



## **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

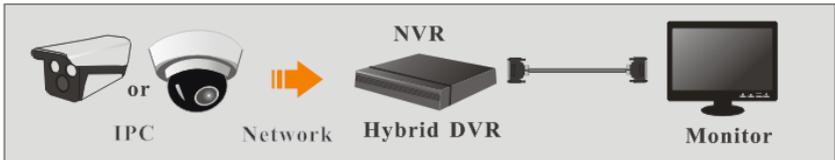
This IP-CAMERA is designed for high-performance CCTV solutions. It adopts state of the art video processing chips. It utilizes most advanced technologies, such as video encoding and decoding technology, complies with the TCP/IP protocol, SoC, etc to ensure this system is stable and reliable.

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



# IE Remote Access

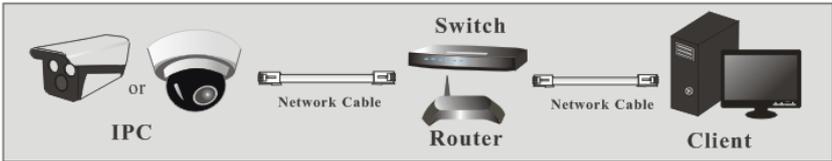
You may connect IP-Cam via LAN (Local Area Network) or WAN (Wide Area Network). The details are as follows:

## 1.1 LAN (Local network)

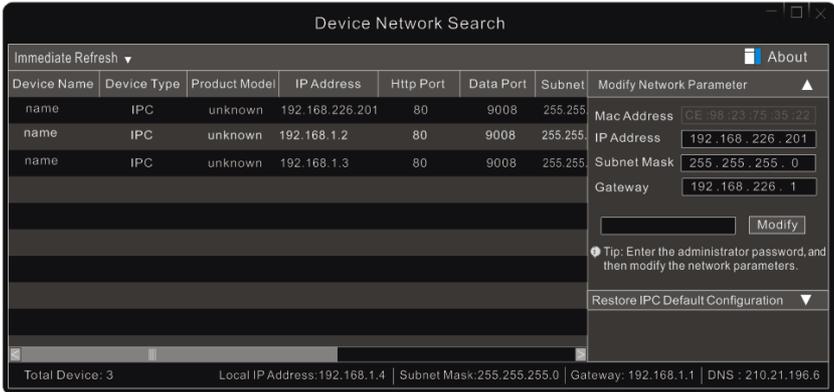
In LAN, there are two ways to access IP-Cam: 1. access through IP-Tool; 2. directly access through IE browser.

### 1.1.1 Access through IP-Tool

Network connection:

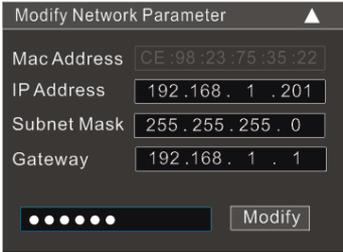


- ① Make sure the PC and IP-Cam are connected to the LAN and the IP-Tool is installed in the PC from the CD.
- ② Double click the IP-Tool icon on the desktop to run this software as shown below:



- 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 computers. Please modify the IP address of your device according to your local network configuration.



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



The default password of the administrator is “**123456**”.

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



Input the username and password to log in.



The default username is “**admin**”; the default password is “**123456**”.

## 1.1.2 Directly Access through IE

The default network settings are as shown below:

IP address: **192.168.226.201**

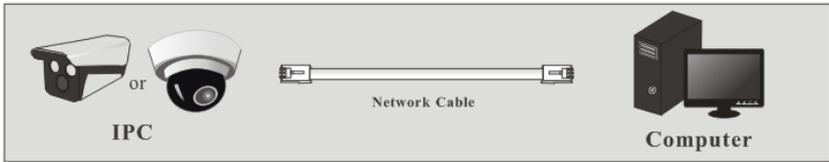
Subnet Mask: **255.255.255.0**

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 a network cable.

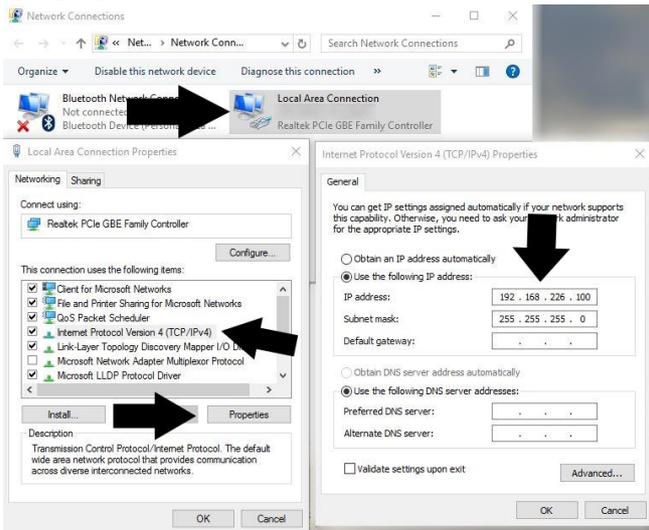


① Manually set the IP address of the PC. The network segment should be the same as the default settings of the IP camera. Open Network and Sharing Center in Windows Control Panel. Click “Change adapter settings,” Right-click “Local Area Connection” and choose Properties, Left-click on “Internet Protocol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

Select “Use the following IP address” and manually enter the following information:

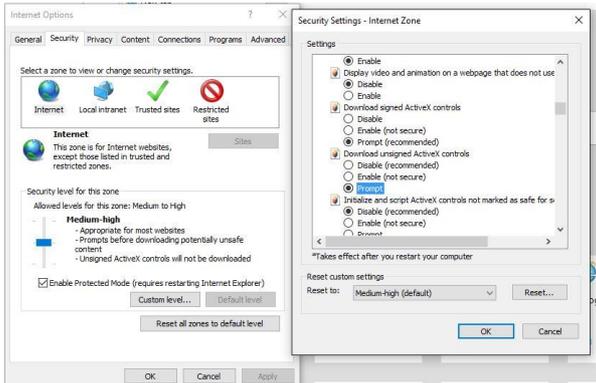
IP address: 192.168.226.4

Subnet Mask: 255.255.255.0



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

**\*\*IMPORTANT:** You must configure IE Internet options before the Active X control will install. Proceed to do the following in Internet Explorer:  
 Click on Tools (cog wheel top right corner) > Internet Options > Security > Click Custom level > Scroll to **DOWNLOAD UNSIGNED ACTIVEX CONTROLS** > set it to **PROMPT** > Click OK.

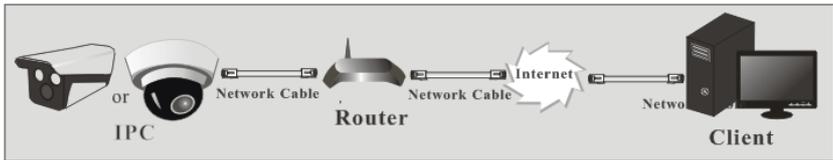


③ After downloading Active X control, the login dialog box will pop up.

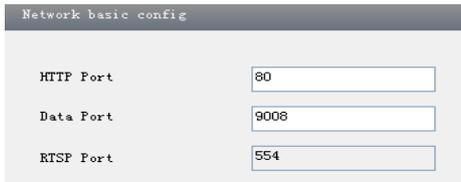
④ Input the default username and password and then enter to view camera, and access camera settings.

## 1.2 WAN

> Access through the router or virtual server



① Make sure the camera is well connected via LAN and then log in to the camera via LAN and go to Config > Network Config > Port menu to set the port number. **\*\*Note:** Only change the ports if there will be more than



## Port Setup

② Go to Config 7 Network Config 7 IP Address menu to modify the IP address.

The screenshot shows the 'IP Config' window. It has two radio buttons: 'Obtain an IP address automatically' (unselected) and 'Use the following IP address' (selected). Below the selected option are input fields for 'IP Address' (192.168.1.201), 'Subnet Mask' (255.255.255.0), and 'Gateway' (192.168.1.1). There are also two radio buttons for DNS: 'Obtain DNS server address automatically' (unselected) and 'Use the following DNS server' (selected). Below this are fields for 'Preferred DNS server' (192.168.1.1) and 'Alternate DNS server' (8.8.8.8).

## IP Setup

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

| Port Range  |       |          |          |               |                                     |
|-------------|-------|----------|----------|---------------|-------------------------------------|
| Application | Start | End      | Protocol | IP Address    | Enable                              |
| 1           | 9007  | to 9008  | Both     | 192.168.1.201 | <input checked="" type="checkbox"/> |
| 2           | 80    | to 81    | Both     | 192.168.1.201 | <input checked="" type="checkbox"/> |
| 3           | 10000 | to 10001 | Both     | 192.168.1.166 | <input type="checkbox"/>            |
| 4           | 21000 | to 21001 | Both     | 192.168.1.166 | <input type="checkbox"/>            |

## Router Setup

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

### > Access through PPPoE dial-up

Network connection

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

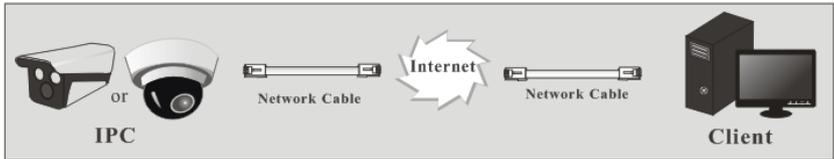
- ① Go to Config➤Network Config➤Port menu to set the port number.
- ② Go to Config ➤Network Config➤IP Address menu. Check “PPPoE” and then input the username and password which you can get from your internet service provider.

The screenshot shows a window titled "PPPoE Config". Inside, there is a checked checkbox labeled "PPPoE". Below it are two input fields: "User Name" and "Password".

- ③ Go to Config ➤Network Config➤DDNS Config menu. Before you configure the DDNS, please apply for a domain name. Please refer to 4.4.5 DDNS Configuration for detail information.
- ④ Open the IE browser and input the domain name and HTTP port to access.

➤ **Access through static IP**

Network connection

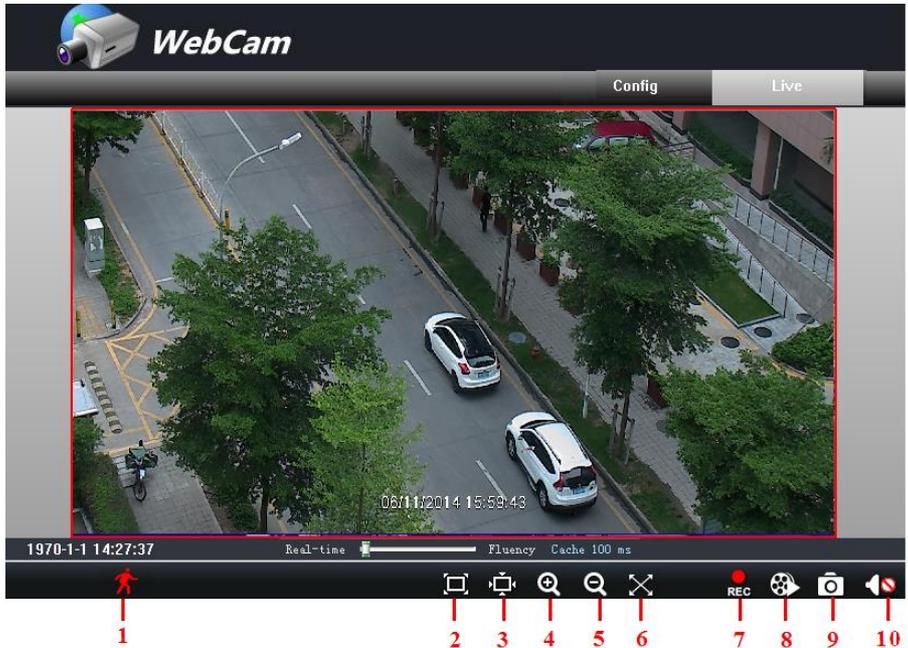


The setting steps are as follow:

- ① Go to 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.

## 2 Remote Preview

### 2.1 The Remote Preview Interface



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

When motion detection alarm is triggered, the people icon will turn red.  
Right click to pop up a pull-down list as shown below:

1 1920x1080 25fps  
 2 704x576 25fps  
 3 352x288 25fps  
 Turn off the live

Enable audio  
 Full Screen  
 Online User  
 System Information

**Stream:** Three streams are optional.

**Turn off live:** Click this item to close live preview.

**Enable audio:** Open the volume control.

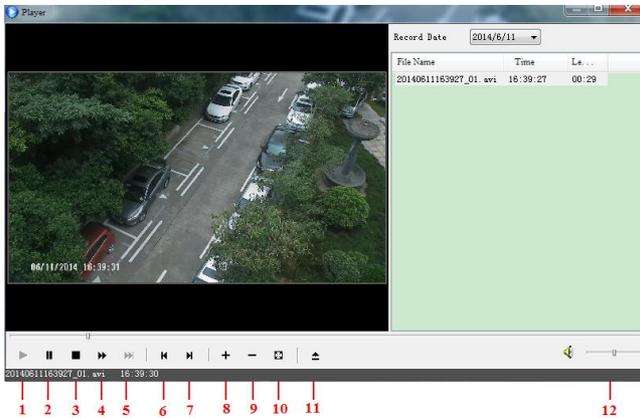
**Full screen:** The live preview picture will be full-screen display. Double click or click right mouse to return to the previous interface.

**Online user:** Display the current user connected to the device.

**System information:** Display the device information: device name, firmware version, software build date, kernel version and hardware version.

## 2.2 Playback

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



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

## 2.3 Snap Pictures

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



**Single Snap**

Snap multiple pictures:

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



**Multi-picture Snap**

# 3 Remote Live Surveillance

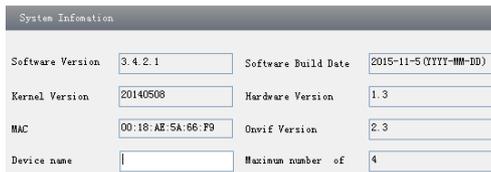
Functions of remote configurations include System Configuration, Video Configuration, Alarm Configuration, Network Configuration and Advanced Configuration. You should select the menu on the left and then set up the relative parameters.

## 3.1 System Configuration

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

### 3.1.1 Basic Information

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



The screenshot shows the 'System Information' configuration page. It contains several input fields for system details:

| System Information  |                        |
|---------------------|------------------------|
| Software Version    | 3.4.2.1                |
| Software Build Date | 2015-11-5 (YYYY-MM-DD) |
| Kernel Version      | 20140508               |
| Hardware Version    | 1.3                    |
| MAC                 | 00:18:AE:5A:66:F9      |
| Onvif Version       | 2.3                    |
| Device name         |                        |
| Maximum number of   | 4                      |

### 3.1.2 Date & Time

Setting steps:

1. Go to System Config  Date & Time menu as shown below.



The screenshot shows the 'Date and Time setting' configuration page. It includes the following settings:

- Time Zone: GMT+08 (Beijing, Hong Kong, Shanghai, Taipei) (dropdown menu)
- DST Enable
- Timing mode:
  - Manual
    - Set Time: 2014-6-14 (date dropdown), 11:30:59 (time dropdown),  PC time
  - NTP
    - NTP Server: time.windows.com (text input)

2. Set time zone.

3. Enable DST mode as required.

4. Set time. You may set the time manually or enable NTP.

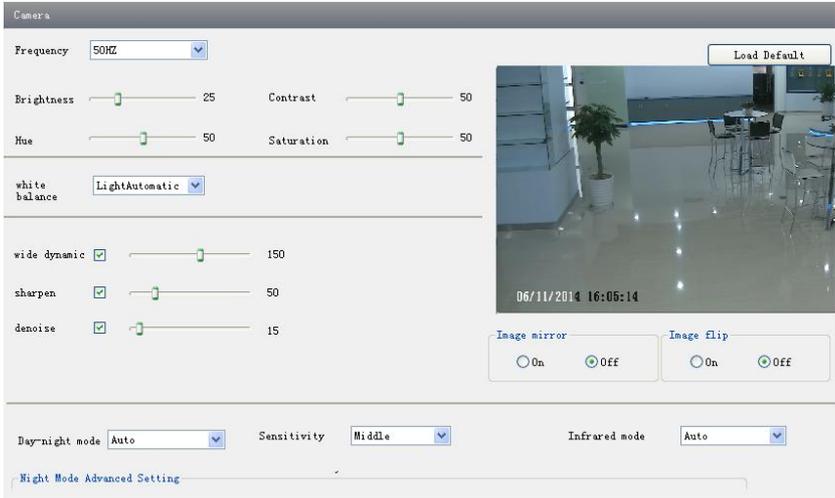
## 3.2 Video Configuration

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

### 3.2.1 Camera

Setting steps:

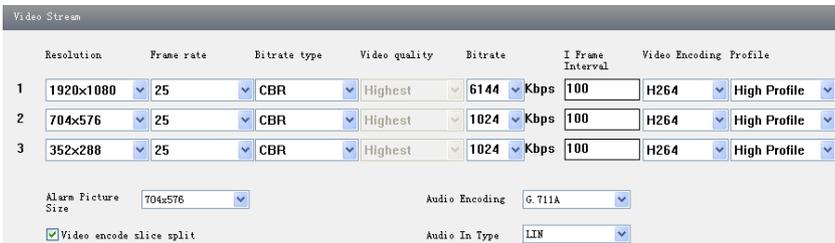
1. Go to “Video Configuration” ⑦ “Camera” interface as shown below.



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

### 3.2.2 Video Stream

Go to “Video configuration” ⑦ “Video Stream” to see an interface as shown below.



Three video streams are adjustable.

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

**Frame rate:** The higher the frame rate is, the more fluency the video has. 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 according to the actual network situation.

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

**Video encoding profile:** Baseline and main profile are optional. Baseline profile is mainly used in an interactive application with low complexity and delay. Main profile is mainly used for higher coding requirement.

**Alarm picture size:** Please adjust accordingly.

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

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

**Audio In Type:** MIC and LIN are selectable.

### 3.2.3 OSD Configuration

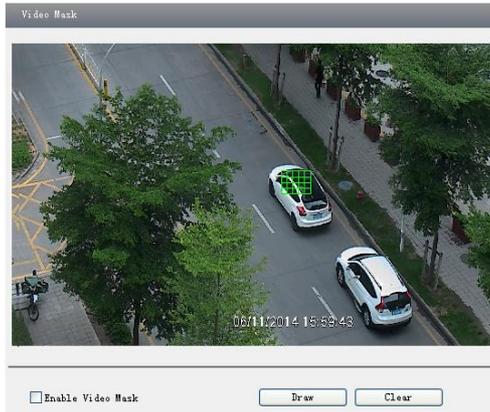
Go to “Video Config” ⑦ “OSD Config” menu to display the interface as shown below.



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

### 3.2.4 Video Mask

Go to “Video Config” ⑦ “Video Mask” menu to display the interface. You can set 4 mask areas at most.



To set up video mask

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



Clear the video mask:

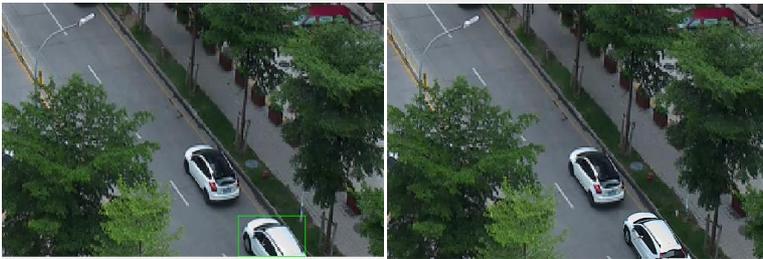
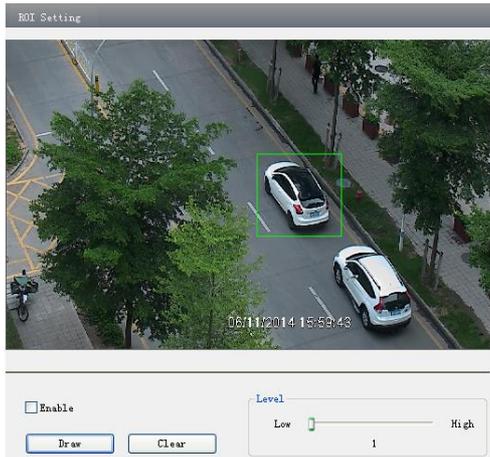
Go to video mask menu and then click "Clear" button to delete the current video mask area.

### 3.2.5 ROI Configuration

To set up ROI

1. Go to Video Config  ROI Config menu.
2. Check "Enable" and then click "Draw" button.
3. Drag the mouse to set the ROI area.
4. Set the level.
5. Click "Save" button to save the settings.

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

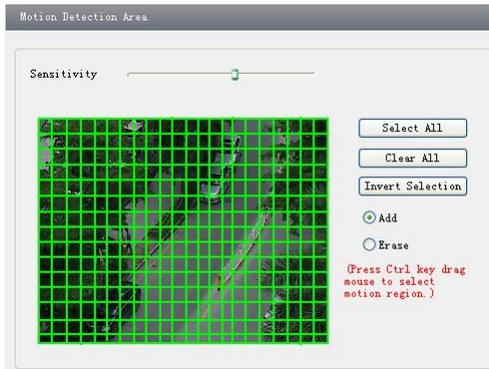


### 3.3 Alarm Configuration

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

#### 3.3.1 Motion Detection Area

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



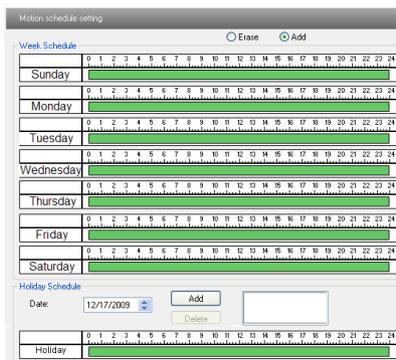
### 3.3.2 Motion Detection Trigger

1. Go to “Alarm Configuration” ⑦ “Motion Detection Trigger” to display an interface as shown below.
2. Check the “Enable alarm” box. Then all functions under this interface will be activated.
3. Trigger Email: If the email and attach picture checkbox is checked (Email address shall be set first in the Mail config interface), the triggered snap pictures and event will be sent to the designated email address(es).
4. Trigger FTP: Check “Uploading picture”. Then the triggered snap pictures will be sent to the FTP server address. Please refer to FTP configuration chapter for more details.
5. Press the “Save” button to save the settings.



### 3.3.3 Motion Detection Schedule

Go to “Alarm configuration” ⑦ “Motion Detection schedule” interface as shown below.



### Week schedule

You can set an alarm schedule for any day of the week, Monday to Sunday.

Add: Add a special day to the schedule.

Erase: Delete holiday schedule.

### Day schedule

You can set the alarm time for a holiday or special circumstance.

1. Select a date at the “Date” pull-down list, press “Add” button to add that date to the list box on the right side and then move the scroll bar to set the schedule of that day.

2. Select a date in the list box on the right side, and press “Erase” to remove the schedule on that day.

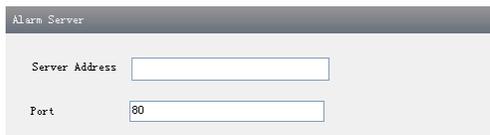
Press the “Save” button to save the settings.

**Note: Holiday schedule is a priority to Week schedule.**

## 3.3.4 Alarm Server

Go to “Alarm configuration” → “Alarm Server” to get the 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.



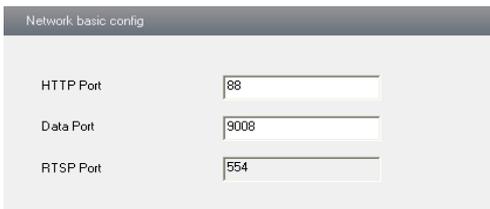
| Alarm Server   |                                 |
|----------------|---------------------------------|
| Server Address | <input type="text"/>            |
| Port           | <input type="text" value="80"/> |

## 3.4 Network Configuration

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

### 3.4.1 Port

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



| Network basic config |                                   |
|----------------------|-----------------------------------|
| HTTP Port            | <input type="text" value="88"/>   |
| Data Port            | <input type="text" value="9008"/> |
| RTSP Port            | <input type="text" value="554"/>  |

2. Input port number for IE access in the “HTTP Port” textbox.

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

### 3.4.2 IP Address

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

**IP Config**

Obtain an IP address automatically  
 Use the following IP address

IP Address:   
 Subnet Mask:  Gateway:

Obtain DNS server address automatically  
 Use the following DNS server

Preferred DNS server:  Alternate DNS server:

---

**PPPoE Config**

PPPoE  
 User Name:  Password:

There are two options for IP setup: obtain an IP address auto by DHCP protocol and use the following IP address. You may choose one of the options as required.

Use the following IP address: display the IP address, subnet mask, gateway and DNS of the device

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

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

Press the “Save” button to save the settings.

### 3.4.3 Server Configuration

Go to “Network Configuration” ⑦ “Server Config”.

**Server Config**

Do you want IPCamera to connect Server

Server Address:   
 Server Port:   
 Device ID:

1. Check “Do you want IP Camera to connect Server”.
2. Check the IP address and port of the transfer media server in the CMS/NVMS. Then enable the auto report in the CMS/NVMS when adding a new device. Next, self-define the device ID and input the remaining information of the device in the CMS/NVMS.
3. Input the above-mentioned server IP, server port and device ID in the corresponding boxes.

4. Click “Save” button to save the settings.

### 3.4.4 IP Notify

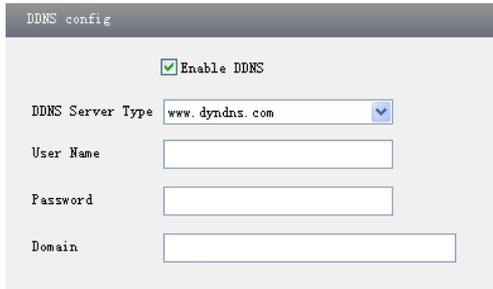
1. Go to “Network Configuration” ⑦ “IP Notify” to see a tab as shown below.
2. If the “Enable notifying change of IP” is selected, when the IP address of the device is changed, a new IP address will be sent to the appointed mailbox automatically; If “FTP” is selected, when the IP address of the device is changed, a new IP address will be sent to FTP server.



The screenshot shows a configuration window titled "IP change notification". It contains two checked checkboxes: "Enable notifying change of IP" and "FTP". Below these are two text input fields: "Receival email address" and "Server address".

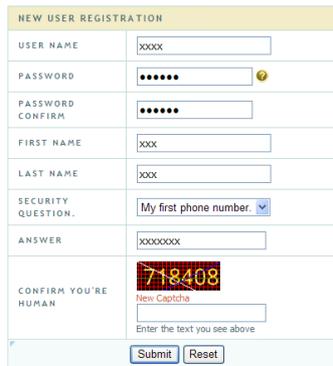
### 3.4.5 DDNS Configuration

1. Go to “Network Configuration” ⑦ “DDNS Configuration” tab as shown below.



The screenshot shows a configuration window titled "DDNS config". It has a checked checkbox for "Enable DDNS". Below it is a dropdown menu for "DDNS Server Type" with "www.dyndns.com" selected. There are also text input fields for "User Name", "Password", and "Domain".

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



The screenshot shows a "NEW USER REGISTRATION" form. It includes fields for: USER NAME (xxxx), PASSWORD (masked with dots and an eye icon), PASSWORD CONFIRM (masked with dots), FIRST NAME (xxx), LAST NAME (xxx), SECURITY QUESTION (My first phone number), ANSWER (xxxxxxxx), and a CAPTCHA section with a "New Captcha" button and a text input field. At the bottom are "Submit" and "Reset" buttons.

Create domain name.

*You must create a domain name to continue.*

Domain name must start with (a-z, 0-9). Cannot end or start, but may contain a hyphen and is not case-sensitive.

dvrdydns.com

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

Search by Domain:

*Click a name to edit your domain settings.*

| NAME      | STATUS | DOMAIN                 |
|-----------|--------|------------------------|
| 654321ABC | ✔      | 654321abc.dvrdydns.com |

Last Update: *Not yet updated* IP Address: 210.21.229.138

[Create additional domain names](#)

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

### 3.4.6 RTSP

Go to “Network Configuration” ⑦ “RTSP” interface as shown below.

**RTSP**

Enable RTSP server

RTSP Port:

RTSP Address:

Enable anonymous viewer login (no user name or password required)

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

### 3.4.7 UPNP

Go to “Network Configuration” ⑦ “UPNP” interface as shown below. Select “Enable UPNP” and then input friendly name.

**UPNP Setting**

Enable UPNP

Friendly Name:

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

icon.

### 3.4.8 Mail configuration

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

Mail config

From Email: test10007@gmail.com

User Name : test10007@gmail.com Password : \*\*\*\*\*

Server address: smtp.gmail.com Secure Connection not required

SMTP Port: 25 Use default test your account settings

Receival email address:

Receival email address:

Add Delete

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

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

### 3.4.9 FTP Setting

Go to Network Configuration ➤ FTP Setting to get the interface as shown below.

FTP Setting

| Server name | Server address | Port ... | User Name | Upload path: |
|-------------|----------------|----------|-----------|--------------|
|             |                |          |           |              |
|             |                |          |           |              |

Add Modify Delete Test

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

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

| Parameter      | Meaning                           |
|----------------|-----------------------------------|
| Server name    | The name of the FTP server        |
| Server address | The address of the FTP server     |
| Port           | The port number of the FTP server |
| Username       | The username of the FTP server    |
| Password       | The password of the FTP server    |
| Path           | The save path for FTP files       |



### 3.5 Advanced Configuration

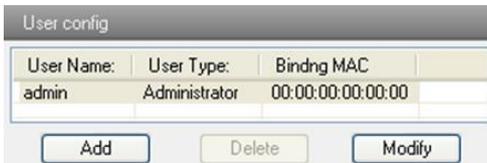
The advanced configuration includes five submenus: User Configuration, Security Configuration, Configure Backup & Restore, Reboot, and Upgrade.

#### 3.5.1 User Configuration

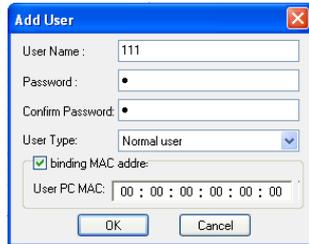
Go to Advanced configuration ➤ User Configuration interface.

**Add user:**

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



User Configuration



Add User

**Note:** After a binding physical address to the IP-CAM, you can access the device on this PC in network only. If the MAC address is “00:00:00:00:00:00”, it means the camera can be connected too any computer.

1. Input username in the textbox (letters only).
2. Input password and confirm password (letters or numbers).
3. Input the MAC address of the PC in “Binding MAC address” textbox.
4. Click “OK” button and the new user will display in the user list.

**Modify user:**

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

### Modify User

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

#### **Delete user:**

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

**Note:** The default super administrator cannot be deleted.

| <i>Parameter</i>    | <i>Meaning</i>   |
|---------------------|--|
| User Name           | Username to operate the login client end   |
| User Type           | Type of users, normal user, advanced user and super administrator  |
| Binding MAC address | The MAC addresses of user access the server which should set up according to actual MAC address of the server. |
| Password            | Password to log in the client terminal   |
| Confirm Password    | Password to log in the client terminal   |

### **3.5.2 Security Configuration**

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

The image shows two configuration panels. The top panel is titled "IP address filter setting" and contains the following elements:
 

- A checked checkbox for "Enable IP address filtering".
- Two radio buttons: "Deny the following IP address" (selected) and "Allow the following IP address".
- A large empty rectangular box for listing IP addresses.
- "Add" and "Delete" buttons.
- A text input field at the bottom right.

 The bottom panel is titled "MAC filter setting" and contains:
 

- A checked checkbox for "Enable MAC address filtering".
- Two radio buttons: "Deny the following MAC address" (selected) and "Allow the following MAC address".
- A large empty rectangular box for listing MAC addresses.
- "Add" and "Delete" buttons.
- A text input field at the bottom right containing the value "00 : 00 : 00 : 00 : 00 : 00".

### 3.5.3 Configure Backup & Restore

Go to Advanced configuration **7** Configure Backup & Restore .

- **Import & Export Configuration:**

You can import or export the setting information from PC or to device.

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

The image shows a configuration panel with three sections:
 

- Import setting:** Includes a "Path" text field with a "Browse" button, a dropdown menu set to "All configuration exception for", and checkboxes for "User Config" (checked) and "Network Config" (unchecked). Below these is an "Import setting" button.
- Export setting:** Contains an "Export setting" button.
- Default setting:** Contains a "Load Default" button.

- **Default Configuration**

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

### 3.5.4 Reboot

Go to Advanced configuration—Reboot to see an interface as shown below.

Click “Reboot” button to reboot the device.

The image shows a simple configuration panel titled "Reboot" with a single "Reboot" button centered at the bottom.

### 3.5.5 Upgrade

Go to Advanced Configuration—Upgrade interface as shown below.



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

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

# Appendix

## Appendix 1 Q & A

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

A : Reset the device to the default factory settings.

Default IP: 192.168.226.201

Username: 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.

Note: Default IP: 192.168.226.201 , mask number: 255.255.255.0

### **Q : IP tool won't find devices, why?**

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

### **Q : IE cannot download ActiveX control, why?**

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

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

### **Q : No sound can be heard, why?**

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

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

## Appendix 2 Specifications

| Specification /Model |                                 |  <b>20m IR Waterproof Bullet Network Camera</b> |  <b>30m IR Waterproof Bullet Network Camera</b> |   |
|----------------------|---------------------------------|--|--|---|
| Camera               | Image Sensor                    | 1/2.7 " CMOS   |  |   |
|                      | Image Size                      | 1920×1080  |  |   |
|                      | Electronic Shutter              | 1/25s~1/10000s   |  |   |
|                      | Auto Iris                       | Fixed Iris   |  |   |
|                      | Min. illumination               | 0.05lux@F1.2, AGC ON: 0 lux with IR  |  |   |
|                      | Lens                            | 3.6mm@F1.6, angle of view: 77°;<br>(2.8mm, 6mm optional)   | 3.6mm@F1.6, angle of view: 77°;<br>(2.8mm, 6mm optional)   | 2.8~12mm@F1.4,<br>the angle of view:<br>89°~34° |
|                      | Lens Mount                      | M12  | M12  | Ø14   |
|                      | Day&Night                       | ICR  |  |   |
|                      | WDR                             | Digital WDR  |  |   |
|                      | Digital NR                      | 3D DNR   |  |   |
| Image                | Angle Adjustment                | Any angle  |  |   |
|                      | Video Compression               | H.264/MJPEG  |  |   |
|                      | H.264 Type                      | Baseline profile/main profile/high profile   |  |   |
|                      | Video Bit Rate                  | 128Kbps~6Mbps  |  |   |
|                      | Resolution                      | 1080P, 720P, D1, CIF, 480×240  |  |   |
|                      | Main Stream                     | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)  |  |   |
|                      | Image Settings                  | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser               |  |   |
| ROI                  | Support                         |  |  |   |
| Interfaces           | Network                         | RJ45   |  |   |
|                      | Audio                           | MIC IN×1   |  |   |
| Function             | 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   |  |   |
|                      | Storage                         | Network remote storage   |  |   |
| Others               | Smart Alarm                     | Motion alarm   |  |   |
|                      | IR Distance                     | 10~20 m  | 20~30 m  |   |
|                      | Protection Grade                | IP66   |  |   |
|                      | Power                           | DC12V/PoE  |  |   |
|                      | Power Consumption               | < 3.5W(ICR OFF); < 6W(ICR ON)  |  |   |
|                      | Operating Environment           | Temperature: -20°C~50°C; Humidity: 10%~90%   |  |   |
|                      | Dimension (mm)                  | Ø64mm×183mm  | Ø87mm×219mm  |   |
|                      | Weight ( net )                  | 366g   | 578g   |   |
| Installation         | Wall mounting; pendant mounting |  |  |   |

| Specification /Model |                       |  50m IR Water-proof Bullet Network Camera |  50m LED IR Array Network Camera |
|----------------------|-----------------------|---|--|
| Camera               | Image Sensor          | 1/2.7 " CMOS  |  |
|                      | Image Size            | 1920×1080   |  |
|                      | Electronic Shutter    | 1/25s~1/10000s  |  |
|                      | Auto Iris             | Fixed Iris  |  |
|                      | Min. illumination     | 0.05lux@F1.2, AGC ON: 0 lux with IR   |  |
|                      | Lens                  | 2.8~12mm@F1.4, the angle of view: 89°~34°   | 3.6mm@F1.6, angle of view: 77°; (2.8mm, 6mm, 8mm optional)   |
|                      | Lens Mount            | Ø14   | M12  |
|                      | Day&Night             | ICR   |  |
|                      | WDR                   | Digital WDR   |  |
|                      | Digital NR            | 3D DNR  |  |
| Angle Adjustment     | Any angle             | Pan: 0°~300°; Tilt: 0°~70°  |  |
| Image                | Video Compression     | H.264/MJPEG   |  |
|                      | H.264 Type            | Baseline profile/main profile/high profile  |  |
|                      | Video Bit Rate        | 128Kbps~6Mbps   |  |
|                      | Resolution            | 1080P, 720P, D1, CIF, 480×240   |  |
|                      | Main Stream           | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)                                 |  |
|                      | Image Settings        | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser        |  |
|                      | ROI                   | Support   |  |
| Interfaces           | Network               | RJ45  |  |
|                      | Audio                 | MIC IN×1  |  |
| Function             | 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  |  |
|                      | Storage               | Network remote storage  |  |
|                      | Smart Alarm           | Motion alarm  |  |
| Others               | IR Distance           | 30~50 m   |  |
|                      | Protection Grade      | IP66  |  |
|                      | Power                 | DC12V/PoE   | DC12V ( PoE power supply optional )  |
|                      | Power Consumption     | < 3.5W(ICR OFF); < 6.5W(ICR ON)   |  |
|                      | Operating Environment | Temperature: -20°C~50°C; Humidity: 10%~90%  |  |
|                      | Dimension (mm)        | Ø109mm×284mm  | W80mm × D203mm × H80mm   |
|                      | Weight ( net )        | 1042g   | 647g   |
|                      | Installation          | Wall mounting; pendant mounting   | Wall mounting  |

| Specification /Model |                       |  <b>Waterproof Mini Dome Network Camera</b> |
|----------------------|-----------------------|--|
| Camera               | Image Sensor          | 1/2.7 " CMOS   |
|                      | Image Size            | 1920×1080  |
|                      | Electronic Shutter    | 1/25s~1/10000s   |
|                      | Auto Iris             | Fixed Iris   |
|                      | Min. illumination     | 0.05lux@F1.2, AGC ON: 0 lux with IR  |
|                      | Lens                  | 3.6mm@F1.6, angle of view: 77°; (2.8mm, 6mm optional)  |
|                      | Lens Mount            | M12  |
|                      | Day&Night             | ICR  |
|                      | WDR                   | Digital WDR  |
|                      | Digital NR            | 3D DNR   |
| Image                | Angle Adjustment      | Pan: 0°~240°; Tilt: 0°~68°; Rotation: 0°~220°  |
|                      | Video Compression     | H.264/MJPEG  |
|                      | H.264 Type            | Baseline profile/main profile/high profile   |
|                      | Video Bit Rate        | 128Kbps~6Mbps  |
|                      | Resolution            | 1080P, 720P, D1, CIF, 480×240  |
|                      | Main Stream           | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)                                    |
|                      | Image Settings        | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser           |
| Interfaces           | ROI                   | Support  |
|                      | Network               | RJ45   |
| Function             | Audio                 | MIC IN×1   |
|                      | 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   |
|                      | Storage               | Network remote storage   |
| Others               | Smart Alarm           | Motion alarm   |
|                      | IR Distance           | 10~20 m  |
|                      | Protection Grade      | IP66&IK10  |
|                      | Power                 | DC12V/PoE  |
|                      | Power Consumption     | < 3 W(ICR OFF); < 4W(ICR ON)   |
|                      | Operating Environment | Temperature: -20°C~50°C; Humidity: 10%~90%   |
|                      | Dimension (mm)        | Ø116mm×91mm  |
| Weight ( net )       | 606g                  |  |
|                      | Installation          | Pendant mounting (wall mounting available with junction box and bracket)   |

| Specification /Model |   |  <b>Water-proof Dome Network Camera</b> |   |
|----------------------|---|---|---|
| Camera               | Image Sensor                                  | 1/2.7 " CMOS  |   |
|                      | Image Size                                    | 1920×1080   |   |
|                      | Electronic Shutter                            | 1/25s~1/10000s  |   |
|                      | Auto Iris                                     | Fixed Iris  |   |
|                      | Min. Illumination                             | 0.05lux@ F1.2, AGC ON: 0 lux with IR  | Color: 0.05lux@ F1.2, AGC ON: 0 lux with IR; B/W: 0.01lux@ F1.2, AGC ON |
|                      | Lens  | 2.8~12mm@F1.4, the angle of view: 89°~34°   |   |
|                      | Lens Mount                                    | Ø14   |   |
|                      | Day&Night                                     | ICR   |   |
|                      | WDR   | Digital WDR   |   |
|                      | Digital NR                                    | 3D DNR  |   |
| Angle Adjustment     | Pan: 0°~360°; Tilt: 0°~77°; Rotation: 0°~360° |   |   |
| Image                | Video Compression                             | H.264/MJPEG   |   |
|                      | H.264 Type                                    | Baseline profile/main profile/high profile  |   |
|                      | Video Bit Rate                                | 128Kbps~6Mbps   |   |
|                      | Resolution                                    | 1080P, 720P, D1, CIF, 480×240   |   |
|                      | Main Stream                                   | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)                               |   |
|                      | Image Settings                                | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser      |   |
|                      | ROI   | Support   |   |
| Interfaces           | Network                                       | RJ45  |   |
|                      | Audio   | MIC IN×1  |   |
| Function             | 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  |   |
|                      | Storage                                       | Network remote storage  |   |
|                      | Smart Alarm                                   | Motion alarm  |   |
| Others               | IR Distance                                   | 20~30 m   | NO  |
|                      | Protection Grade                              | IP66&IK10   |   |
|                      | Power   | DC12V/PoE   |   |
|                      | Power Consumption                             | < 3 W(ICR OFF); < 5.5W(ICR ON)  |   |
|                      | Operating Environment                         | Temperature: -20°C~50°C; Humidity: 10%~90%  |   |
|                      | Dimension (mm)                                | Ø150mm×114mm  |   |
|                      | Weight ( net )                                | 956g  |   |
|                      | Installation                                  | Pendant mounting (wall mounting available with junction box and bracket)  |   |

| Specification /Model |                       |  <b>20m IR Waterproof Dome Network Camera</b> |
|----------------------|-----------------------|---|
| Camera               | Image Sensor          | 1/2.7 " CMOS  |
|                      | Image Size            | 1920×1080   |
|                      | Electronic Shutter    | 1/25s~1/100000s   |
|                      | Auto Iris             | Fixed Iris  |
|                      | Min. illumination     | 0.05lux@F1.2, AGC ON: 0 lux with IR   |
|                      | Lens                  | 3.6mm@F1.6, angle of view: 77°; (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~6Mbps   |
|                      | Resolution            | 1080P, 720P, D1, CIF, 480×240   |
|                      | Main Stream           | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)                                     |
|                      | Image Settings        | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser            |
| Interfaces           | ROI                   | Support   |
|                      | Network               | RJ45  |
| Function             | Audio                 | MIC IN×1  |
|                      | 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  |
|                      | Storage               | Network remote storage  |
|                      | Smart Alarm           | Motion alarm  |
| Others               | IR Distance           | 10~20 m   |
|                      | Protection Grade      | IP66  |
|                      | Power                 | DC12V ( PoE power supply optional )   |
|                      | Power Consumption     | < 3 W(ICR OFF); < 5W(ICR ON)  |
|                      | Operating Environment | Temperature: -20°C~50°C; Humidity: 10%~90%  |
|                      | Dimension (mm)        | Ø87mm×108mm   |
|                      | Weight ( net )        | 427g  |
|                      | Installation          | Pendant mounting (wall mounting available with junction box and bracket)  |

| Specification /Model |                       |  <b>30m IR Waterproof Dome Network Camera</b> |
|----------------------|-----------------------|---|
| Camera               | Image Sensor          | 1/2.7 " CMOS  |
|                      | Image Size            | 1920×1080   |
|                      | Electronic Shutter    | 1/25s~1/10000s  |
|                      | Auto Iris             | Fixed Iris  |
|                      | Min. illumination     | 0.05lux@F1.2, AGC ON: 0 lux with IR   |
|                      | Lens                  | 2.8~12mm@F1.4, angle of view: 89°~34°   |
|                      | 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~6Mbps   |
|                      | Resolution            | 1080P, 720P, D1, CIF, 480×240   |
|                      | Main Stream           | 60Hz: 1920×1080(1~30fps)/1280×720(1~30fps)<br>50Hz: 1920×1080(1~25fps)/ 1280×720(1~25fps)                                     |
|                      | Image Settings        | Saturation, Brightness, Chroma, Contrast, Wide Dynamic, Sharpen, NR, etc. adjustable through client or web browser            |
| Interfaces           | ROI                   | Support   |
|                      | Network               | RJ45  |
| Function             | Audio                 | MIC IN×1  |
|                      | 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  |
|                      | Storage               | Network remote storage  |
|                      | Smart Alarm           | Motion alarm  |
| Others               | IR Distance           | 20~30 m   |
|                      | Protection Grade      | IP66  |
|                      | Power                 | DC12V/PoE   |
|                      | Power Consumption     | < 3 W(ICR OFF); < 5.5W(ICR ON)  |
|                      | Operating Environment | Temperature: -20°C~50°C; Humidity: 10%~90%  |
|                      | Dimension (mm)        | Ø109mm×130mm  |
|                      | Weight ( net )        | 701g  |
| Installation         |                       | Pendant mounting (wall mounting available with junction box and bracket)  |