser, why?
A: Network is not well connected. Please check the connection and make sure it is connected well.
B: IP is not available. Reset the valid IP.
C: Web port number has been revised: contact administrator to get the correct port number.
D: Exclude the above reasons. Recover default setting by IP-Tool.
Note: Default IP: 192.168.226.201，mask number: 255.255.255.0

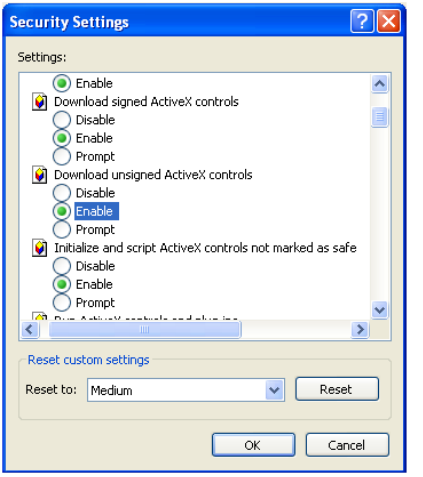
Q：IP tool cannot search devices, why?
A：It may be caused by the anti-virus software in your computer. Please exit it and try to search device again.

Q：IE cannot download ActiveX control. How can I do?
a. IE browser blocks ActiveX. Please try as below.
① Open IE browser. Click Tools-----Internet Options….



② Select Security------Custom Level….
③ Enable all the sub options under “ActiveX controls and plug-ins”.





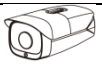
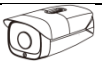
④ Then click OK to finish setup.

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

Appendix 2 Specifications

Specification /Model		**20m IR Water-proof Bullet Network Camera**
Camera	Image Sensor	1/2.8 " CMOS
	Image Size	1920×1080
	Electronic Shutter	1/25s~1/100000s
	Auto Iris	Fixed Iris
	Min. llumination	0.1lux@F1.2, AGC ON; 0 lux with IR
	Lens	3.6mm@F1.6, angle of view: 79 °(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	256Kbps~5Mbps
	Resolution	1080P (1920 ×1080), 720P (1280×720), D1, CIF, 480×240
	Main Stream	60Hz: 1080P(1~30fps) /720P(1~30fps) 50Hz: 1080P(1~25fps) /720P(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 3 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	< 2W(ICR OFF); < 4.5W(ICR ON)
	Opterating Environment	Temperature: -20 ℃~50 ℃; Humidity: 10%~90%
	Dimension (mm)	Ø64mm×183mm
	Weight	306g
	Installation	Wall mounting; pendent mounting

Specification /Model		**30m IR Water-proof Bullet Network Camera**	
Camera	Image Sensor	1/2.8 " CMOS	
	Image Size	1920×1080	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. llumination	0.1lux@F1.2, AGC ON; 0 lux with IR	
	Lens	3.6mm@F1.6, angle of view: 79 °(2.8mm, 6mm optional)	2.8~12mm@F1.4, angle of view: 96 °~35 °
	Lens Mount	M12	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	256Kbps~5Mbps	
	Resolution	1080P (1920 ×1080), 720P (1280×720), D1, CIF, 480×240	
	Main Stream	60Hz: 1080P(1~30fps) /720P(1~30fps) 50Hz: 1080P(1~25fps) /720P(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 3 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	< 2W(ICR OFF); < 5W(ICR ON)	
	Opterating Environment	Temperature: -20 ℃~50 ℃; Humidity: 10%~90%	
	Dimension (mm)	Ø87mm×219mm	
	Weight	605g	
	Installation	Wall mounting; pendent mounting	

Specification /Model		 **30m IR Water-proof Bullet Network Camera**	 **50m IR Water-proof Bullet Network Camera**
Camera	Image Sensor	1/2.8 " CMOS	
	Image Size	1920×1080	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. llumination	0.1lux@F1.2, AGC ON; 0 lux with IR	
	Lens	6mm@F1.6, angle of view: 56°(3.6mm, 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	256Kbps~5Mbps	
	Resolution	1080P (1920 ×1080), 720P (1280×720), D1, CIF, 480×240	
	Main Stream	60Hz: 1080P(1~30fps) /720P(1~30fps) 50Hz: 1080P(1~25fps) /720P(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 3 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	
	Power Consumption	< 2W(ICR OFF); < 3.5W(ICR ON)	< 2W(ICR OFF); < 5W(ICR ON)
	Opterating Environment	Temperature: -20℃~50℃; Humidity: 10%~90%	
	Dimension (mm)	99×188×86 (W×D×H)	
	Weight	457g	
	Installation	Wall mounting	

Specification /Model		**20m IR Water-proof Dome Network Camera**	**20m IR Water-proof Dome Network Camera**
Camera	Image Sensor	1/2.8 " CMOS	
	Image Size	1920×1080	
	Electronic Shutter	1/25s~1/100000s	
	Auto Iris	Fixed Iris	
	Min. llumination	0.1lux@F1.2, AGC ON; 0 lux with IR	
	Lens	3.6mm@F1.6, angle of view: 79°; (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	256Kbps~5Mbps	
	Resolution	1080P (1920 ×1080), 720P (1280×720), D1, CIF, 480×240	
	Main Stream	60Hz: 1080P(1~30fps) /720P(1~30fps) 50Hz: 1080P(1~25fps) /720P(1~25fps)	
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser	
	ROI	Support	
Interfaces	Network	RJ45	
Fucntion	Remote Monitoring	IE browser, CMS remote control	
	Online Connection	Support simultaneous monitoring for up to 3 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	< 2W(ICR OFF); <4W(ICR ON)	
	Opterating Environment	Temperature: -20℃~50℃; Humidity: 10%~90%	
	Dimension (mm)	Ø87mm×108mm	Ø84.3mm×94.6mm
	Weight（net）	369g	397g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)	

Specification /Model		**30m IR Water-proof Dome Network Camera**
Camera	Image Sensor	1/2.8 " CMOS
	Image Size	1920×1080
	Electronic Shutter	1/25s~1/100000s
	Auto Iris	Fixed Iris
	Min. llumination	0.1lux@F1.2, AGC ON; 0 lux with IR
	Lens	2.8~12mm@F1.4, angle of view: 96°~35°
	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	256Kbps~5Mbps
	Resolution	1080P (1920 ×1080), 720P (1280×720), D1, CIF, 480×240
	Main Stream	60Hz: 1080P(1~30fps) /720P(1~30fps) 50Hz: 1080P(1~25fps) /720P(1~25fps)
	Image Settings	Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser
	ROI	Support
Interfaces	Network	RJ45
Fucntion	Remote Monitoring	IE browser, CMS remote control
	Online Connection	Support simultaneous monitoring for up to 3 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	< 2W(ICR OFF); <5W(ICR ON)
	Opterating Environment	Temperature: -20℃~50℃; Humidity: 10%~90%
	Dimension (mm)	Ø109mm×130mm
	Weight（net）	Approx. 643g
	Installation	Pendent mounting (wall mounting available with junction box and bracket)

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