

# User Manual IP CAMERA



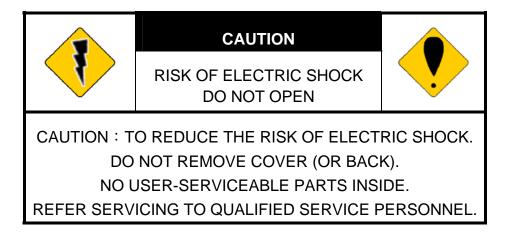


#### WARINGS

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MISTURE.

DO NOT INSERT ANY METALLIC OBJECT THROUGH VENTILATION GRILLS.

#### CAUTION



#### COPYRIGHT

THE TRADEMARKS MENTIONED IN THE MANUAL ARE LEGALLY REGISTERED TO THEIR RESPECTIVE COMPANIES.



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V1.0\_101018



# I. Preface

This is a 2-Mega pixel CMOS IP camera with the web server built in. User can view real-time video via IE browser. It supports H.264, JPEG and MPEG4(3GPP streaming format) video compression which provides smooth and high video quality. The video can be stored in the SD card and playback remotely. With user friendly interface, it is an easy-to-use IP camera which is designed for security application.

# **II. Product Specifications**

- Support video out
- 2M-Pixel CMOS Sensor
- Power over Ethernet (Optional)
- H.264/ MJPEG/ MPEG4 (3GPP Only) Compression Format
- SD Card backup
- Support Cell phone/PDA/3GPP
- 3 Streaming (H.264/ M-JPEG)
- Free Bundle 36 Channel Recording Software

#### **Specifications**

Hardware				
CPU	ARM 9 ,32 bit RISC			
RAM	256MB			
Flash	16MB			
Image sensor	1/3" CMOS(2M-Pixel)			
Support DC IRIS	Yes			
Lens Type	Vari-focal 2.7~9mm Mega Pixel Lens			
Power over Ethernet	Yes (Optional)			
Power Consumption	DC 12V 470mA			
Dimensions	131.2mm (Ø) x 94.5mm (H)			
Network				
Ethernet	10/ 100 Base-T			



Network Protocol	HTTP, TCP/ IP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP		
System			
Video Resolution	1600x1200, 1280x1024, 1280x960,1280x720, 800x600,640x480, 320x240, 176x144		
Video Adjust	Brightness, Contrast, Sharpness, BLC, Night Mode		
Triple Streaming	Yes		
Image Snapshot	Yes		
Full Screen Monitoring	Yes		
Privacy Mask	Yes, 3 different areas		
Compression Format	H.264/ JPEG/ MPEG4 (3GPP only)		
Video Bitrates Adjust	CBR, VBR		
Motion Detection	Yes, 3 different areas		
Triggered Action	Mail, FTP, Save to SD card, Relay		
Pre/ Post Alarm	Yes, configurable		
Security	Password protection		
Firmware Upgrade	HTTP mode, can be upgraded remotely		
Simultaneous	Up to 10		
Connection			
Audio	Yes, 2-way		
SD card managemen	t		
Recording Trigger	Motion Detection, IP check, Network break down (wire only),schedule, relay		
Video Format	AVI, JPEG		
Video Playback	Yes		
Delete Files	Yes		
Web browsing require	rement		
OS	Windows 2000, XP, 2003, Microsoft IE 6.0 or above		
Hardware			
Suggested	Intel Dual Core 1.66G,RAM: 1024MB, Graphic card: 128MB		
Minimum	Intel-C 2.8G, RAM: 512MB, Graphic card: 64MB		



# **III. Product Installation**

# A. Monitor Setting

i. Right-Click on the desktop. Select " Properties"



ii. Change color quality to highest (32bit).

Themes	Desktop	Scieeri Savei	Appearance	Settings	
			2 m m 2 2 m m 2 2 m m 2 m		
			99999 ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (	0	
Family		itor on Intel(R) 8	2915G/GV/91		nipset
Less	1024 by 7	More More	Highest	(32 bit)	~
			Troublesh	oot Adv	/anced



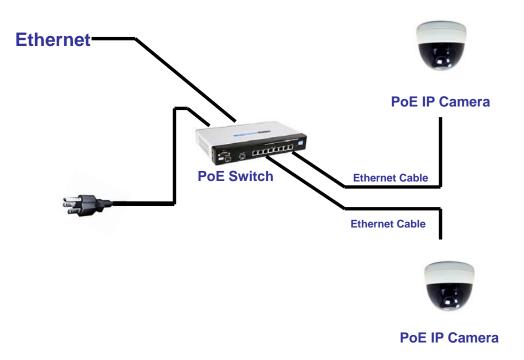
### B. Hardware Installation and I/O Pin

### Assignment

- i. Connect power adaptor
- ii. Connect IP Cam to PC or network with Ethernet cable
- Set up the network configurations according to the network environment.
   For further explanation, please refer to chapter VI, "Network Configuration for IP CAMERA".
- v. PoE ( Power Over Ethernet)(Optional) 802.3af, 15.4W PoE Switch is recommended

Power over Ethernet (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 phone or a network camera, using the same cable as that used for network connection. It eliminates the need for power outlets at the camera locations and enables easier application of uninterruptible power supplies (UPS) to ensure 24 hours a day, 7 days a week operation.







### C. IP Assignment

- i. Use the software, "IP Installer" to assign the IP address of IP CAMERA. The software is in the attached software CD.
- ii. IP installer supports two languages
  - a. IPInstallerCht.exe : Chinese version
  - b. IPInstallerEng.exe : English version
- iii. There are 3 kinds of IP configuration.
  - a. Fixed IP (Public IP or Virtual IP)
  - b. DHCP (Dynamic IP)
  - c. Dial-up (PPPoE)
- iv. Execute IP Installer
- v. For Windows XP SP2 user, it may popup the following message box. Please click "Unblock".

Wind Wind	dows Security Alert
Do you	u want to keep blocking this program? Name: IPInstaller V2.1 Network Device Scan Publisher: Unknown
Internet	Keep Blocking Unblock Ask Me Later ws Firewall has blocked this program from accepting connections from the or a network. If you recognize the program or trust the publisher, you can it. When should I unblock a program?

vi. IP Installer configuration:

Device lists:						
Server Name	IP Address	-	🖲 St	atic	○ DHC	Р
IP_Camera	192.168.001.200	Name		IP_Ca	amera	
		IP	192	168	1	200
		Netmask	255	255	255	0
		Gateway	192	168	1	254
		DNS 1	168	95	1	1
		DNS 2	168	95	192	1
		Port1		8	0	
		MAC	00 :	OF:OD	: 20 : 08	:5A
	Search Device			E	Subr	nit
o Change Device Name, I Select the device on the						
Change network paramet. Press Submit button.	er on the right side.					
I.Press "Search Device" Double click the device to					Ex:	

vii. IP Installer will search all IP Cameras connected on Lan. The user can click "Search Device" to search again.



viii. Click one of the IP Camera listed on the left side. The network configuration of this IP camera will show on the right side. You may change the "name" of the IP Camera to your preference (eg: Office, warehouse). Change the parameter and click "Submit" then click "OK". It will apply the change and reboot the Device.

IPInstaller 🛛 🛛	
Rebooting,Please wait	1
ОК	

ix. Please make sure the subnet of PC IP address and IP CAM IP address are the same.

#### The same Subnet:

IP CAM IP address: <u>192.168.1</u>.200

PC IP address: <u>192.168.1</u>.100

#### **Different Subnets:**

IP CAM IP address: <u>192.168.2</u>.200

PC IP address: <u>192.168.1</u>.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.

🕹 Local Area Connection Properties 🛛 🔹 🏹	Internet Protocol (TCP/IP) Properties	? 🗙
General Authentication Advanced	General	
Connect using: Realtek RTL8139 Family PCI Fast Ethernet NIC Configure	You can get IP settings assigned automatically if your network su this capability. Otherwise, you need to ask your network administr the appropriate IP settings. O Obtain an IP address automatically	
This connection uses the following items:	✓ Ose the following IP address:	
Elient for Microsoft Networks	IP address: 192 . 168 . 1 . 100	
<ul> <li>File and Printer Sharing for Microsoft Networks</li> <li>QoS Packet Scheduler</li> </ul>	Subnet mask: 255 . 255 . 255 . 0	
	Default gateway: 192 . 168 . 1 . 254	
Install Uninstall Properties	Obtain DNS server address automatically	
Description	O Use the following DNS server addresses:	
Transmission Control Protocol/Internet Protocol. The default wide area network protocol that provides communication	Preferred DNS server: 192 . 168 . 1 . 2	
across diverse interconnected networks.	Alternate DNS server: 168 . 95 . 192 . 1	
Show icon in notification area when connected	Adva	anced
Close Cancel	ОК	Cancel

x. A quick way to access remote monitoring is to left-click the mouse twice on a selected IP Camera listed on "Device list" of IP Installer. An IE browser will be opened.



Server Name	IP Address	_			C DBC	e
IP_Camera	192.168.001.165	Nano		IP_C	azera	
		IP	192	168	1	16
		Netmask	255	255	255	0
		Gateway	192	168	1	25
		DNS 1	168	95	1	1
		DNS 2	168	95	192	1
		Port1		8	0	
		MAC	00	OF:OD	:00:21	:0F
	Search Device	1		E	Sub	nit
In Channe Device Name	e, IP address, and Gateway			_		

xi. Then, please key in the default "user name: admin" and "password: admin".

Connect to 19	2.168.1.217	? 🗙
R		
IP Camera User name:		
Password:	admin	
	Remember my password	
	ОК	Cancel

### D. Install ActiveX control:

For the first time to view the camera video via IE, it will ask you to install the ActiveX component.

🔞 This website wants to install the following add-on: 'WEBWATCH2.cab' from

If the installation failed, please check the security setting for the IE browser.

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

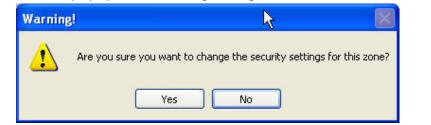






Security Settings 🛛 💽 🔀	Security Settings
Settings: Settings: Settings: Settings: Settings: Settings: Settings: Settings: Settings: Settings: Setting: Settin	Security Settings
OK Cancel	OK Cancel
	5

#### When popup the following dialogue box, click "Yes".



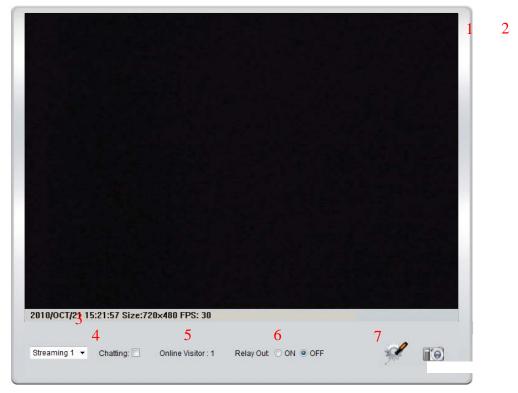


# IV. Live Video

Start a IE browser, type the IP address of the IP camera in the address field. It will show the following dialogue box. Key-in the user name and password. The default user name and password are "**admin**" and "**admin**".

Connect to 19	2.168.1.217 🛛 🖓 🔀
	GA
IP Camera	
User name:	🖸 admin 💌
Password:	•••••
	Remember my password
	OK Cancel

When connect to the IP CAMERA • The following program interface shows.





1. Get into the administration page



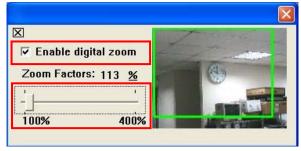
- 3. Show system time, video resolution, and video refreshing rate
- 4. Select video streaming source (When streaming 2 setting in "Video Setting is closed, this function will not display)
- IP Camera supports 2-way audio. Click the "Chatting" check box. Then you can use microphone which connects to the PC to talk to server side, which is IP Camera side
- 6. Shows how many people connect to this IP camera
- 7. Control the relay which is connected to this camera.

Double-click the video, it will change to full screen mode. Press "Esc" or double-click the video again, it will change back to normal mode.

Right-Click the mouse on the video, it will show a pop-up menu.



- 1. Snapshot : Save a JPEG picture
- 2. Record Start : Record the video in the local PC. It will ask you where to save the video. To stop recording, right-click the mouse again. Select "Record Stop". The video format is AVI. Use Microsoft Media Player to play the recorded file.
- 3. Mute : Turn of the audio. Click again to turn on it.
- 4. Full Screen : Full-screen mode.
- 5. ZOOM: Enable zoom-in and zoom-out functions. Select "Enable digital zoom" option first within the pop-up dialogue box and then drag and drop the bar to adjust the zoom factors.





# V. Configuration



to get into the administration page. Click



to go back to the live

video page.

	Network	System Inform	/ Setting	Eve	eni
Server Informatio	п	System mon	mation	_	
MAC Address:	00:0F:0D:21:5	2:C6			
Server Name:	IP_Camera	Statu	s Bar		
Language :	English	◎ 繁體中文	◎ 简体中3	ک 🔘 French	
	Russian	🔘 Italian	Spanish	Germai	n
	O Polish				
OSD Setting					
Time Stamp:	Enabled	Disabled			
Text:	Enabled	Disabled			
	OSD_Disp	lay Text Edit			
Time Setting			<b>1</b>		
Server Time: Date Format:		29 Time Zone: GN			
Time Zone:	GMT+08:00	🔘 mm/dd/yy 🔘 o	ad/mm/yy		
	GIVI1+00.00				
O NTP:	400 400 00 40	0			
	198.123.30.13				
Update :	6 THou	r			
Time Shift :		ites [-14401440	]		
Synchronize V					
Date :	2010/10/21				
Time :	17:4:31				
Manual					
Date :	2010/10/21				
Time :	17:4:27				
The date and	time remain the	e same			
					Apply



### A.System

- i System Information
  - a. Server Information: Set up the camera name, select language, and set up the camera time.
    - 1. Server Name : This is the Camera name. This name will show on the IP Installer.
    - 2. Select language : There are English, Traditional Chinese, and Simplified Chinese to select. When change, it will show the following dialogue box for the confirmation of changing language.



b. OSD Setting: Select a position where date & time stamp / text showing on screen.

OSD Setting		
Time Stamp:	🔘 Enabled	⊙ Disabled
Text:	🔵 Enabled	⊙ Disabled
	Test <sub>Tex</sub>	Edit

Moreover, click Text Edit can entry to adjust the OSD contents which is including Size and Alpha of text. Finally, click Upgrade button to reserve the setting.



c. Server time setting : Select options to set up time - "NTP",
"Synchronize with PC's time", "Manual", "The date and time remain the same".



Time Setting				
Server Time:	2007/4/11 14:	56:	01 Time Zone: GMT+08:00	
Date Format:	💿 yy/mm/d	d	🔿 mm/dd/yyr 🔘 dd/mm/yy	
Time zone:	GMT+08:00	¥		
● NTP :	GMT-09:00 GMT-08:00	^		
NTP Server :				
🔘 Synchronize	GMT-06:00 GMT-05:00			
Date :	GMT-04:00 GMT-03:30			
Time :	GMT-03:00 GMT-02:00			
🔘 Manual	GMT-01:00			
Date :	GMT-00:00 GMT+01:00			
Time :	GMT+02:00 GMT+03:00			
🔘 The date and	GMT+03:30 GMT+04:00		e same	
	GMT+04:30			Apply

ii Viser Management

IP CAMERA supports three different users, administrator, general user, and anonymous user.

	User Mana	agement	
Anonymous User	Login		
	O YES	<b>⊙</b> NO	Setting
Add User			
Username:			
Password:			
Confirm:			
			Add/Set
User List			
Userame	User Group	Modify	Remove
admin	Administrator	Edit	

a. Anonymous User Login :

Yes : Allow anonymous login

No: Need user name & password to access this IP camera

b. Add user :

Type the user name and password, then click "Add/Set".

c. Click "edit" or "delete" to modify the user.

	User Setup	
Username:	admin	
Password:		
Confirm:		OK



#### iii System update :

	System Update
	System opdate
Firmware Upgrade	
Firmware Version:	V3.2.11
New Firmware:	瀏覽
	Upgrade
Reboot System	
	Start
Factory Default	
	Start
Setting Management	
	Right click the mouse button on Setting Download
Save As a File:	and then select Save As•••• to save current system's
	setting in the PC.
New Setting File:	瀏覽
	Upgrade

- a. To update the firmware online, click "Browse..." to select the firmware. Then click "Upgrade" to proceed.
- b. Reboot system : re-start the IP camera
- c. Factory default : delete all the settings in this IP camera.
- d. Setting Management: User may download the current setting to PC, or upgrade from previous saved setting.
  - Setting download: Right-click the mouse button on Setting Download → Select "Save AS..." to save current IP CAM setting in PC → Select saving directory → Save
  - Upgrade from previous setting Browse → search previous setting → open → upgrade → Setting update confirm → click <u>index.html</u>. to return to main page



### **B.Network**

i · IP Setting

IP Camera supports DHCP and static IP.

IP Setting				
IP Assignment				
🔘 DHCP				
💿 Static				
IP Address:	192.168.1.200			
Subnet Mask:	255.255.255.0			
Gateway:	192.168.1.254			
DNS 0:	168.95.1.1			
DNS 1:	168.95.192.1			
Port Assignment				
Web Page Port:	80			
RTSP Port :	554			
RTP Start Port:	5000	[102410000]		
RTP End port:	9000	[102510000]		
UPnP				
UPnP:	💿 Enabled 🛛 🔘 I	Disabled		
			Apply	

- a. DHCP : Using DHCP, IP Camera will get all the network parameters automatically.
- b. Static IP : Please type in IP address, subnet mask, gateway, and DNS manually.
- c. Port Assignment: user may need to assign different port to avoid conflict when setting up IP assignment.
  - 1. Web Page Port: setup web page connecting port and video transmitting port (Default: 80)
  - 2. 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.



d. UPnP

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 computer.

Please follow the procedure to activate UPnP

- 1. open the Control Panel from the Start Menu
- 2. select Add/Remove Programs
- 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
- ii、 PPPoE:

	PPPoE	
PPPoE Setting		
O Enabled Username: Password:	Disabled	
Send mail after d	ialed	
Enabled		
Subject:	PPPoE From IPcam	Apply

Select "Enabled" to use PPPoE.

Key-in Username and password for the ADSL connection.

Send mail after dialed : When connect to the internet, it will send a mail to a specific mail account. For the mail setting, please refer to "Mail and FTP" settings.

iii、 DDNS:

It supports DDNS (Dynamic DNS) service.

a. DynDNS :



	DDNS		
DDNS Setting			
O Enabled	Disabled		
Provider:	dyndns.org	*	
Hostname:			
Username:			
Password:			
Schedule Update:	1440	Minutes	
State			
<b>Idle</b>		Арр	ly
Note:			
IP products which i	installed behind t	chedule update is designed he ICS or NAT devices. Upda 0 (minutes) and 0 remain to	te
	more than once	ee blocked by DynDNS.org if every 5 minutes to 60 minut 1440 minutes is	tes

- 1. Enable this service
- 2. Key-in the DynDNS server name, user name, and password.
- 3. Set up the IP Schedule update refreshing rate.
- 4. Click "Apply"
- 5. If setting up IP schedule update too frequently, the IP may be blocked. In general, schedule update every day (1440 minutes) is recommended.



#### b. Camddns service :

	DI	DNS	
DDNS Setting			
🔵 Enabled 🛛 💿	Disabled		
Provider:	ddns.cam	ddns.com 🔽	
Username:			
Schedule Update:	1440	Mine	utes
State			
ldle			Apply
•	installed beh	ind the ICS or	pdate is designed for NAT devices. Update s) and 0 remain to
2. Please note that the schedule update is In general, schedul recommended.	more than a	опсе ечегу 5 п	ninutes to 60 minutes.
I. Please enabl	e this serv	/ice	

- 2. Key-in user name.
- 3. IP Schedule update is default at 5 minutes
- 4. Click "Apply".
- c. DDNS Status
  - 1. Updating : Information update
  - 2. Idle : Stop service
  - DDNS registration successful, can now log by http://<username>.ddns.camddns.com : Register successfully.
  - 4. Update Failed, the name is already registered : The user name has already been used. Please change it.
  - 5. Update Failed, please check your internet connection : Network connection failed.
  - 6. Update Failed, please check the account information you provide : The server, user name, and password may be wrong.



Wireless Setting (Wireless Network Optional)
 Supports 802.11 b/g wireless connection.

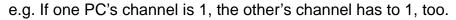
Notice : Wireless network and Ethernet network use the same IP, the user has to unplug Ethernet cable, if Ethernet cable is not unplug, wireless setting can not be executed.

	Wireles	s Setting	
tatus of Wireless	Networks		
SSID	Mode	Security	Signal strength
allan	Infrastructure	WPA	79
RHOSON	Infrastructure	WEP	16
Link	Infrastructure	OFF	16
SinoStar	Infrastructure	WEP	11
7f-2	Infrastructure	WEP	12
00160159A7FA	Infrastructure	WEP	56
RDTEST	Infrastructure	WEP	48
3Com	Infrastructure	OFF	43
Default	Infrastructure	WPA	74
Nireless Setting			
MAC Address:	00:16:16:16:DD:E1		
Mode:	Infrastructure 💊	*	
Operation Mode:	: Auto 🔽		
SSID:	allan		
Security:	None 🔽		
			Apply

a. Status of Wireless Networks ;

scan all wireless services.

- b. Wireless Setting :
  - Mode: There are Infrastructure and Ad-hoc. Infrastructure is for connecting with the router. Ad-hoc is for connecting with PC. There is "Channel" to select only when user uses Ad-hoc mode.



Wireless Setting	
MAC Address:	00:11:E2:03:37:48
Mode:	Ad-hoc 🛛 👻
Operation Mode:	Auto 🔽
SSID:	Default
Channel:	6 😽
Security:	None 🖌



- 2. **SSID** : Based on AP setting.
- 3. **Channel** : This is only be used when the user selects Ad-hoc mode in order to avoid conflict.
- 4. **Security** : It supports "None", "WEP", "WPA-PSK" security encryption based on the setting of the Router.
- 5. **WEP**:

Security:	WEP 🔽
WEP Setting	
Authentication:	Open System 💌
Encryption:	64 bit 😽
Кеу Туре:	HEX 🛛 (10 character max)
Key 1:	۲
Key 2:	0
Key 3:	0
Key 4:	0

- Authentication : There are Open System and Shared Keys, it is based on different encryptions. This has to be the same as the Router's setting.
- Encryption : There are 64 bits and 128 bits. This is based on Key Type based on the Router's setting.
- Key Type: There are HEX and ASCII. When selecting HEX, the user only can input 0~9 characters and use A, B, C, D, E, and F.
- When selecting ASCII, the user can input any character. (Case sensitive)
- Key 1~4 : Based on Key Type to input characters.
- 6. **WPA-PSK**:

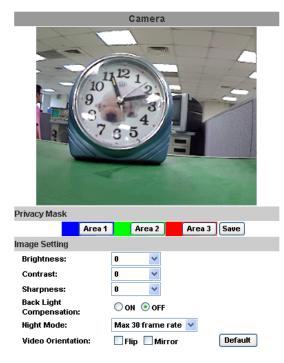
Security:	WPA-PSK 🔽	
WPA-PSK Setting		
Encryption	ткір 🔽	
Pre-Shared Key:		(ASCII format, 8~63)
	· Thoma and Th	

Encryption : There are TKIP and AES.
 Pre-Shared Key : Allow any characters .(Case sensitive)



# C.A/V Setting

i . Image Setting



For the security purpose, there are three areas can be setup for privacy mask. Click Area button first and pull a area on the above image. Finally, click Save button to reserve the setting.

Adjust "Brightness", "Contrast", "Hue", "Saturation" to get clear video.

Adjust "Brightness", "Contrast", "Hue", "Saturation" to get clear video. Moreover, IP CAMERA supports "Back Light Compensation", "Night Mode" and "Video Orientation".

ii Video Setting

User may select 2 streaming output simultaneously: Streaming 1 Setting: Basic mode and Advanced mode Streaming 2 Setting: Basic mode, Advanced mode, and 3GPP mode (Max Video Frame Rate for both streaming combined is 30 FPS)



a. Video System: click the drop down list to select the system type

	Video Setting
Video System:	NTSC 🔽

b. Streaming 1 Basic Mode :

Streaming 1 Setting	
💿 Basic Mode 🛛 🔘 Ad	dvanced Mode
Resolution:	800x600 💌
Quality:	Best 💌
Video Frame Rate:	15 FPS 💟
Video Format:	H.264 🐱
RTSP Path:	ex:rtsp:// </th

1. Resolution :

There are 8 resolutions can be chosen. 1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144

2. Quality :

There are 5 levels to adjust: Best/ High/ Standard/ Medium/ Low The higher the quality is, the bigger the file size is. Also not

good for internet transmitting

- 3. Video Frame Rate : The video refreshing rate per second.
- 4. Video Format : H.264 or JPEG
- 5. RTSP Path: RTSP output name



c. Streaming 1 Advanced Mode :

Streaming 1 Setting								
O Basic Mode 💿 Advanced Mode								
Resolution:	800x600 💌							
Bitrate Control Mode:	CBR 💿 VBR							
Video Quantitative:	9 🗸							
Video Bitrate:	1.5Mbps 💟							
Video Frame Rate:	15 FPS 🔽							
GOP Size:	1 X FPS 🛛 GOP = 15							
Video Format:	H.264 🐱							
RTSP Path:	ex:rtsp://<>/ Audio:G.711							

1. Resolution :

There are 8 resolutions can be chosen.

1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144

2. Bitrate Control Mode

There are CBR ( Constant Bit Rate ) and VBR ( Variable Bit Rate ) to use.

CBR : 32Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1(Low)~10(High) – Compression rate, the higher the compression rate, the lower the picture quality is; vise versa. 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 Frame Rate The video refreshing rate per second.

NTSC: Max 30 frames/second PAL: Max 25 frames/second

- GOP Size It means "Group of Pictures". The higher the GOP is, the better the quality is.
- 5. Video Format : H.264 or JPEG
- 6. RTSP Path: RTSP output connecting route
- d. Streaming 2 Basic Mode :



Streaming 2 Setting			
💿 Basic Mode 🛛 🔘 Ad	vanced Mode		
Resolution:	640x480 🛛 🔽		
Quality:	Standard 🔽		
Video Frame Rate:	15 FPS 🔽		
Video Format:	JPEG 🔽		
RTSP Path:	v2	ex:rtsp://<>/v2	Audio:G.711

1. Resolution :

There are 8 resolutions can be chosen. 1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144

2. Quality :

There are 5 levels to adjust:

Best/ High/ Standard/ Medium/ Low

The higher the quality is, the bigger the file size is. Also not good for internet transmitting

- 3. Video Frame Rate : The video refreshing rate per second.
- 4. Video Format : H.264 or JPEG
- 5. RTSP Path: RTSP output connecting route
- e. Streaming 2 Advanced Mode :

Streaming 2 Setting							
🔘 Basic Mode 🛛 💿 Advanced Mode							
Resolution:	640x480						
Bitrate Control Mode:	💿 CBR 🛛 🔘 VBR						
Video Quantitative:	7 🗸 🗸						
Video Bitrate:	1.5Mbps 🔽						
Video Frame Rate:	15 FPS 🔽						
GOP Size:	1 X FPS 🛛 💙						
Video Format:	H.264 🔽						
RTSP Path:	v2	ex:rtsp://<>/v2	Audio:G.711				

1. Resolution :

There are 8 resolutions can be chosen. 1600x 1200, 1280x1024, 1280x960, 1280x720, 800x600, 640x480, 320x240, 176x144

 Bitrate Control Mode There are CBR (Constant Bit Rate) and VBR (Variable Bit Rate) to use.



CBR : 32Kbps~4Mbps (the higher the CBR is, the better the video quality is)

VBR : 1~10 (Compression Rate)

- 3. Video Frame Rate The video refreshing rate per second.
- GOP Size It means "Group of Pictures". The higher the GOP is, the better the quality is.
- 5. Video Format : H.264 or JPEG
- 6. RTSP Path: RTSP output name
- f. 3GPP Streaming mode:

3GPP Streaming	g Setting		
🔘 Enabled	Disabled (Resolution=1)	76x144, FPS=5, Format=MPEG4)	
3GPP Path:	3g	ex:rtsp://<>/3g Audio:AMR	
	e	ex:rtsp://<>/3gx No Audio	
			Apply

3GPP mode suggested setting: 176x144 resolution, 5FPS, MPEG4 format

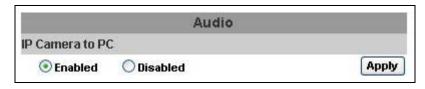
- 1. Enable or Disable 3GPP Streaming
- 2. 3GPP: 3GPP output name



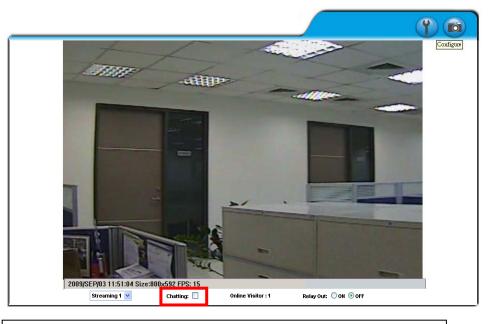
iii · Audio : (Optional)

IP CAMERA supports 2-way audio. User can send audio from IP Camera Built-in mic to remote PC; User can also send audio from remote PC to IP Camera's external speaker.

a. Audio from IP camera built-in mic to local PC: select "Enable" to start this function.



b. Audio from local PC to IP Camera: Check "chatting" in the browsing page.



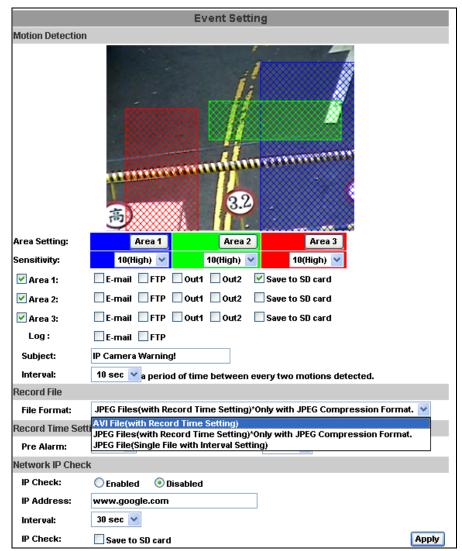
The Audio will not be smooth when enable SD card recording function simultaneously.



### **D.Event List**

IP CAMERA provides multiple event settings.

i . Event Setting



a. 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 card. To set up the motion area, click "Area Setting". Using mouse to drag and draw the area. The same operation for area 2 and 3.

b. Record File Setting: 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.

- 1. AVI File (With Record File Setting )
- 2. Multi-JPEG (With Record File Setting), only with JPEG compression format.
- 3. Single JPEG (Single File with Interval Setting)
- c. Record Time Setting :

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 Cam built-in Ram memory. Limited by IP Cam 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 Dis-connected :
   When the network is down, it will save the video to local SD card.
   This function is only enabled in wire connection.
- e. Network IP check

When the connection is down, it records the video to SD 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". The interval of two video files on SD card is fixed with 30 seconds.

- ii 🔨 Schedule
  - a. 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.



											So	he	du	ile										
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.																							Γ	
Sun.																								
										W	ith	sch	ed	ule	set	tup.								
											S	nap	sh	ot										
⊖ En	abl	ed		۲	Dis	able	ed																	
Snapshot: E-mail FTP Save to SD card																								
Interv	al:			10 Second(s) [150000]																				
File Na	ame	:			Sr	nape	sho	t																
															_									

#### iii 、 I/O Setting

IP CAMERA supports 1 input/ 1 output. 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 card.

	I/O Setting
Input Setting	-
Input 1 Sensor:	N.O 🔽
Input 1 Action:	E-mail FTP 🗹 Out1 📃 Save to SD card
Subject:	GPIO In Detected!
Interval:	10 sec 🗸
📃 Based on the	e schedule
Output Setting	
Mode Setting:	OnOff Switch O Time Switch
interval:	10 sec ∨
	Apply

#### CATUTION!!

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

#### **Alarm Input Setting**

By GPIO I/O port input that provide related action while I/O input triggered.

#### **GPIO Output Setting**

By GPIO I/O port output that provide OnOff Switch, Slide Switch & Pan/Tilt



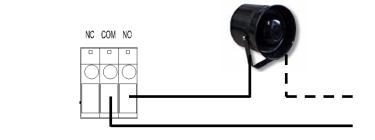
Module for using with relay box.

# GPIO pin define please refer to the part of Front / Back plane & I/O port pin assignment

GPIO 0	ALARM INPUT
	Normal: 3.3V (The voltage differential from GPIO pin & GND)
GPIO 1	Active: 0V (GPIO 0 & GPIO1 link to PIN2 GND)
GPIO 2	ALARM OUTPUT
	Normal: 3.3V (The voltage differential from GPIO pin & GND)
GPIO 3	Active: 0V (GPIO 0 & GPIO1 link to PIN2 GND)

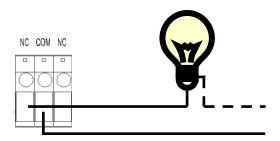
#### **GPIO INSTALLATION EXAMPLE 1**

Trigger a normal off (Normal Open) alarm siren on when event/motion occur at COM:



#### **GPIO INSTALLATION EXAMPLE 2**

Trigger the normal on (Normal Close) indoor illumination off when event / motion occur at COM:





#### iv 、 Mail & FTP

To send out the video via mail of ftp, please set up the configuration first.

	Mail & FTP
Mail Setting	
Mail Server: Username: Password: Sender's Mail: Receiver's Mail: Bcc Mail:	
FTP Setting	
FTP Server: Username: Password: Port:	21
Path:	

v 、 Log List

Log List	
System Logs	
	Logs
Motion Detection Logs	
	Logs
I/O Logs	
	Logs
All Logs	
	Logs

Sort by System Logs, Motion Detection Logs and I/O Logs. In addition, System Logs and I/O Logs won't lose data due to power failure.

#### vi v SD card

Please Insert SD card before use it. Make sure pushing SD card into the slot completely.

Note : The use of the SD card will affect the operation of the IP CAMERA slightly, such as affecting the frame rate of the video.





a.

		Dlauhaak	
		Playback	
19700101	20060417		
	SD Care	d: << 878M / 982M >>	

It will show the capacity of the SD card. Click the date listed on 1. this page. It will show the list of the video.

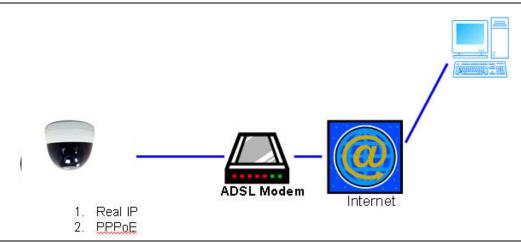
2006/04/17			
Time	Video	Event Type	
09:05:22	090522f.avi	Network Dis-connected	
09:05:52	090552f.avi	Network Dis-connected	
09:06:22	090622f.avi	Network Dis-connected	
09:06:52	090652f.avi	Network Dis-connected	
09:07:22	090722f.avi	Network Dis-connected	
09:07:52	090752f.avi	Network Dis-connected	
09:08:22	090822f.avi	Network Dis-connected	
09:08:51	090851f.avi	Network Dis-connected	
09:09:21	090921f.avi	Network Dis-connected	
09:09:51	090951f.avi	Network Dis-connected	

- The video format is AVI. Click the video to start Microsoft Media 2. Player to play it.
- To delete the video, check it, then click Del. When the SD card 3. is full, it will remove the oldest video automatically.



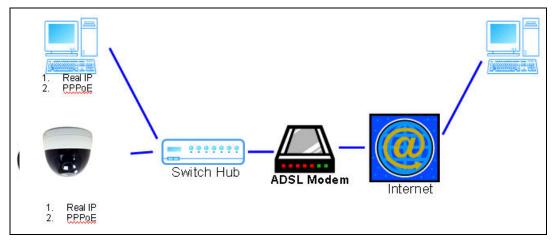
# VI. Network Configuration

i Configuration 1 :



a. Internet Access : ADSL or Cable Modem

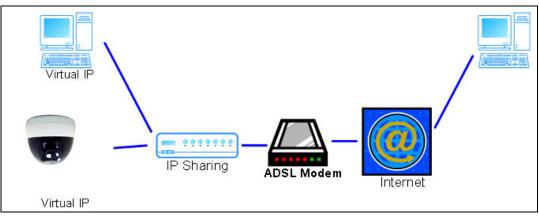
- b. IP address : One real IP or one dynamic IP
- c. Only IP CAMERA connects to the internet
- d. For fixed real IP, set up the IP into IP CAMERA. For dynamic IP, start PPPoE.
- ii Configuration 2 :



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



iii 
Configuration 3:

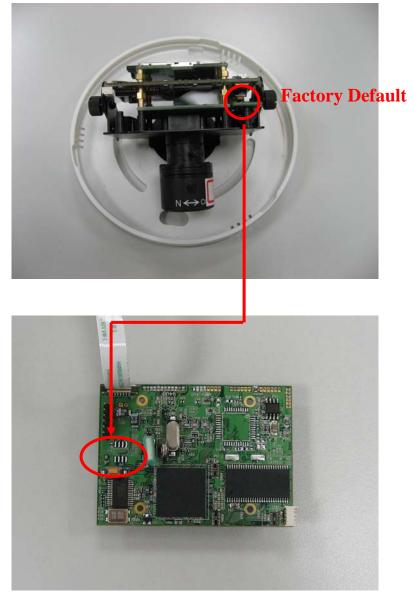


- a. Internet Access : ADSL or Cable Modem
- b. IP address : one real IP or one dynamic IP
- c. IP CAMERA and PC connect to the internet
- d. Device needed : IP sharing
- e. Use virtual IP, set up port forwarding in IP sharing.



# **VII. Factory Default**

- i To recover the default IP address and password, please follow the following steps.
- ii Remove power, and press and hold the button in the back of IP CAMERA.



- iii Power on the camera. Don't release the button during the system booting.
- iv  $\sim\,$  It will take around 30 seconds to boot the camera.
- $v \sim$  Release the button when camera finishes proceed.
- vi Re-login the camera using the default IP (<u>http://192.168.1.200</u>), and user name (admin), password (admin).



## **VIII.**Package contents

- i > IP CAMERA Network Camera
- ii · Adaptor
- iii 🔨 Ethernet Cable
- iv 、 CD title (User manual, IP installation Utility)

# Appendix I

SD Card Recommended :

SanDisk 128M
SanDisk 256M
SanDisk 512M
SanDisk 1G
SanDisk 2G
SanDisk 4G

SanDisk 8GB SanDisk 16GB SanDisk 32GB Transcend 4GB Transcend 8GB Transcend 16GB Transcend 32GB