



AVer FD1020

User Manual

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Preface

The FD1020 is a 1 / 4" Mega-Pixel CMOS sensor IP camera with a built-in web server. The user can view real-time video via IE browser. It supports H.264, and M-JPEG video compression, providing smooth and high video quality. The video can be stored in Micro SD card and playback remotely. With a user friendly interface, it is an easy-to-use IP camera for security applications.

Product Specifications

- Real Time HD 720P
- Digital Wide Dynamic Range
- Adjustable Shutter Speed
- 3D+2D Digital Noise Reduction
- Adjustable Sense Up
- Day & Night Manual Switch Time Control
- Power over Ethernet
- Built-in IR LED, 5M Available
- 2-way Audio
- H.264/ M-JPEG Compression
- Micro SD Card Backup(Optional)
- Support iPhone/Android/Mac
- SDK for Software Integration
- Free Bundle 32CH Recording Software

Specifications

Hardware	
CPU	Multimedia SoC
RAM	128MB
Flash	16M
Image sensor	1 / 4" Mega-Pixel CMOS sensor
Lens type	2.8mm @ F1.8
View Angle	74.1°(H), 48.9°(V)
Shutter time	1/10~1/24,000 sec
Min.illumination	Color : 0.3 Lux (IR LED ON) B / W: 0 Lux (IR LED ON)
ICR	Mechanism IR cut Filter
Audio Input/Output	G.711(64K) and G.726(32K,24K) Input : Mic built-in Output: External Line out
IR distance	5 Meter
Power Over Ethernet	Yes
Power Consumption	DC 12V Max: 2.52W(IR ON); 1.92W(IR Off) PoE Max: 802.3af, 3.36W (IR ON); 2.88W(IR Off)
Operation Temperature	0°C ~ 45°C
Dimensions	100mm (Ø) x 49mm (H)
Weight	180g
Network	
Ethernet	10/ 100 Base-T
Network Protocol	IPv6, IPv4, HTTP, HTTPS, SNMP, QoS/DSCP, Access list, RTSP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP, SAMBA, Bonjour

System	
Video Resolution	1280x800@30fps,1280x720@30fps,800x600@30fps, 640x480@30fps, 320x240@30fps, 176x144@30fps
Video Adjust	Brightness, Contrast, Hue, Saturation, Sharpness, AGC, Shutter Time, Sense-up, D-WDR, Lens Distortion Correction, Flip, Mirror, Day&Night adjustable, Red Gain and Blue Gain, Denoise, Anti fog
Triple Streaming	Yes
Image snapshot	Yes
Full screen monitoring	Yes
Privacy Mask	Yes, 5 different areas
Compression format	H.264/ M-JPEG
Video bitrate adjust	CBR, VBR
Motion Detection	Yes, 3 Different Areas
Triggered action	Mail, FTP, Save to SD card, SAMBA, DO
Pre/ Post alarm	Yes (Pre: 5 secs/ Post: 5 secs)
Security	Password protection, IP address filtering, HTTPS encrypted data transmission, QoS/DSCP
Firmware upgrade	HTTP mode, can be upgraded remotely
Simultaneous connection	Up to 10
Audio	Yes, 2-way (mono)
MicroSD/SDHC card management	
Recording trigger	Motion Detection, IP check, Network break down (wire only),Schedule, DI
Video format	AVI, JPEG
Video playback	Yes
Delete files	Yes

Web browsing requirement	
OS	Windows 7, XP Microsoft® IE 8.0 or above [Note] Please enable “Compatibility View” while using IE 10 or above.
Hardware Suggested	iOS 4.3 or above, Android 1.6 or above.
Mobil support	Intel Dual Core 2.53G RAM: 1024MB Graphic card: 128MB

***SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.**

Package contents

Item	Descriptions
	1. FD1020
	2. Power Adaptor (Optional item)
	3. Wall plus
	4. Screw
	5. CD (User's Manual and Quick Guide, NVR software included)

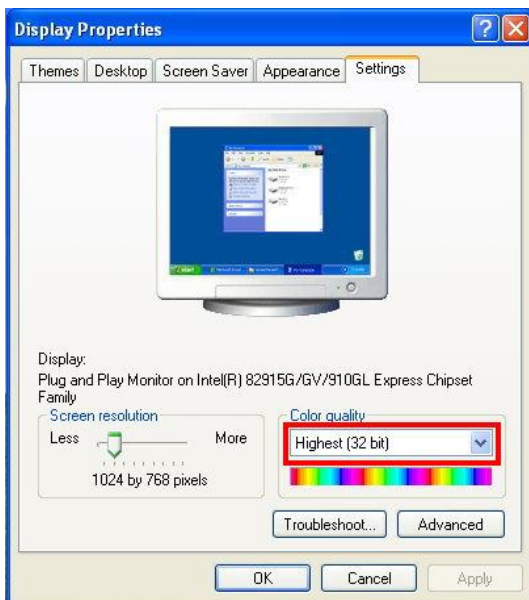
Product Installation

Monitor Setting

1. Right-click on the desktop. Select “ **Properties**”

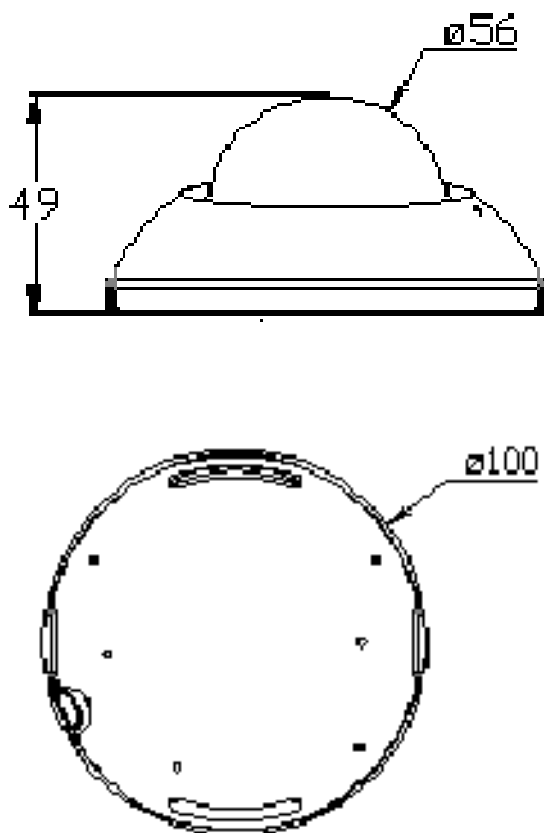


2. Change “Color quality” to “**Highest (32-bit)**”.



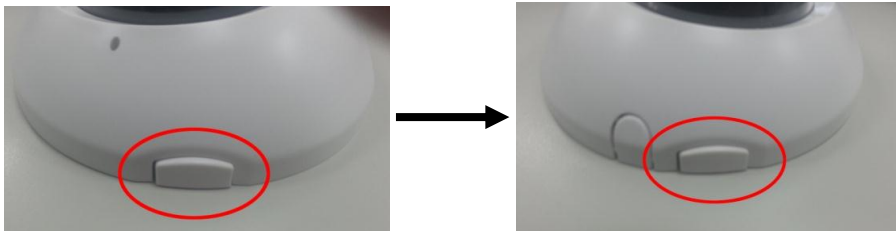
Hardware Installation and I/O Pin Assignment

1. Product Overview



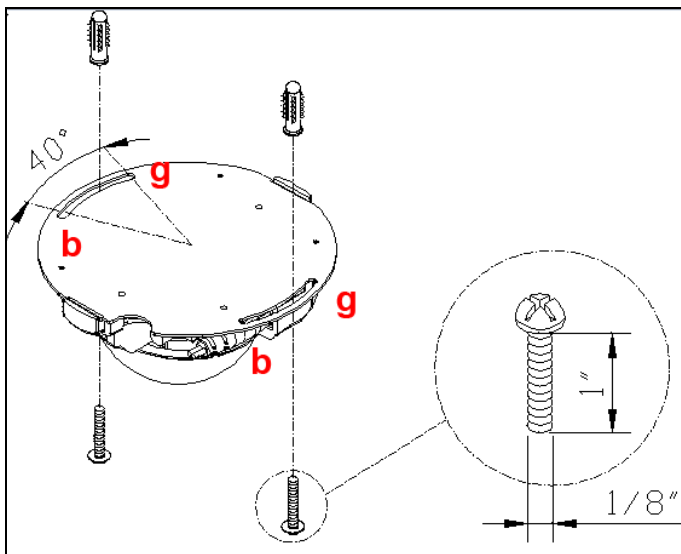
2. Installation

- a. Open the camera cover by pressing the two sides as shown in the following figures:

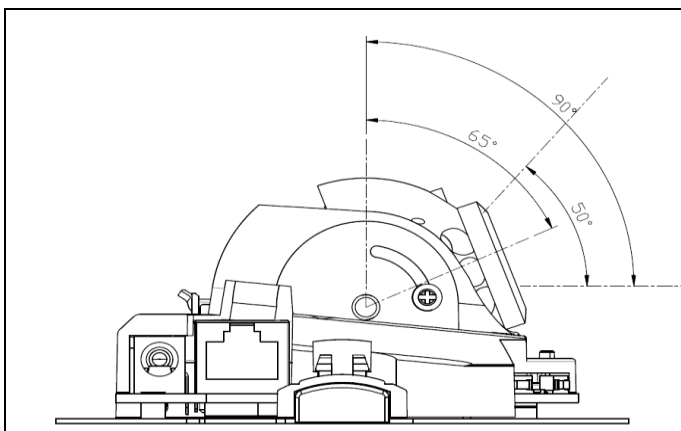


- b. Use screws to secure the camera on the ceiling or the wall.

[Note] Do not lock it completely because you might need to adjust the lens angle later.

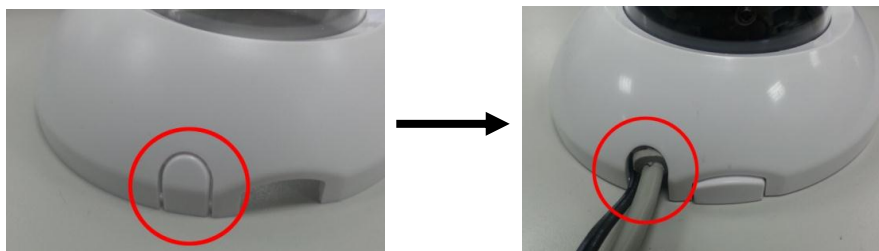


- c. Unscrew the lens to adjust the angle.



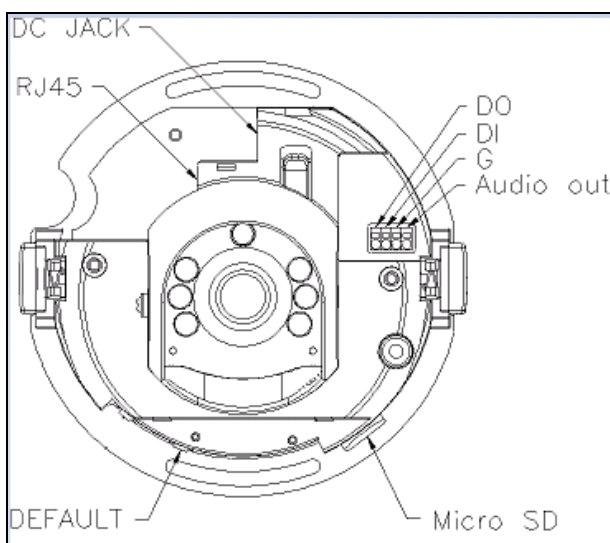
- d. After adjusting the lens, screw it tight. Repeat steps b and c as you need during the whole process.

- e. Connect the Ethernet and Power adaptor.
- f. Break the cover hole carefully and plug-in the Ethernet and power adaptor.



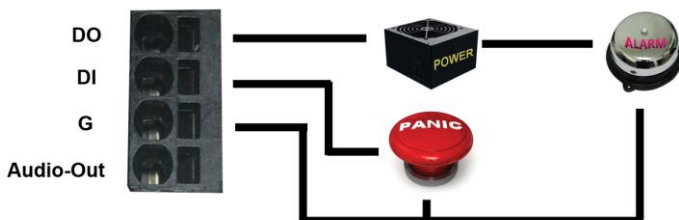
- g. After finishing step b and c, screw tight the camera on the ceiling or wall.
- h. Close the camera cover.

3. Connector Instruction

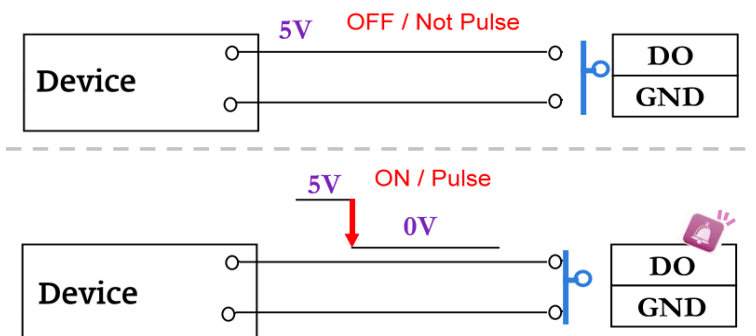


4. I/O Configuration

- Connect the **G (GND)** & **DO** pin to the external relay (buzzer) device.
- Connect the **G (GND)** & **DI** pin to the external trigger device.

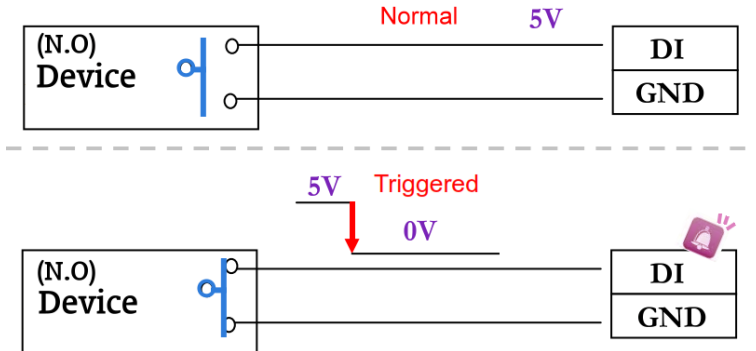


When no event occurs, the DO output is 5V (DO and GND are disconnected). When the camera detects events it will trigger and external alarm, DO output is 0V (DO and GND are connected).



If you select **N.O** on **Input sensor setting**, when the switch contacts are opened, the camera input alarm will be triggered and will execute the action user has set, for example, send a snapshot to E-mail address.

If you select **N.C** in **Input sensor setting**, when the switch contacts are closed, the camera input alarm will be triggered and will execute the action user has set, for example, send a snapshot to E-mail address.



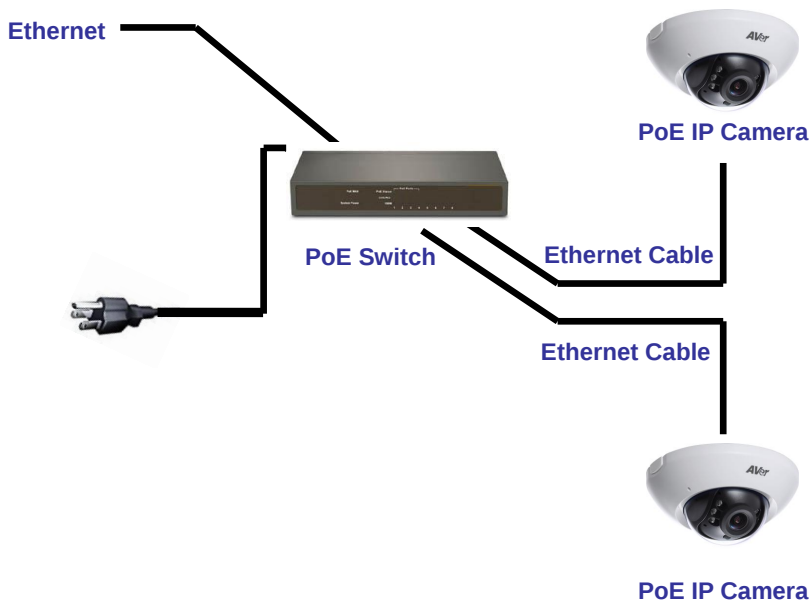
c. I/O PIN definition

- GND (Ground): Initial state is LOW
- DO (Digital Output): DC 5V
- DI (Digital Input): Max. 50mA, DC 5V

Power Over Ethernet (PoE)

Set up the IP camera through Power over Ethernet (PoE). PoE is a technology that integrates power into a standard LAN infrastructure. It enables power to be provided to the network device, such as an IP camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations.

[Note] 802.3af, 15.4W PoE Switch is recommended.



IP Assignment

There are two ways to find IP Camera:

- Finding IP Camera by using “**NXU Lite recording software**”
- Finding IP Camera by using “**AVer IPCam Utility**”

Finding IP Camera by using “NXU Lite recording software”

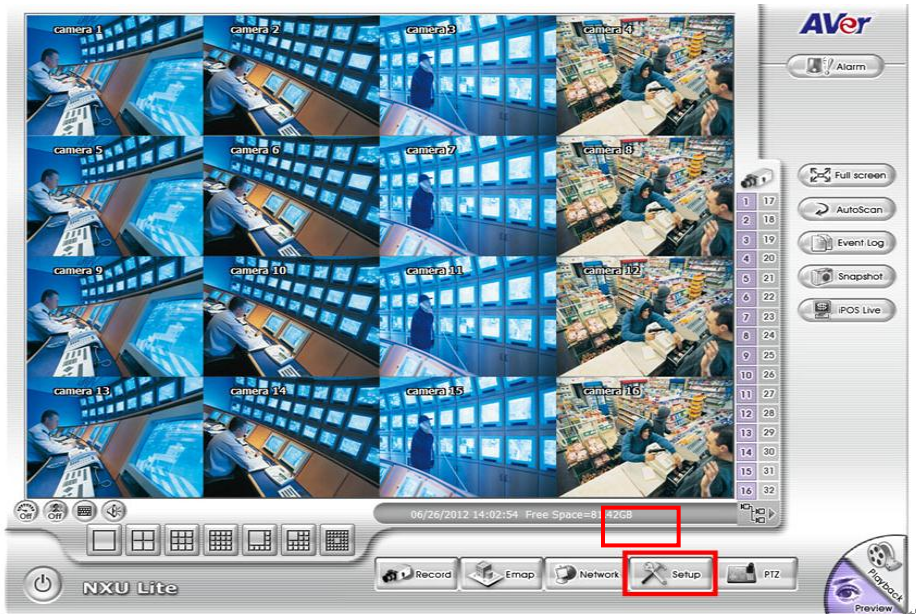
1. The NXU Lite software is in the attached software CD. Before launching it, please install the software first. During the installing process, users will be required to input a User name and Password for login NXU Lite system. Users can define the User name and Password as wishes. Please refer to NXU Lite user manual for detailed installation instruction.
2. To run the application, double-click  on your PC desktop or click **Start > Programs > DVR > NXU Lite**. For security purpose, some of the features would require you to enter User name and Password before it can be accessed. When the Authorization dialog box appears, key in your User ID and Password. (If this is the first time, enter the one you have registered when installing the software.



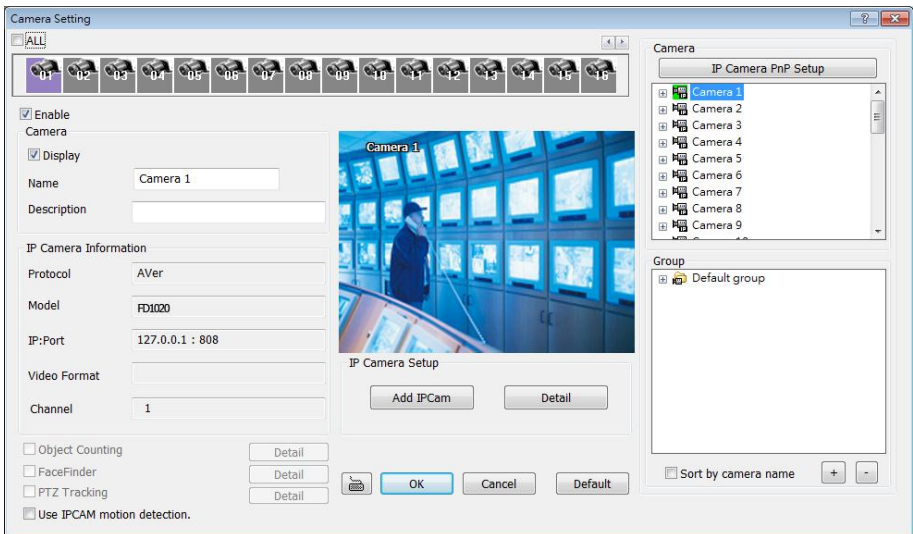
The image shows a Windows-style dialog box titled "Authorization". Inside the dialog, there is a text prompt "Please enter your user ID and password." followed by two input fields: "User ID" and "Password". Below these fields are two buttons: "OK" and "Cancel". To the right of the "Cancel" button is a small icon of a keyboard, which is highlighted with a red square. A callout line points from this icon to a separate text box on the right.

Click it to call out virtual keyboard.

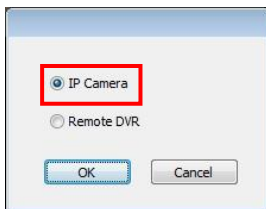
3. Click “Setup” button.



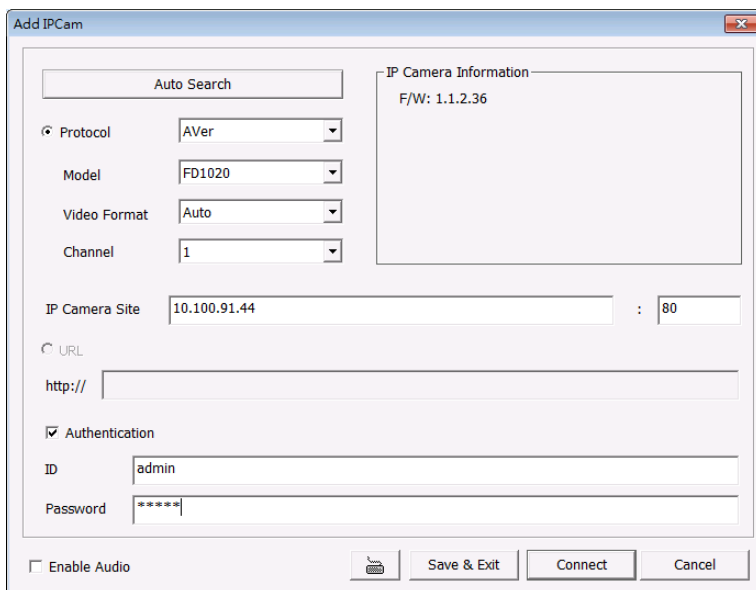
4. Click “Add IPCam” button.



5. Select “**IP Camera**” item.



6. Enter IP Camera's ID and Password (default is **admin/admin**) and click “**Auto Search**” to find camera.



Add IPCam

Auto Search

☒ Protocol: AVer
Model: FD1020
Video Format: Auto
Channel: 1

IP Camera Site: 10.100.91.44 : 80

☐ URL
http://

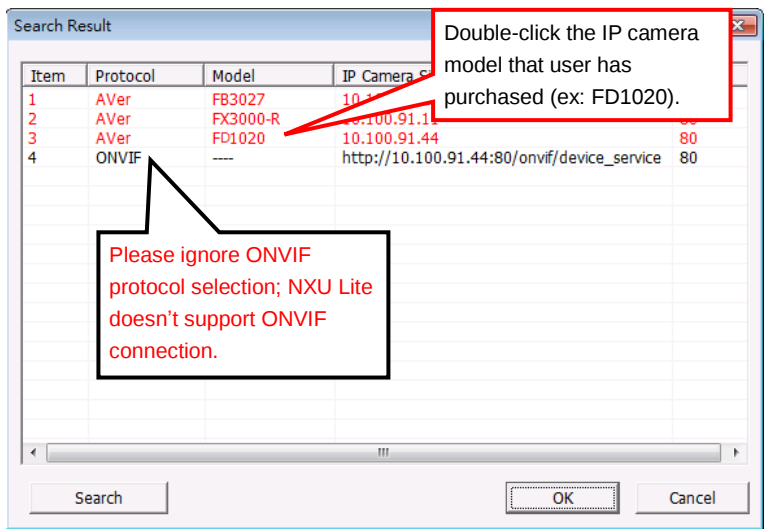
☒ Authentication
ID: admin
Password: *****

☐ Enable Audio

IP Camera Information
F/W: 1.1.2.36

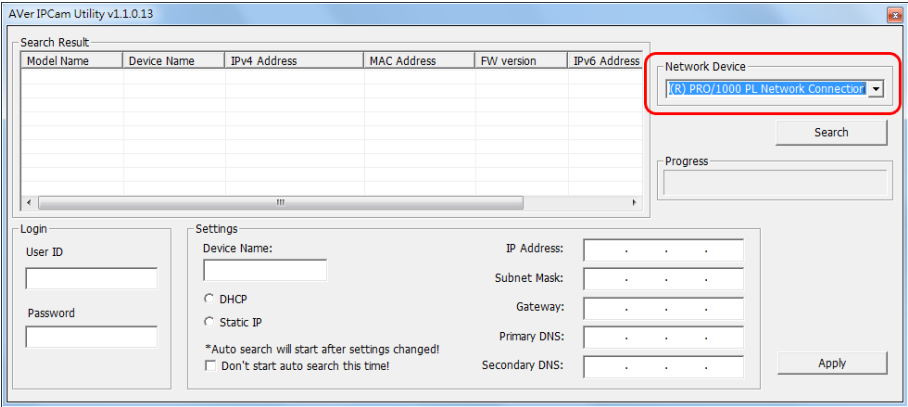
Buttons:  Save & Exit Connect Cancel

7. In Search Result window, click it the IP camera model that user has purchased (**Please ignore ONVIF connection item**); the camera is in red text that is configurable. User can double-click on the camera is in red text and configure the IP camera's setting; even the IP camera is not in the same IP segment. Press "OK" to back to previous screen and press "Connect" to start live view.

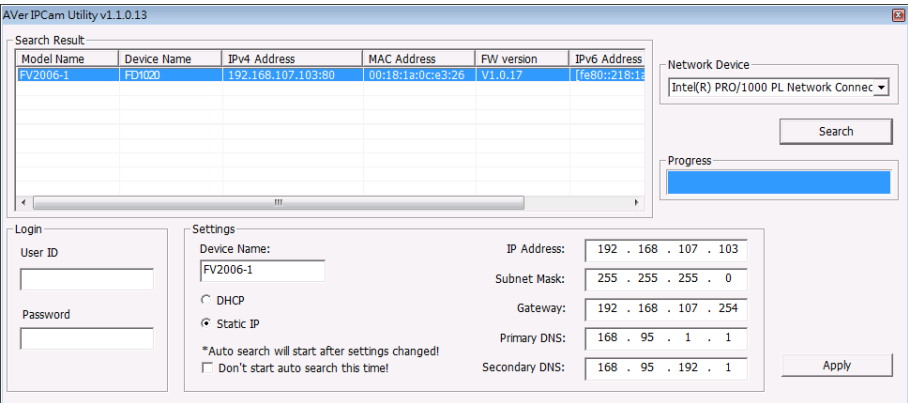


Finding IP Camera by using “Aver IPCam Utility”

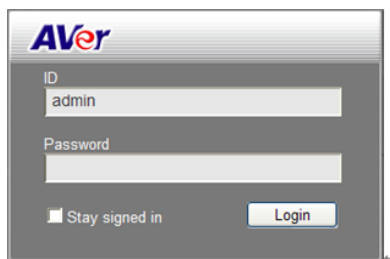
1. Use the software, “**Aver IPCam Utility**” to assign the IP address of the IP camera. The software is in the attached software CD.
2. Run the IPCam Utility
3. Select the proper network adapter and click [Search] to begin searching.



4. Select and double click the IP camera you want to access. If you want to change the setting of the selected IP camera, enter the user ID, correct password, and change the settings and then click **Apply** button. This will change the setting and rescan the network again.



5. The IE browser will open and direct you to IP camera login page. This requires IPViewer.ocx to run. If the IE ActiveX warning message appears, click to allow running the add-on.



Default ID : admin
Password : admin

[Note]

- The default IP address is: 192.168.1.168
- The default ID and Password are both "**admin**".
- It is not allowed to enter device name in Chinese and any other special characters (' " \ & ^).
- Gateway number can't be "0".
- IP camera device name should be less than 30 digits

Using NON-DHCP Server/Router Network

In Non-DHCP server/router network, the static IP address must be assigned to the device each time when adding another IP camera to the network; the default IP address of the current one must be changed to avoid conflict.

Please make sure the Subnet of the PC's IP address and the IP camera's IP address are the same.

[Example]

The same Subnet:

IP camera IP address: 192.168.1.168

PC IP address: 192.168.1.100

Different Subnets:

IP camera IP address: 192.168.1.168

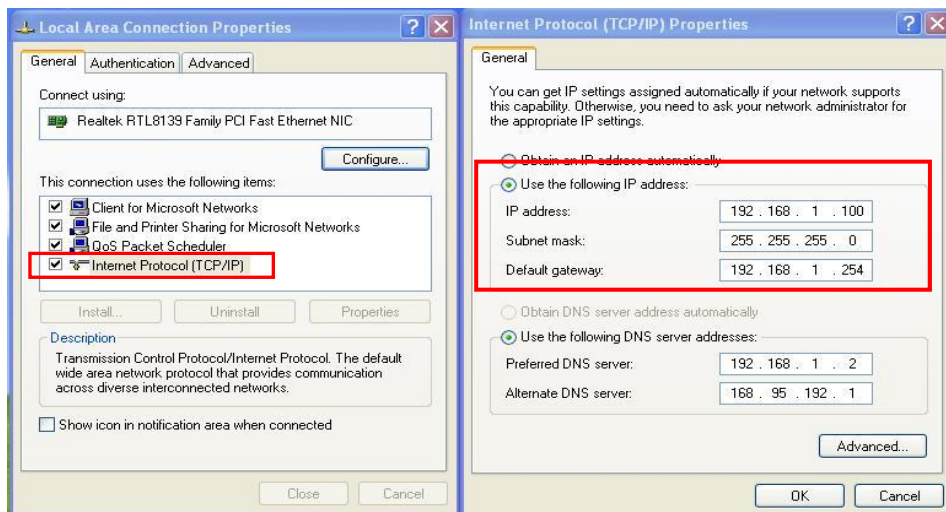
PC IP address: 192.168.2.100

To Change PC IP Address:

Control Panel → Network Connections → Local Area Connection Properties → Internet Protocol (TCP/IP) → Properties

Please make sure your IP camera and PC have the same Subnet. If not, please change IP camera subnet or PC IP subnet accordingly.

PC's IP address:



IP camera IP addresses:

Aver IPCam Utility v1.1.0.13

Search Result

Model Name	Device Name	IPv4 Address	MAC Address	FW version	IPv6 Address
FV2006-1	FD1020	192.168.107.103:80	00:18:1a:0c:e3:26	V1.0.17	1a80::218:1

Network Device: Intel(R) PRO/1000 PL Network Connec

Search

Progress

Login

User ID

Password

Settings

Device Name: FV2006-1

IP Address: 192 . 168 . 107 . 103

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 192 . 168 . 107 . 254

Primary DNS: 168 . 95 . 1 . 1

Secondary DNS: 168 . 95 . 192 . 1

☐ DHCP

☒ Static IP

*Auto search will start after settings changed!

☐ Don't start auto search this time!

Apply

A quick way to access remote monitoring is to double-click on a selected IP camera in “Camera Name list” in AVer IPCam Utility. Then, the IE browser will open and connect to IP camera.

Then, please key in the default “ID” and “Password”, both of which are “admin”.

AVer

ID:

Password:

Login

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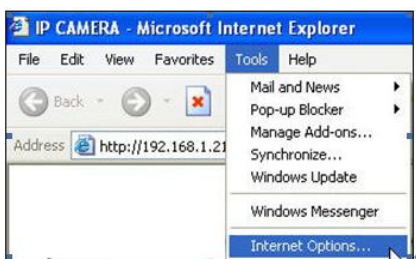
Install ActiveX Control

The first time you attempt to view the camera video via Internet Explorer, it will ask you to install the ActiveX component.

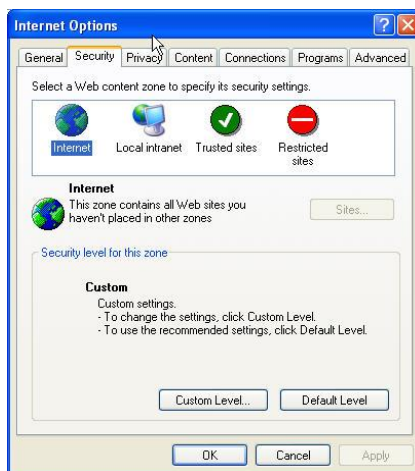
If the installation fails, please check the security settings for the Internet Explorer browser.

1. IE → Tools → Internet Options... → Security Tab → Custom Level... → Security Settings → Download unsigned ActiveX controls → Select **"Enable"** or Prompt.
2. IE → Tools → Internet Options... → Security Tab → Custom Level... → Initialize and script ActiveX controls not marked as safe → Select **"Enable"** or Prompt.

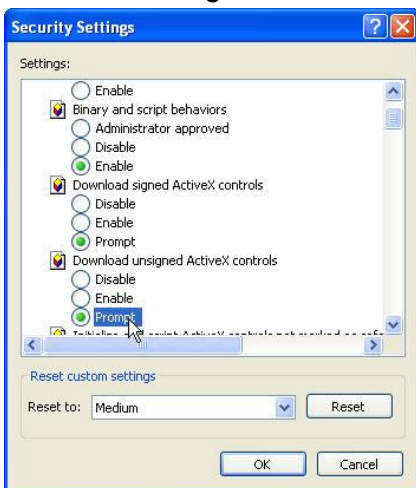
1



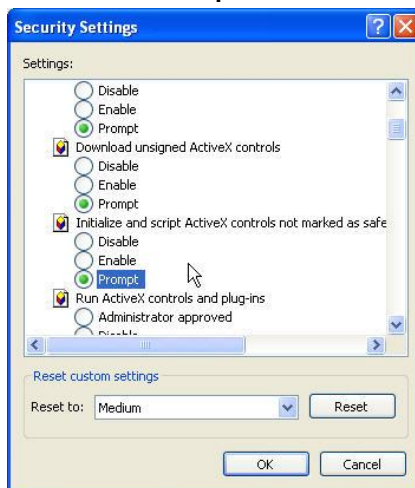
2



3



4



5

When the following dialogue box appears, click **“Yes”**.



Using the IP Camera Browser Interface

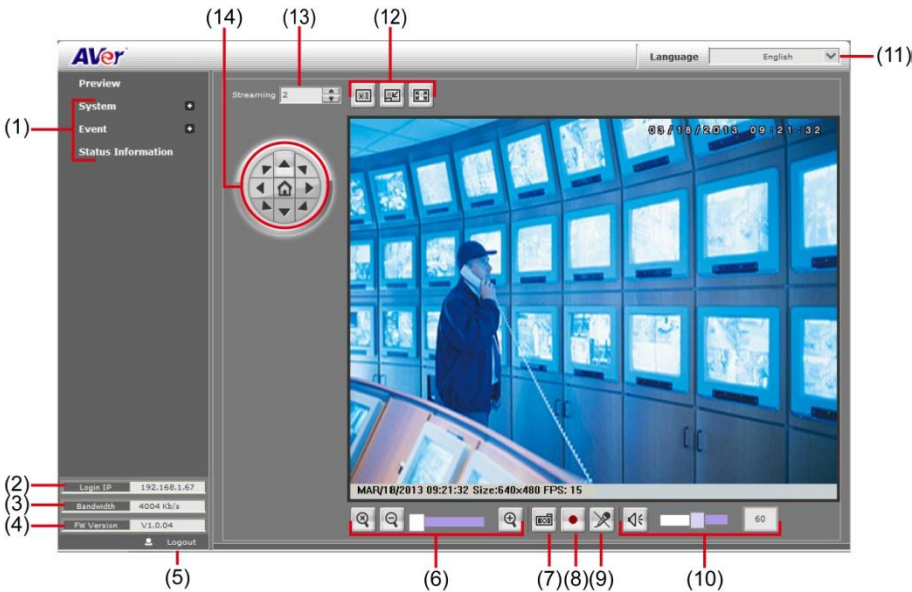
The admin have the full access to the IP camera browser interface. The menu on the left, you can expand and navigate to access all the features.

Preview

Launch the Internet Explorer browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the "ID" and "Password". The default "ID" and "Password" are both "admin".



Once connected to the IP camera, the following program interface will appear.



Name	Function
(1) System/Event/Status Information	Set up IP camera's configuration.
(2) Login IP	Show PC's IP address
(3) Bandwidth	Show current IP camera's transmitting bandwidth
(4) FW Version	Show IP camera's current firmware version
(5) Logout	Exit the application
(6) Zoom control	 Reset zoom level.
	 Increase zoom level.
	 Decrease zoom level.
	 Use the scroll bar to zoom in or zoom out the video screen
(7) Capture	 Capture and save the image on the screen in *.bmp format
(8) Record	 Start/stop audio and video recording. The recorded video will be saved in *.avi format.
(9) 2-way Talk	 Click the Microphone button to talk to IP camera side from user site. Click this button again to mute this function.
(10) Speaker	 Turn on the PC's speaker so that PC side can hear sound from IP camera side. Click this button again to mute this function.
	 Use the scroll bar to adjust the speaker volume.
	 It shows the current speaker volume's value.
(11) Language	Select the browser interface language.
(12) Video screen	 Display the actual video pixel size
	 Display the video screen in compact size.
	 Display the video in full screen mode. Press ESC to exit full screen mode.

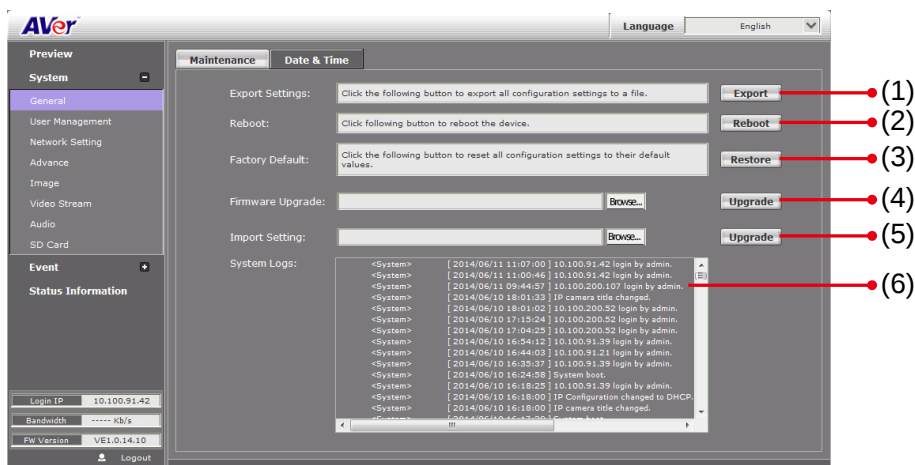
Name	Function
(13) Stream	Switch to view the video stream type. The IP camera can send multiple video streams of up to 3 types. To change the video stream setting, go to System > Video Stream. [Notes]When streaming 2 setting in "Video Setting" is closed, there won't have other stream option
(14) Direction Controller	Move the position of the view point while in zoom mode. User has to zoom in first.

System > General

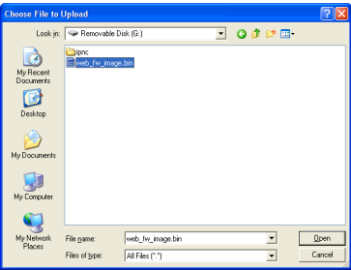
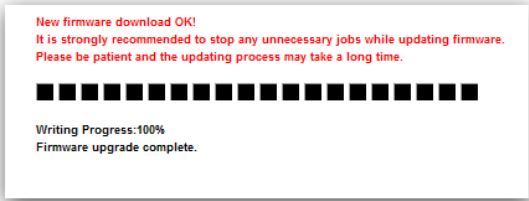
In this section, only admin level is authorized to configure the IP camera system maintenance and the date and time settings.

System > General > Maintenance

In the Maintenance tab, the administrator can check the system event log, upgrade the system firmware, reset the configuration settings without having to change the user management and network settings, reboot, and restore all back to factory default settings.

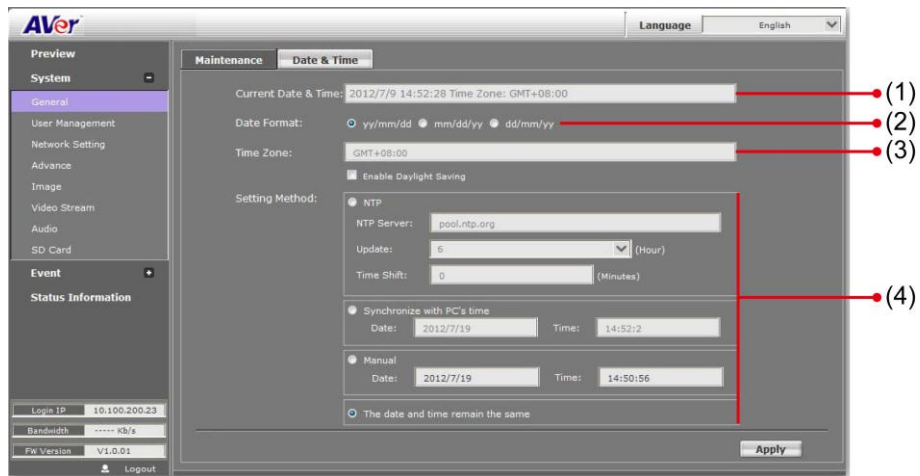


Name	Function
(1) Export Settings	Upload to save all the configuration settings from the IP camera to computer hard disk.
(2) Reboot	Turn the IP camera off and on again.
(3) Factory default	Set all the configuration settings back to default except the user management and network settings.

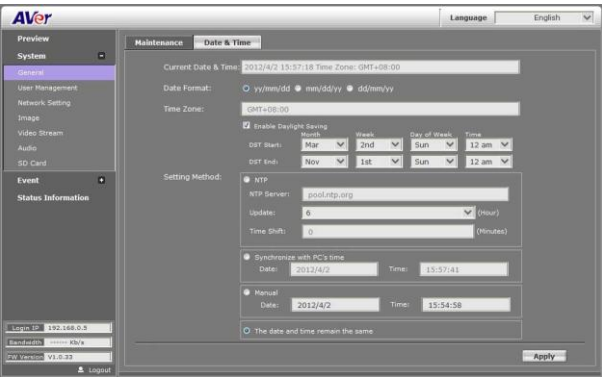
Name	Function
(4) Firmware Upgrade	Upgrade the firmware to the latest version.
<u>To Upgrade the IP Camera Firmware</u> 1. Download the file from our website and save it in your computer hard disk. 2. Click Browse. Locate and select the file and click Open. 3. Click Apply. Wait till you see the message "Firmware Upgrade OK!!". You may now click the Internet Explorer browser refresh button or press F5. The login page will appear.	
	
	
(5) Import	Download to replace the current settings with the configuration settings file from the computer hard disk to IP camera.
(6) System log	Display the IP camera system event log.

System > General > Date & Time

In the “Date & Time” tab, **the administrator** can set and update the system’s date and time. After **filling in the correct settings**, click **Apply** to apply the new settings.



Name	Function
(1) Current Date & Time	Display the current date and time.
(2) Date Format	Select the date display format.
(3) Time Zone	Set the local time zone. Check the box next to “Enable Daylight Saving” to enable and setup the start date and end date for daylight saving time.



Name	Function
(4) Setting Method	Select the date & time settings method. <u>Sync with current PC</u> – Obtain the date and time setting on the current login computer. <u>Sync with NTP Server</u> – Obtain the date and time setting from NTP server. In the drop-down list, select the NTP host name. <u>Manual</u> – Manually set the date and time. Click “Done” to close the date and time interface.

System > User Management

In this section, only admin level is authorized to create, delete, and edit the account in Account tab and configure the client connection setting in Connection tab.

System > User Management

IP camera supports two different user accounts – Administrator (Admin) and Guest User.

The screenshot displays the AVer web interface for User Management. On the left is a sidebar with a 'System' menu expanded to 'User Management'. The main panel shows 'Anonymous Login' with radio buttons for 'YES' and 'NO', and a 'Setting' button. Below are input fields for 'Username', 'Password', and 'Confirm', with an 'Add/Set' button. A 'User List' table is shown with columns: Username, User Group, Modify, and Remove. It contains one entry: 'admin' with group 'Administrator' and an 'Edit' link. At the bottom, status information shows 'Login IP: 10.100.91.42', 'Bandwidth: ***** Kb/s', and 'FW Version: VE1.0.14.10'.

User Type	Access Rights
Admin	Can access all the configuration pages
Guest User	Can only access the preview and status information pages.

■ Anonymous User Login

- ✓ **Yes:** Allow an anonymous user to view the IP camera without logging in.
- ✓ **No:** Need user name & password to access this IP camera

- **Add user:** Enter the user name in “**Username**”, the password in “**Password**”, and re-enter the password in “**Confirm**”. Then, click “**Add/Set**”.
- **User List:** Click **edit** to change the account password. To delete the user account, click **Remove** button.

A screenshot of a 'User Setup' dialog box. It has a title bar 'User Setup'. Below the title bar, there are three labels: 'Username:', 'Password:', and 'Confirm:'. Each label is followed by a text input field. The 'Username' field contains the text 'guest'. The 'Password' and 'Confirm' fields are empty. At the bottom right of the dialog box, there is an 'OK' button.

User Setup

Username: guest

Password:

Confirm:

OK

[Note]

1. The password can't be empty, otherwise, user are not able to login successfully.
2. Please don't use special symbols as user name such as *, %, \$, &.

System > Network Setting > Setting

- **Device Name:** Used to name the IP camera to search more easily for this specific one among all connected IP cameras.

The screenshot shows the AVer network configuration web interface. On the left is a sidebar with a 'Preview' section containing 'System' (with a minus icon), 'General', 'User Management', 'Network Setting' (highlighted in purple), 'Advance', 'Image', 'Video Stream', 'Audio', and 'SD Card'. Below this is an 'Event' section with a plus icon and a 'Status Information' section. At the bottom of the sidebar are fields for 'Login IP' (192.168.0.1), 'Bandwidth' (---- kb/s), and 'FW Version' (V1.0.00), along with a 'Logout' button. The main area has tabs for 'Setting', 'Server', 'DDNS', 'Other 1', 'Other 2', and 'IPv6'. The 'Setting' tab is active, showing 'Network Type' options: 'DHCP' (selected with a radio button) and 'Static' (unselected). Below these are input fields for 'IP Address' (192.168.201.71), 'Subnet Mask' (255.255.255.0), 'Gateway' (192.168.201.254), 'Primary DNS' (168.95.1.1), and 'Secondary DNS' (168.95.192.1). There is also a 'PPPoE' section with a radio button, and fields for 'Username:', 'Password:', 'Confirm Password:', 'Send mail after dialed' (with an 'Enabled' checkbox), and 'Subject:' (with the value 'PPPoE From IP Camera'). An 'Apply' button is at the bottom right.

- **Network Type:** IP camera supports DHCP, static IP and PPPoE. After completed all settings, click **Apply** to save the configuration.
 - **DHCP:** Using DHCP, IP camera will get all the network parameters from DHCP server automatically.
 - **Static IP:** Please enter the IP address, subnet mask, gateway, Primary DNS, and Secondary DNS.
 - **PPPoE:** Enter the **Username**, **Password** and re-enter Password in **Confirm Password** for the ADSL connection. And then click **Apply** to save the configuration.

System > Network Setting > Sever

Used to send out the video via Email or FTP, or to save on NAS.

The screenshot shows the AVer system configuration interface. On the left is a sidebar with a 'Preview' section and a 'System' menu. The 'System' menu is expanded, showing options like General, User Management, Network Setting (highlighted), Advance, Image, Video Stream, Audio, and SD Card. Below this is an 'Event' section and a 'Status Information' section. The 'Status Information' section displays: Login IP: 192.168.11.20, Bandwidth: ---- Kb/s, FW Version: V1.0.30, and a Logout button. The main area has tabs for Setting, Server, DDNS, Other 1, Other 2, and IPv6. The 'Setting' tab is active, showing three sub-sections: Mail Setting, FTP Setting, and NAS Settings. The Mail Setting section includes fields for Login Method (Account), Bcc Mail, Sender Email Address, Recipient Email Address, Mail Server, Account Name, Password, and Secure Connect (TLS/SSL). The FTP Setting section includes fields for FTP Server, Account Name, Password, Path, Create the folder (Yes), and Mode (PORT). The NAS Settings section includes fields for Location, Workgroup, Account Name, Password, and Create the folder (Yes). An Apply button is at the bottom right.

- **Mail Setting:** Used to send out the video via Email.
 - a. **Login Method:** Click drop-down list to select the method to login Email server – “Account” or “Anonymous”.
 - b. Enter necessary information in “Bcc Mail”, “Sender Email Address”, “Recipient Email Address”, “Mail Server”, “Mail Server Port”, “Account Name”, and “Password” columns.
 - c. Click “Apply” to save the configuration.
- **FTP Setting:** Used to send out the video to FTP server.
 - a. Enter necessary information in “FTP Server”, “Account Name”, “Password”, and “Path” columns.
 - b. **Port:** Select the FTP server port.
 - c. If the user wants to create a new folder on the FTP server to save the video file, select “Yes” under the “Create the folder”.
 - d. **Mode:** Select the FTP transmission mode.
 - e. Click “Apply” to save the configuration.
- **NAS Settings:** Used to send out the video to NAS server.
 - a. Enter necessary information in “Location”, “Workgroup”, “Account Name” and “Password” columns.
 - b. If the user wants to create a new folder on the NAS server to save the video file, select “Yes” under the “Create the folder”.

- c. Click **“Apply”** to save the configuration.

NAS Settings

Location: \\192.168.107.171\\AverNAS

Workgroup: AVerGroup Create the folder: Yes

Account Name: AVerMember Password:

Apply

System > Network Setting > DDNS

The IP camera supports DDNS (Dynamic DNS) service.

Language English

Preview

System

General

User Management

Network Setting

Advance

Image

Video Stream

Audio

SD Card

Event

Status Information

Setting Server DDNS Other 1 Other 2 IPv6

Service Provider: dydns.org

Domain Name:

Account Name:

Password:

Schedule Update: 30 Minutes

☒ Enabled DDNS

Status: DDNS not launching!

Note:

1. Schedule Update: Depends on the input time of Schedule Update, it will update DDNS's web site automatically. The time range is from 5 to 5000 minutes.
*0: It will not update.
2. dydns.org & 3322.org: Update once per day is recommended (1440 minutes per day). If updated too frequently, it will be blocked.

Apply

Login IP: 10.100.200.27

Bandwidth: Kbps

PW Version: V1.0.30

Logout

- Select **“Enabled DDNS”** to enable DDNS function.
- Enter the **Domain Name**, **Account Name**, and **Password** that the user has registered on the DDNS service provider in the appropriate columns.
- Enter the IP refreshing time period in the **“Schedule Update”** column.
- Click **“Apply”** to save the configuration.

[Note] If you set up schedule update to occur too frequently, the IP may be blocked. In general, performing schedule update once a day (1440 minutes) is recommended.

■ Status

- Common warning message:

Updating!

Failed(1), Please check your DNS setting.

Failed(2), Please check your internet connection.

Failed(3), Please check your internet connection.

Failed(6), receiving data failure

- Warning message from different service provider:

✧ **Server Provider : dyndns.org**

Failed(4), Please check the DynDNS.org.

Error : The system parameter given is not valid.

Error : No user agent was specified.

Error : The username and password pair do not match a real user.

Error : An option available only to credited users was specified.

Error : Not in the form hostname.domain.org or domain.com.

Error : The hostname specified does not exist.

Error : Not under the username specified.

Error : Too many or no hosts specified in an update.

Error : The hostname specified is blocked for update abuse.

Error : DNS error encountered.

Error : DNS Server Error Conditions.

✧ **Server Provider : ddns.camddns.com(TW)**

Failed(5), The name has already been registered.

✧ **Server provider : ddns.ipddn.com(HK)**

Failed(5), The name has already been registered

✧ **Server provider : www.3322.org.**

Failed(4), Please check the www.3322.org.

System > Network Setting > Other 1

The screenshot shows the AVer IP camera web interface. The left sidebar contains a menu with 'Preview', 'System', 'General', 'User Management', 'Network Setting' (highlighted), 'Advance', 'Image', 'Video Stream', 'Audio', 'SD Card', 'Event', and 'Status Information'. The 'Status Information' section shows 'Login IP: 10.100.91.42', 'Bandwidth: ---- Kb/s', 'FW Version: VE1.0.14.10', and a 'Logout' button. The main area is titled 'Setting' and has tabs for 'Server', 'DDNS', 'Other 1' (selected), 'Other 2', and 'IPv6'. The 'Other 1' tab contains the following settings:

Setting	Value
HTTP Port:	80
HTTPS Port:	443
UPnP Support:	☒ Yes ☐ No
UPnP Port Forwarding:	☐ Yes ☒ No
External HTTP Port:	80
External HTTPS Port:	443
External RTSP Port:	554
RTSP Server:	☒ Yes ☐ No
RTSP Authentication:	Disable
RTSP Port:	554
RTP Start Port:	5000 [1024..9997]
RTP End port:	9000 [1027..10000]
ONVIF:	☐ Enabled ☒ Disabled
Security:	☐ Yes ☒ No
RTSP Keepalive:	☐ Yes ☒ No

An 'Apply' button is located at the bottom right of the settings area.

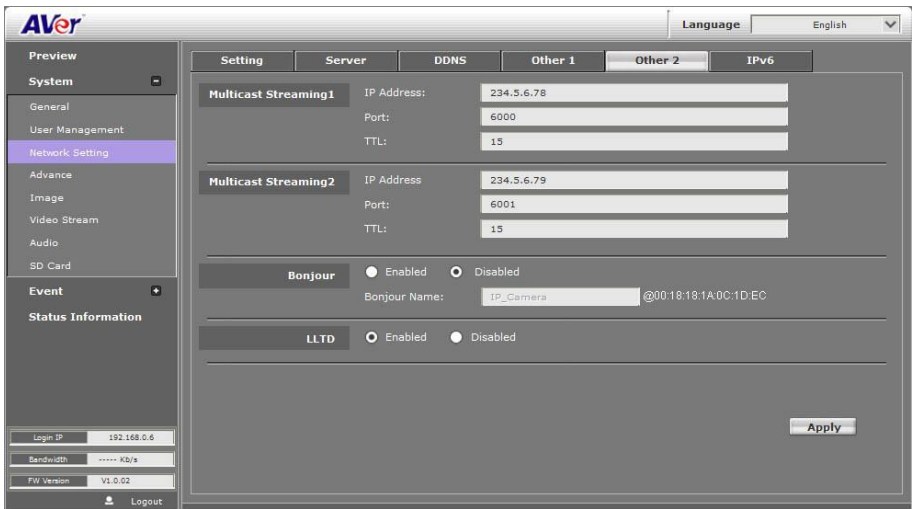
User may need to assign different port to avoid conflict when setting up IP assignment. Click **Apply** to save the configuration.

- **HTTP Port:** setup web page connecting port and video transmitting port (Default: 80)
- **HTTPS Port:** AVer IP Camera supports encrypted browsing using HTTPS. This is configured on the System > Advance > HTTPS
- **UPnP Support:** This IP camera supports UPnP, if this service is enabled on your computer, the camera will automatically be detected and a new icon will be added to “My Network Places.”
[Note] UPnP must be enabled on your PC.
 Please follow the procedure to activate UPnP.
 1. Open the **Control Panel** from the Start Menu.
 2. Select **Add/Remove Programs**.
 3. Select Add/Remove Windows Components and open Networking Services section.
 4. Click **Details** and select **UPnP** to setup the service.
 5. The IP device icon will be added to “**My Network Places**”.
 6. User may double click the IP device icon to access IE browser.
- **UPnP Port Forwarding:** If the IP camera is set up behind the firewall, please select YES to enable it.
- **RTSP Server:** Enable/disable RTSP function. The Real Time Streaming Protocol (RTSP) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers.
- **RTSP Authentication:** Select the RTSP authentication mode – disable, basic, or digest.

- **RTSP Port:** setup port for RTSP transmitting (Default: 554)
- **RTP Start and End Port:** in RTSP mode, you may use TCP and UDP for connecting. TCP connection uses RTSP Port (554). UDP connection uses RTP Start and End Port.
- **Security: Yes** is required account and password to connect with this IP camera through ONVIF protocol. **No** is not required account and password to connect.
- **RTSP Keepalive:** To keep connection until remote site disconnects it.

System > Network Setting > Other 2

Multicast Setting (based on the RTSP Server): User can setup two streaming based on the RTSP Server.



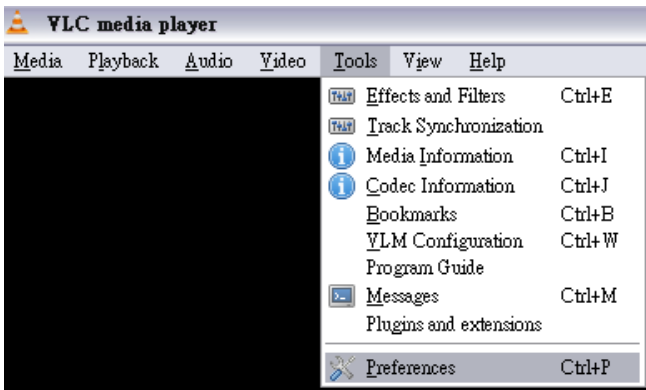
Multicast operation example:

The application is to get the multicast streaming in the LAN environment. Basically, the users operate VLC player, and then you can get the multicast streaming form IP camera.

Please follow the steps to obtain the multicast streaming in the following steps:

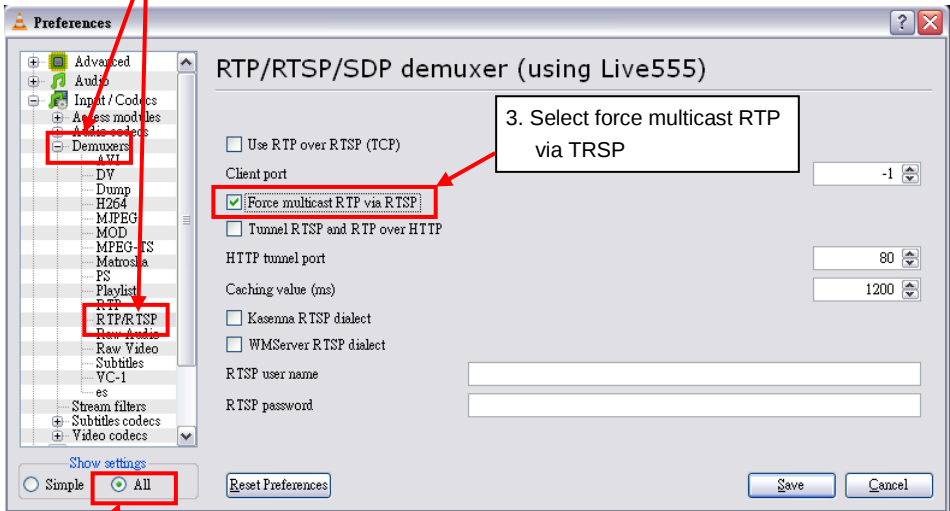
Step 1:

1. Implement VLC player (please download from the internet)
2. Select /tools/preferences



Step 2:

2. Select Demuxers and
RTP/RTSP

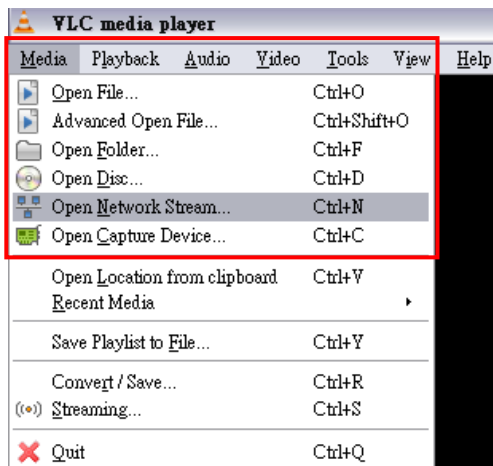


3. Select force multicast RTP
via TRSP

1. Select all

Step 3:

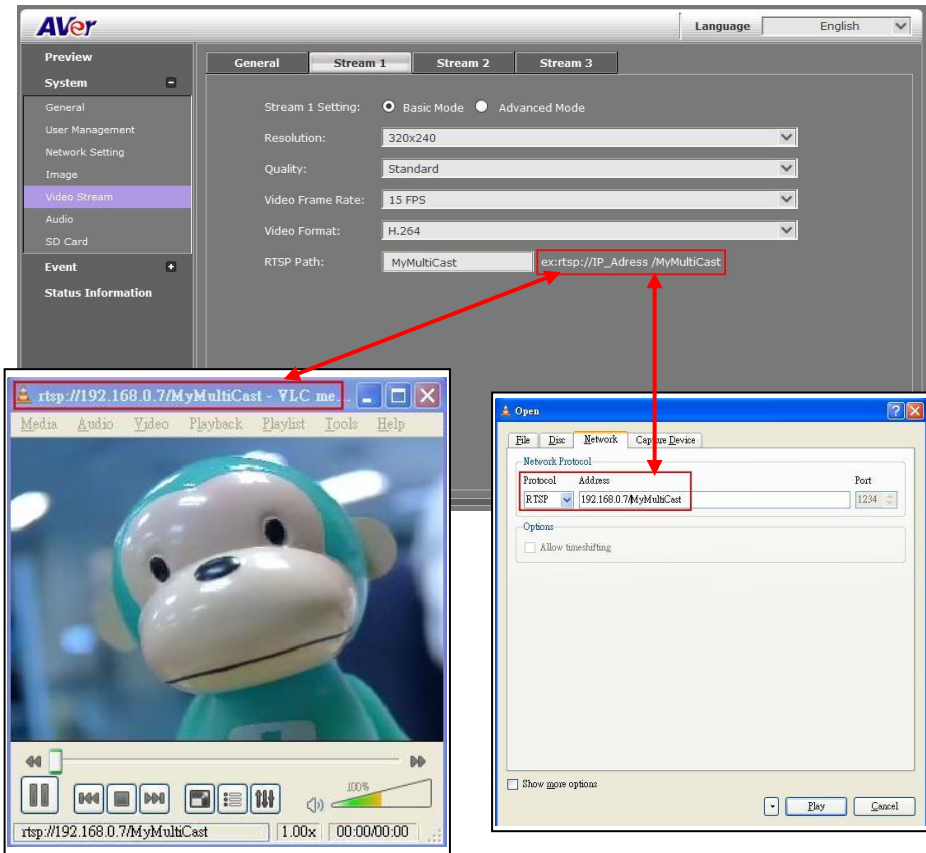
Select Media/open network stream



Step 4:

Input **rtsp://[IPCAM Address] / [RTSP Path]**

The URL address should be the same as the RTSP path in Video Stream (System-->Video Stream)



[Notice]

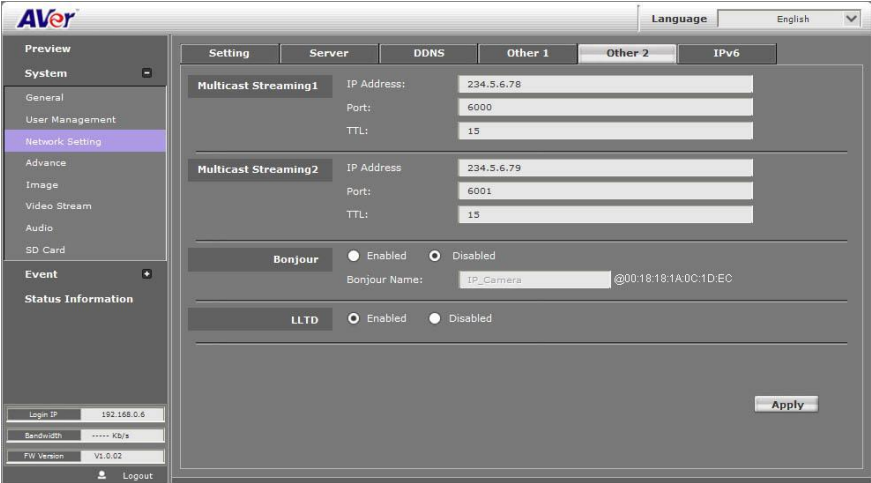
- a. If the received image is not from the required IP camera, please adjust the value. (Change either IP Address or Port number)

The screenshot shows the AVer network settings interface. The left sidebar contains a menu with 'Preview', 'System', 'General', 'User Management', 'Network Setting' (highlighted), 'Advance', 'Image', 'Video Stream', 'Audio', 'SD Card', 'Event', and 'Status Information'. The main area has tabs for 'Setting', 'Server', 'DDNS', 'Other 1', 'Other 2', and 'IPv6'. Under the 'Setting' tab, there are sections for 'Multicast Streaming1', 'Multicast Streaming2', 'Bonjour', and 'LLTD'. The 'Multicast Streaming1' section has fields for 'IP Address' (234.5.6.78), 'Port' (6000), and 'TTL' (15). The 'Multicast Streaming2' section has fields for 'IP Address' (234.5.6.79), 'Port' (6001), and 'TTL' (15). The 'Bonjour' section has radio buttons for 'Enabled' and 'Disabled', and a 'Bonjour Name' field with the value 'IP_Camera'. The 'LLTD' section has radio buttons for 'Enabled' and 'Disabled'. At the bottom right is an 'Apply' button. The bottom status bar shows 'Login IP: 192.168.0.6', 'Bandwidth: ----- Kb/s', 'FW Version: V1.0.02', and a 'Logout' button.

- b. If the Multicast stream you use doesn't support RTSP Keepalive, please select NO.

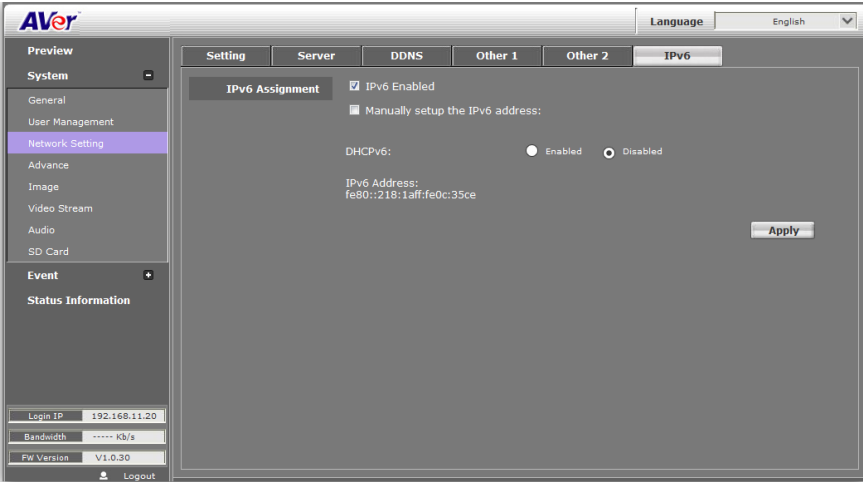
The screenshot shows the AVer network settings interface. The left sidebar is the same as in the previous screenshot. The main area has tabs for 'Setting', 'Server', 'DDNS', 'Other 1', 'Other 2', and 'IPv6'. Under the 'Setting' tab, there are fields for 'HTTP Port' (80) and 'HTTPS Port' (443). Below these are radio buttons for 'UPnP Support' (Yes/No) and 'UPnP Port Forwarding' (Yes/No). There are also fields for 'External HTTP Port' (80), 'External HTTPS Port' (443), and 'External RTSP Port' (554). The 'RTSP Server' section has radio buttons for 'Yes' and 'No', and fields for 'RTSP Port' (554), 'RTP Start Port' (5000), and 'RTP End port' (9000). The 'ONVIF' section has radio buttons for 'v1.02', 'v1.01', and 'Disabled'. The 'Security' section has radio buttons for 'Yes' and 'No'. The 'RTSP Keepalive' section has radio buttons for 'Yes' and 'No'. At the bottom right is an 'Apply' button. The bottom status bar shows 'Login IP: 192.168.0.1', 'Bandwidth: ----- Kb/s', 'FW Version: V1.0.00', and a 'Logout' button.

- **Bonjour:** This function enables MAC systems to link to this IP Camera. Please key in the name here.(Safari supports Bonjour protocol)
- **LLTD:** If your PC supports LLTD, enable this function then you can check the connection status, properties, and device position (like IP address) of this IP Camera in the network map. In the computer running Windows Vista or Windows 7, you can find LLTD through the path **Start → Control Panel→ Network and internet→ Network and Sharing Center→ Click “ See full map”**.

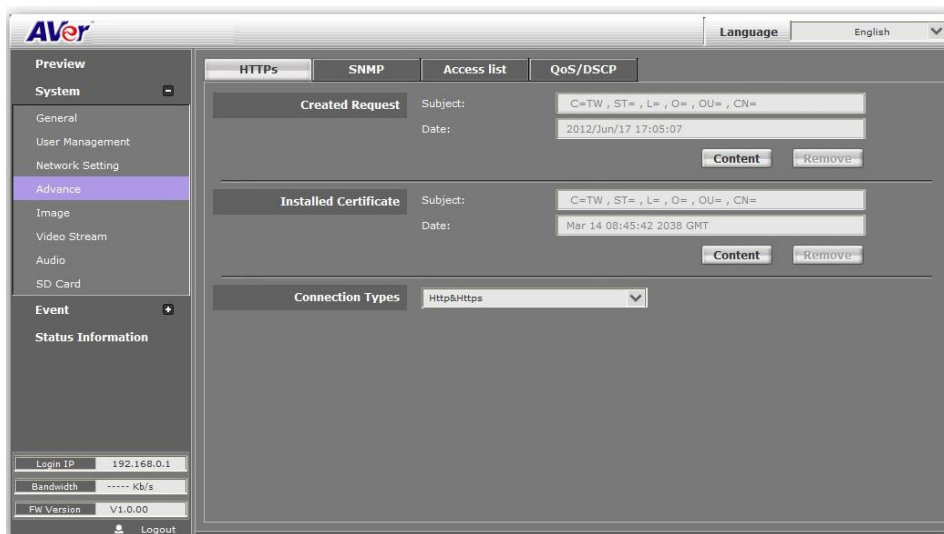


System > Network Setting > IPv6

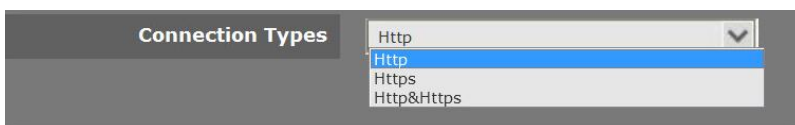
Beside IPv4, there is IPv6 for users to set up IP address.



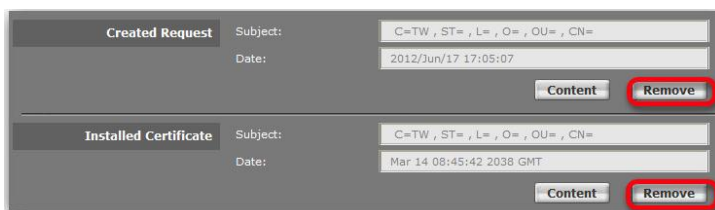
System > Advance > HTTPS



HTTPS (Hypertext Transfer Protocol Secure): Https can help protect streaming data transmission over the internet on the higher security level. You can select the connection type. "Https" means user cannot connect the camera via Http protocol. The HTTPS path will be: "https://(IP address)/". If you select "Http & Https", both the Http and Https path can be used to access the camera



Remove the existing setting: Before setting new request, please remove old secure identification. Select "Http" connection type and click "Remove".



Created Request: Setting the secure identification and apply it.

Create Request	Country:	
	State or province:	
	Locality:	
	Organization:	
	Organizational Unit:	
	Common Name:	
		Apply

There are two ways to set Certificate- Install Signed Certificate or Create Self-Signed Certificate.

Install Signed Certificate	Signed Certificate:		Browse
	Apply		
Create Self-Signed Certificate	Country:		
	State or province:		
	Locality:		
	Organization:		
	Organizational Unit:		
	Common Name:		
	Validity:		Days
Apply			

System > Advance > SNMP

SNMP (Simple NetworkManagement Protocol) provides a simple framework for administering networked hardware. To manage the IP camera, you have to prepare a MIB browser or similar tools first. SNMPv1, SNMPv2c, and SNMPv3 can be enabled simultaneously.

Aver

Preview

System

General

User Management

Network Setting

Advance

Image

Video Stream

Audio

SD Card

Event

Status Information

Login IP10.100.91.42

Bandwidth----- Kb/s

PW VersionVE1.0.14.10

Logout

LanguageEnglish

HTTPSSNMPAccess listQoS/DSCP

SNMP Setting

☐ SNMPv1

☐ SNMPv2c

Write Community:write

Read Community:public

☐ SNMPv3

Write Security Name:write

Authentication Type:☐ MD5☐ SHA

Authentication Password:

Encryption Type:☐ DES☐ AES

Encryption Password:

Read Security Name:public

Authentication Type:☐ MD5☐ SHA

Authentication Password:

Encryption Type:☐ DES☐ AES

Encryption Password:

☐ SNMPv1/v2c Trap

Trap Address:

Trap Community:public

Trap Event:☐ Network Disconnected☐ V3 Authentication Failed☐ Cold Start☐ Setting Changed☐ SD Insert/Remove

Apply

- **SNMPv1 and SNMPv2:** The term "Community name" in SNMPv1 and SNMPv2c can be roughly regarded as key. The person who has the community name has the authority to read or edit the information of IP camera via SNMP. Check the box to enable SNMPv1 or SNMPv2c protocol, and specify the community name for write (read and write) and read (read-only). The user who uses read community name to access the IP camera cannot modify any data of this camera.

SNMP Setting

☐ SNMPv1

☐ SNMPv2c

Write Community:write

Read Community:public

- **SNMPv3:** For data security reason, the authentication and encryption assurances are added when developing SNMPv3. The user has to give not only the security name (the same as "community name" in v1&v2c, or sometimes we call it "context name") but the password in order to access the IP camera. Please set security name, authentication type, authentication password, encryption type, encryption password of write and read respectively. The password must be 8–64 bits in length. Different from in SNMPv1 and v2c, the user have to create a account when using SNMPv3. In the account parameters, key in the security name and password you set in the camera to get accessing.

SNMPv3

Write Security Name:

write

Authentication Type:

MD5

SHA

Authentication Password:

Encryption Type:

DES

AES

Encryption Password:

Read Security Name:

public

Authentication Type:

MD5

SHA

Authentication Password:

Encryption Type:

DES

AES

Encryption Password:

- **SNMPv1/v2cTrap:** Trap is a mechanism that allows the managed device to send messages to manager instead of waiting passively for polling from the manager. Specify the trap event. When those events happen, the camera will send the ring message to the Trap Address, which is usually the manager's IP address. Trap Community means the community that can receive the trap message.
 - **Cold Start:** The camera starts up or reboots.
 - **Setting changed:** The SNMP setting is changed.
 - **Network Disconnected:** The network connection was broken down. (The camera will send trap messages after the network being connected again)
- **V3 Authentication Failed:** A SNMPv3 user account tries to get authentication but failed. (Due to incorrect password or community)
- **SD Insert / Remove:** A microSD/SDHC card is inserted or removed.

SNMPv1/v2c Trap

Trap Address:

Trap Community:

public

Trap Event:

Network Disconnected

V3 Authentication Failed

Cold Start

Setting Changed

SD Insert/Remove

System > Advance > Access list

You can deny an IP address or a range of IP address so that they cannot access the IP camera. Tick the "enable" box, key in the IP address you want to deny, select "deny" then click "Add" to add it to the list. You can also choose to deny a range of IP address but allow one or several IP address of them. Take the picture above for example, IP address 192.168.50.151~161 is not allowed to connect to the camera, but only 192.168.50.159 can access. Note: In the list "allow" condition must be ranked before "deny" condition. For example, if we exchange the sequence, set "Deny: 192.168.50.151 ~ 192.168.50.161" for the first item and "Allow: 192.168.50.159" for the second item in the list, the IP "192.168.50.159" turns out to be denied by the camera because the "deny" condition has the priority according to our ranking way.



Preview

System

General

User Management

Network Setting

Advance

Image

Video Stream

Audio

SD Card

Event

Status Information

LogIn IP

10.100.91.42

Bandwidth

----- Kb/s

PW Version

VE1.0.14-10

Logout

Language

English

HTTP5

SNMP

Access list

QoS/DSCP

☐ Enable ip address filter

IPv4 Setting

☐ allow
 ☐ deny

add

address:

single

IPv4 List

No.	IP Address	Filter	Action
1			remove
2			remove
3			remove
4			remove
5			remove
6			remove
7			remove
8			remove
9			remove
10			remove

☐ Allow admin IP address always access this device

Admin IP Address:

Apply

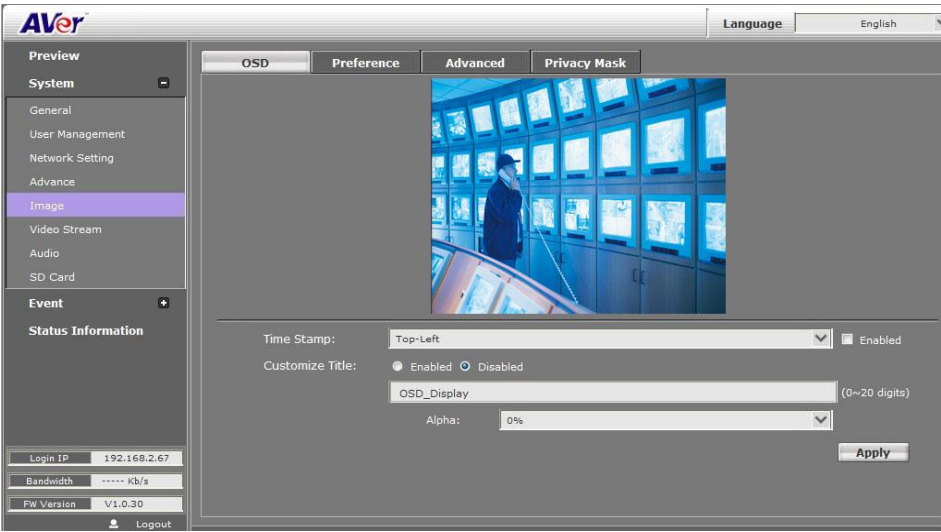
System > Image

Admin and operator levels can adjust the Image setting. There are 4 tabs: OSD, Preference, Advanced, and Privacy Mask

System > Image> OSD

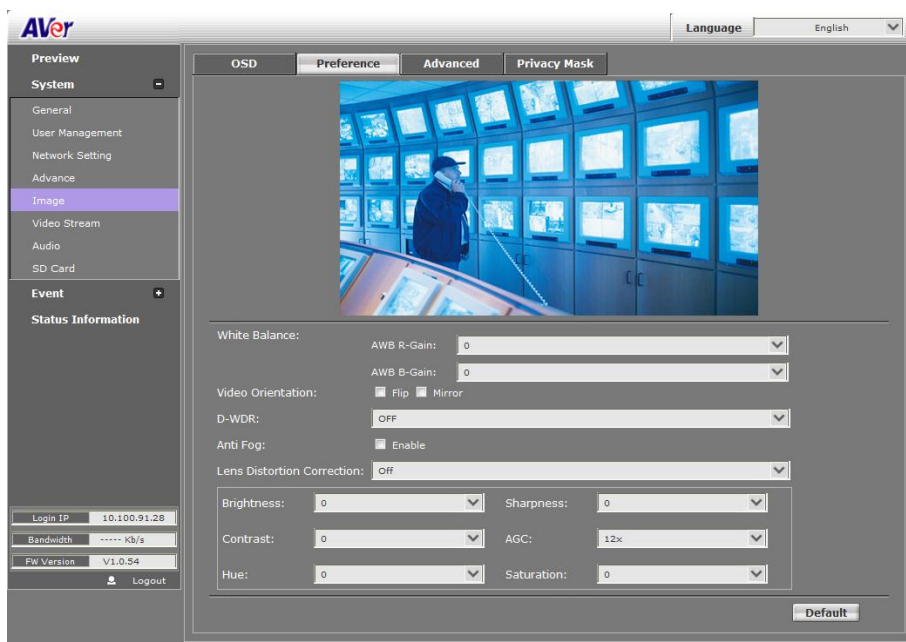
In OSD tab, you can enable/disable overlaying time stamp and text title. After completing the setting, click Save to apply the new setting and Cancel to keep the new setting. **Please note it can't use Chinese words.**

- **Time Stamp:** Mark **Enable** check box and select a position where date and time stamp / text to display on video screen.
- **Customize Title:** Click **Enabled** can adjust the OSD contents which are including **Alpha** of text, special characters(ex: &, %, \$) are not allowed.



System > Image > Preference

In Preference tab, you can tune the IP camera white balance, change the video orientation, and adjust the brightness and contrast.



- **White Balance:** Set the AWB R-Gain and AWB B-Gain value.
- **Video Orientation:** To **Flip** or **Mirror** the video on screen.
- **D-WDR:** This function is able to reduce the contrast in the view to avoid the dark zones resulting from over and under exposure.
- **Anti Fog:** Improve the image clarity on environments presenting high levels of fog or smoke.
- **Lens Distortion Correction:** Straight the curves in the borders of the image caused by the lens angles. The available values are: OFF, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.
- Adjust “**Brightness**”, “**Contrast**”, “**Hue**”, “**Sharpness**”, “**AGC**”, “**Saturation**” to get clear video.

System > Image> Advanced

Click **Default** button will back to factory default setting.

AVer

Preview

System

General

User Management

Network Setting

Advance

Image

Video Stream

Audio

SD Card

Event

Status Information

Login IP10.100.200.43

Bandwidth----- Kb/s

FW VersionV1.0.38

Logout

LanguageEnglish

OSDPreferenceAdvancedPrivacy Mask



Sense-Up:1/15

Shutter Time:Outdoor

IR Cut Filter:

Color Mode

☒ Light Sensor Mode

B/W Mode

Schedule ModeNight from17:00to05:00(HH:MM)Save

DI Trigger Mode

IR LED:On

Day Lux:7 lux

Night Lux:3 lux

Current Lux:over 55 luxRefresh

Denoise:3D:32D:1Default

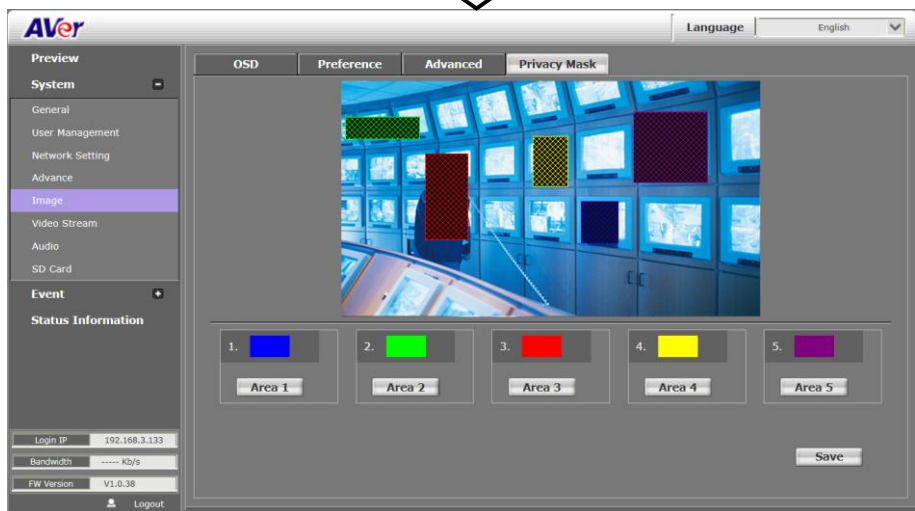
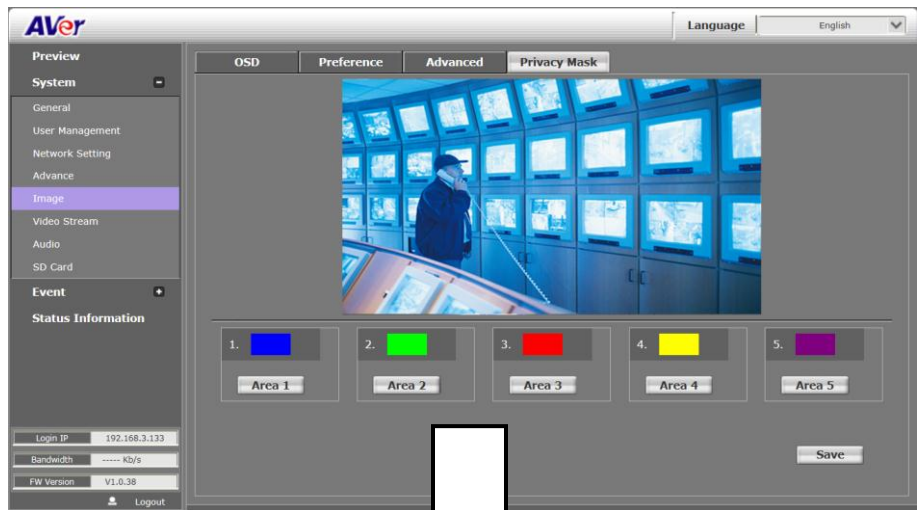
- **Sense-UP:** The main purpose of sense-up is to provide a camera technology that does not rely on artificial light to see in very low light conditions. By The shutter stays open longer, allowing more light into the camera and seeing better in low light. This setting altogether when there is a moving object in the image and the faster the object moves, the worse the image appears (blurriness).
- **Shutter Time:** Adjust the shutter time level to get the best image quality.
- **IR Cut Filter:** Select the IR cut filter mode – Color Mode, Light Sensor Mode, B/W Mode, Schedule Mode, or DI Trigger Mode. When you choose "Light Sensor Mode", the image will be turned to black and white at night in order to keep clear. Current lux value is provided for reference. Under "Times Mode" the switch time of Color / Black and white is according to the given time. You can also control it by choosing "Color" or "B/W".
- **IR LED:** select off to turn off IR LED.
- **Day Lux/ Night Lux:** To set light sensor mode, appoint a lux standard of switching D/N here.
- **Denoise:** This function is able to filter the noise and blur from the image and show a clearer view.

[Note] When you select a number in "Shutter Time", actually the shutter time varies in a range and controlled by camera automatically. Following table shows the shutter time option and corresponding range

Option	Shutter Time Range (sec.)
Outdoor	Selected number in "Sense-up"
1/10	1/24000 ~ 1/10
1/15	1/24000 ~ 1/15
1/30	1/24000 ~ 1/30
Indoor	Selected number in "Sense-up"
1/30	1/24000 ~ 1/30
1/50	1/24000 ~ 1/50
1/60	1/24000 ~ 1/60
1/100	1/24000 ~ 1/100
1/125	1/24000 ~ 1/125
1/250	1/24000 ~ 1/250
1/500	1/24000 ~ 1/500
1/1000	1/24000 ~ 1/1000

System > Image> Privacy Mask

For the security purpose, there are three areas can be setup for privacy mask. Click Area # (Area 1, Area 2, Area 3, Area4, Area 5) button first and drag a area on the image screen. Then, click **Save** button to save the setting.



System > Video Stream > General

GeneralStream 1Stream 2Stream 3

Video System:

PAL

- **Video System:** PAL or NTSC.

System > Video Stream > Stream1

■ **Basic Mode**

Click **Apply** to save the configuration.

- **Resolution:** There are 6 resolutions can be chosen – 1280x800, 1280x720, 800x600,640x480, 320x240, 176x144.
- **Profile:** Chose between Main and Baseline.
- **Quality:** There are 5 levels to adjust – Best, High, Standard, Medium, and Low. The higher the quality is, the bigger the file size is. Also not good for internet transmitting.
- **Video Frame Rate:** The video refreshing rate per second.
- **Video Format:** H.264 or JPEG.
- **RTSP Path:** It's a URL address.

AVer

LanguageEnglish

Preview

System

General

User Management

Network Setting

Advance

Image

Video Stream

Audio

SD Card

Event

Status Information

Login IP10.100.91.42

Bandwidth----- kb/s

FW VersionVE1.0.14.1.0

Logout

GeneralStream 1Stream 2Stream 3

Stream 1 Setting:

☒ Basic Mode☐ Advanced Mode

Resolution:

1280x800

Profile:

Baseline

Quality:

Best

Video Frame Rate:

30 FPS

Video Format:

H.264

RTSP Path:ex:rtsp://IP_Address /

Apply

■ Advanced Mode

Click **Apply** to save the configuration.

- **Resolution:** There are 6 resolutions can be chosen –1280x800, 1280x720, 800x600,640x480, 320x240, 176x144.
- **Profile:** Chose between Main and Baseline.
- **Rate Control:** There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to use.
 - ✓ **CBR:** 32Kbps~8Mbps (the higher the CBR is, the better the video quality is).
 - ✓ **VBR:** 1(Low) ~10(High) – Compression rate, the higher the compression rate, the better the picture quality is. The balance between VBR and network bandwidth will affect picture quality. Please carefully select the VBR rate to avoid picture breaking up or lagging.
- **Video Bitrate:** 32Kbps~1Mbps (the higher the Video Bitrate is, the better the video quality is).
- **Video Frame Rate:** The video refreshing rate per second.
- **GOP Size:** It means "**Group of Pictures**".
- **Video Format:** H.264 or JPEG
- **RTSP Path:** It's a URL address

The screenshot displays the AVer configuration web interface. On the left is a sidebar with a 'Preview' section and a 'System' menu. The 'System' menu includes 'General', 'User Management', 'Network Setting', 'Advance', 'Image', 'Video Stream' (highlighted), 'Audio', and 'SD Card'. Below this is an 'Event' section with a '+' icon, and a 'Status Information' section showing 'Login IP: 10.100.91.42', 'Bandwidth: ----- Kb/s', and 'FW Version: V61.0.14.10'. The main area has tabs for 'General', 'Stream 1', 'Stream 2', and 'Stream 3'. The 'Stream 1' tab is active, showing 'Stream 1 Setting' with 'Basic Mode' selected and 'Advanced Mode' as an option. The settings for 'Stream 1' are: Resolution: 1280x800, Profile: Baseline, Rate Control: CBR (selected) and VBR, Video Bitrate: 3Mbps, Video Frame Rate: 30 FPS, GOP Size: 1 X FPS (with a note 'GOP = 30'), Video Format: H.264, and RTSP Path: (empty field with example 'ex:rtsp://IP_Address /'). An 'Apply' button is at the bottom right.

Stream 1 Setting:	☐ Basic Mode	☒ Advanced Mode
Resolution:	1280x800	
Profile:	Baseline	
Rate Control:	☒ CBR ☐ VBR	
Video Bitrate:	3Mbps	
Video Frame Rate:	30 FPS	
GOP Size:	1 X FPS	
		GOP = 30
Video Format:	H.264	
RTSP Path:		

ex:rtsp://IP_Address /

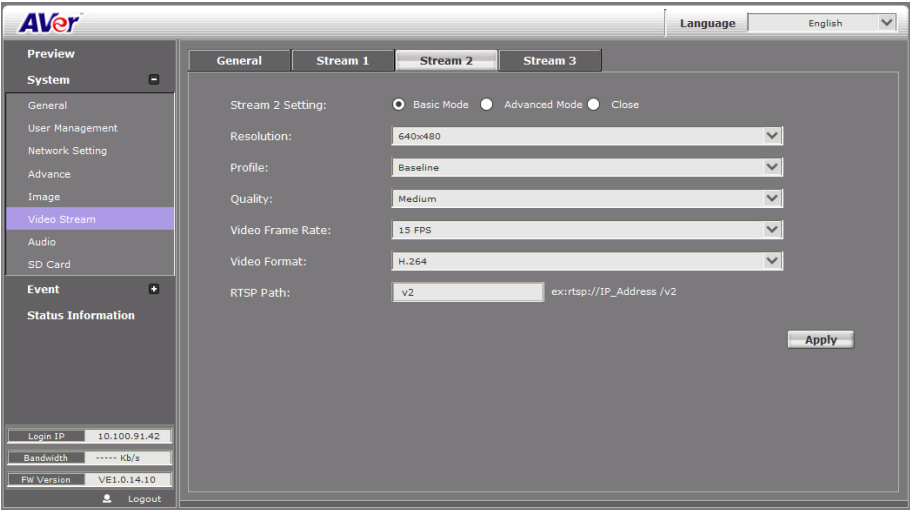
Apply

System > Video Stream > Stream2

■ Basic Mode

Click **Apply** to save the configuration.

- **Resolution:** There are 6 resolutions can be chosen –1280x800, 1280x720, 800X600, 640x480, 320x240, 176x144.
- **Profile:** Chose between Main and Baseline.
- **Quality:** There are 5 levels to adjust – Best, High. Standard, Medium, and Low. The higher the quality is, the bigger the file size is. Also not good for internet transmitting
- **Video Frame Rate:** The video refreshing rate per second.
- **Video Format:** H.264 or JPEG
- **RTSP Path:** It's a URL address



■ Advanced Mode

Click **Apply** to save the configuration.

- **Resolution:** There are 6 resolutions can be chosen –1280x800, 1280x720,800x600,640x480, 320x240, 176x144.
- **Profile:** Chose between Main and Baseline.
- **Quality:** There are 5 levels to adjust – Best, High, Standard, Medium, and Low. The higher the quality is, the bigger the file size is. Also not good for internet transmitting
- **Video Bitrate:** 32Kbps~1Mbps (the higher the Video Bitrate is, the better the video quality is).
- **Video Frame Rate:** The video refreshing rate per second.
- **GOP Size:** It means "**Group of Pictures**".
- **Video Format:** H.264 or JPEG.
- **RTSP Path:** It's a URL address

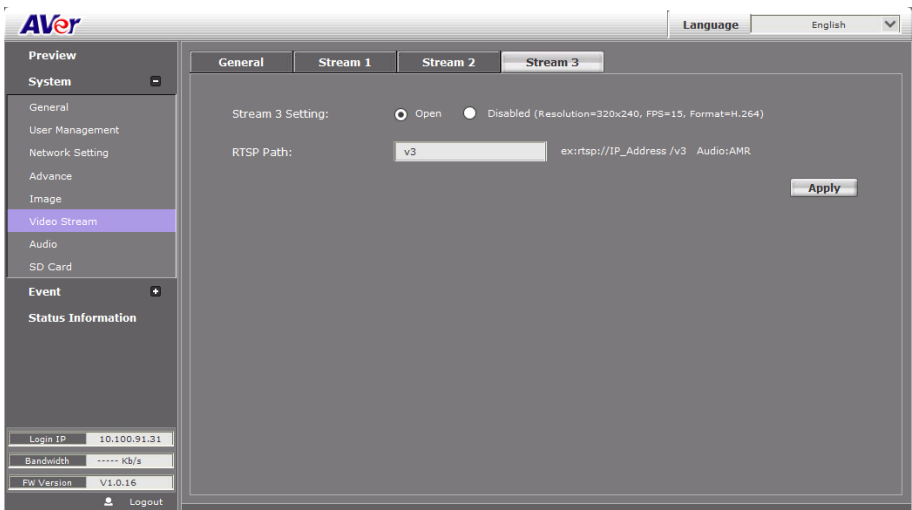
The screenshot displays the AVer software interface. On the left is a sidebar with a 'Preview' section containing 'System' (General, User Management, Network Setting, Advance, Image, Video Stream, Audio, SD Card) and 'Event' (Status Information). The 'Video Stream' option is selected. The main area has tabs for 'General', 'Stream 1', 'Stream 2', and 'Stream 3'. The 'Stream 2' tab is active, showing 'Stream 2 Setting' with options for 'Basic Mode', 'Advanced Mode' (selected), and 'Close'. Below this are configuration fields: 'Resolution' (640x480), 'Profile' (Baseline), 'Rate Control' (CBR and VBR), 'Video Bitrate' (512Kbps), 'Video Frame Rate' (15 FPS), 'GOP Size' (1 X FPS), 'Video Format' (H.264), and 'RTSP Path' (v2). A text box next to the RTSP Path shows the example 'ex:rtsp://IP_Address /v2'. An 'Apply' button is at the bottom right. At the bottom of the sidebar, there are fields for 'Login IP' (10.100.91.42), 'Bandwidth' (---- Kb/s), and 'FW Version' (VE1.0.14.10), along with a 'Logout' button.

- **Close:** To close the stream 2. Click **Apply** to save the configuration.

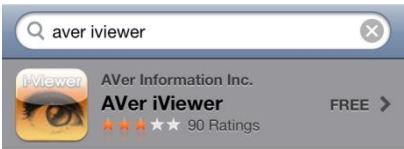
System > Video Stream > Stream3

Click **Apply** to save the configuration.

- **RTSP Path:** It's a URL address



[Note] To get the best mobile viewing quality, please download AVeriViewer (AndroidViewer) from the Apple App store or Google Play. iViewer takes video from Stream 1 or Stream 2, not from 3GPP streaming.



System > Audio

IP camera supports 2-way audio (mono). User can send audio from IP camera while connected to a microphone to remote site; User can also send audio from remote site to IP camera's external speaker.

IP Camera to PC

Audio:
☒ Enabled ☐ Disabled

Audio Type:
G.711 (64Kbps)

Adjust Volume

Mic-In:
0

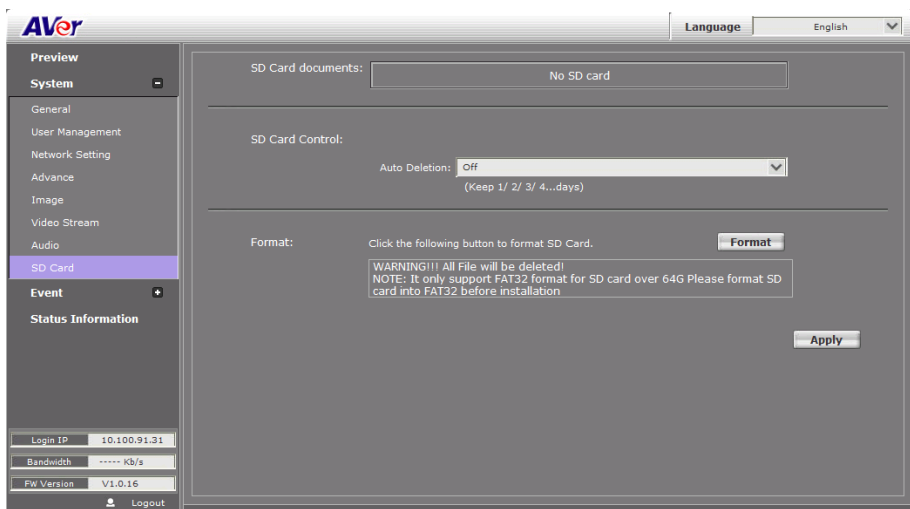
Audio-Out:
0

Apply

- a. IP camera to PC: select **“Enable”** to start this function.
- b. In live video screen, click  button to start chatting. Press again to mute. Click  button to turn on or off the speaker of PC.
- c. There are three audio codes: G.711 (64Kbps), G.726(24Kbps), G.726 (32Kbps)



System > SD Card



Please insert microSD/SDHC card before use it. Make sure pushing microSD/SDHC card into the slot completely.

Event > Arrangement > Motion

Motion Detection: IP camera allows 3 areas motion detection. When motion is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD/SDHC card. To set up the motion area 1, click “**Area 1**” button. Using mouse to drag and draw the area. The same operation for area 2 and 3. (The higher the sensitivity value is, the more sensitive to trigger event.)



Event > Arrangement > Preference

Language English

Preview

System +

Event -

Arrangement

Schedule

DI/DO

Status Information

Login IP 10.100.91.28

Bandwidth ---- Kb/s

FW Version V1.0.54

Logout

Motion **Preference**

Record File

File Format: AVI File(with Record Time Setting)

Pre Alarm: 5 sec

Post Alarm: 5 sec

Network Connected

Dis-connected: ☐ Save to SD card

Network IP Check

IP Check: ☒ Enabled ☐ Disabled

IP Address: www.google.com

Interval: 30 sec

Check failed: ☐ Save to SD card

(When IP check failed, first step will save to SD card, continuing other saving storage)

Tampering Detection

Tampering: ☒ Enabled ☐ Disabled

☐ E-mail ☐ FTP ☐ Out1 ☐ Save to SD card ☐ Samba

Interval: 30 sec

Apply

■ Record File:

- **File Format:** IP camera allows 3 different types of recording file to change its record size. When motion/alarm is triggered, there are 3 different types of record mode.
 - AVI File (With Record File Setting)
 - JPEG Files (With Record File Setting), only with MJPEG compression format.
 - Single JPEG (Single File with Interval Setting) (JPEG photo).
- **Pre Alarm and Post Alarm:** Setups for video start and end time when motion detected, I/O, or other devices got triggered.

[Note] Pre/Post Alarm record time is base on record time setting and IP camera built-in Ram memory. Limited by IP camera built-in Ram Memory. When information is too much or video quality set too high, it will cause recording frame drop or decrease on post alarm recording time.

■ Network Connected: When the network is down, it will save the video to local SD/SDHC card.

[Note] This function is only enabled in wire connection.

- **Network IP check:** When the connection is down, it records the **video** to SD/SDHC card. Make sure the video recording is continuous. To use this function, key in the IP address of the PC which has recording software installed. Enable the function of “**Save to SD card**”, then click “**Apply**”.

- **Tampering Detection:** When the camera view is covered, moved, hit by strong light, or out of focus, the tampering detection will be triggered, and send snapshot or video to mail/FTP/Samba/SD card, or trigger the external alarm.

For example:

Before Tampering Detection



Tampering Triggered (Defocused)



Before Tampering Detection



Tampering Triggered (Lens Covered)



Before Tampering Detection



Tampering Triggered (Glare)

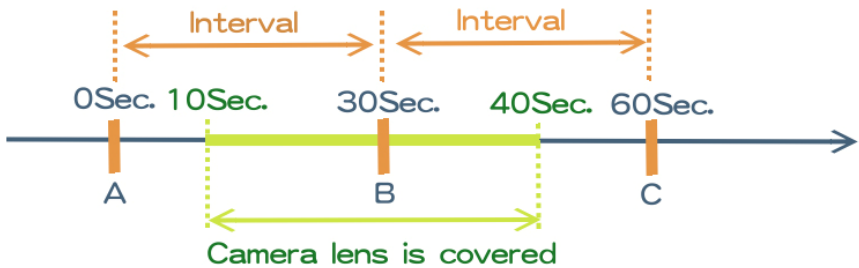


Before Tampering Detection

Tampering Triggered (Camera Moved)



➤ **Interval:** The tampering detecting interval. Take the diagram below as example. The interval is set for 30 second; the camera lens is covered during 10 - 40 sec. At time point B, the camera compares the view with time point A, and sends an alarm when it finds that the lens is covered. At time point C, the camera compares the view with time point B, and sends an alarm when it finds that the lens is uncovered.



Event > Schedule

- **Schedule:** After complete the schedule setup, the camera data will be recorded according to the schedule setup.
- **Snapshot:** After enable the snapshot function; user can select the storage position of snapshot file, the **Interval time** of snapshot and the reserved **File Name** of snapshot.

Aver

LanguageEnglish

Preview

System

Event

Arrangement

Schedule

DI/DO

Status Information

Login IP10.100.200.54

Bandwidth---- Kb/s

FW VersionV1.0.62

Logout

All	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Mon.																								
Tue.																								
Wed.																								
Thu.																								
Fri.																								
Sat.																								
Sun.																								

Schedule Setup.

Snapshot

Enabled

Disabled

Snapshot:

E-mail

FTP

Save to SD card

Samba

Interval:

10

Second(s) [1...50000]

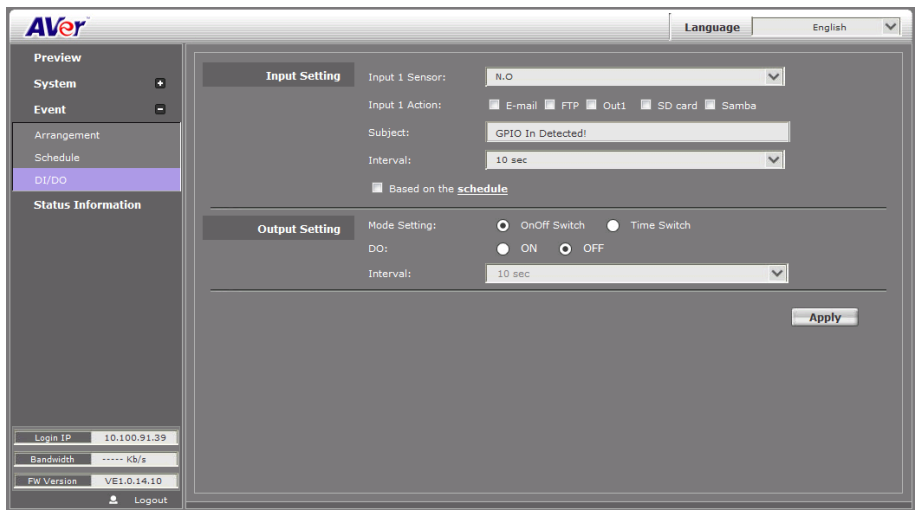
File Name:

Snapshot

Apply

Event > DI/DO

IP camera supports 1 input/1 output (depending on different models). When input is triggered, it can send the video to some specific mail addresses, transmit the video to remote ftp server, trigger the relay, and save video to local SD/SDHC card.

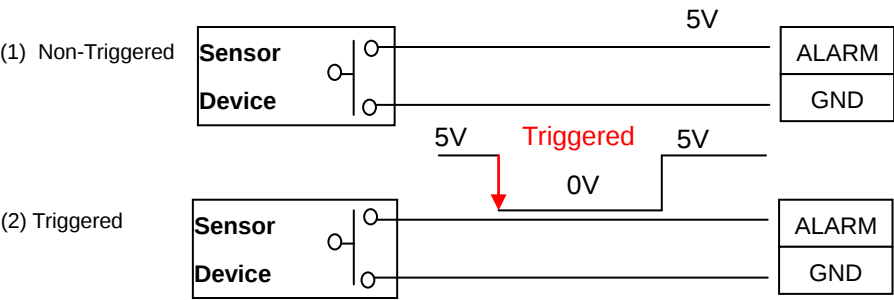


CAUTION!!

Please connect to propriety relay box to reduce the risk of electric shock & damaged.

Input Setting:

- Input 1 sensor: This is to set the relay status while sensor is not yet triggered.
- Input 1 action: Send the triggered video clips or photos to the selected method.
- Subject: This is the subject while sending files via e-mail.



Output Setting:

Mode setting:

- **OnOff Switch:** Relay status is based on sensor triggered times.
- **Time Switch:** To restore the original relay status after the interval time.

[Note]GPIO pin define please refer to the part of Front / Back plane & I/O port pin assignment.

Ground (G)	ALARM INPUT: Normal: 5V (The voltage differential from ALM_IN pin & Ground) Active: 0V (Short the pin of ALM_IN and Ground pin)
DI	
DO	RELAY OUTPUT: MAX: 50 mA, DV 5V
Ground(G)	

Status Information

Click **Apply** button to save the configuration.

The screenshot displays the AVer web interface for configuring an IP camera. The interface is divided into a left sidebar and a main content area. The sidebar includes a 'Preview' section and a 'System' section with expandable options for 'System', 'Event', and 'Status Information'. The main content area is titled 'Language' (set to English) and contains two tabs: 'Networking info' and 'Product info'. The 'Networking info' tab is active, showing fields for IP Address (10.100.91.42), MAC Address (00:18:1A:0C:E3:53), Interface (Ethernet), RTSP 1 Path (RTSP://10.100.91.42/), RTSP 2 Path (empty), and 3GPP Path (empty). The 'Product info' tab is also visible, showing fields for Server Name (IP Camera), LED Indicator (radio buttons for ON and OFF, with OFF selected), Company (AVer), Model (FD1020), FW Version (V1.0.16), and BuildTime (2014/06/20 17:39:17 CST). A 'Status Bar' checkbox is present next to the Server Name field. At the bottom right of the main content area is an 'Apply' button. The bottom of the interface shows a 'Login IP' field (10.100.91.31), a 'Bandwidth' field (---- Kb/s), a 'FW Version' field (V1.0.16), and a 'Logout' button.

■ **Networking Info:** Displays network information of the IP camera.

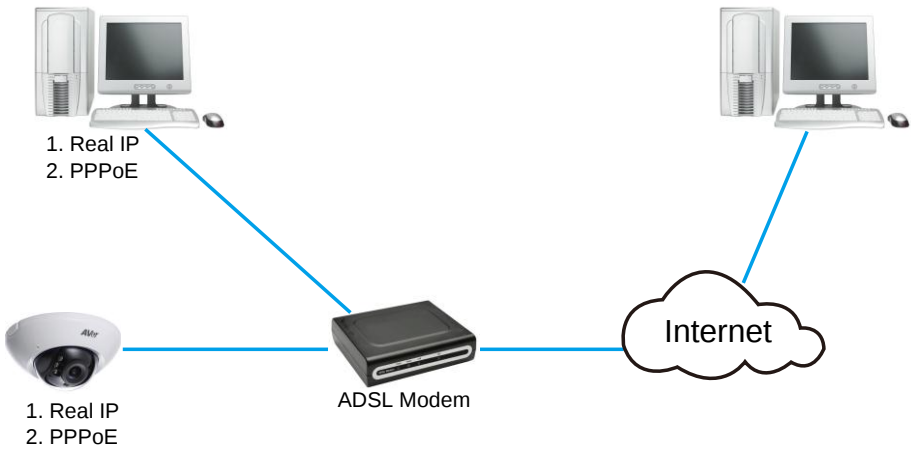
■ **Product Info:**

Server Name: Assigns a name to the IP camera and the name shows on the IP Installer. Also, displays the related information of the IP camera. Mark **Status Bar** to display the Server Name of IP camera on preview interface.

LED indicator: To disable or enable the LED indicator on the IP camera.

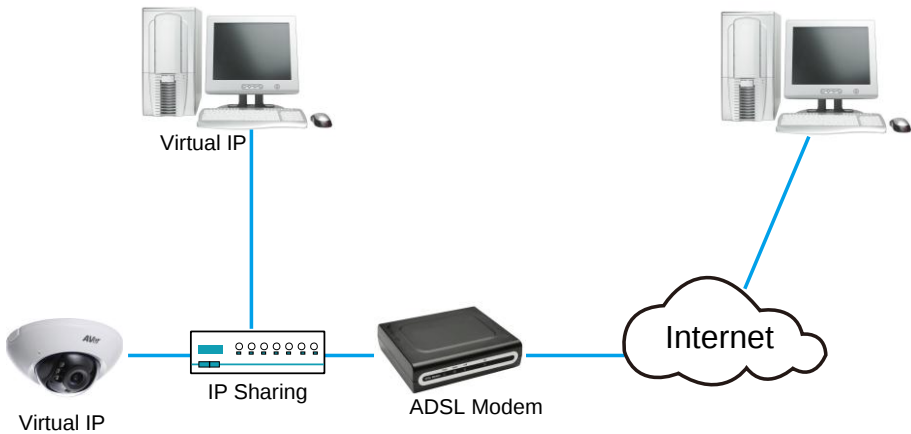
Network Configuration

■ Configuration 1



- a. Internet Access: ADSL or Cable Modem
- b. IP address: More than one real IP
- c. IP camera and PC connect to the internet
- d. For fixed real IP, set up the IP into IP camera and PC. For dynamic IP, start PPPoE.

■ Configuration 2



- Internet Access: ADSL or Cable Modem
- IP address: one real IP
- IP camera and PC connect to the internet
- Device needed: IP sharing
- Use virtual IP, set up port forwarding in IP sharing. (Please refer to Network Setting→Other 1→UPnP Port Forwarding)

Factory Default

1. To recover the default IP address and password, please follow the following steps.
2. Remove power and Ethernet cable.



3. Press and hold the button and connect power and Ethernet cable to the camera again and hold for round 30 seconds for system booting.
4. Release the button when camera finishes proceed.
5. Re-login the camera using the default IP (<http://192.168.1.168>) or DHCP, and user name (admin), password (admin).

Troubleshooting

Here are some useful tips on how to solve some common problems.

Problem	Solution
I forgot the account and password for FD1020. How can I go back to default setting?	Please refer to the manual of "Factory Default setting" description.
I recorded video file in H.264 file format but failed to playback on Media Player (V.9).	Default Windows Media Player doesn't have H.264 decoder so that you can't playback the file successfully. Please install K-Lite program in advance or install KMPlayer or VLC program to playback the video file. You can search those free programs on Internet.

Appendix

FD1020 is compliant with microSD/SDHC card and to ensure recording quality, and please use memory cards as below.

MicroSD/SDHC card
Transcend SDHC class4 32GB
Transcend SDHC class10 64GB
SanDisk SDHC class4 32GB
SanDisk SDHC class10 64GB

FCC NOTICE (Class A)



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.

Federal Communications Commission Statement

NOTE- This equipment has been tested and found to comply with the limits for a Class A 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 tuning 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/television technician for help.

Class A ITE

Class A ITE is a category of all other ITE which satisfies the class A ITE limits but not the class B ITE limits. Such equipment should not be restricted in its sale but the following warning shall be included in the instructions for use:

Warning -This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

European Community Compliance Statement (Class A)



This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC.

Warning - This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures to correct this interference.

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WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.



THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

Limited Warranty

AVer Information, Inc. ("AVer") warrants that the applicable product ("Product") substantially conforms to AVer's documentation for the product and that its manufacture and components are free of defects in material and workmanship under normal use. "You" as used in this agreement means you individually or the business entity on whose behalf you use or install the product, as applicable. This limited warranty extends only to You as the original purchaser. Except for the foregoing, the Product is provided "AS IS." In no event does AVer warrant that You will be able to operate the Product without problems or interruptions, or that the Product is suitable for your purposes. Your exclusive remedy and the entire liability of AVer under this paragraph shall be, at AVer's option, the repair or replacement of the Product with the same or a comparable product. This warranty does not apply to (a) any Product on which the serial number has been defaced, modified, or removed, or (b) cartons, cases, batteries, cabinets, tapes, or accessories used with this product. This warranty does not apply to any Product that has suffered damage, deterioration or malfunction due to (a) accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification or failure to follow instructions included with the Product, (b) misapplication of service by someone other than the manufacturer's representative, (c) any shipment damages (such claims must be made with the carrier), or (d) any other causes that do not relate to a Product defect. The Warranty Period of any repaired or replaced Product shall be the longer of (a) the original Warranty Period or (b) thirty (30) days from the date of delivery of the repaired or replaced product.

Limitations of Warranty

AVer makes no warranties to any third party. You are responsible for all claims, damages, settlements, expenses, and attorneys' fees with respect to claims made against You as a result of Your use or misuse of the Product. This warranty applies only if the Product is installed, operated, maintained, and used in accordance with AVer specifications. Specifically, the warranties do not extend to any failure caused by (i) accident, unusual physical, electrical, or electromagnetic stress, neglect or misuse, (ii) fluctuations in electrical power beyond AVer specifications, (iii) use of the Product with any accessories or options not furnished by AVer or its authorized agents, or (iv) installation, alteration, or repair of the Product by anyone other than AVer or its authorized agents.

Disclaimer of Warranty

Except as expressly provided otherwise herein and to the maximum extent permitted by applicable law, AVer disclaims all other warranties with respect to the product, whether express, implied, statutory or otherwise, including without limitation, satisfactory quality, course of dealing, trade usage or practice or the implied warranties of merchantability, fitness for a particular purpose or noninfringement of third party rights.

Limitation of Liability

In no event shall aver be liable for indirect, incidental, special, exemplary, punitive, or consequential damages of any nature including, but not limited to, loss of profits, data, revenue, production, or use, business interruption, or procurement of substitute goods or services arising out of or in connection with this limited warranty, or the use or performance of any product, whether based on contract or tort, including negligence, or any other legal theory, even if aver has advised of the possibility of such damages. Aver's total, aggregate liability for damages of any nature, regardless of form of action, shall in no event exceed the amount paid by you to aver for the specific product upon which liability is based.

Governing Law and Your Rights

This warranty gives you specific legal rights; You may also have other rights granted under state law. These rights vary from state to state.