

# **Wireless/Wired IP Camera**

## **H.264**

### **(For IE Browser)**

## **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 are 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 insert 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 adopts 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/n
	Data Rate	802.11b: 11Mbps (Max.), 802.11g: 54Mbps (Max.), 802.11n: 150Mbps (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:

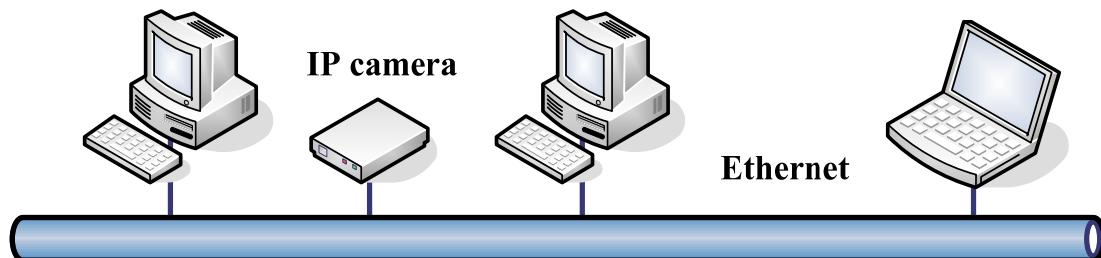


Figure1.0

**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:

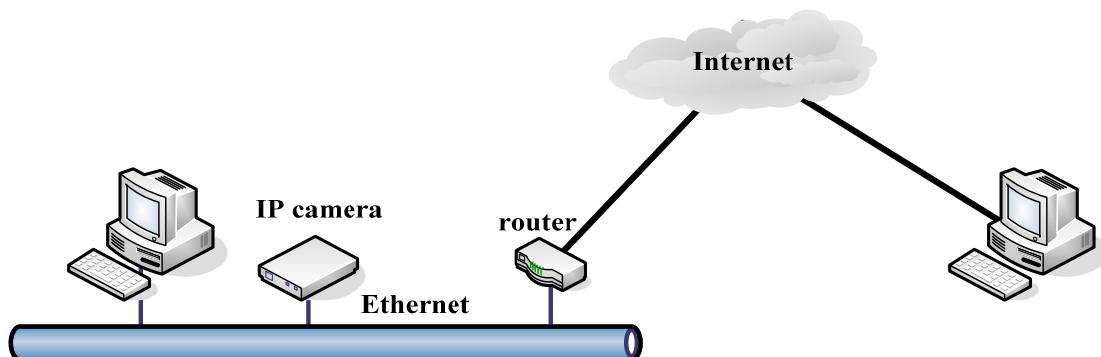


Figure1.1

(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.

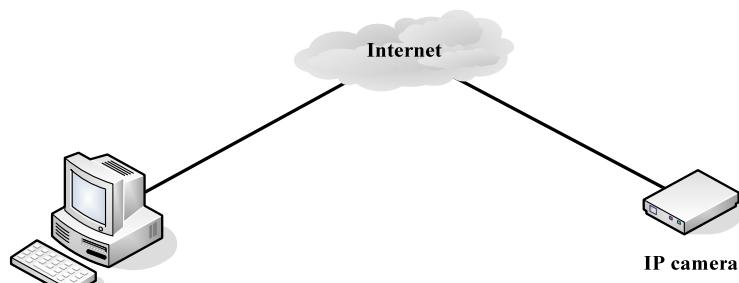


Figure1.2

## 2.2. IE Browser Settings

OCX will be downloaded automatically when users login the IP Camera, so users have to set the IE browser to enable the OCX be downloaded automatically after signing in. Steps as below:

1. Close the firewall of your computer.
2. Change the ActiveX settings, “IE” browser > “Tool” > “Internet Options” > “Security”> “Custom Level” > “ActiveX control and Plug-ins”, all the ActiveX options set to be “Enable”:

Especially:

**Enable: Download unsigned ActiveX controls**

**Enable: Initialize and script ActiveX controls not marked as safe**

**Enable: Run ActiveX controls and plu-ins**

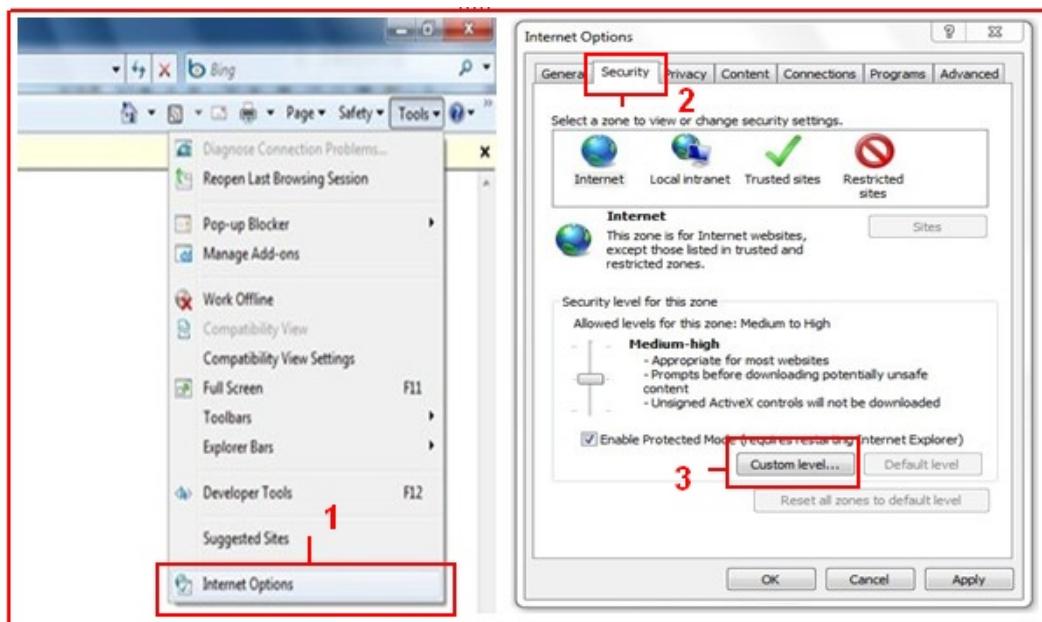


Figure1.3

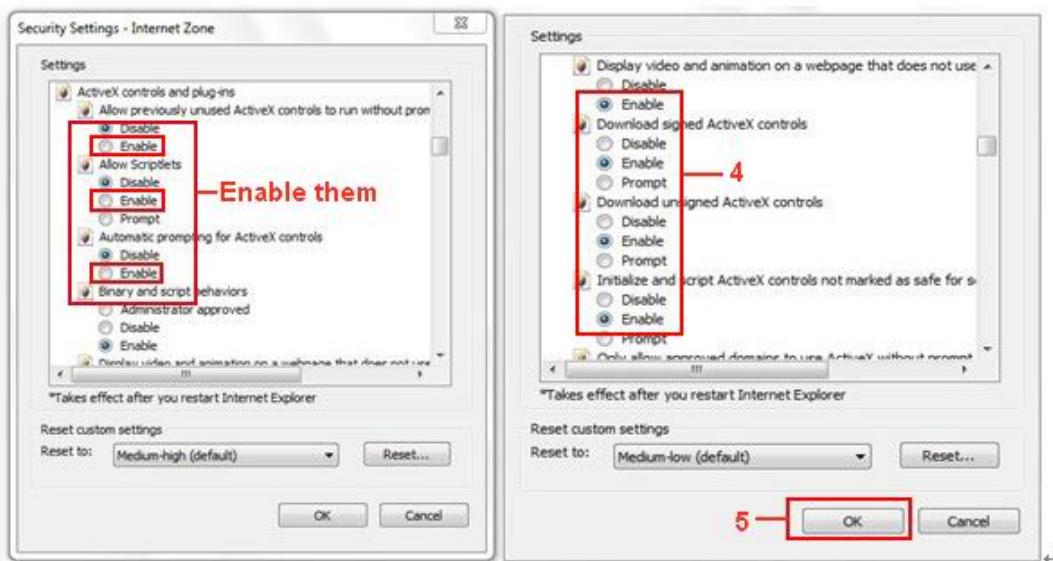


Figure1.4

In addition: you can also click “Start” menu>“Internet Explorer”, choose “Internet attributes” to enter, or via “Control Panel” >“Internet Explorer”, enter to Security setting.

### 2.3. 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.

### 2.4. IPCam IP Address Search Tool

Step 1: Use tool “SearchIPCam.exe” to find IP address of LAN.

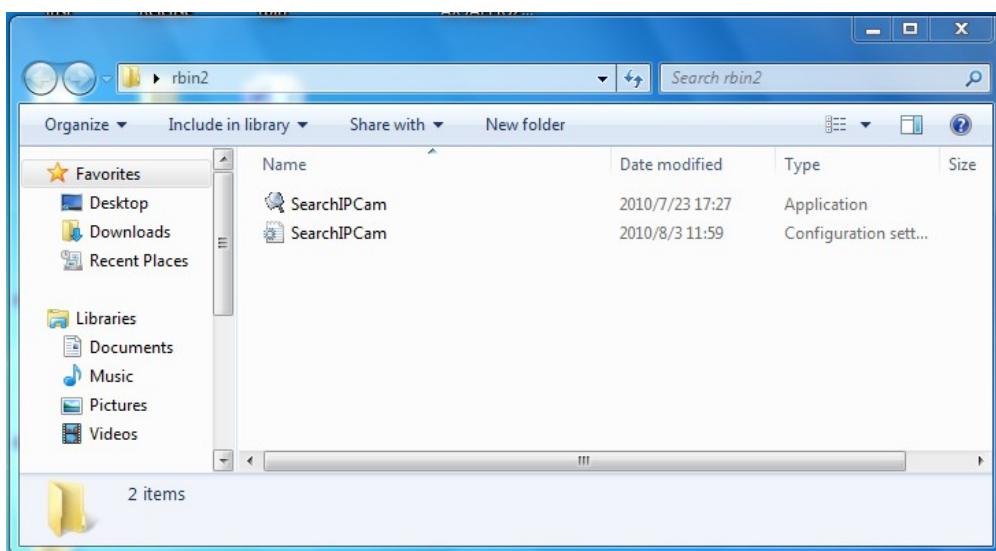


Figure1.5

Step 2: Double click “Search IP Cam”, camera IP & MAC list will be displayed. If you want to re-search, click

“Search” again.

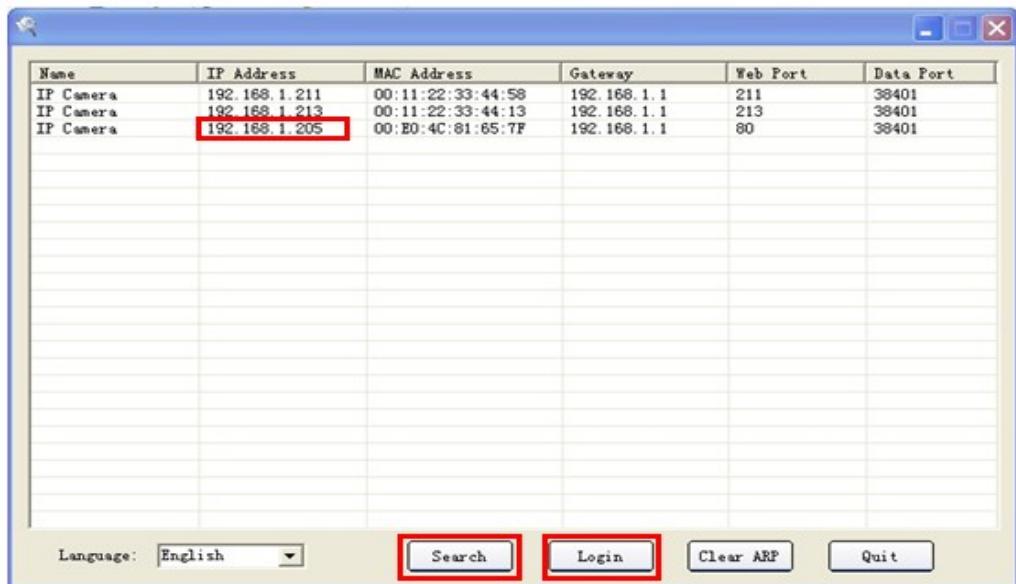


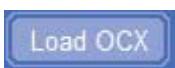
Figure1.6

Step 3: Choose the IP, click “Login” or double click the IP to enter IE login interface.



Figure1.7

## 2.5. Install the OCX ActiveX

Install the OCX activeX for the first time login; click the  icon on the right bottom,



Download the OCX file [DvmHIPCam.ocx](#), After that, double click to install it automatically.

After OCX installed fully, then input the user name and password to login the camera.

### 3. SOFTWARE OPERATION (IE BROWSER)

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

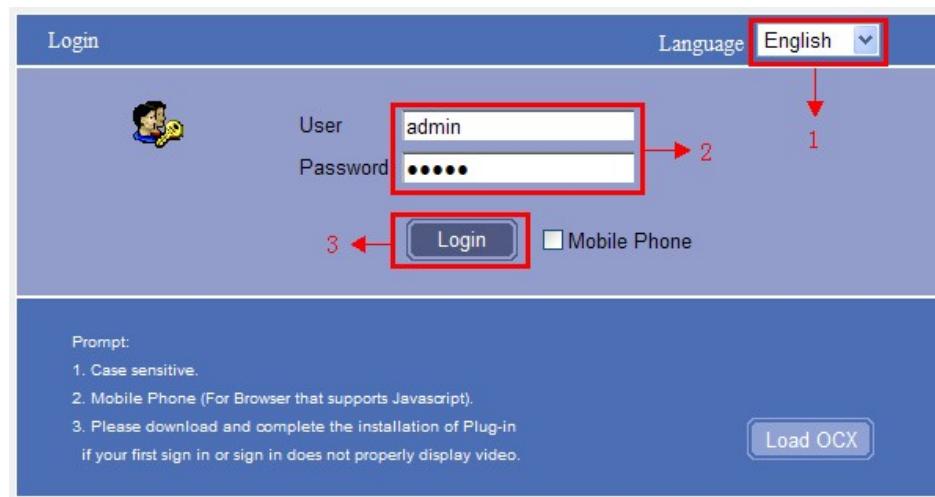


Figure1.8

**Language English** : Choose languages here

**Mobile Phone** : For mobile phone login

**Load OCX** : For OCX installation

**Login** : Click to login the IE interface as below:



Figure1.9

### 3.1. Three main functions:



Figure2.0



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



**Playback:** Click to query and playback the video files (**Details see 5 Playback**)



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

### 3.2. For Live Video

#### 3.2.1 TOP Menu:



Figure2.1



**Play:** Play the live video.



**Stop:** Stop the live video.



**Listen:** Click it to enable listen function, the icon will change to green color  can hear the live audio from camera via PC if audio is ON. Click it again, will stop listen function.



**Talk:** Click it to enable talk function, the icon will change to green color  can talk between PC and camera if audio device connected. Click it again, will stop talk function.



**Capture:** Click to take snapshot, the picture be saved in the PC to it’s appointed path as JPG format, and pop-up the prompt as below:



Figure2.2



**Record:** Click to start record manually, the icon will change to green color  Record file will be saved in the PC to it’s appointed path as AVI format. Click it again, will stop record function.

 **Clear Alarm:** Click to stop the alarm manually when there is an alarm triggered, and pop-up prompt as below:



Figure2.3

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



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.



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

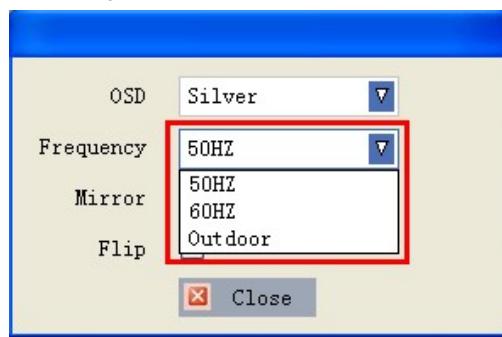


Figure2.6

### Mirror and Flip

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

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

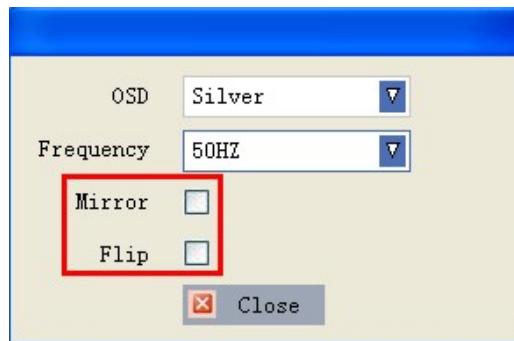


Figure2.7

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



**Full Screen:** Click it, shift to full screen mode, double click left mouse or click the icon  on the left bottom to exit full screen mode

### 3.2.2 Left Side Menu:

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

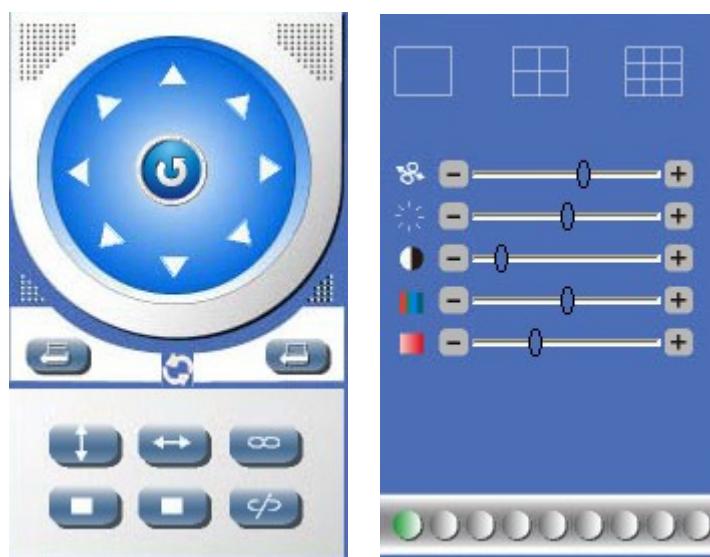


Figure2.8

**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.

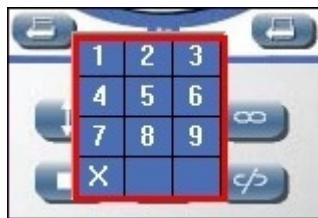


Figure2.9



: **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.



Figure3.0



: Click this one, you can view the main channel of the camera you login, move the mouse to the icon,

the frame will change to red color .

: Click this one; you can view 4 Channels of cameras which connected, from CH1 to CH4. move the

mouse to the icon, the frame will change to red color .

: Click this one; you can view 9 Channels of cameras which connected, from CH1 to CH9. move the

mouse to the icon, the frame will change to red color .

**NOTE:** If you want to view 4/9 channels, you should set the Multi-Device firstly (See 4.14 Multi-Device Settings)

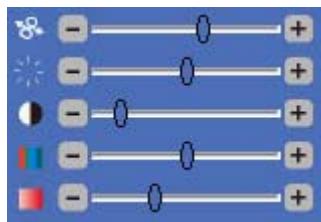


Figure3.1

: **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.



Figure3.2

There are 9 icons  at the bottom of the UI which show the status of each channel of the camera.

: **Grey color:** means there is no device connected to the main device from this channel.

: **Green color:** means the device connected from this channel, and it works well.

: **Red color:** means the device of this channel is recording.

: **Yellow color:** means set this channel in multi-device already, but it fails to connect to the main device.

## 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:

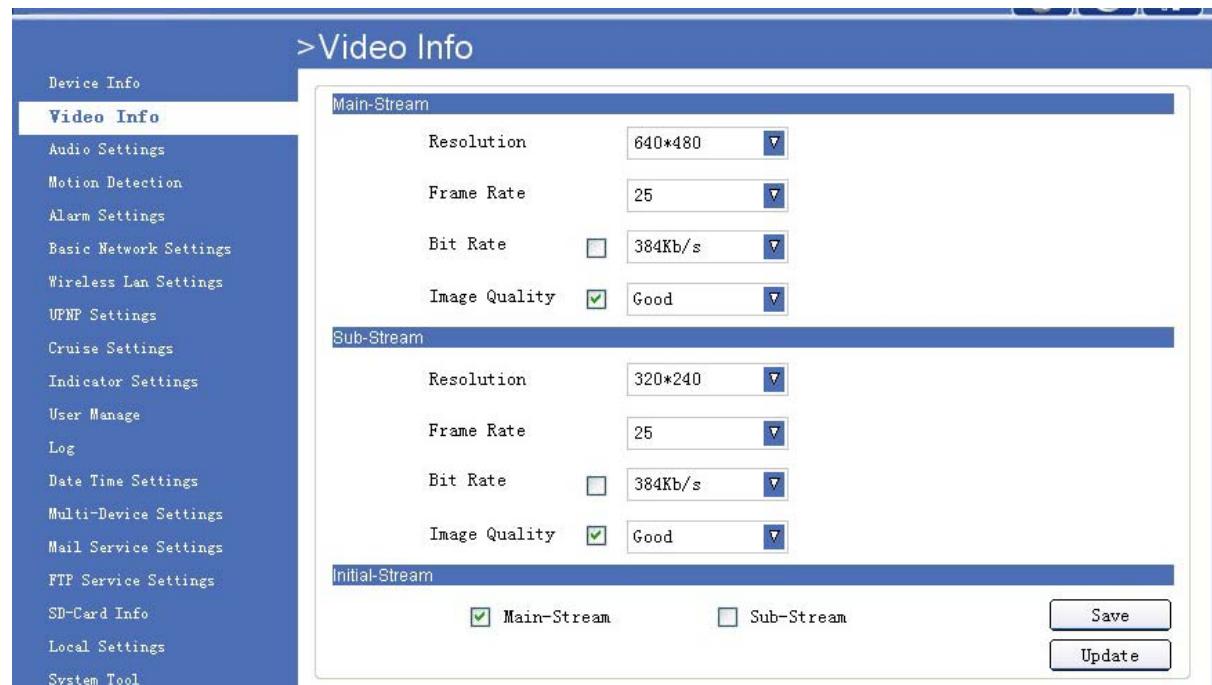


Figure3.4

There are two option for stream, **Main-Stream** and **Sub-Stream**, users can set the stream based on the actual operation environment, for example, if the band width 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 band width. 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 bite rate means better quality images, but take more band width, so please adjust the settings according to the actual band width. The range of bit rate from 128Kbps~4Mbps.

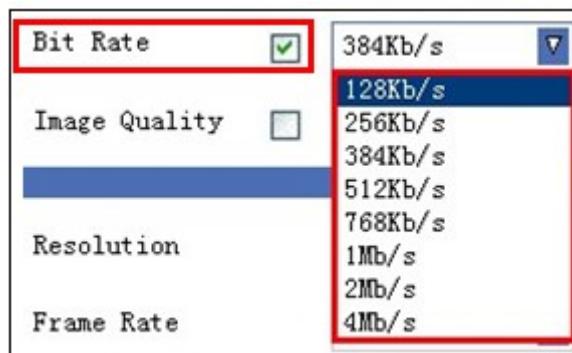


Figure3.5

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



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 Zone Armed:

Can set all zone to be armed, or a specified zone armed.

Before setting a specified zone, should set "Motion Detection" to "ON", then press left mouse, drag it on video area to set the detection zone, and save it.

- **Detect All:** Setting the whole video window as the motion detect armed zone.
- **Clear:** Clear all armed zone.
- **Motion Detection:** Set motion detection armed function ON/OFF.

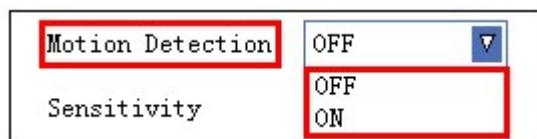


Figure3.9

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

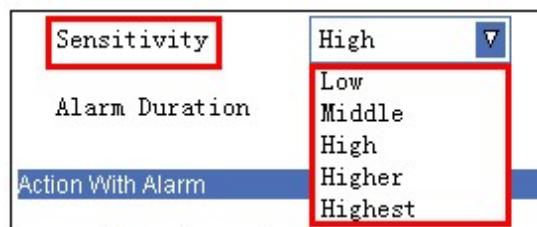


Figure4.0

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

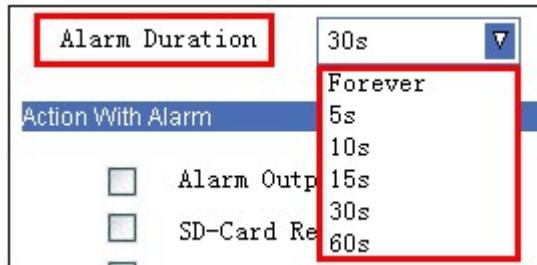


Figure4.1

### Action with Alarm

These are actions optional for motion detection.

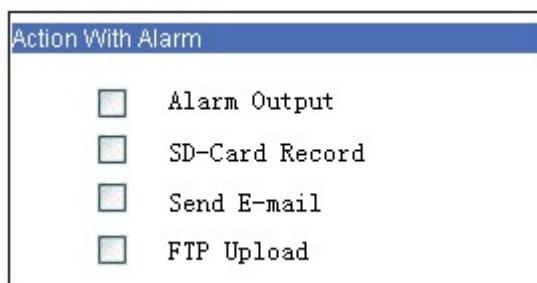


Figure4.2

- **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:

>Alarm Settings

Device Info	External Alarm	OFF <input type="button" value="▼"/>
Video Info	Alarm Duration	30s <input type="button" value="▼"/>
Audio Settings	Lose SD-Card Alarm	OFF <input type="button" value="▼"/>
Motion Detection		
<b>Alarm Settings</b>		
Basic Network Settings	Alarm Input 1	<input checked="" type="checkbox"/> Enable Mode NO <input type="button" value="▼"/>
Wireless Lan Settings		
UPNP Settings		
Cruise Settings		
Indicator Settings		
User Manage		
Log		

Action With Alarm
   
 Alarm Output
   
 SD-Card Record
   
 Send E-mail
   
 FTP Upload

Figure4.3

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

External Alarm	OFF <input type="button" value="▼"/>
Alarm Duration	ON <input type="button" value="▼"/> OFF <input type="button" value="▼"/>

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.

Alarm Duration	30s <input type="button" value="▼"/>
Lose SD-Card Alarm	Forever 5s 10s 15s 30s 60s <input type="button" value="▼"/> Alarm Output <input type="checkbox"/>
Alarm Input	

Figure4.5

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

Lose SD-Card Alarm	OFF <input type="button" value="▼"/>
Alarm Input	ON <input type="button" value="▼"/> OFF <input type="button" value="▼"/>

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.

Alarm Input	<input checked="" type="checkbox"/> Enable Mode NO <input type="button" value="▼"/>
	NO <input type="button" value="▼"/> NC <input type="button" value="▼"/> Alarm Output <input type="checkbox"/>

Figure4.7

- **Action with Alarm**

These are actions optional for external alarm triggered.

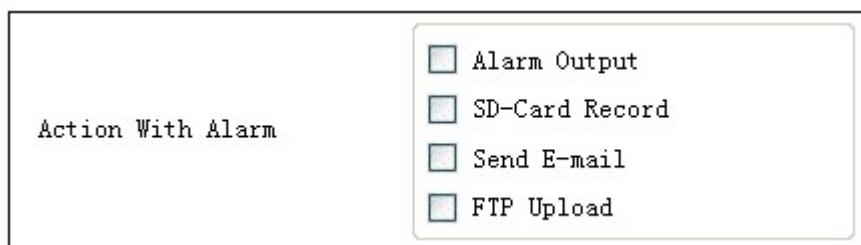


Figure4.8

**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:

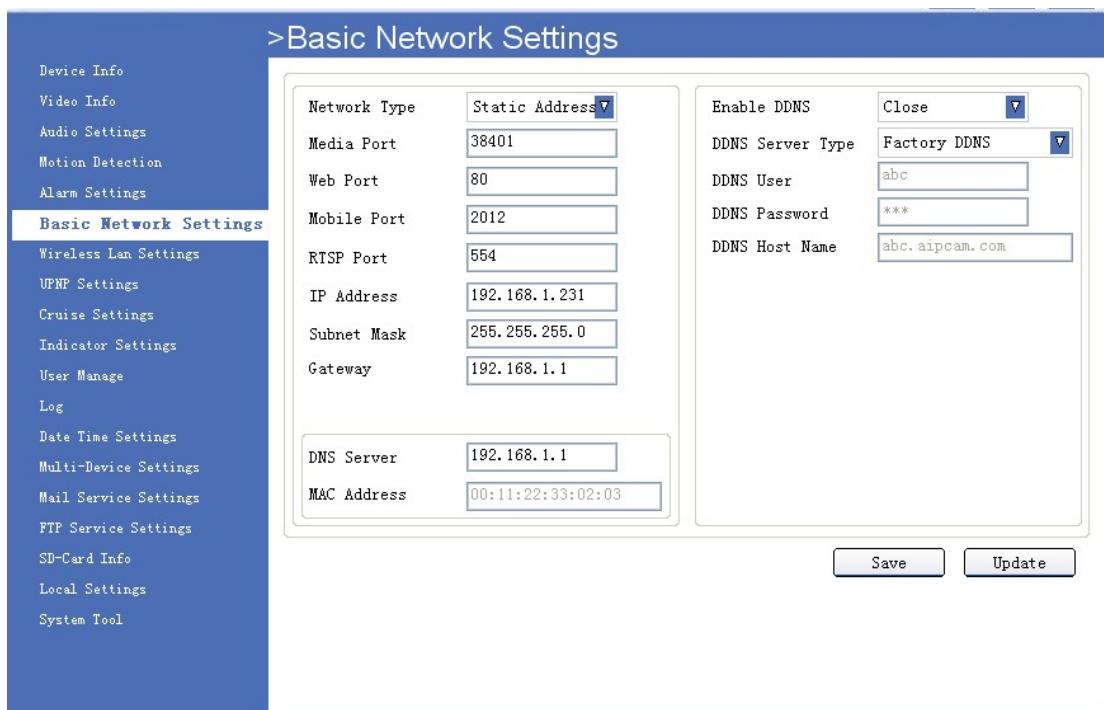


Figure4.9

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

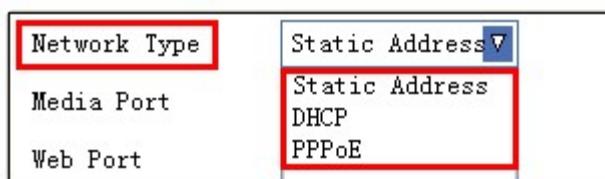


Figure5.0

#### 4.6.1 Static Address

Set network parameters manually

Network Type	Static Address
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554
IP Address	192.168.1.231
Subnet Mask	255.255.255.0
Gateway	192.168.1.1

Figure5.1

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Mobile Port:** Default is 2012.
- **RTSP Port:** Default is 554.
- **IP Address:** Set the IP address of camera.
- **Subnet Mask:** 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**, **Mobile Port**, **RTSP Port** if no necessary.

#### 4.6.2 DHCP

Choose DHCP, the camera will get IP address automatically.

Network Type	DHCP
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554

Figure5.2

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

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

#### 4.6.3 PPPoE

Set parameters here to enable PPPoE function.

Network Type	PPPoE
Media Port	38401
Web Port	80
Mobile Port	2012
RTSP Port	554
Enable PPPoE	Open
PPPoE User	abc
PPPoE Password	***
PPPoE IP Addr	153.24.65.1

Figure5.3

- **Media Port:** Default is 38401.
- **Web Port:** Default is 80.
- **Mobile 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 Addr.** If PPPoE dial-up succeed, will display the IP address distributed by ISP.

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

DNS Server	192.168.1.1
MAC Address	00:11:22:33:02:03

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**

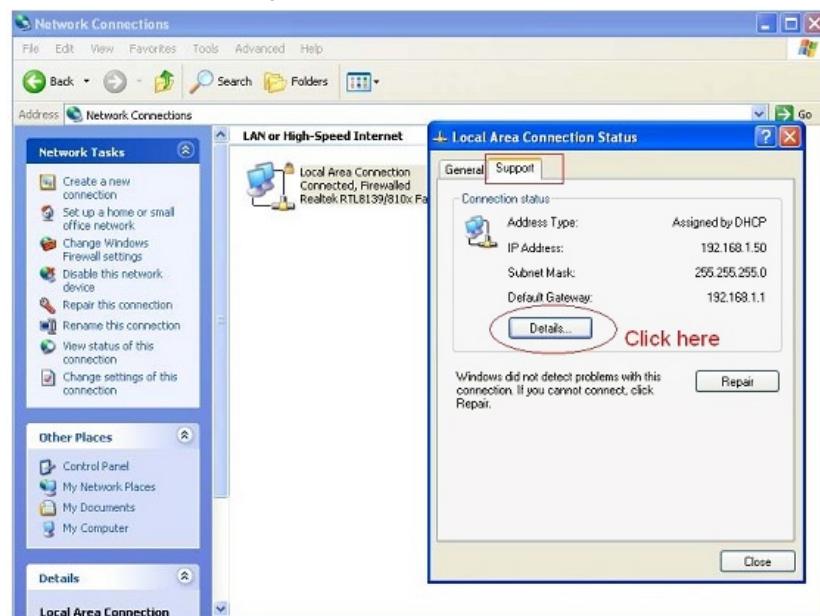


Figure5.5

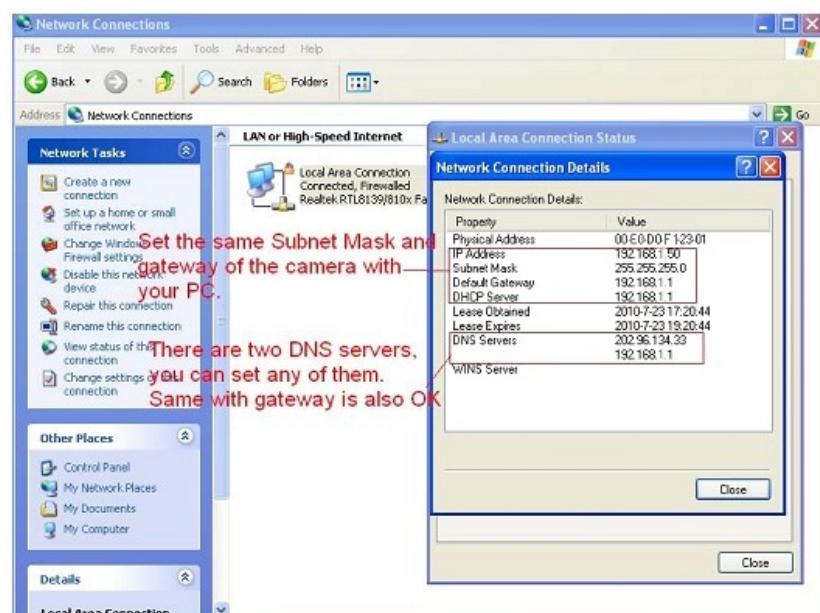


Figure5.6

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

#### 4.6.4 DDNS: Enable DDNS function.

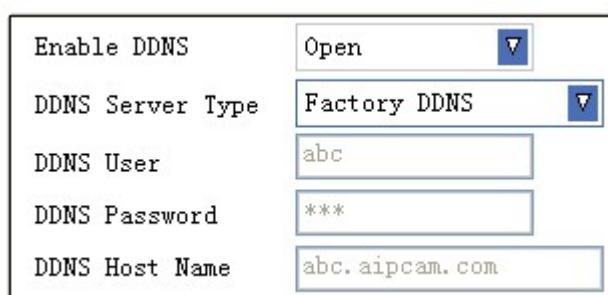


Figure5.7

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:

## >Wireless Lan Settings

Device Info

Video Info

Audio Settings

Motion Detection

Alarm Settings

Basic Network Settings

**Wireless Lan Settings**

UPNP Settings

Cruise Settings

Indicator Settings

User Manage

Log

Date Time Settings

Multi-Device Settings

Mail Service Settings

FTP Service Settings

SD-Card Info

Local Settings

SSID	Network Type	Encryption	Authentication

Using Wireless Lan

SSID

Network Type

Encryption

Figure 5.8

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:



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.

**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:

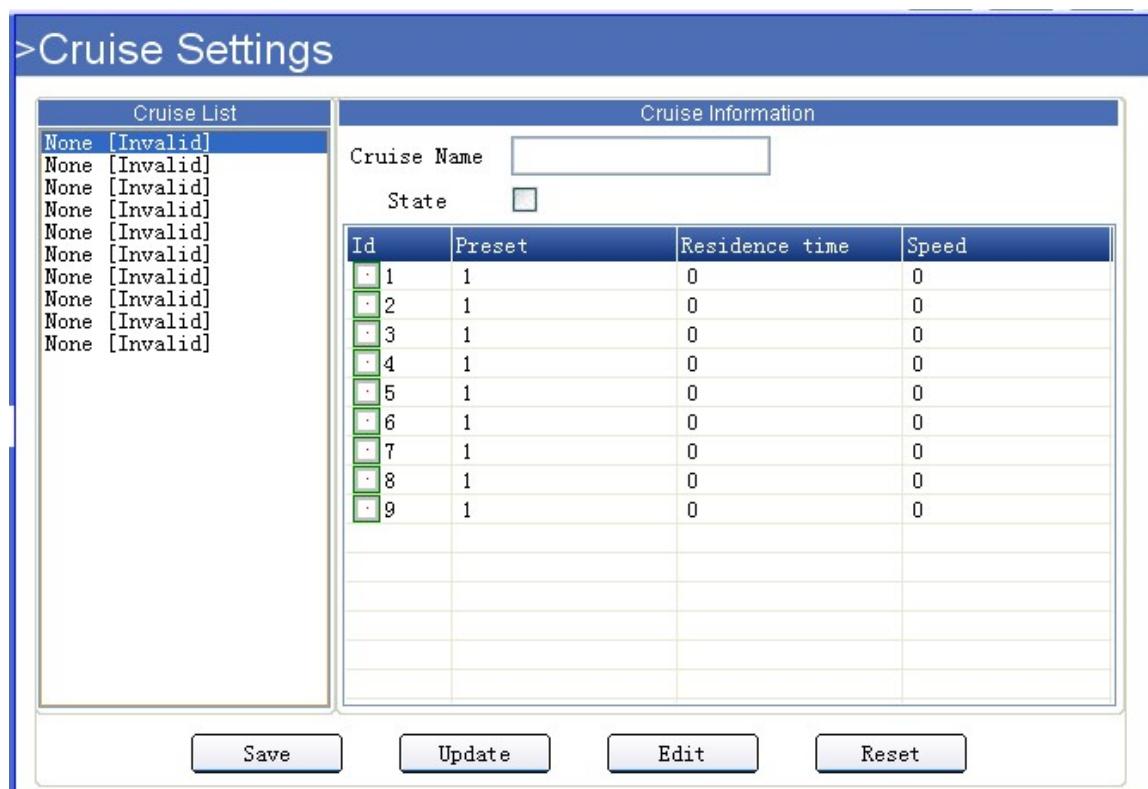
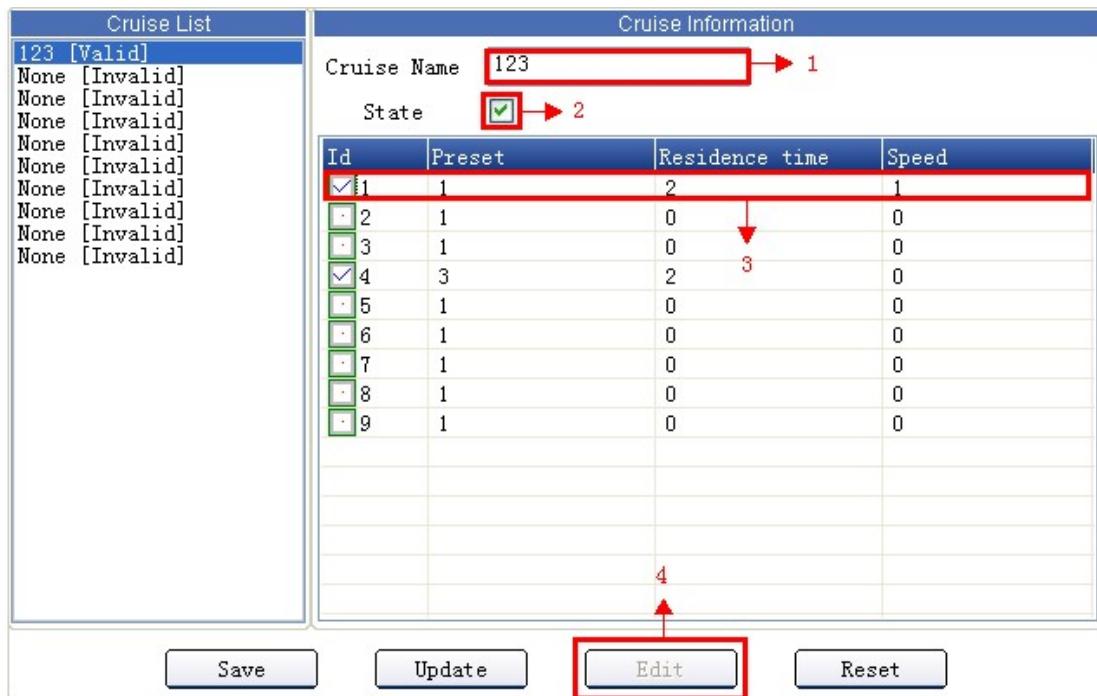


Figure6.0

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:



Id	Preset	Residence time	Speed
1	1	2	1
2	1	0	0
3	1	0	0
4	3	2	0
5	1	0	0
6	1	0	0
7	1	0	0
8	1	0	0
9	1	0	0

Figure6.1

1. Set the cruise name.
2. Enable the state
3. Choose the SN you want to set,
4. Double click the number or click **Edit**, will pop-up the settings window. (Figure 6.2)

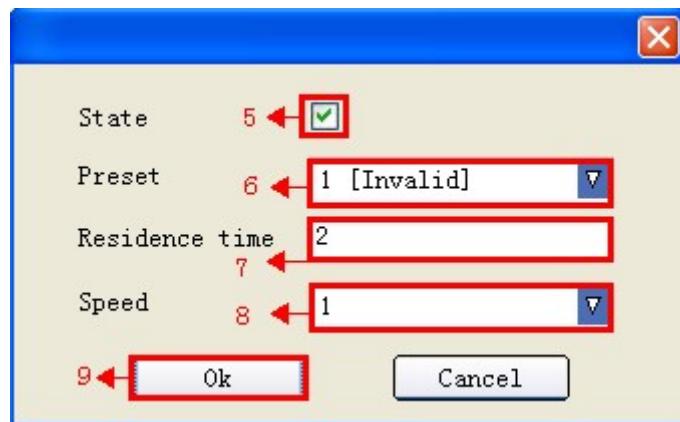


Figure6.2

5. Enable state.
6. Choose the preset which will be set. This camera supports 9 preset.
7. Set the residence time, could be 0 to 10 seconds.
8. Set the rotation speed, could be 0 to 10, and 0 means the fastest, 10 means the most slowly.
9. Click **OK** to save 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:

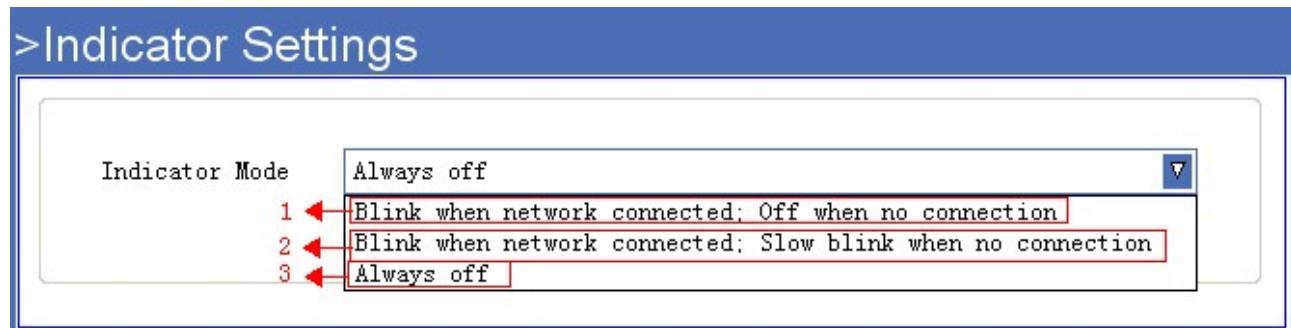


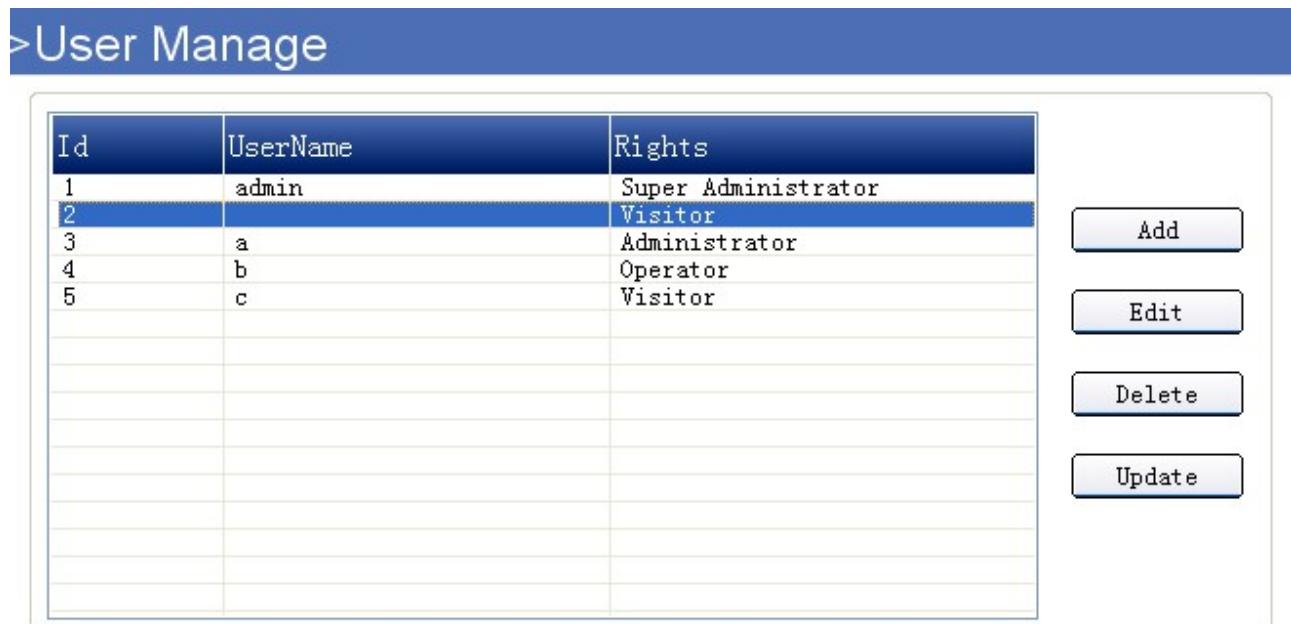
Figure6.3

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:



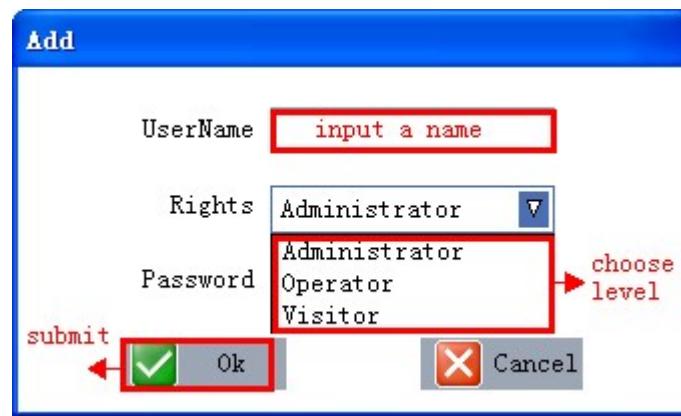


Figure6.5

**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:

>Log

User	IP Address	Time	Type
admin	192.168.1.85	1970/01/01 08:07:07	Login In
admin	192.168.1.31	1970/01/01 08:06:34	Login In
admin	192.168.1.85	1970/01/01 08:06:33	Login Out
root	192.168.1.212	1970/01/01 08:06:32	Power Off
admin	192.168.1.85	1970/01/01 08:05:02	Set Config
admin	192.168.1.85	1970/01/01 08:03:40	Set Config
admin	192.168.1.31	1970/01/01 08:03:33	Login In
admin	192.168.1.31	1970/01/01 08:03:30	Login In
admin	192.168.1.31	1970/01/01 08:03:29	Login Out
admin	192.168.1.31	1970/01/01 08:03:29	Login Out
admin	192.168.1.85	1970/01/01 08:03:17	Login In
admin	192.168.1.85	1970/01/01 08:02:33	Set Config
admin	192.168.1.31	1970/01/01 08:02:29	Login In
admin	192.168.1.31	1970/01/01 08:02:22	Login In
admin	192.168.1.31	1970/01/01 08:02:21	Login Out
admin	192.168.1.31	1970/01/01 08:02:12	Login In
admin	192.168.1.85	1970/01/01 08:02:12	Login In
admin	192.168.1.220	1970/01/01 08:03:06	Login In
andy	192.168.1.85	1970/01/01 08:01:25	Login In
andy	192.168.1.85	2011/07/07 15:15:39	Set Config
admin	192.168.1.220	1970/01/01 08:47:47	Set Config
andy	192.168.1.85	1970/01/01 08:24:17	Set Config
andy	192.168.1.85	1970/01/01 08:22:29	Set Config
admin	192.168.1.220	1970/01/01 08:15:15	Login In
andy	192.168.1.85	1970/01/01 08:06:31	Login In
admin	192.168.1.85	1970/01/01 08:06:26	Login Out
admin	192.168.1.85	1970/01/01 08:06:18	Set Config
admin	192.168.1.220	1970/01/01 08:04:40	Login Out

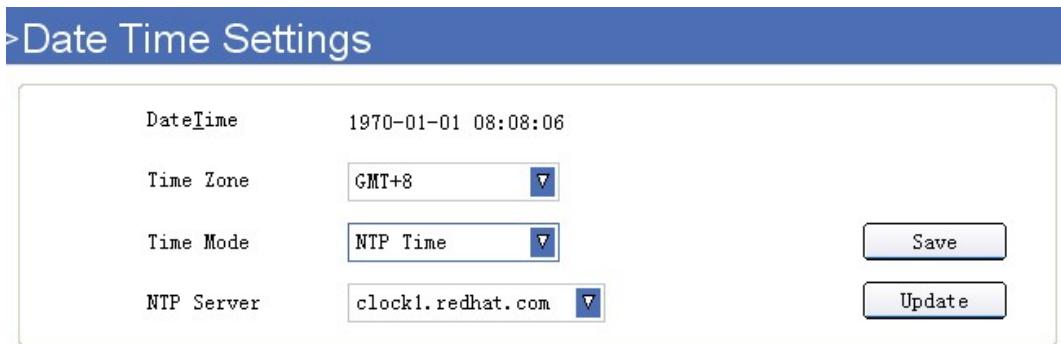
Clear      Update      <<      >>      1/3

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:



The interface shows the following settings:

- Date Time: 1970-01-01 08:08:06
- Time Zone: GMT+8
- Time Mode: NTP Time
- NTP Server: clock1.redhat.com

Buttons: Save, Update.

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.

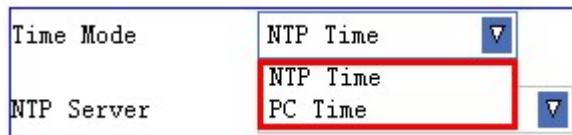
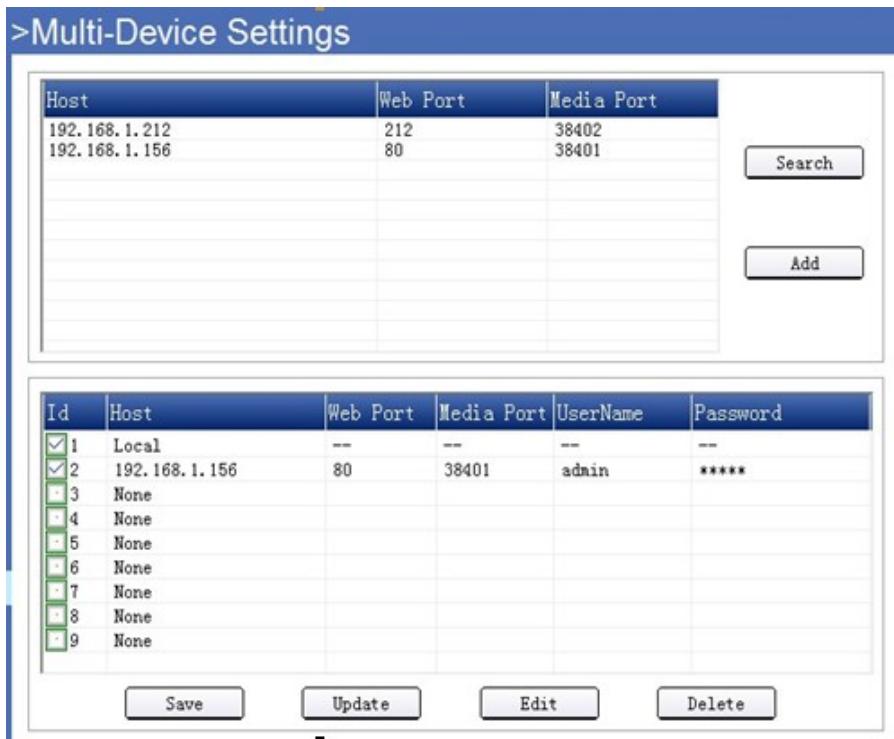


Figure6.8

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

## 4.14. Multi-Device Settings

Click “Multi-Device Settings” to enter the interface:



The interface consists of two main sections:

- Host List:** A table showing the following data:

Host	Web Port	Media Port
192.168.1.212	212	38402
192.168.1.156	80	38401

Buttons: Search, Add.
- Configuration Table:** A table for managing device configurations:

ID	Host	Web Port	Media Port	UserName	Password
1	Local	--	--	--	--
2	192.168.1.156	80	38401	admin	*****
3	None				
4	None				
5	None				
6	None				
7	None				
8	None				
9	None				

Buttons: Save, Update, Edit, Delete.

Figure6.9

Click **Search**, all the cameras connected in the Lan will be listed, then select a number from the bottom window, click edit, will pop-up a parameter settings window:

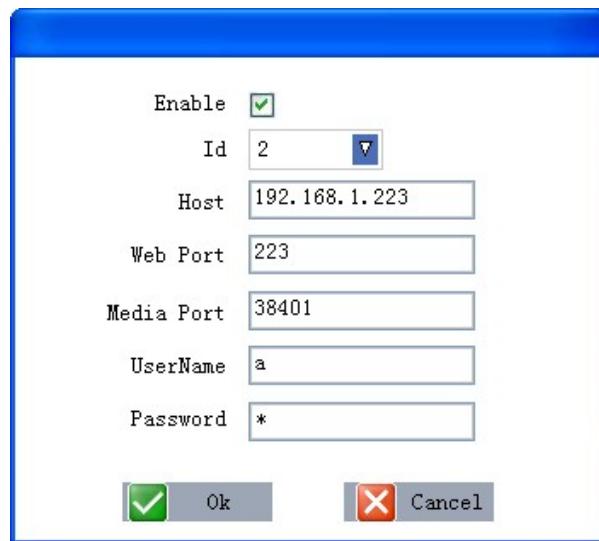
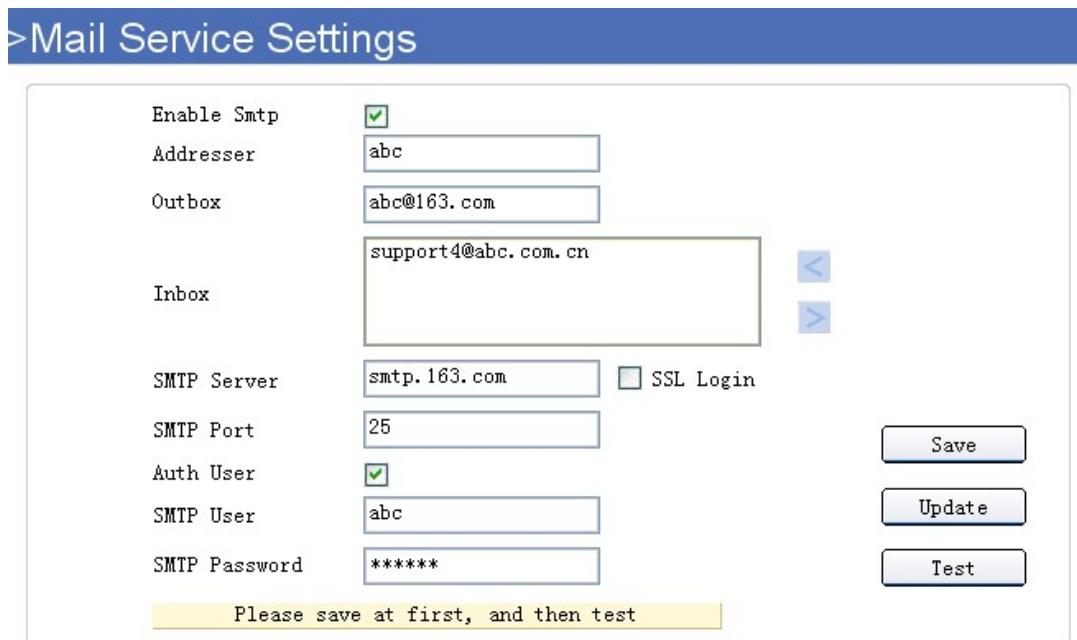


Figure7.0

Choose the ID, input host, web port, media port, username, and password manually, click OK to submit.

## 4.15. Mail Service Settings

Click "Mail Service Settings" to enter the interface:



The interface has a header 'Mail Service Settings'. It contains the following fields:

Enable Smtp	<input checked="" type="checkbox"/>		
Addresser	abc		
Outbox	abc@163.com		
Inbox	support4@abc.com.cn	<input type="button" value="&lt;"/>	<input type="button" value="&gt;"/>
SMTP Server	smtp.163.com	<input type="checkbox"/> SSL Login	
SMTP Port	25	<input type="button" value="Save"/>	
Auth User	<input checked="" type="checkbox"/>	<input type="button" value="Update"/>	
SMTP User	abc	<input type="button" value="Test"/>	
SMTP Password	*****		

A note at the bottom says: 'Please save at first, and then test'.

Figure7.1

**Enable Smtp:** 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)

: Add email address

: Delete email address which selected.

**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

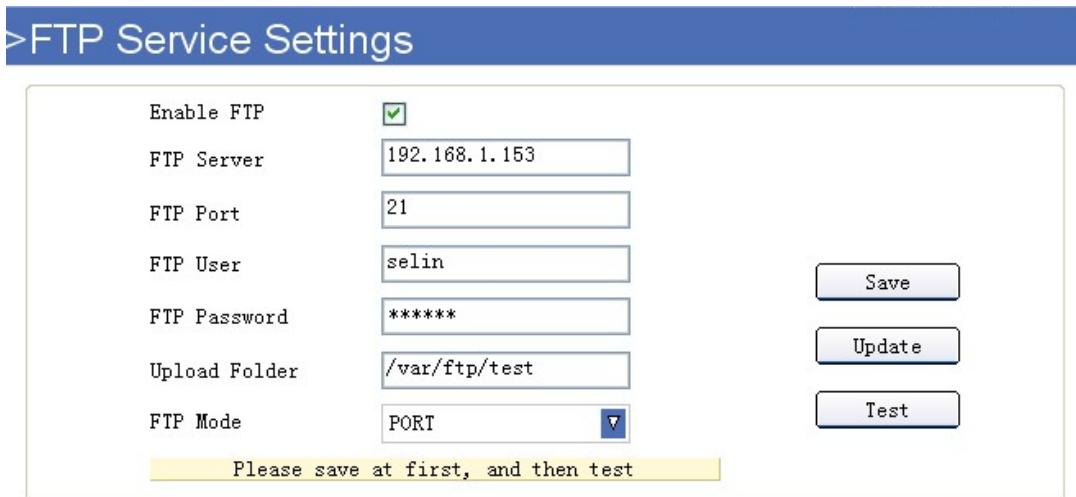
**SMTP User:** Set sender's user name.

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

## 4.16. FTP Service Settings

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

Click "FTP Service Settings" to enter the interface:



Enable FTP	<input checked="" type="checkbox"/>
FTP Server	192.168.1.153
FTP Port	21
FTP User	selin
FTP Password	*****
Upload Folder	/var/ftp/test
FTP Mode	PORT

**Save** **Update** **Test**

Please save at first, and then 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:

## &gt;SD-Card Info

Device Name	<input type="text"/>
Total Size	<input type="text"/> KB
Free Space	<input type="text"/> KB
State	<input type="text"/> Pull out
<input type="button" value="Format"/> <input type="button" value="Update"/>	
Open Auto cover	<input type="checkbox"/>
Open Pre-recording	<input type="checkbox"/>
Pre-recording Time	3 <input type="button" value="▼"/> Seconds
Image Quality	<input type="button" value="Medium"/> <input type="button" value="▼"/>
Resolution	<input type="button" value="VGA"/> <input type="button" value="▼"/>
<input type="button" value="Save"/> <input type="button" value="Update"/>	

Figure7.3

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

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

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

**State:** 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)

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

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

**Pre-recording 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.

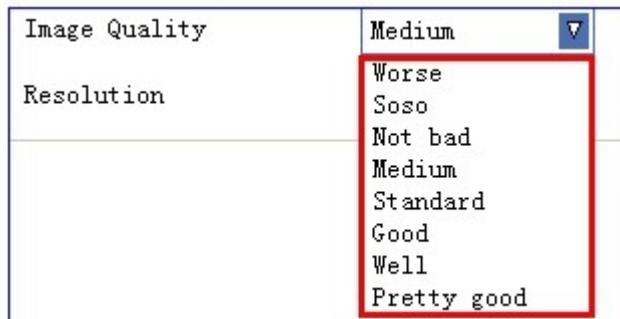


Figure7.4

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

## 4.18. Local Settings

Click "Local Settings" to enter the interface:

## &gt;Local Settings

Enable Alarm Audio	<input type="checkbox"/>	
Enable Alarm Rec	<input type="checkbox"/>	
Alarm Rec Time	1 Minute <input type="button" value="▼"/>	
Manual Rec Pack Time	30 Minutes <input type="button" value="▼"/>	
Record Path	D:\RecFiles	<input type="button" value="Browse"/>
Capture Path	D:\CapFiles	<input type="button" value="Browse"/>

Figure7.5

**Enable Alarm Audio:** Set audio ON/OFF once alarmed.

**Enable Alarm Rec:** Set alarm record function ON/OFF.

**Alarm Rec Time:** Set alarm record duration time, can be 30s, 1min, 2min, 3min, 5min.

**Manual Rec Pack Time:** Set the manual record file pack time, can be 30min, 1h, 2h, 3h, 5h.

**Record Path:** Set the path for record file saved..

**Capture Path:** Set the path for snapshot saved.

## 4.19. System Tool

Click “System Tool” to enter the interface:

<input type="button" value="Reboot Device"/>		
<input type="button" value="Restore Factory Settings"/>		
Upgrade Device Firmware	<input type="button" value="Browse"/>	<input type="button" value="Start"/>
Upgrade Device Web UI	<input type="button" value="Browse"/>	<input type="button" value="Start"/>

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 “Browse”, choose the correct system file for upgrade, then click “Start”.

• **Upgrade Device Web UI:** Click “Browse”, 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. PLAYBACK

Click , login the playback interface, this is for SD Card files playback.

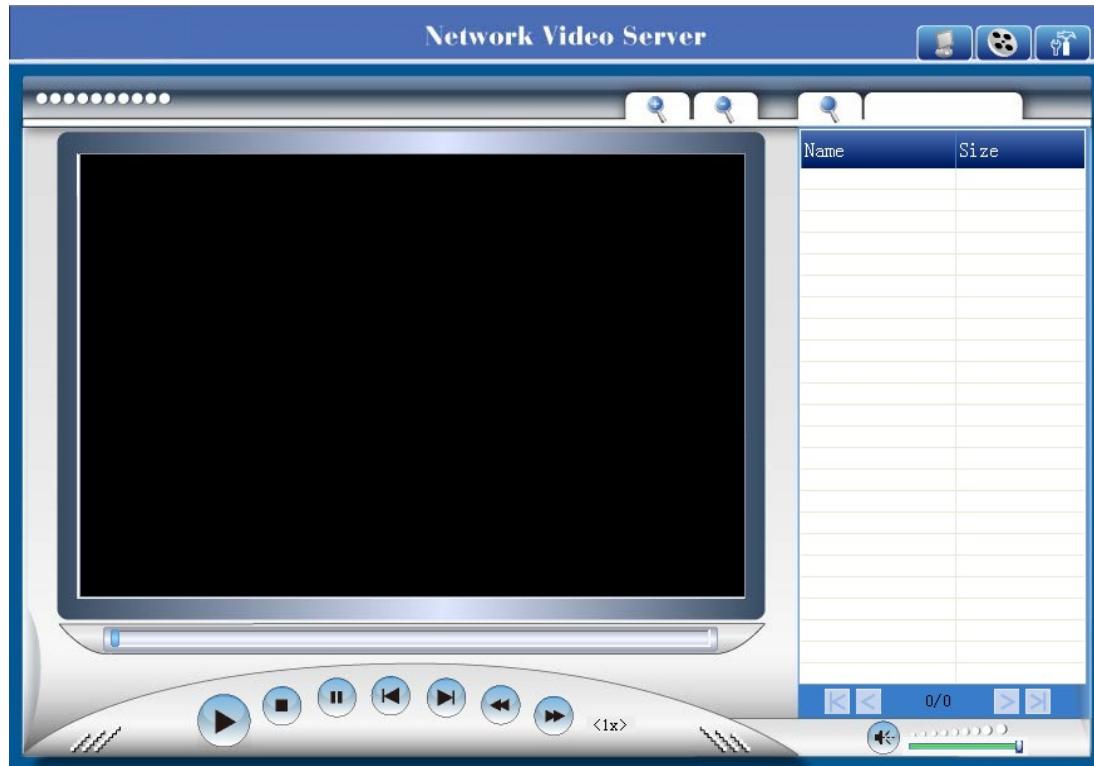


Figure7.7

Click search icon, will pop-up a window for search file, set the mode or time, click OK to submit, then all the correlative files will be listed on the right side.

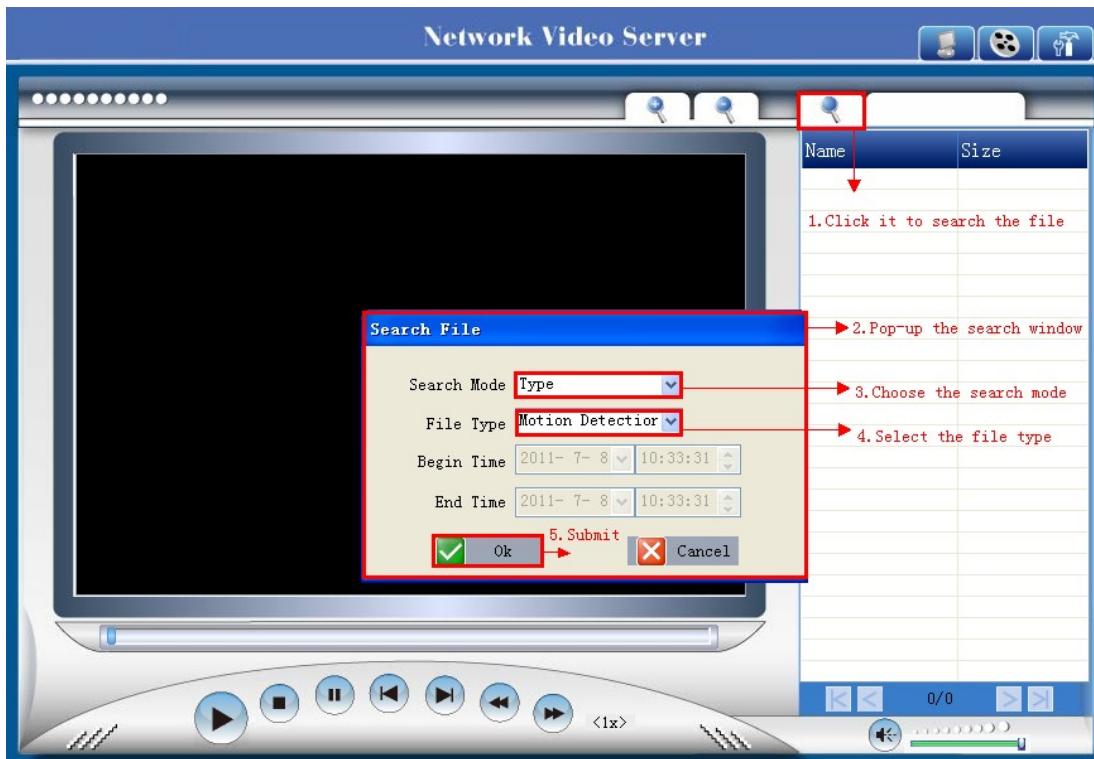


Figure7.8

**Search Mode:** There are 4 search modes optional.

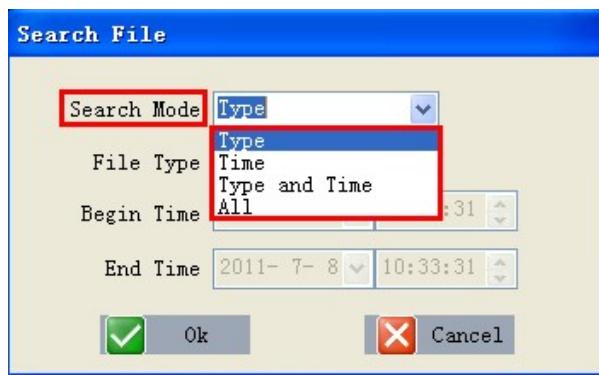


Figure7.9

**1. Type:** means search by the file type.

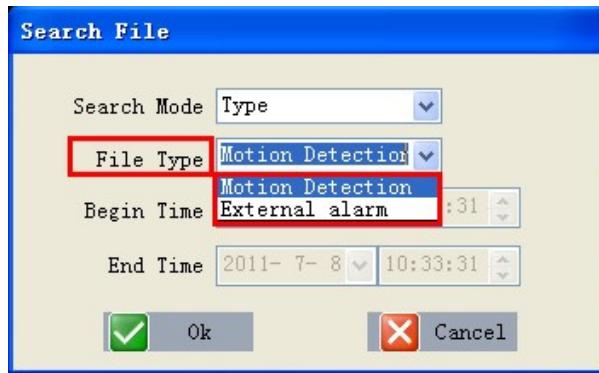


Figure8.0

**2. Time:** means search by the appointed record time

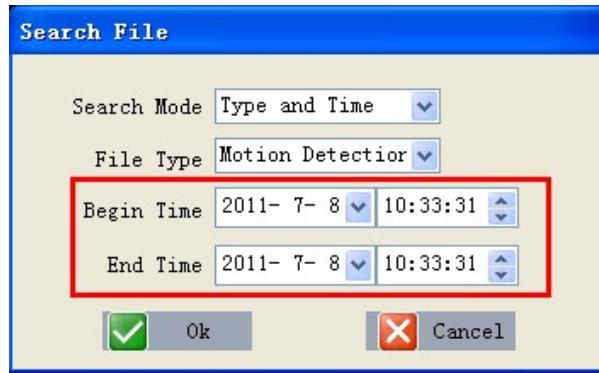


Figure8.1

**3. Type and Time:** means search by both file type and appointed record time.

**4. All:** means all the files.

After searching, files will be listed on the right side window, choose the file, double click it or click play icon  to start replay. Users can check the replay file information here, do other operation such as **Stop**, **Pause**, **Previous**, **Next**, **Fast Backward**, **Fast Forward** etc.



Figure8.2

### Image Enlarge and Reduce

During playback, users can enlarge the image to see the video details, it supports 2X, 4X, 8X zoom.

Click the enlarge icon, will pop-up a window to choose the zoom in type.

Click the reduce icon, will zoom out the image.

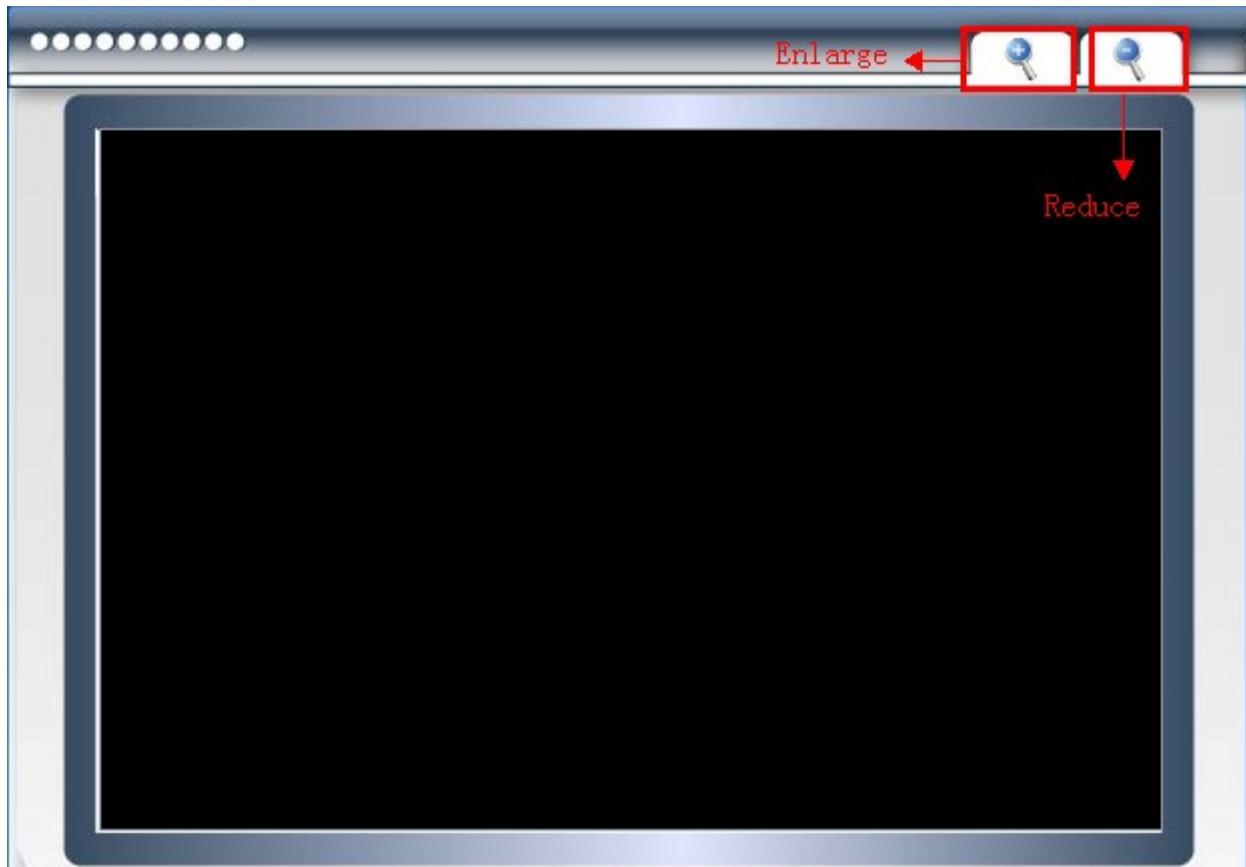


Figure8.3

### Audio:

During playback, users can adjust the volume, drag the volume icon on the right bottom side.



Figure8.4

## 6. 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. There is no picture displayed in IE browser

It maybe the ActiveX problem,

If use the IE browser for the first time, should install the ActiveX, details as below:

Before login, click the ActiveX icon  at the right side of interface to download, save the file, run it to install the ActiveX.

### 3. Fail to visit IP camera via IE after upgrading

**Solution:** Clear the browser buffer.

**Steps:** Open **IE**>click “**Tools**”> “**Internet Options**”>“**General**”>“**Delete**”> “**Internet temporary files**”, delete the cookies and temporary files, then click “**OK**” and re-login.

### 4. 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.

### 5. Fail to visit IP camera via IE 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

## 6. 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, used display card memory or system memory,

then run IE , connect IP camera again.

## 7. 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.

## 8. 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.

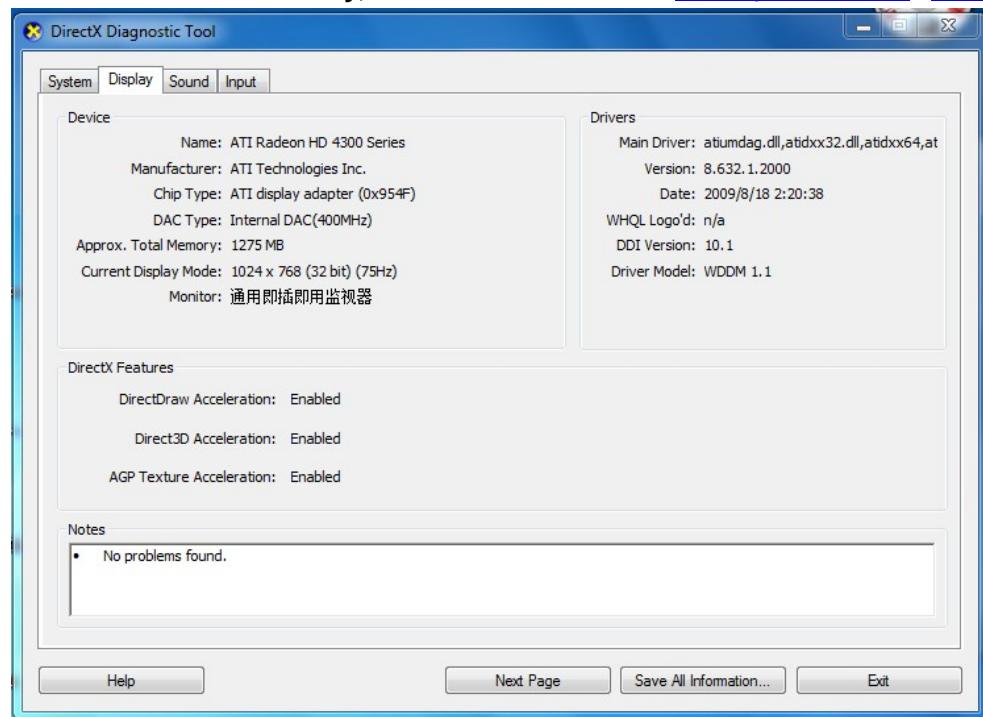


Figure8.5

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

## 9. 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.

**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:

## Add or Modify a Virtual Server Entry

Service Port:	<input type="text"/> (XX-XX or XX)
IP Address:	<input type="text"/>
Protocol:	<input type="text" value="ALL"/>
Status:	<input type="text" value="Enabled"/>
Common Service Port:	<input type="text" value="—Select One—"/>

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.

## FCC STATEMENT:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

## FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

- English: "

**This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:**

- (1) this device may not cause interference, and**
- (2) this device must accept any interference, including interference that may cause undesired operation of the device."**

- French: "

**Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :**

- (1) l'appareil ne doit pas produire de brouillage, et**
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement."**