

# **Wireless/Wired IP Camera**

## **H.264**

(For Safari, Chrome, Firefox etc)

## **User Manual**

## **Statement**

Thank you for using our IP camera products. The IP camera designed for network video surveillance, adopted high performance and powerful single SOC chip media processor to integrate audio and video capture, compression and transmission. Standard H.264 Main Profile coding algorithm ensures clearer and smoother video transmission effect. Built-in Web Server allows users to easily perform real-time monitoring and remote control over front-end cameras via IE browser.

The IP cameras is suitable for small and medium-sized enterprises, families, and other environments that require remote network video transmission and monitoring. It is easy to be installed and operated.

Before installation, please check the product and all accessories. If anything is missing, please contact your supplier in time.

### **Package Contents:**

1	IP Camera	X1
2	Power Adapter (refer to camera model)	X1
3	CD	X1
4	User Manual	X1
5	WIFI Antenna	X1
6.	Bracket	X1
7.	Network Cable	X1

### **NOTE:**

Contents in this manual may be different from the edition that you are using. Should any unsolved problem occur given that the product is used according to this manual, please contact our technical support department or your product suppliers.

The content of this manual may be updated at irregular intervals without prior notice.

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# **1. INTRODUCTION**

## **1.1. General Description**

This is a minitype camera with elegant and beautiful shape, built-in Web server, open application interface and industrial grade stable performance, makes the industrial network transmission safety, quickly, simple operation, easy control. It integrates audio and image information, perform real-time monitoring synchronously through the network, to achieve real-time monitoring audio and image via a standard Web browser.

## **1.2. Characteristic**

### **Easy to Install**

Just inserting the network cable to the RJ45 interface of the camera, inputting the camera's IP address through Microsoft IE, Mozilla Firefox, Google Chrome or other standard browsers, then using it.

### **High Quality Image**

The camera adopt H.264 video compression, with clear picture, the maximum speed up to 30 frames/second via 10M/100M network real-time transfer.

### **Open Standard Environment**

Support TCP/IP network, support HTTP DNS DHCP PPPoE SMTP FTP SSL TFTP NTP ARP/RARP NFS RTSP RTP RTCP protocols and Dynamic IP(DDNS). Support up to 10 users online simultaneously.

### **Advanced Extended Function**

Connect home appliances and panalarm via GPIO interface to achieve I/O alarm input and output functions.

### **Simple Management Mode**

Using standard web browser, to configure and manage the camera, upgrade the software online directly.

### **Safety Performance Guarantee**

Multi-level users management and passwords definition, the administrator can set different access permission to different level visitors.

### **Extensive Range Application**

Real-time video is transferred by internet, which can't be compared by traditional video surveillance system. Users can view and remote control the real time image at anytime, anywhere via network. The camera can be widely used such as product demonstrations, real-time monitoring, real-time recording and taking. It can also be at the scheduled time or event occurs, send pictures to the specified E-Mail, FTP server timely.

### 1.3. Specification

<b>Image Sensor</b>	Image Sensor	1/4" Color CMOS Sensor
	Display Resolution	640 x 480 Pixels(300k Pixels)
	Lens	f: 6 mm, F:2.0 (IR Lens)
	Mini. Illumination	0.5Lux
	Viewing Angle	60 Degree
<b>Audio</b>	Input	Built-in Microphone/1 channel audio input
	Output	1 channel audio output
	Audio Compression	ADPCM
<b>Video</b>	Image Compression	H.264, MJPEG
	Image Frame Rate	30fps(VGA),30fps(QVGA)
	Resolution	640 x 480(VGA), 320 x 240(QVGA)
	Flip Mirror Images	Vertical / Horizontal
	Light Frequency	50Hz, 60Hz
	Video Parameters	Brightness, Saturation, Contrast, Hue
<b>Communication</b>	Ethernet Interface	Build in 10/100Mbps,Auto MDI/MDIX , RJ-45
	Supported Protocol	TCP/IP HTTP DNS DHCP PPPoE SMTP FTP SSL TFTP NTP ARP/RARP NFS RTSP RTP RTCP.
	Compress rate level	128Kbps~4Mbps
	Wireless Standard	IEEE 802.11b/g
	Data Rate	802.11b: 11Mbps (Max.), 802.11g: 54Mbps (Max.),
	Wireless Security	WEP & WPA WPA2 Encryption
<b>Physical</b>	Pan/Tilt Angle	Horizontal:270° & Vertical: 120°
	Infrared Light	10 IR LEDs, Night visibility up to 15 meters
	Alarm Input	1 Channel on/off Input
	Alarm Output	1 Channel relay Output
<b>Power</b>	Power Supply	DC 5V/2.0A (EU,US,AU adapter or other types optional)
	Power Consumption	7 Watts (Max.)
<b>Environment</b>	Operate Temper.	0° ~ 55°C (14°F ~ 131°F)
	Operating Humidity	20% ~ 85% non-condensing
	Storage Temper.	-10°C ~ 60° (14°F ~ 140°F)
	Storage Humidity	0% ~ 90% non-condensing
<b>PC System Requirements</b>	CPU	2.0GHZ or above (suggested 3.0GHz)
	Memory Size	256MB or above (suggested 1.0GHz)
	Display Card	64M or above
	Supported OS	Microsoft Windows 2000/XP/Vista/7
	Browser	IE6.0/7.0/8.0/Firefox/Safari/Google chrome or other standard browsers
<b>Certification</b>	CE, FCC, RoHS	

## 2. INSTALLATION AND SETTINGS

### System Requirement:

Operating System: Windows 2000 / XP / Vista / 7

Network Protocol: TCP/IP

Network Structure: Applies to all network connections 10/100M LAN platform

Browser: Internet Explore 6.0 or above.

### 2.1. Network Connection

#### Intranet and Extranet Connection Reference:

Extranet means public IP, Intranet means private IP. If your IP belongs to the follow range, then it's a private IP :

Category A: 10.0.0.0 - 10.255.255.255

Category B: 172.16.0.0 - 172.31.255.255

Category C: 192.168.0.0 - 192.168.255.255

**Intranet Connection:** IP camera and user's computer(device) should be under the same network environment, and both of their IP should be under the same subnet, then means correct connection, picture as below:

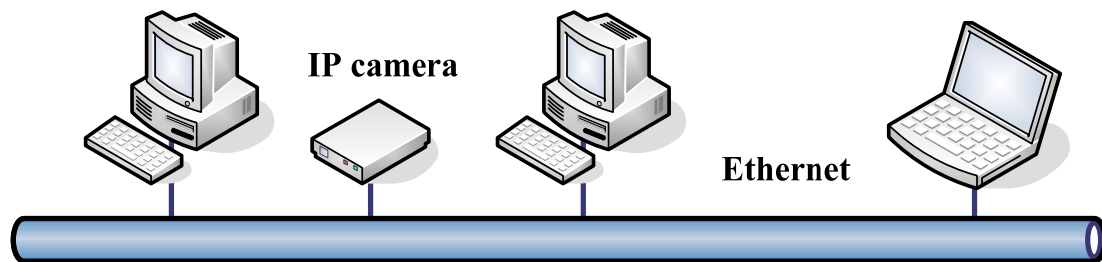


Figure1.0

**Extranet Connection:** there are 2 ways as below:

(1). IP camera connect to the Internet via router, here camera's IP is a private IP, clients need to connect to IP camera through a router, with forwarding rule to be connected correctly, as below:

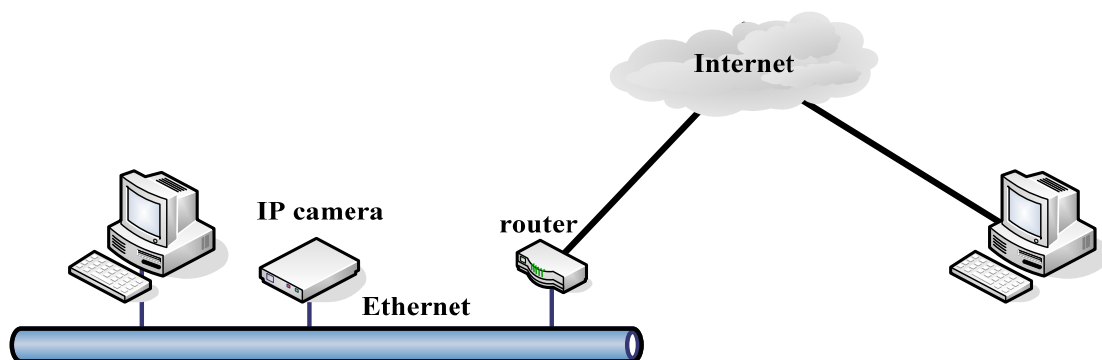


Figure1.1

(2). IP camera connect to the Internet directly, if it's a fixed IP which provided by ISP, just input it. If it's a floating IP, then input the account and password which provided by ISP to dial-up connection.

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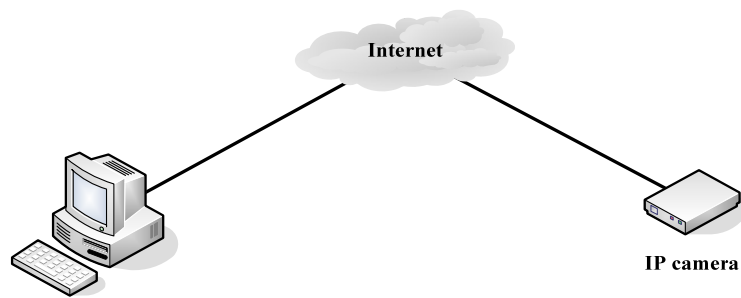


Figure1.2

### 2.2. UPnP Service

UPnP could help you to find your camera's IP more faster. For Window XP, from **"Control Panel" > "Add or remove applications" > "Add or remove Windows component" > "Network service" > "Detailed data" > "UPnP users interface"**, enable it, factory settings is disable. Then it can allow your operating system to support UPnP.

### 2.3. Login the Camera

The default IP address for each camera is 192.168.1.155. Users can run the browser, input the IP address directly to login the camera.

**NOTE:** If the IP segment of the computer is different with the camera, such as 192.168.0.xx, please change the IP segment of the computer's to the same as camera's firstly, such as 192.168.1.xx, then connect the IP Camera to the computer via network cable directly, run the browser, input the IP address and login, will pop-up the interface:

The screenshot shows a web browser window with a blue header and a light blue body. The header has the word "Login" on the left and "Language English" with a dropdown arrow on the right. The main area contains a small cartoon character icon on the left. To the right of the icon are three input fields: "User", "Password", and "Mode" (which is a dropdown menu currently showing "QuickTime"). Below these fields is a "Login" button and a checkbox labeled "Mobile Phone". At the bottom of the window, there is a blue box with white text that reads: "Prompt: 1. Case sensitive. 2. Mobile Phone (For Browser that supports Javascript). 3. Please download and complete the installation of Plug-in if your first sign in or sign in does not properly display video."

Figure1.7

### 3. SOFTWARE OPERATION (FOR CHROME FIREFOX SAFARI)

Choose the suitable language, input correct user name and password, then click “Login”

the factory default settings as below:

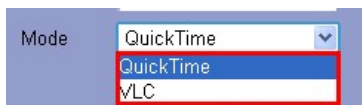
**IP Address:**192.168.1.155

**User name:** admin

**Password:** admin

The screenshot shows a login page with a blue header. On the right, a 'Language' dropdown menu is set to 'English', with a red box and arrow labeled '1'. In the center, the 'User' field contains 'admin' (red box, arrow '2'), the 'Password' field contains six dots (red box, arrow '2'), and the 'Mode' dropdown is set to 'QuickTime' (red box, arrow '3'). A red box and arrow labeled '4' points to the 'Login' button. To the right of the button is a 'Mobile Phone' checkbox. Below the login fields, a 'Prompt' section lists three instructions: 1. Case sensitive., 2. Mobile Phone (For Browser that supports Javascript)., and 3. Please download and complete the installation of Plug-in if your first sign in or sign in does not properly display video.

Figure1.8



: Choose the login mode.

**QuickTime:** Choose QuickTime, login the camera directly. If there is a prompt for installing the QuickTime player, just download and install it..

**VLC:** If use VLC, should download the VLC player firstly.

During the VLC installation, please must enable Mozilla plugin as the picture shows below:

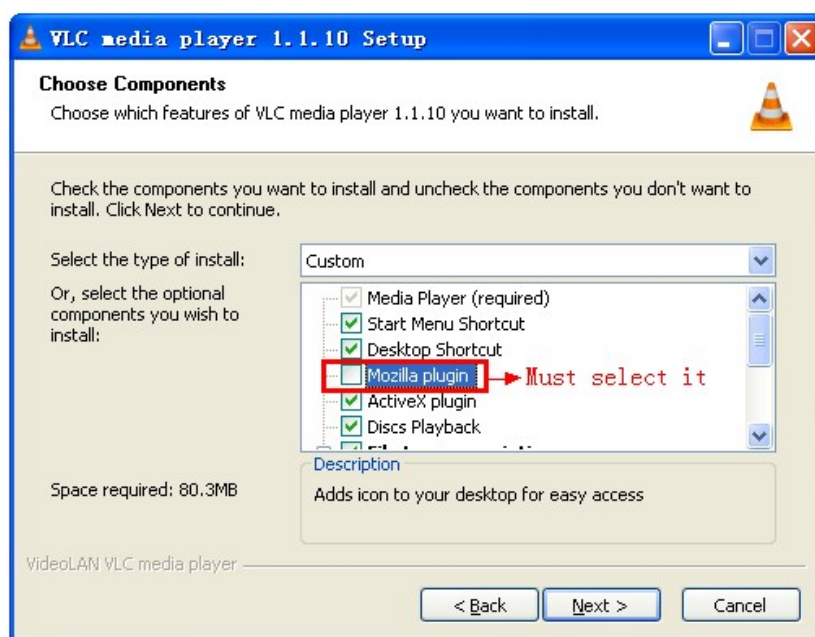



Figure1.9



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Language English : Choose languages here

☐ Mobile Phone: For mobile phone login

: Click to login the IE interface as below:

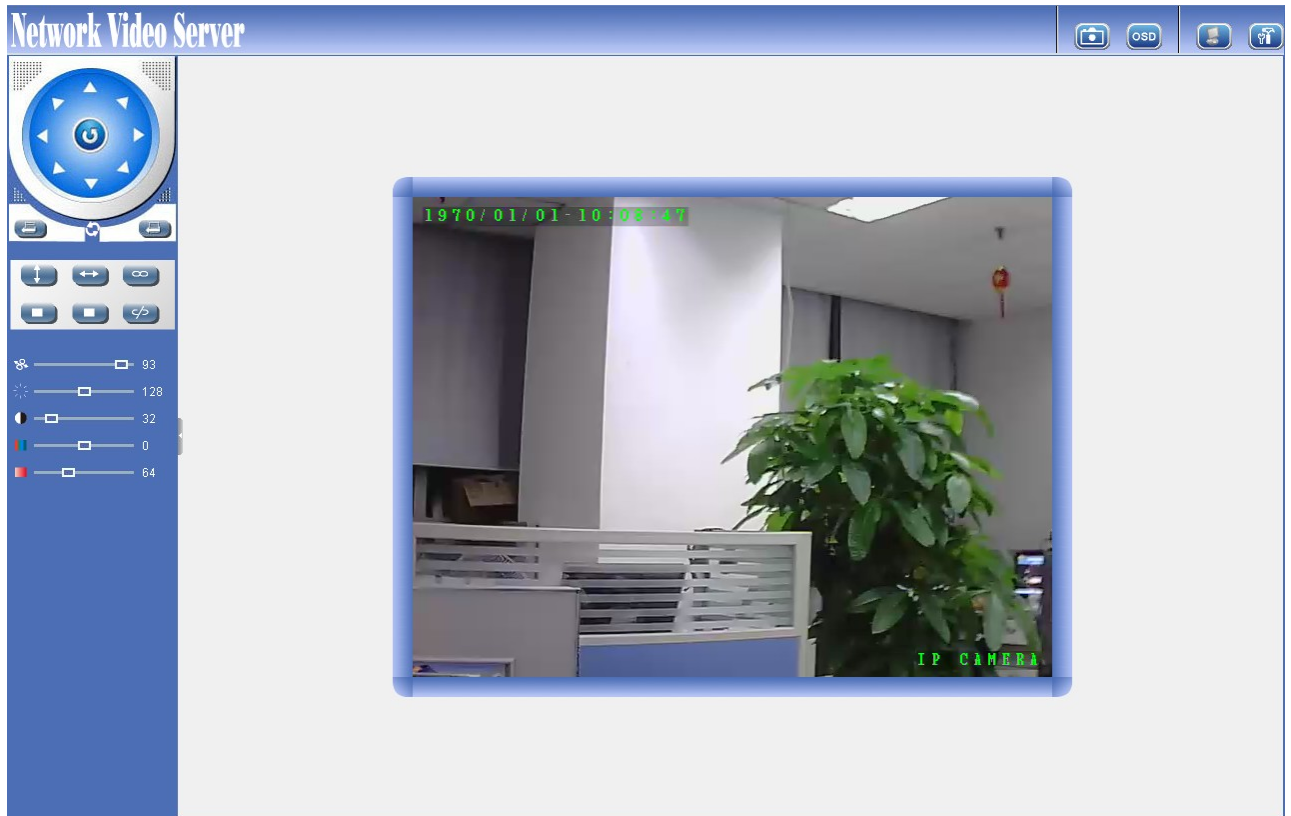


Figure1.9

### 3.1. Two main functions:



Figure2.0



**Live video:** Click it, back to live video window from “**Playback**” or “**Params settings**”



**Params Settings:** Setting the camera's parameters(**Details see 4 Params settings**)

### 3.2. For Live Video

#### 3.2.1 TOP Menu For QuickTime Mode:



Figure2.1

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**Capture:** Click to take snapshot, the picture be saved in the PC to it's appointed path as JPG format, will pop-up the snapshot, right click the picture to save it.



**OSD Settings:** Click it will pop-up the OSD settings interface, including OSD Color, Frequency, Image Mirror and Flip.

OSD	Green
Mirror	<input type="checkbox"/>
Flip	<input type="checkbox"/>
Frequency	50HZ

Figure2.4

**OSD:** Means “On-Screen Display”

**OSD Color:** Including Disabled, Black, Red, Green, Blue, Purple, Gray, Silver, Yellow, Olive, Turquoise, White, Light Blue etc.

OSD	Green
Mirror	<input type="checkbox"/>
Flip	<input type="checkbox"/>
Frequency	50HZ

Figure2.5

**Frequency:** Including 50HZ, 60HZ, Outdoor.

50HZ/60HZ for the users who use 50HZ/60HZ frequency, outdoor for the users who want to use this camera to monitor the outdoor environment

**NOTE:** This camera normally should be used in a indoor environment

Frequency	50HZ
-----------	------

Figure2.6

Mirror and Flip

**Mirror:** Select this icon to see the mirror image. Erase it, will back to normal.

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**Flip:** Select this icon to see the reversal image. Erase it, will back to normal.



Figure2.7

**NOTE:** You can choose Mirror and Flip function when you set up the camera in a special position.

### 3.2.2 Top Menu For VLC Mode:



Figure2.7



**Adaptive size of the display.** Click it, will get adaptive size



**The true size of the display.** Click it, will back to the true size.



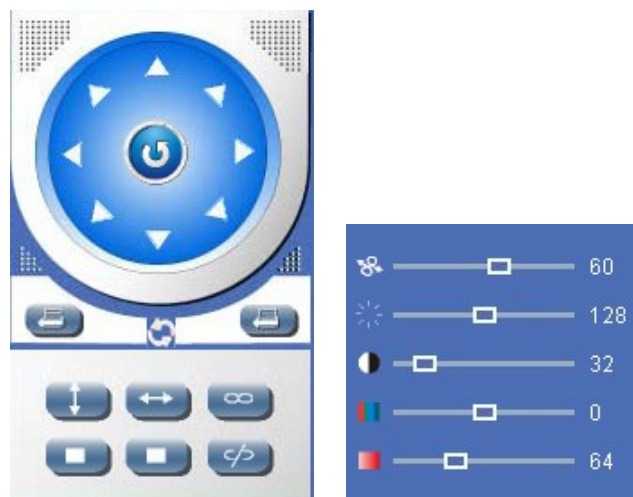
**Capture:** Click to take snapshot, the picture be saved in the PC to it's appointed path as JPG format, will pop-up the snapshot, right click the picture to save it.



**OSD Settings:** Click it will pop-up the OSD settings interface, including OSD Color, Frequency, Image Mirror and Flip.

### 3.2.3 Left Side Menu:

There are some basic operation icons listed on the left side menu as below:



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Figure2.8

**PT Control:** Set Pan/Tilt as upward, downward, leftward, rightward, upleft, downleft, upright , downright etc directions. (Preset preservation)



**Center:** Click this icon, the camera will pan/tilt, then stop at the center. Normally it will rotate 1 circle



**Up:** Click this icon, camera will move up, you can click one by one or hold it to control the movement




**Down:** Click this icon, camera will move down, click it step by step or hold on to control the movement

**NOTE:** It is the same operation as left, right, up-left, up-right, down-left, down-right etc.




Figure2.9



**Set Preset:** It supports 9 preset positions. Firstly, control the camera rotate to the special position you need to set, click **Set Preset** button , it will pop-up a dialog frame(Figure 2.9), choose the any number (1-9) you want to set it be, then it done.



**Call Preset:** It supports 9 preset positions. If operator wants to monitor an important area quickly and precisely, just click **Call Preset Position** button , it will pop-up a dialog frame(Figure 2.9), choose the number, then camera will rotate to the preset area automatically.


If you want to use **Call Preset**, you have to **Set Preset** firstly.

**NOTE:** Set different positions with a same number, camera will record the last position setting only




**Cruise:** Preset cruise, camera can cruise according to the different presets set by users. (Set preset cruise see details 4.9).



: Click this icon, camera will rotate up and down, means vertical patrol, click  to stop it



: Click this icon, camera will rotate left and right, means horizontal patrol, click  to stop it








: Click this icon, IO output Switch ON. Click  to set it OFF.

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Figure3.1

- : **PTZ speed:** set value from 1 to 100, click the icon, it will back to factory settings.
- : **Brightness:** set value from 0 to 255, click the icon, it will back to factory settings.
- : **Contrast:** set value from 0 to 255, click the icon, it will back to factory settings.
- : **Hue:** set value from -128 to 127, click the icon, it will back to factory settings.
- : **Saturation:** set value from 0 to 200, click the icon, it will back to factory settings.

## 4. PARAMS SETTINGS

### 4.1. Device Info.


Click “Params Settings” icon , select “Device info”, it will show the basic information such as “Device ID”, “Device Client”, “Device Host”, “Description”, “IP Address”, “UPNP Status”, “DDNS Status” etc. Default device name is “IP Camera”, users can change the camera’s description here, picture as below:



Figure3.3

### 4.2. Video Info.

Click “Video Info” to enter the interface as below:

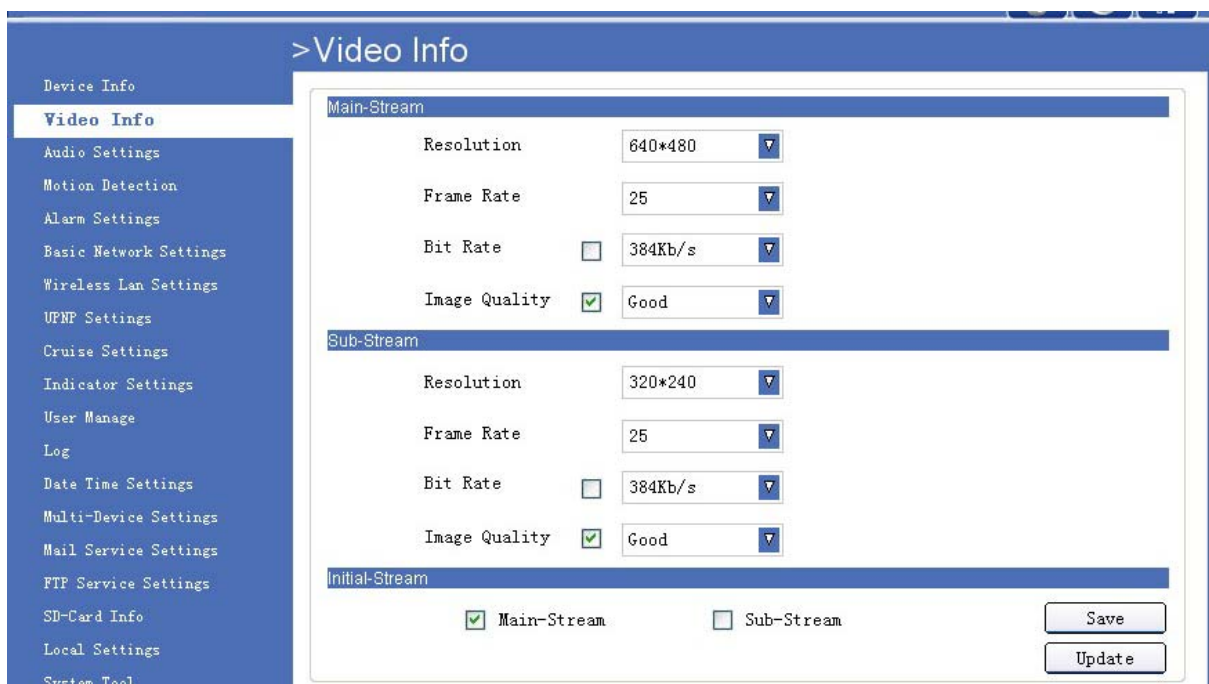


Figure3.4

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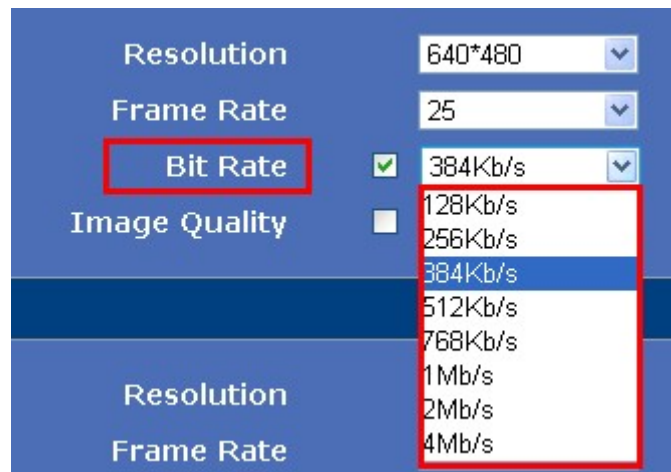
There are two options for stream, **Main-Stream** and **Sub-Stream**, users can set the stream based on the actual operation environment, for example, if the bandwidth is good enough, set Main-Stream as Initial-Stream, or choose Sub-Stream will be better.

Set the parameters of **Main-Stream** and **Sub-Stream** as below:

**Resolution:** 640x480, 320x240 optional.

**Frame Rate:** Set the frame rate according to the bandwidth. Frame rate could be “Auto” or “from 1fps to 30fps(Real time)”. If the network situation is not ideal, can reduce the frame rate to control the coding rate, make the moving pictures more smoothly

**Bit Rate:** Higher bit rate means better quality images, but take more bandwidth, so please adjust the settings according to the actual bandwidth. The range of bit rate from 128Kbps~4Mbps.



The screenshot shows a configuration window with a blue background. It has two main sections. The top section is for 'Main-Stream' and the bottom for 'Sub-Stream'. In the top section, 'Resolution' is set to 640\*480, 'Frame Rate' is 25, and 'Bit Rate' is selected with a checkmark and set to 384Kb/s. A dropdown menu for 'Bit Rate' is open, showing options: 128Kb/s, 256Kb/s, 384Kb/s (highlighted), 512Kb/s, 768Kb/s, 1Mb/s, 2Mb/s, and 4Mb/s. The 'Image Quality' option is unchecked. The bottom section shows 'Resolution' and 'Frame Rate' but they are not visible in the current view.

Figure3.5

**Image Quality:** Better image quality, higher bit rate value, and it will take more bandwidth, the image quality parameters could be set as below:



The screenshot shows the same configuration window as Figure 3.5. In this view, 'Image Quality' is selected with a checkmark and set to 'Medium'. A dropdown menu for 'Image Quality' is open, showing options: Worse, Soso, Not bad, Medium (highlighted), Standard, Good, Well, and Pretty good. The 'Bit Rate' option is unchecked.

Figure3.6

**NOTE:** When the device runs, only can select Bit Rate or Image Quality either.



### 4.3. Audio Settings

Click “Audio Settings” to enter the interface:

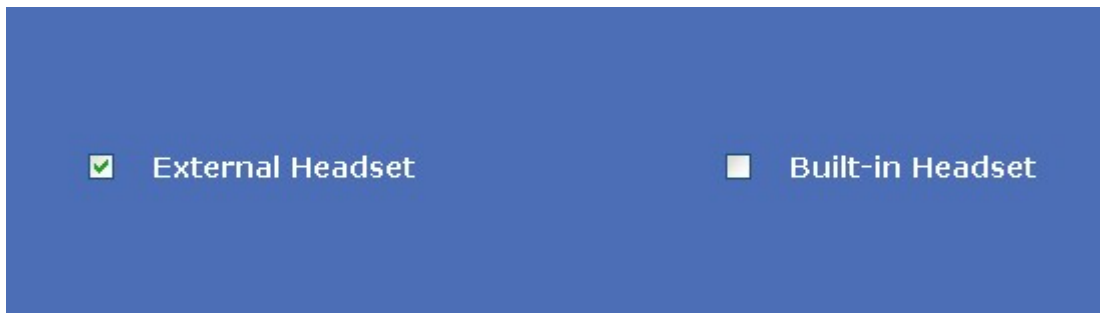


Figure3.7

**Built-in headset:** Choose built-in MIC as the audio input device.

**External headset:** Choose external headset as the audio input device.

### 4.4. Motion Detection

Click “Motion Detection” to enter the interface:

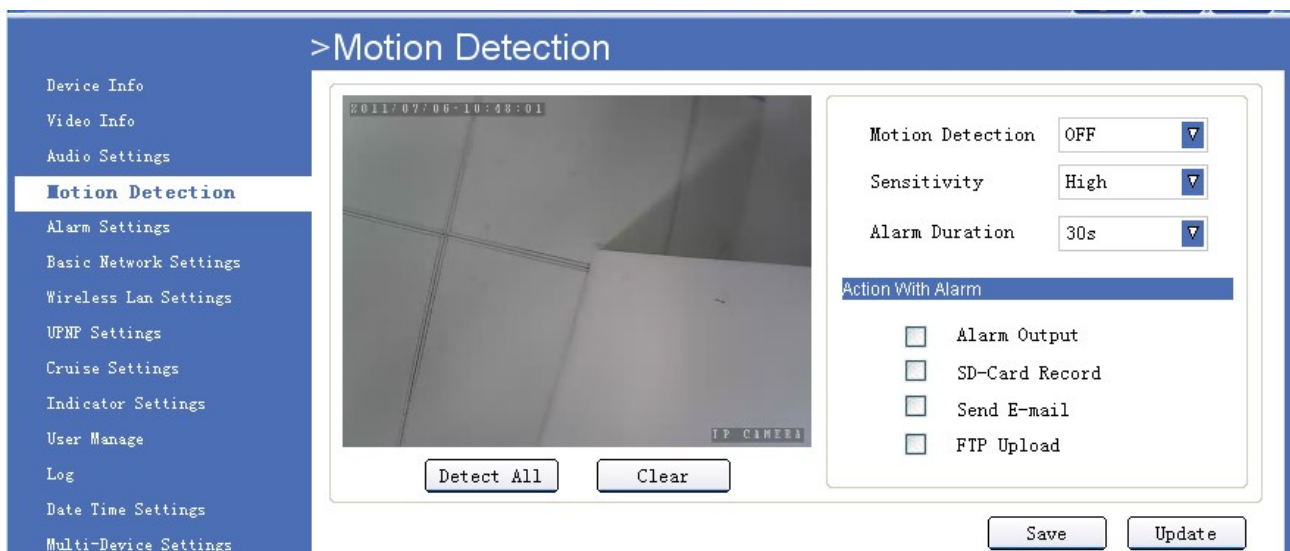


Figure3.8

- **Motion Detection:** Set motion detection armed function ON/OFF.



Figure3.9

- **Sensitivity:** Set detection sensitivity as Low, Middle, High, Higher, Highest.



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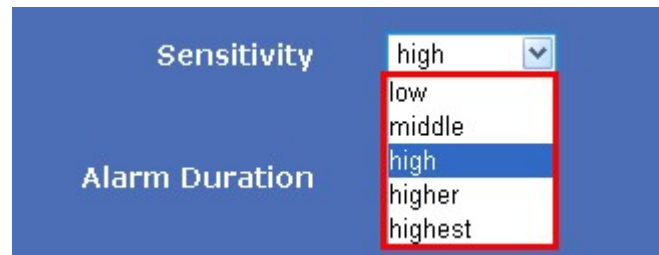


Figure4.0

- **Alarm Duration:** Set each alarm duration, can be Forever, 5s, 10s, 15s, 30s, 60s.

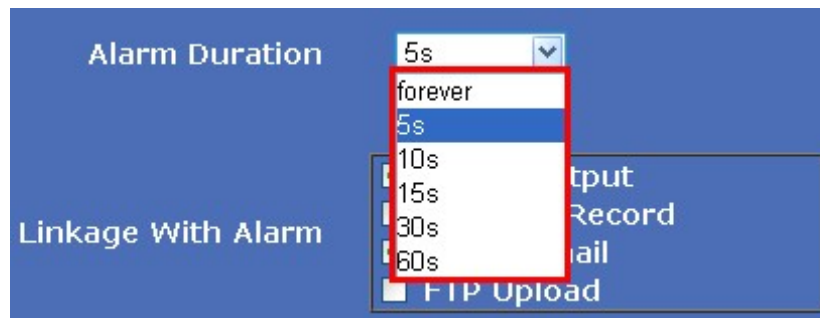


Figure4.1

### Linkage with Alarm

These are actions optional for motion detection.



Figure4.2

- **Alarm output:** Select it to enable alarm output, unselect to stop.
- **SD-Card Record:** Select it to enable record in SD card, unselect to stop.
- **Send E-mail:** Select it to enable E-mail alert function, unselect to stop. (Mail service details see 4.15)
- **FTP Upload:** Select it to enable FTP upload function, unselect to stop. (FTP details see 4.16)

Click **Save** to save all the settings.

Click **Update** to refresh the settings.

## 4.5. Alarm Settings

Click "**Alarm Settings**" to enter the interface:

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The screenshot shows a configuration interface with a blue background. It includes the following settings:

- External Alarm:** A dropdown menu set to "on".
- Alarm Duration:** A dropdown menu set to "10s".
- Lose SD-Card Alarm:** A dropdown menu set to "on".
- Alarm Input1:** A section containing a checked checkbox for "Enable Mode" and a dropdown menu set to "N.O".
- Linkage With Alarm:** A section containing four checkboxes: "Alarm Output" (checked), "SD-Card Record" (checked), "Send E-mail" (checked), and "FTP Upload" (unchecked).

Figure4.3

- **External Alarm:** Set external alarm function ON/OFF.

This close-up shows the "External Alarm" label and its dropdown menu. The menu is open, displaying "on" (selected) and "off" options. Both the label and the menu are highlighted with red rectangles.

Figure4.4

- **Alarm Duration:** Set external alarm output duration(Relay close time), can be Forever, 5s, 10s, 15s, 30s, 60s, it refers to the I/O pin1 and pin2.

This close-up shows the "Alarm Duration" label and its dropdown menu. The menu is open, displaying options: "forever", "5s", "10s" (selected), "15s", "30s", and "60s". Both the label and the menu are highlighted with red rectangles.

Figure4.5

- **Lose SD-Card Alarm:** Set alarm triggered ON/OFF if the SD-Card is lost.

This close-up shows the "Lose SD-Card Alarm" label and its dropdown menu. The menu is open, displaying "on" (selected) and "off" options. Both the label and the menu are highlighted with red rectangles.

Figure4.6

- **Alarm Input:** Set alarm input ON/OFF, it supports NO/NC external alarm device, choose the correct mode to make sure it works well, it refers to the I/O pin3 and pin4.

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Figure4.7

### • Action with Alarm

These are actions optional for external alarm triggered..




Figure4.8

**Alarm output:** Select it to enable alarm output, unselect to stop.

**SD-Card Record:** Select it to enable record in SD card, unselect to stop.

**Send E-mail:** Select it to enable E-mail alert function, unselect to stop. (Mail service details see 4.15)

**FTP Upload:** Select it to enable FTP upload function, unselect to stop. (FTP details see 4.16)

Click **Save** to save all the settings.

Click **Update** to refresh the settings.

## 4.6. Basic Network Settings

Click "**Basic Network Settings**" to enter the interface:

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Network Type	Static Adc ▼
Media Port	38401
Web Port	80
Phone Port	2012
RTSP Port	554
IP Address	192.168.1.222
Subnet Mask	255.255.255.0
Gateway	192.168.1.1
DNS Server	192.168.1.1
MAC Address	00:11:22:33:44:5

Figure4.9

**Network Type:** There are three modes: **Static Address**, **Dynamic Address**, **PPPoE**.

Network Type	Static Adc ▼
Media Port	Static Address
Web Port	Dynamic Address
	PPPoE

Figure5.0

### 4.6.1 Static Address

Set network parameters manually

Network Type	Static Adc ▼
Media Port	38401
Web Port	80
Phone Port	2012
RTSP Port	554
IP Address	192.168.1.222
Subnet Mask	255.255.255.0
Gateway	192.168.1.1

Figure5.1

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Phone Port:** Default is 2012.
- **RTSP Port:** Default is 554.

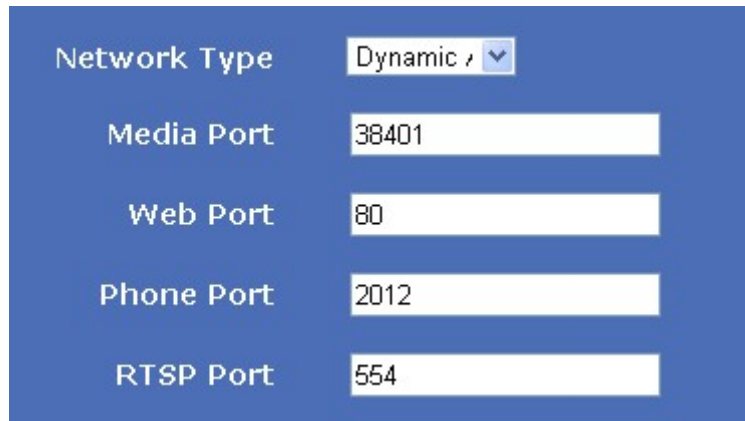
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- **IP Address:** Set the IP address of camera.
- **Subnet Mark:** Default is 255.255.255.0.
- **Gateway:** Set the gateway of IP camera. If the camera connect to extranet via router, then the gateway is the router's IP.

**NOTE:** Please don't change the **Media Port**, **Web Port**, **Phone Port**, **RTSP Port** if no necessary.

### 4.6.2 Dynamic Address

Choose Dynamic Address, the camera will get IP address automatically.



The screenshot shows a configuration window with a blue background. At the top, 'Network Type' is set to 'Dynamic' in a dropdown menu. Below this, there are four rows of port configuration: 'Media Port' with value 38401, 'Web Port' with value 80, 'Phone Port' with value 2012, and 'RTSP Port' with value 554. Each port value is entered in a white text box.

Network Type	Dynamic
Media Port	38401
Web Port	80
Phone Port	2012
RTSP Port	554

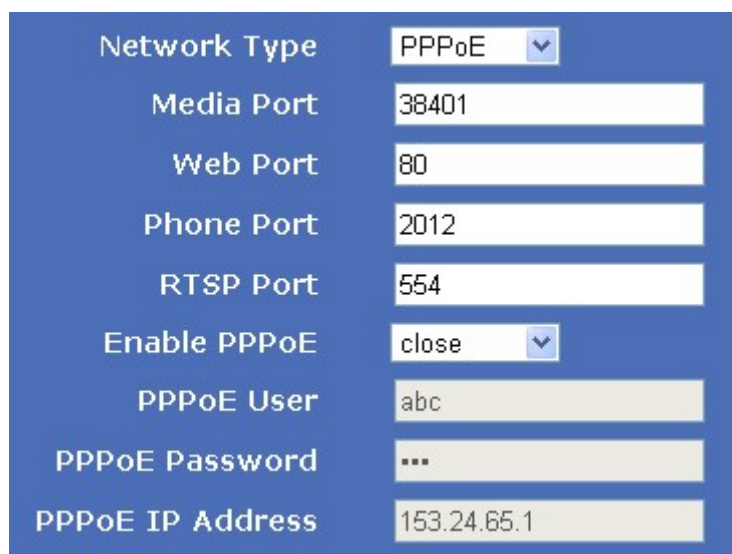
Figure5.2

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Phone Port:** Default is 2012.
- **RTSP Port:** Default is 554.

**NOTE:** Please don't change the Media Port, Web Port, phone Port, RTSP Port if no necessary.

### 4.6.3 PPPoE

Set parameters here to enable PPPoE function.



The screenshot shows a configuration window with a blue background. 'Network Type' is set to 'PPPoE' in a dropdown menu. Below this, there are several rows of configuration: 'Media Port' (38401), 'Web Port' (80), 'Phone Port' (2012), and 'RTSP Port' (554) in white text boxes. Then, 'Enable PPPoE' is set to 'close' in a dropdown menu. Below that are three rows with grey text boxes: 'PPPoE User' (abc), 'PPPoE Password' (\*\*\*), and 'PPPoE IP Address' (153.24.65.1).

Network Type	PPPoE
Media Port	38401
Web Port	80
Phone Port	2012
RTSP Port	554
Enable PPPoE	close
PPPoE User	abc
PPPoE Password	***
PPPoE IP Address	153.24.65.1

Figure5.3

- **Media Port:** Default is 38401.

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- **Web Port:** Default is 80.
  - **Phone Port:** Default is 2012.
  - **RTSP Port:** Default is 554.
  - **Enable PPPoE:** Choose Open to enable PPPoE function.
  - **PPPoE User:** The account provided by ISP
  - **PPPoE Password:** The password provided by ISP.
  - **PPPoE IP Address.** If PPPoE dial-up succeed, will display the IP address distributed by ISP.
- NOTE:** Please don't change the **Media Port**, **Web Port**, **Phone Port**, **RTSP Port** if no necessary.

DNS Server	192.168.1.1
MAC Address	00:11:22:33:44:5

Figure5.4

- **DNS Server:** Set DNS server
- **MAC Address:** MAC address of IP Camera.

If you don't know **Subnet Mask**, **Gateway**, **DNS Server**. Please check the Local Area Connection Status of your computer; it contains all these information, steps as below:

1. **Control Panel > Network Connections > Local Area Connections > Support > Details**
2. Find the local connection icon  from taskbar, left click it, choose **Support > Details**

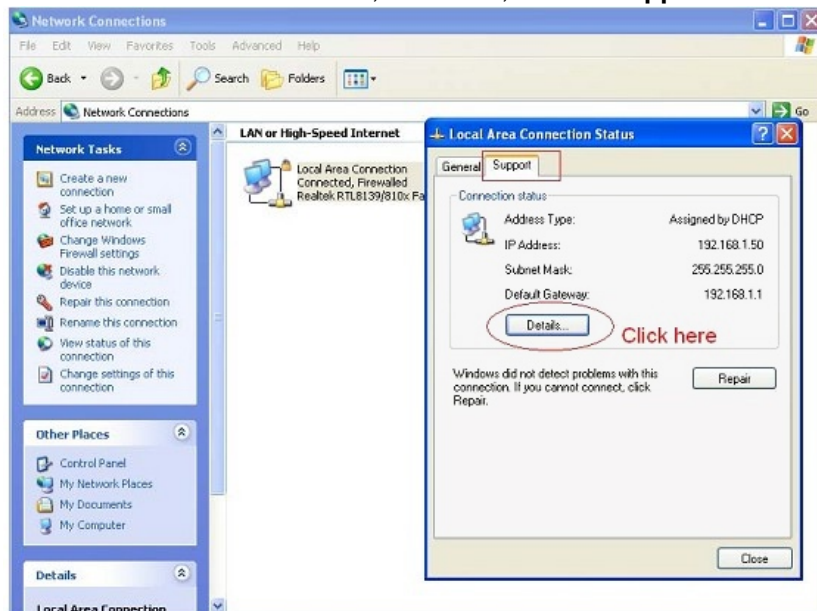


Figure5.5

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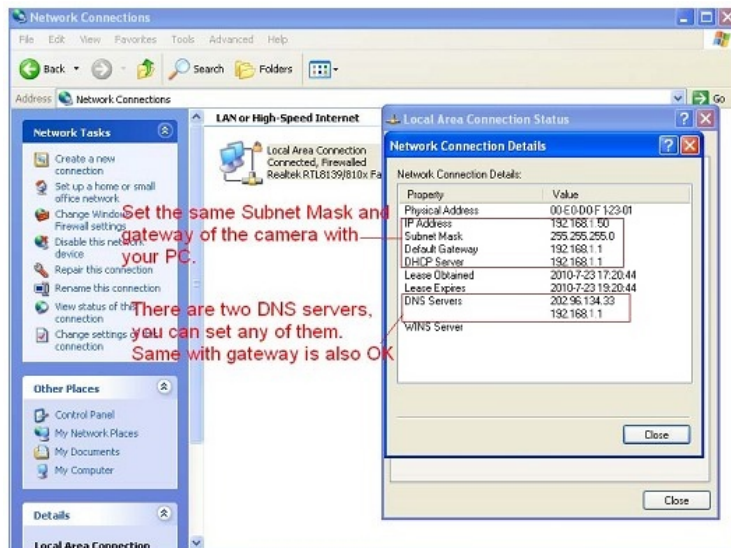


Figure5.6

If you don't know the DNS Server, you can set it the same as Gateway.

### 4.6.4 DDNS: Enable DDNS function.

The screenshot shows a web-based configuration interface for DDNS. It has a blue background and contains the following fields:

- Enable DDNS**: A dropdown menu currently set to 'close'.
- DDNS Service Type**: A dropdown menu currently set to 'aipcam'.
- DDNS User**: A text input field containing 'abc'.
- DDNS Password**: A text input field containing '123'.
- DDNS Hostname**: A text input field containing 'abc.aipcam.com'.

Figure5.7

There are 2 options:

**Factory DDNS:** This domain is provided by manufacturer.

**Third Party DDNS:** This domain is provided by the 3rd party, such as Dyndns, 3322 etc.

- **Enable DDNS:** Set DDNS function ON/OFF.
- **DDNS Server Type:** Set DDNS server type, such as factory DDNS or third party DDNS server provider.
- **DDNS User:** Registered user name from DDNS server. (If use factory DDNS, it can't be modified.)
- **DDNS Password:** Registered password from DDNS server. (If use factory DDNS, it can't be modified.)
- **DDNS Host Name:** Domain name set by user. (If use factory DDNS, it can't be modified.)

For the third party DDNS, you have to register an account firstly, keep the user, password, host, then input it.

**NOTE:** Only one DDNS can be chosen, for example, if you use manufacturer's DDNS, the 3rd one won't work, if use the 3rd DDNS, the manufacturer's one won't work.



## 4.7. Wireless Lan Settings

Click "Wireless Lan Settings" to enter the interface:

TRENDnet [infra null open-system]  
ace [infra tkip wpa-psk]  
TENDA [infra wep open-system]  
sz-atc [infra aes wpa2-psk]

Search

Using Wireless Lan ☒

SSID: ace

Network Type: Infra

Safe Mode: TKIP

Encryption: WPA-PSK

Key:

Figure5.8

Click the icon "**Search**" to scan the wireless network in this environment automatically.

**Using Wireless Lan:** Set WiFi ON/OFF.

**SSID:** the ID of Wireless network, it should be the same SSID as the connected WiFi router.

**Network Type:** Two modes:

1. **Infra** (Infrastructure Mode) , if using normal AP, choose Infra mode..
2. **Ad-Hoc** Mode. If using point-to-point transmission, choose Adhoc mode.

The factory setting is Infra.

- **Encryption:** WEP, TKIP, AES optional.
- **Authentication:** **WEP:** Open System or Share Key.      **TKIP (AES):** WPA-PSK or WPA2-PSK.
- **Select Key:** Choose the channel of WEP share Key.
- **Key:** Input the key the same as the settings in your router.

All the WiFi encryption mode should be the same as WiFi router which connected, and different encryption has different authentication menu.

## 4.8. UPNP Settings

Click "**UPNP Settings**" to enter the interface:

Enable UPNP ☒

Figure5.9

**Enable UPNP:** Set UPNP function ON/OFF.

Select it to enable UPNP, then the camera will do port forwarding automatically.

It's helpful for using DDNS, if your router support UPNP, then you no need do port forwarding in router.

**NOTE:** Here UPNP only for port forwarding now. It has much relation with security settings of your router, make sure the UPnP function of router is ON.



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**ATTENTION:** If your router doesn't support UPNP function, it may show error information. So we recommend you do port forwarding manually in your router.

### 4.9. Cruise Settings

Click “Cruise Settings” to enter the interface:

The screenshot shows the 'Cruise Settings' interface. On the left is the 'Cruise List' with a scrollable list of 'null [invalid]' entries. On the right is the 'Cruise Information' section. It has a 'Name' field, a 'Status' checkbox, and a table with columns: 'Serial Number', 'Preset', 'Residence time', and 'Speed'. The table contains 9 rows, each with a checkbox, a preset value of '1 [valid]', a residence time of '0', and a speed of '0'.

Figure6.0

Cruise means autocycle rotation between the different positions, these positions have been set as preset with residence time and Pan/Tilt speed in advance. This device supports upto 10 cruise track, each cruise can support upto 9 preset, steps as below:

This screenshot shows the 'Cruise Settings' interface with annotations indicating the steps to configure a cruise. Red boxes and arrows highlight the following elements:

- Step 1:** The 'Name' field is set to '123'.
- Step 2:** The 'Status' checkbox is checked.
- Step 3:** The first row in the table is selected, and the 'Serial Number' column is highlighted.
- Step 4:** The 'Preset' dropdown for the first row is set to '1'.
- Step 5:** The 'Residence time' dropdown for the first row is set to '2'.
- Step 6:** The 'Speed' dropdown for the first row is set to '3'.
- Step 7:** The 'Save' button is highlighted.

At the bottom of the interface, there are three buttons: 'Update', 'Save', and 'Reset'.

Figure6.1

1. Set the cruise name.

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2. Enable the status
3. Choose the SN you want to set,
4. Choose the preset which will be set. This camera supports 9 preset.
5. Set the residence time, could be 0 to 10 seconds.
6. Set the rotation speed, could be 0 to 10, and 0 means the fastest, 10 means the most slowly.
7. Click **Save** to submit the settings.

After all done, click save to submit, it will be shown as valid in the cruise list on leftside. If unselect the state, it will be shown as invalid.

### 4.10. Indicator Settings

Click "Indicator Settings" to enter the interface:



Figure6.3

Set the pilot lamp mode, the following three options:

- (1) **Blink when network connected; Off when no connection:** Twinkle while connect to the internet and turn off when departed.
- (2) **Blink when network connected; Slow blink when no connection:** Twinkle while connect to the internet and more slower when departed.
- (3) **Always off:** Keep OFF.

### 4.11. User Manage

Click "**User Manage**" to enter the interface:

Serial Number	User	Password	Rights
1	admin	*****	Super Admin
2	v12	***	Administrator
3	abc	***	Operator
4	v	*	Visitor
5			Administrator
6			Administrator
7			Administrator
8			Administrator
9			Administrator
10			Administrator

Figure6.4

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Every camera supports 16 users, and every user can be divided into three grades including **Super Admin.**, **Administrator**, **Operator**, **Visitor**.

**Super Administrator:** Every device has a super administrator, it has the highest permission, can set all the parameters.

**Administrator:** Lower permission than super administrator, it can set most of the parameters except adding or editing other administrator accounts.

**Operator:** Lower permission than administrator, can do some operation such as pan/tilt control and set some parameters.

**Visitor:** The lowest permission, only can view live video, can't control the pan/tilt, parameter settings etc.

### 4.12. Log

Click “**Log**” to enter the interface:

User	IP Address	Time	Type
admin	192.168.1.85	1970/01/01 08:31:44	Login Out
admin	192.168.1.85	1970/01/01 08:28:12	Set Config
admin	192.168.1.85	1970/01/01 08:17:32	Login In
admin	192.168.1.220	1970/01/01 08:06:08	Login In
admin	192.168.1.220	1970/01/01 08:05:34	Login Out
admin	192.168.1.220	1970/01/01 08:02:28	Login In
admin	192.168.1.220	1970/01/01 08:02:23	Login Out
admin	192.168.1.85	1970/01/01 08:01:03	Login In
admin	192.168.1.27	1970/01/01 08:00:52	Login In
admin	192.168.1.220	1970/01/01 08:00:36	Login In
admin	183.37.229.203	2011/07/13 19:03:08	Set Config
admin	183.37.229.203	2011/07/13 19:02:33	Login In
admin	183.37.229.203	2011/07/13 19:02:22	Login Out
admin	183.37.229.203	2011/07/13 19:01:17	Set Config
admin	183.37.229.203	2011/07/13 19:01:04	Login In
admin	192.168.1.220	2011/07/13 19:00:53	Login Out
admin	192.168.1.220	2011/07/13 19:00:43	Login In
admin	192.168.1.220	2011/07/13 18:59:26	Login Out
root	192.168.1.222	2011/07/13 18:59:26	Power Off
admin	192.168.1.220	2011/07/13 18:57:53	Login In

1/10

Figure6.6

Record user information, including account, date, time, visitor IP address etc.

### 4.13. Date Time Settings

Click “**Date Time Settings**” to enter the interface:

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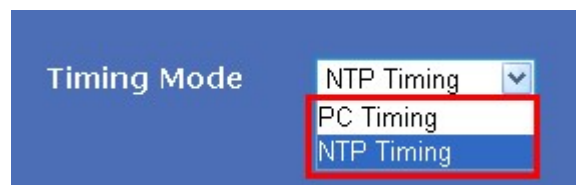
The screenshot shows a blue-themed settings window. At the top, it displays 'Datetime' as '1970-01-01 9:16:09'. Below this are three settings, each with a label and a dropdown menu: 'Time Zone Settings' set to 'GMT+8', 'Timing Mode' set to 'NTP Timing', and 'NTP Server' set to 'clock1.redhat.'.

Figure6.7

**Date Time:** Display the current date and time

**Time Zone:** Set the current time zone

**Time Mode:** Can choose PC Time or NTP Time.



This is a close-up of the 'Timing Mode' dropdown menu. The menu is open, showing three options: 'NTP Timing' (the currently selected option), 'PC Timing', and 'NTP Timing'. A red rectangle highlights the entire dropdown menu area.

Figure6.8

**NTP Server:** Choose the relevant NTP sever when set time mode as NTP Time.

### 4.14. Mail Service Settings

Click "**Mail Service Settings**" to enter the interface:

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Enable E-mail ☐

Addresser bulova

Outbox bulova@yeah.net

Inbox1 support4@abc.com.cn

Inbox2 support5@abc.com.cn

Inbox3 support6@abc.com.cn

SMTP Server smtp.yeah.net ☐ SSL Login

SMTP Port 25

Auth User ☒

SMTP User bulova

SMTP Password \*\*\*\*\*

Please save at first,and then test

Update Save Test

Figure7.1

**Enable E-mail:** Set e-mail function ON/OFF.

**Addresser:** Set sender's name.

**Outbox:** Set sender's email address.

**Inbox:** Set receiver's email box. (support the most 3 emails simultaneously)

**SMTP Server:** The sender's SMTP server.

**SMTP Port:** The sender's SMTP Port, usually is 25, some SMTP server have its own port, such as the smtp port for Gmail is 465.

**Auth User:** Verify the user settings

**SMTP User:** Set sender's user name.

**SMTP password:** Set sender's password.

## 4.16. FTP Service Settings

Set FTP service, Snapshots will be delivered to appointed FTP server when alarmed.

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Click “**FTP Service Settings**” to enter the interface:

Enable FTP ☐

FTP Server 192.168.1.153

FTP Port 21

FTP User selin

FTP Password \*\*\*\*\*

Upload Folder /var/ftp/test

FTP Mode PORT

Please save at first, and then test

Update Save Test

Figure7.2

**Enable FTP:** Set FTP function ON/OFF.

**FTP Server:** Set FTP server address.

**FTP Port:** Set the port of FTP server, default is 21.

**FTP User:** Set the user name of FTP server.

**FTP Password:** Set the password of FTP server.

**Upload Folder:** Set the path of remote FTP server. Make sure that the folder you plan to store images exists. For camera couldn't create the folder itself. Also, the folder must be erasable.

**FTP Mode:** It supports standard (POST) mode and passive (PASV) mode.

Click save to submit, click test to check the settings.

**NOTE:** Only alarmed, there will be 3 snapshots sent to the FTP server every 1 second.

## 4.17. SD Card Info.

Click “**SD-Card Info**” to enter the interface:

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The screenshot shows a configuration window with a blue background. The top section contains fields for 'Device Name', 'Total Size' (0 KB), 'Available Space' (0 KB), and 'Status' (Pullout), with 'Format' and 'Update' buttons below. The bottom section contains checkboxes for 'Enable Auto Overwrite' and 'Enable Pre-Record', a 'Pre-Record Time' dropdown set to 3 seconds, an 'Image Quality' dropdown set to Medium, and a 'Resolution' dropdown set to VGA, with 'Save' and 'Update' buttons at the bottom.

Figure7.3

**Device Name:** Display the name of SD card.

**Total Size:** Display the total size of SD card

**Available Space:** Display the free space of SD card

**Status:** Display the state of SD card.

**Format:** Click it to delete all data and format the SD card. (All data will be lost if formatted)

**Enable Auto Overwrite:** Set SD card auto cover when it's full.

**Enable Pre-record:** Set Pre-recording function(Record the video before alarm triggered).

**Pre-record Time:** Set the Pre-recording time, could be from 1 to 6 seconds.

**Image Quality:** Set the record video image level which saved in the SD Card.

This close-up shows the 'Image Quality' dropdown menu. The 'Image Quality' label is highlighted with a red box. The dropdown list is also highlighted with a red box and contains the following options: Worse, Soso, Not bad, Medium (which is currently selected), Standard, Good, Well, and Pretty good.

Figure7.4

**Resolution:** Set the record video resolution which saved in the SD Card, can be VGA and QVGA.

## 4.18. System Tool

Click “**System Tool**” to enter the interface:

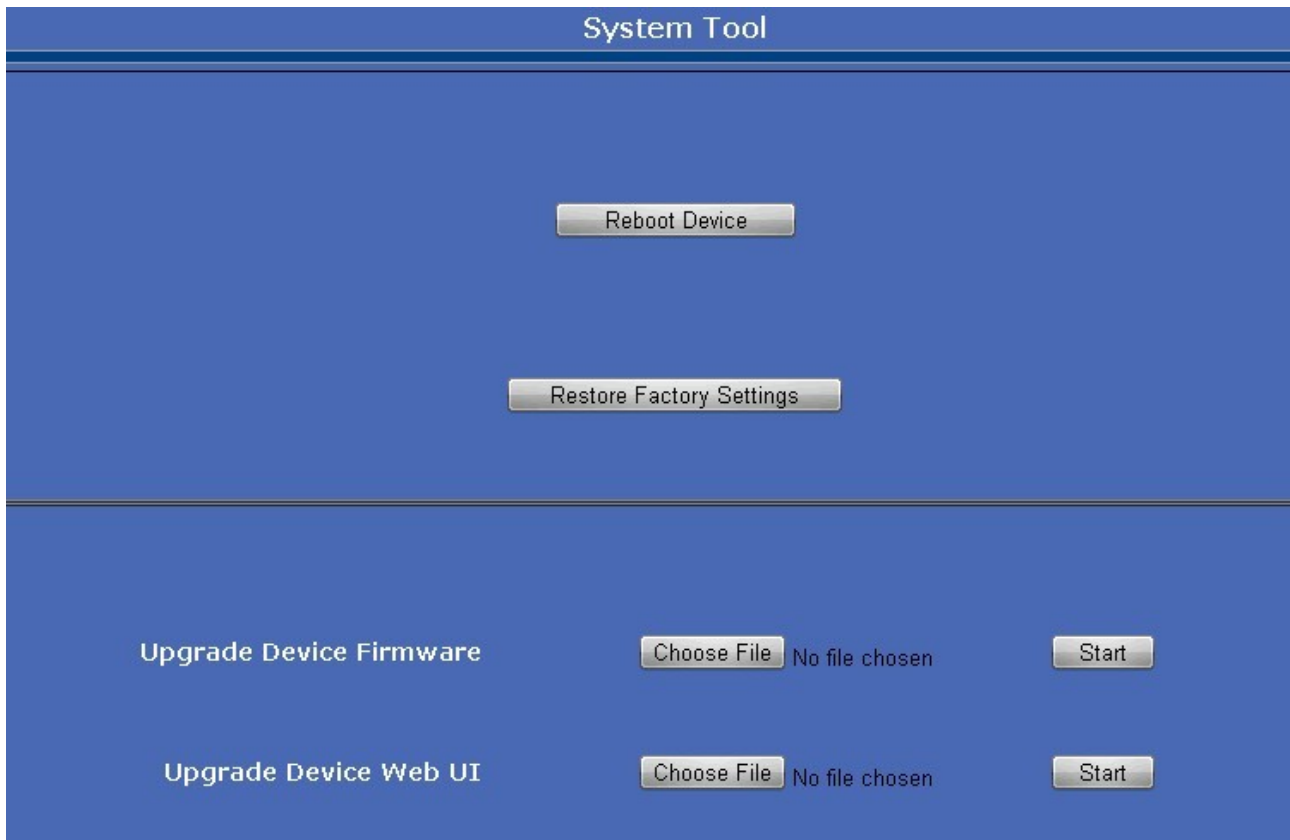


Figure7.6

- **Reboot Device:** Click to Reboot the camera.
- **Restore Factory Settings:** Click it, all the parameters will be back to factory settings.
- **Upgrade Device Firmware:** Click “**Choose File**”, choose the correct system file for upgrade, then click “**Start**”.
- **Upgrade Device Web UI:** Click “**Choose File**”, choose the correct Web UI file for upgrade, then click “**Start**”.

**NOTE:** Please use the correct upgrade file, must keep the power on when upgrading, wired mode suggested, because wrong operation or incorrect upgrade file maybe damage the device.



## 5. FREQUENTLY ASKED QUESTIONS

### 1. I have forgotten the administrator username and/or password

There is a **[RST]** button on the rear panel, keep the power on, hold the reset button for 10 seconds, it will restore back to factory default settings as below:

**Username:** admin

**Password:** admin

**NOTE:** Please don't press **RST** button if without professional guide.

### 2. The video is not smooth

**Possible reason 1:** The frame rate value is too small.

**Solution:** Increase the frame rate value.

**Possible reason 2:** Too many users are connecting to the device.

**Solution:** Close some connection or reduce the video frame rate.

**Possible reason 3:** Network bandwidth is too low, lots of lost packets.

**Solution:** Reduce the video frame rate or video compression bit rate.

### 3. Fail to visit IP camera via browser

**Possible Reason 1:** Network is disconnected.

**Solution:** Connect your PC to network, check whether the network works well or not. Check whether the cable problem, or network problem caused by PC virus.

**Possible reason 2:** IP Address has been occupied by other devices.

**Solution:** Stop the connection between IP camera and network, connect the IP camera to PC directly, reset IP address according to the proper operations recommended.

**Possible reason 3:** IP addresses are in different subnets.

**Solution:** Check IP address, Subnet masking and Gateway.

**Possible reason 4:** Physical address of network conflict with IP camera.

**Solution:** modify the physical address of IP camera.

**Possible Reason 5:** Web port has been modified.

**Solution:** Contact Network Administrator to obtain related information.

**Possible Reason 6:** Unknown.

**Solution:** Press RESET to restore to factory settings then connect it again, the default IP address is 192.168.1.155, subnet mask is 255.255.255.0

### 4. The color of image is abnormal (Green or other color)

Sometimes the IP camera images cannot be displayed properly because of different graphics cards, the images appears to be green or other colors, then you should run the programme "Config.exe" from the downloaded OCT files.

(or run C:\windows\system32\Config.exe) to set the following parameters of display buffer: auto-detection,

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used display card memory or system memory,  
then run IE , connect IP camera again.

### 5. There is no voice while monitoring

**Possible Reason 1:** No audio input connection

**Solution:** Check audio connection of the host

**Possible Reason 2:** the relative audio option of IP camera is OFF.

**Solution:** Check audio parameter settings to see if you have set the audio option ON, but without external audio input.

### 6. Image processing doesn't work properly

**Possible Reason 1:** System problem, DirectX function is disabled, which will cause slow display of images and abnormal color.

**Possible Reason 2:** Hardware problem, graphics card doesn't support image acceleration and hardware zooming functions. (For hardware issue, the only solution is to change the graphics card)

**Solution:** Install DirectX image driver, then click "Start">"Run">input "dxdiag", set enable "DirectDraw Acceleration" "Direct3D Acceleration" "AGP Texture Acceleration" functions.

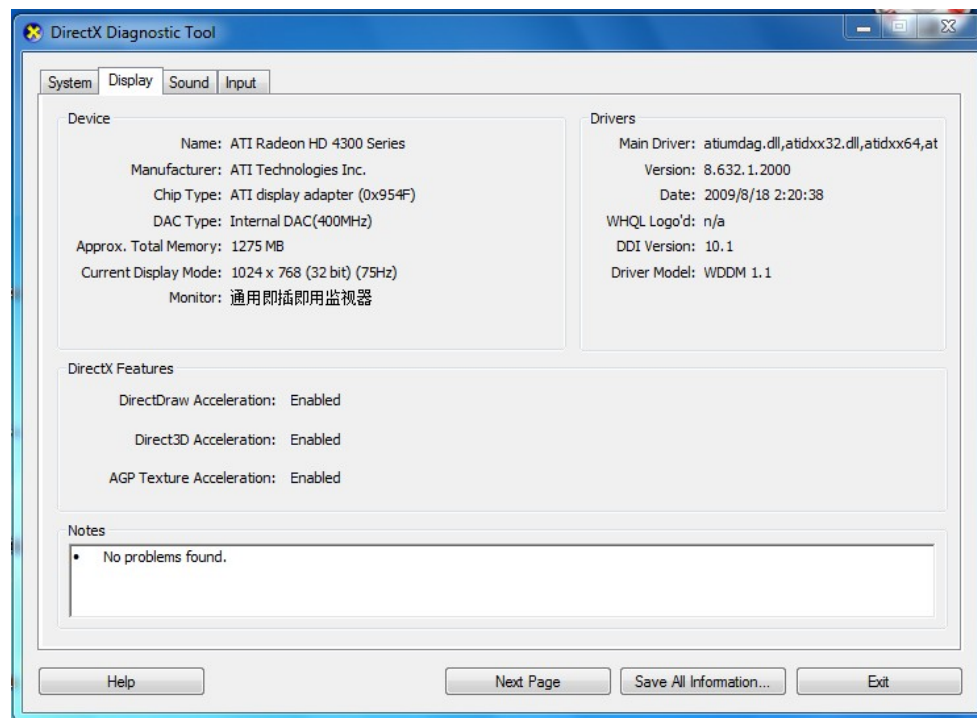


Figure8.5

Note: If you are unable to do it, it means your DirectX is not installed properly or hardware doesn't support this function.

### 7. Fail to use DDNS

**Possible Reason 1:** The PC or IP Camera can't connect to the internet.

**Solution:** Check the internet connection and settings.

**Possible Reason 2:** Port forward is not set in router.

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**Solution:** Set the port forward of extranet in router correctly.

For example, if IP Camera address is: 192.168.1.100, Media port is 38401, Web port is 85, factory DDNS is <http://test.aipcam.com>. Use TP-Link router as below:

(1) Login the router.



(2) Choose "Forwarding", select "Virtual Servers"

(3) Click the Add New button, pop-up below:

A screenshot of the 'Add or Modify a Virtual Server Entry' form in the TP-Link router's web interface. The form has a yellow background and a blue border. It contains the following fields: 'Service Port' (text input with a hint '(XX-XX or XX)'), 'IP Address' (text input), 'Protocol' (dropdown menu with 'ALL' selected), 'Status' (dropdown menu with 'Enabled' selected), and 'Common Service Port' (dropdown menu with '-Select One-' selected). At the bottom, there are two buttons: 'Save' and 'Return'.

Figure8.6

Fill the service port as 85, IP address as 192.168.1.100, click Save.

(4) Repeat the step 3, will pop-up the window again, fill the service port as 38401, IP address as 192.168.1.100, then save.

(5) Then check the "Device Info" –"DDNS Status",

will show DDNS: <http://test.aipcam.com:85> , input this link in IE, then can visit this camera remotely.

## **7. OBTAINING TECHNICAL SUPPORT**

While we hope your experience with the IP CAMERA network camera is enjoyable and easy to use, you may experience some issues or have some questions that this User's Guide has not answered. Please contact your reseller and ask for help firstly, if they could not resolve your issue, please contact our company.

If your cameras do not support some special functions showed in the manual, please contact our technical support team to obtain the latest Firmware and WEB UI file for doing upgrade.

NOTE: Some old version cameras can't be upgraded to the latest version, that's not only the software difference, but also the hardware difference. If you can't make sure of it, please contact with our technical support team directly.