



► F3105

User Manual



Contents

CHAPTER 1. SAFETY INSTRUCTION	1
CHAPTER 2. MINIMUM SYSTEM REQUIREMENT & PRODUCT FEATURE	
2.1 System Requirement	
CHAPTER 3. USING IP CAMERA VIA WEB BROWSER	5
3.1 WINDOWS WEB BROWSER	
CHAPTER 4. SETTING UP WIRELESS CONFIGURATION	8
CHAPTER 5. OPERATING IP CAMERA VIA MOBILE PHONE	
5.1 Mobile Phone Viewing	
CHAPTER 6. MSN MESSENGER	
CHAPTER 7. CONFIGURATION OF MAIN MENU	
7.1 LIVE VIEW 7.2 SETTING 7.3 CLIENT SETTING 7.4 IMAGE SETUP	
CHAPTER 8. SETTING-BASIC	21
8.1 SYSTEM 8.1.1 Information 8.1.2 Date / Time 8.1.3 Initialize	
8.1.4 Language	
8.2 CAMERA 8.2.1 General 8.2.2 H.264 8.2.3 MPEG-4 8.2.4 MJPEG 8.2.5 3GPP	25 27 28 30 31
8.2.6 Advanced	
8.3 NETWORK 8.3.1 Information 8.3.2 PPPoE	
8.3.3 DDNS (Dynamic DNS) 8.3.4 UPnP (Universal Plug and Play) 8.3.5 Bonjour	
8.3.6 IP Notification 8.3.7 Wireless (For F3105)	
8.3.8 Messenger	
8.4.2 HTTPS	
CHAPTER 9. SETTING-ADVANCED	
9.1 FTP CLIENT	



9.1.2 Alarm Sending 9.1.3 Periodical Sending 9.2 SMTP 9.2.1 General 9.2.2 Alarm Sending 9.2.3 Periodical Sending 9.3 NETWORK STORAGE 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER	56
 9.2.1 General 9.2.2 Alarm Sending 9.2.3 Periodical Sending 9.3 NETWORK STORAGE 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER 	57
 9.2.2 Alarm Sending 9.2.3 Periodical Sending 9.3 NETWORK STORAGE 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER 	
 9.2.3 Periodical Sending 9.3 NETWORK STORAGE 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER 	57
9.3 NETWORK STORAGE 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER	59
 9.3.1 General 9.3.2 Alarm Sending 9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER 	60
 9.3.2 Alarm Sending	
9.3.3 Periodical recording 9.4 SCHEDULE 9.5 ALARM BUFFER	62
9.4 SCHEDULE 9.5 Alarm Buffer	63
9.5 ALARM BUFFER	64
	67
9.6 MOTION DETECTION	
9.7 AUDIO DETECTION	69
9.8 System Log	70
CHAPTER 10. APPENDIX	71
A. FRAME-RATE AND BITRATE TABLE	
A.1 Mega Mode	
A.2 VGA Mode	
B. STORAGE REQUIREMENT TABLE	77
B.1 Mega Mode	
B.2 VGA Mode	
C. System Requirement	
C.1. 16 Channel IPCamera with CIF Performance	
C.2. 16 Channel IPCamera with D1 Performance	
EUROPE – EU DECLARATION OF CONFORMITY	
FEDERAL COMMUNICATION COMMISSION INTERFERENCE STATEMENT	



User Manual

Chapter 1. Safety Instruction

Before you use this product

This product has been designed with safety in mind. However, the electrical products can cause fires which may lead to serious body injury if not used properly. To avoid such accidents, be sure to heed the following.

Legal Caution

Video and audio surveillance can be forbidden by laws that vary from country to country. Check the laws in your local region before using this product for surveillance purposes.

> Don't open the housing of the product

Don't try to open the housing or remove the covers which may expose yourself to dangerous voltage or other hazards.

> Don't use the accessories not recommend by the manufacturer

Heed the safety precautions

Be sure to follow the general safety precautions and the "Operation Notice."

Operation Notice - Operating or storage location

Avoid operating or storing the camera in the following locations:

- Extremely hot or cold places
 - (Operating temperature: 0 °C to + 50 °C [32 °F to 122°F])
- Exposed to direct sunlight for a long time, or close to heating equipment (e.g., near heaters)
- Close to water (e.g.,near a bathtub, kitchen sink, laundry tub)
- Close to sources of strong magnetism
- Close to sources of powerful electromagnetic radiation, such as radios or TV transmitters
- Locations subject to strong vibration or shock

In case of a breakdown

In case of system breakdown, discontinue use and contact your authorized dealer.



In case of abnormal operation

- If the unit emits smoke or an unusual smell,
- If water or other foreign objects enter the cabinet, or

• If you drop the unit or damage the cabinet:1 Disconnect the cable and the connecting cables. 2 Contact your authorized dealer or the store where you purchased the product.

> Transportation

When transporting the camera, repack it as originally packed at the factory or in materials of equal quality.

> Ventilation

To prevent heat buildup, do not block air circulation around the device.

> Cleaning

• Use a soft, dry cloth to clean the external surfaces of the device. Stubborn stains can be removed using a soft cloth dampened with a small quantity of detergent solution, then wipe dry.

• Do not use volatile solvents such as alcohol, benzene or thinners as they may damage the surface.



Chapter 2. Minimum System Requirement &

Product Feature

2.1 System Requirement

For normal operation and viewing of the network camera, it's recommended that your system meet these minimum requirements for proper operation:

Item	Requirements
СРИ	Pentium 4 2.8GHz (or equivalent AMD)
Graphic Card	258 MB RAM graphic cards(or equivalent on-board graphic cards)
RAM	1G
Operating System	Windows 2000, Windows 2003, Windows XP, Windows Vista, Windows 7, and Mac OS X Leopard
Web Browser	Internet Explore 6 or later

Note: Please keep updating the latest Windows software and service package. (Ex: Net Framework, Windows Media Player, Enhance ActiveX Security)





2.2 Product Features

These easy-to-follow instructions make setup and operation quick and simple, so you'll also soon be enjoying the benefits of these product features:

	SYSTEM			
	H.264 / MPEG-4 / Motion JPEG:			
Resolutions	4 resolutions from 1280x1024 to 320x240 via API and			
	configuration web page			
Screen Resolution	Higher than 1024 * 720 pixels			
Compressing format	H.264 / MPEG-4 / Motion JPEG			
Lin to 15 fps at 1280x1024				
Frame Rate	Up to 30 fps at 640x480			
	Rotation: Mirror, Flip, Mirror Flip			
Image settings	Brightness / Contrast / Saturation / Sharpness			
	Overlay capabilities: time, date, text and privacy image			
Image snapshot	Yes			
Video Recording	Yes			
Full Screen Viewing	Yes			
Digital Zoom	10x digital			
Audio	Two-way (full / half duplex) with built-in microphone			
Audio	Audio compression: G.711 µ law, a law, and AMR			
Instant Messenger	Support MSN Live View			
Mobile Phone Live View	Through 2.5 WAP, 3GPP, 3G Streaming, and 3G Browser			
Alarm Sending	FTP Client / SMTP / Network Storage			
Security	Passward Protecton / HTTPS encryption / IP Filter			
Alarm Buffer	Recording image and audio file pre-and-post disconnection up to 5 sec.			
Supported protocols	Bonjour, TCP/IP, DHCP, PPPoE, ARP, ICMP, FTP, SMTP, DNS, NTP, UPnP, RTSP, RTP, HTTP, TCP, UDP, 3GPP/ISMA RTSP			
Simultaneous Connection	Up to 10 users			
Operating conditions	0°C ~ 50 ℃ (32°F ~ 122 °F)			
	HARDWARE			
Lens	F1.8, 4.2mm Megapixel board lens			
LEDs	5 φ LEDs x 6			
IR working distance	5 M			
1/0	1 in / 1 out			
Audio Output	1			
Power	12V DC, 1A, Max 5W			
	NETWORK			
Wireless	IEEE 802.11b/g (F3105)			



Chapter 3. Using IP Camera via Web Browser

3.1 Windows Web Browser

1. Open your web browser, and enter the IP address or host name of the IP camera in the Location / Address field of your browser.

Note : If you only want to view the video without accessing Setting screen, enter "http://<IP>/index2.htm" as your web URL.

2. Use the default account "admin" and default password "admin".

Note : The default user name "admin" and the password are set at the factory for the administrator. You can change them in the Account Menu. (Please check "Setting \rightarrow Basic \rightarrow Security \rightarrow Account")

Connect to 10.0.0.	56 🛛 🖓 🔀
	G X
User name:	2
Password:	
	Remember my password
	OK Cancel

3. The monitor image will be displayed in your browser. In the far left side of main configuration are Setting, Client Setting, and Image Setup. For more details, you can check Chapter 7.2 \ Chapter 7.3 \ Chapter 7.4 and Chapter 7.5.





3.2 Mac Web Browser

1. Click the Safari icon, and enter the IP address of the IP camera in the Location / Address field of your browser.

Note : If you only want to view the video without Setting screen "http://<IP>/index2.htm" as your web URL.



2. Enter the default account "admin" and default password "admin".

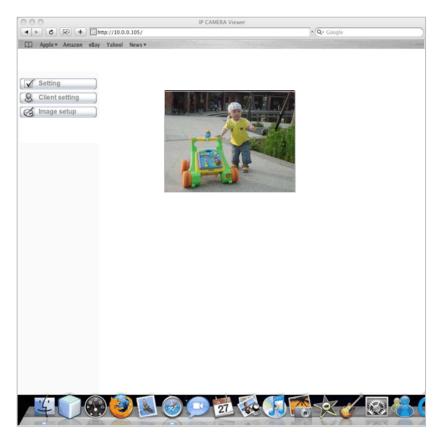
Note : The default user name "admin" and the password are set at the factory for the administrator. You can change them in the Account Menu (Please check "Setting \rightarrow Basic \rightarrow Security \rightarrow Account")



Using IP Camera via Web Browser



3. The monitor image will be displayed in your browser. In the far left side of main configuration are Setting, Client Setting, and Image Setup. For more details, you can check Chapter 7.2 \ Chapter 7.3 \ Chapter 7.4 and Chapter 7.5.





Chapter 4. Setting up Wireless Configuration

The wireless network has to be set up by using cable network connection. After setting the camera correctly, the wireless function can work without cable network connection. Please follow the setting process below step by step:

1. Connect IP Camera with Ethernet connection.

2.Go to "Setting \rightarrow Basic \rightarrow Network \rightarrow Wireless," choose option "On". You will see the wireless Setting screen.

🗐 ном	E	■Wireless ④ On 〇 Off							
SETTING			ESSID	Mode	St Security		eless networks Channel	Signal strength	Bit rate
S BAS	IC	>	zavio	Managed	Open/WE	P	7	91	54Mb
🕑 S	ystem		funP	Managed	WPA-PSK		1	89	0
E) c	amera		FON_funp Amba2	Managed Managed	Open/No Open/WE	Security	1	91 81	0
<u> </u>			duckytest2	Managed	Open/WE Open/WE		2	71	
🔊 N	etwork		-	-					Refresh
	Information							•	Reliesi
	PPPoE		MAC address			00:1B:09:0)1:16:01		\smile
	DDNS	=	IP address			10.0.0.71			
	UPnP		ESSID			zavio		 ☐ Manual set	ting
	Bonjour	_				20110			ang
	IP Notification		Mode			Mana	iged O Ad	Нос	
	Wireless		Authentication	ı		Open	*		
	Messenger		Encryption			WEP	~		
🕑 s	ecurity		Key length			⊙ 64 bit	t 🔿 128 bit		
🕑 Adva	ance		Active transmi	t key:		(10 HEX	chars or 5	ASCII chars)	
				ŀ	Key 1: 💌	•••••	\		
					Re-type	•••••			

- 3. Then click <u>"Refresh".</u> All access points (AP) around you will show up.
- 4. Select the AP you wish to connect.
- 5. Enter password at active transmit key if you need. If you don't know the setting of the

wireless AP, please ask your network administrator.

6. Choose the option of <u>Obtain an IP address automatically (DHCP)</u> and <u>Obtain DNS server</u> <u>address automatically</u>.



PPPoE DDNS UPnP Bonjour IP Notification Wireless	 Obtain an IP address automatically (DHCP) Use the following IP address
Vineless	
Messenger	Obtain DNS server address automatically
Security	O Use the following DNS server address
Advance	

7. Otherwise, Choose Use the following IP address and Use the following DNS sever address.

- ➤ Use the following IP address: Select this when the fixed IP address is set.
 - •IP address: Enter the IP address of the device.
 - •Subnet mask: Enter the subnet mask.
 - •Default gateway: Enter the default gateway.

> Use the following DNS server address: Select this when you set the fixed address as the

IP address of DNS server.

- •Primary DNS server: Enter the IP address of the primary DNS server.
- •Secondary DNS server: Enter the IP address of the secondary DNS server, if necessary.

	UPnP Bonjour	IP address	10 . 0 . 0 . 71
	IP Notification	Subnet mask	255 . 255 . 255 . 0
	Wireless	Default gateway	10 0 0 1
	Messenger		
 Security Advance 		• Use the following DNS server ad Primary DNS server	ddress
		Filliary DN3 server	
		Secondary DNS server	000



Chapter 5. Operating IP Camera via Mobile Phone

5.1 Mobile Phone Viewing

5.1.1 3G Mobile Phone Streaming Viewing

For 3G mobile phone viewing, type "**rtsp://<IP>:<PORT>/video.3gp** " into your 3G Streaming Link. **<IP>** is the Public IP address of your IP camera; **<PORT>** is the RTSP port of your IP camera (Default value is 554.) Example: rtsp://100.10.10.1:554/video.3gp

Note: You can also use RTSP clients (RealPlayer, VLC, QuickTime Player...etc.) to view RTSP streaming, just type in "rtsp://<IP>:<PORT>/video.3gp" as the Player URL

5.1.2 2.5G Mobile Phone WAP Viewing

For 2.5G mobile phone viewing, type "http://**<IP>/mobile.wml**" into your 2.5G WAP Browser. **<IP>** is the Public IP address of your IP camera.

5.1.3 2.5G Mobile Phone Browser Viewing

For 2.5G mobile phone viewing, type "http://<**IP**>/mobile.wml " into your 2.5G Web Browser. <**IP**> is the Public IP address of your IP camera.



5.2 Using IP Camera via iPhone

You can use ZAVIO Web User Interface via iPhone. Please follow the setting process below. Then you can use ZAVIO Web UI via iPhone.

1. Select Safari function



3. Type name and password. Default value is **admin / admin.** Then click Login In



2. Type IP address in your web link.



4. The ZAVIO User Interface and live image will show up in the middle of screen.



Note: The image is continuous snapshots, not video. Thus, live image can't be recorded here.



Chapter 6. MSN Messenger

Please follow the following steps to set up the Messenger function.

1. Download free MSN software and create a **new MSN account** (Camera at home) for Microsoft Live Messenger.

2.Go to "Setting \rightarrow Basic \rightarrow Network \rightarrow Messenger," set the Messenger to "ON". Then, <u>login in new</u> account and password (Camera at home).

	_	
SETTING	🗏 Messenger 💿 On	○ Off
BASIC	Protocol	msn
🍉 System	Login Account	camera at home@hotmail.com
🅑 Camera	Login Account	
Network	Password	•••••
Information	Re-type password	•••••
PPPoE	Alias	
DDNS	Port range	20000 (1024 ~ 65531) ~ 21000 (1028 ~ 65535)
UPnP	Fortrange	20000 (1024 ~ 65531) ~ 21000 (1028 ~ 65535)
Bonjour	Video mode	○ Computer view
IP Notification	IP Notification	On ○ Off
Messenger	Privacy	⊙ On ◯ Off
Security	User	r5400@msn.com
Advance		Add Remove
		r5400@msn.com
	Allow list	

3. If your router has firewall function, you have to set the **Port Range** on this setting page in accordance with the one of firewall.

4. Choose the **Video Mode**, decide the live view image of messenger received from Computer View (MPEG-4) or Mobile View (3GPP).

5. Choose "On" at the option of <u>IP Notification.</u> If this feature switches **On**, camera will send IP notification to the users who are allowed.

6. Choose "On" at the option of <u>**Privacy.**</u> If you can choose "On" at the privacy option, you can set an allow list.

7. Use your account to login in the Messenger software. Then, add the new MSN account (Camera at home)

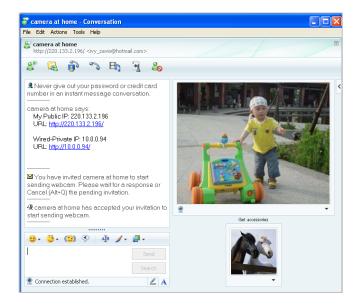
8. The Camera at home will show up with its Public IP and Private IP if the option of IP Notification is "On". (You can enter "Ping" to show up with Public IP and Private IP.)

9. Click on the small **camera icon** Then, choose "View a new contact's webcam".

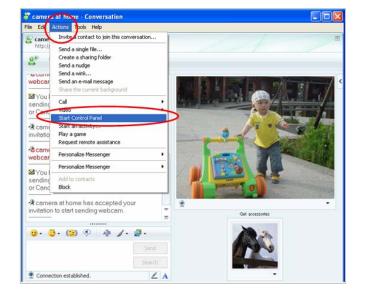




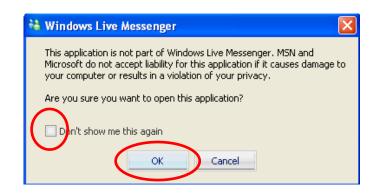
10. The IP Camera will accept your invitation; the live video will show up in the right screen after few seconds.



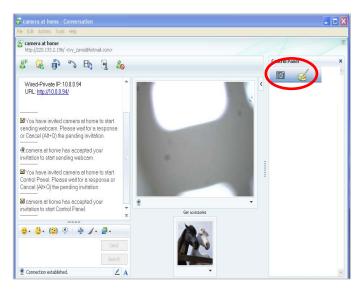
11. Click **Action** button and choose **Start Control Panel** to use control panel.



12. The dialog box will show up with "This application is not part if Window Live Message......" Tick the box of "Don't show me this again" and click OK.

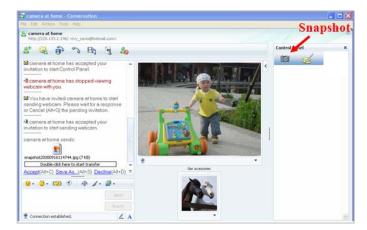


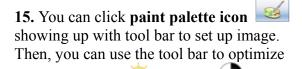
13. The IP Camera will accept your invitation to start **Control Panel.**





14. You can click **Camera icon** to snapshot then the picture will send to you immediately.





video Brightness, Contrast, Saturation and Sharpness, After the adjustment of all setting, you can still click Default to make the setting back to the original setting.

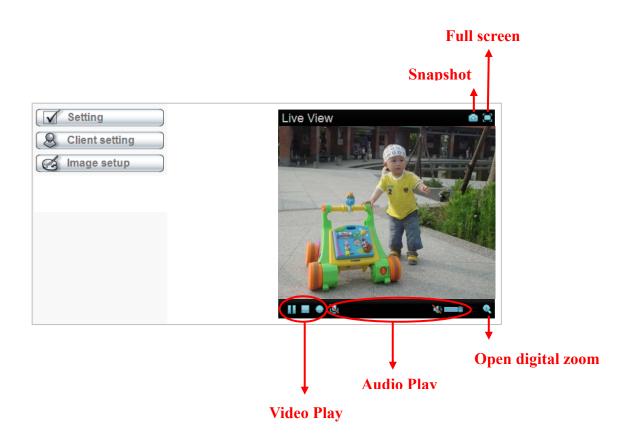




Chapter 7. Configuration of Main Menu

In the left side of main configuration are Setting, Client setting, Image setting. For more details, please check Chapter 7.2 \ Chapter 7.3 \ Chapter 7.4. \ Chapter 7.5.

In the right side, you can control Live View in your main Browser. The functions include Snapshot, Open digital zoom, Audio, and Video Play.





7.1 Live View

7.1.1 Snapshot

You can capture a still image shot by clicking the camera icon and save it in the operating computer.

Symbols	Meaning
۵	a snapshot window appears after clicking the icon
Save	save the picture captured by snapshot into your computer
Close	Return to the view screen
	full screen

7.1.2 Digital zoom in / out the image via the monitor window



- Click sto display the digital zoom in window.
- Pull the **W** to adjust the digital zoom range, and it will be showed on the above window.
- Use the left click of your mouse to move

to anywhere in the window area.



Symbols	Meaning
	Pause the current video
	Play the video
	Stop the current video
۲	Record the current video

7.1.3 Video play buttons

Note: Concerning the recording storage requirement of your hard disk, please refer to the CHAPTER 10. APPENDIX / B. Storage Requirement Table.

7.1.4 Audio buttons

Symbols	Meaning	Note
	Speakers turned on	mean the speakers of your computer are turned on to transmit the sounds from the connected IP camera(s)
	Speakers turned off	mean the speakers of your computer are turned off to transmit the sounds from the connected IP camera(s)
40	Mute off	mean you can broadcast to the connected IP camera(s) via the Ethernet using your microphone
X	Mute on	mean you can't broadcast to the connected IP camera(s) via the Ethernet using your microphone
Ĕ	Volume control bar	mean you can adjust the sound volume by the control bar



7.2 Setting

This function is only for the Administrator. Click "Setting" on the home page of web user interface to get into the **Basic** and **Advanced Settings** menu.

🕲 номе	
SETTING BASIC Advanced	
	Welcome to Camera Settings Page

Click **Basic** folder, there are sub-folders including System, Camera, Network, and Security. Fore more information, you can see Chapter 8.1 • Chapter 8.2 • Chapter 8.3 and Chapter 8.4.

Click **Advanced** folder, there are sub-folders including FTP Client, SMTP, Network Storage, Schedule, Alarm Buffer, Motion Detection, Audio Detection, and System Log. Fore more information, please see Chapter 9.



7.3 Client Setting

This function is only for the client. Click this button to control **Mode**, **View Size**, **Protocol**, and **Video Buffer**.

Setting		10.0.0.45
Olient se	etting	
Mode	H.264 💌	
View size	1/4 X 💌	
Protocol	HTTP 🔽	A 2
Video buffer	Off 🖌	
🧭 Image s	etup	

7.3.1 Mode

Click the pull-down box to choose video compression mode of **LIVE VIEW** among H.264, MPEG-4, and MJPEG.

Note: As long as the operating system not able to afford loading under H.264 mode, please downgrade the mode to MPEG-4 or MJPEG.

7.3.2 View Size

Select the desired view size of image resolution among 1/4X, 1/2X, and 1X.

7.3.3 Protocol

Select the transferring protocol among TCP, UDP, and HTTP.

7.3.4 Video Buffer

Turn the Video Buffer function On / Off. The Video Buffer function makes the streaming more smoothly in unsteady network environment, but might cause a little delay in live viewing.



7.4 Image Setup

The tool bar can be adjusted to optimize video **Brightness**, **Contrast**, **Saturation** and **Sharpness**.

Setting	Live Vie	w 🙆 🗷
Q Client setting		
Brightness10Contrast80Saturation50Sharpness80Default		
	11 = +	ğı 🔌 💴 e 🍕

7.4.1 Brightness

The value range is $0\sim99$. The higher value the brightness is, the brighter the image is.

7.4.2 Contrast

The value range is $0\sim99$. The contrast is a measure of a display system, defined as the ratio of white to black that the system is capable of producing. The higher value the contrast is, the more delicate of color you can have.

7.4.3 Saturation

The value range is $0\sim99$. The saturation of a color is determined by a combination of light intensity and how much it is distributed across the spectrum of different wavelengths. The higher value the saturation is, the more colorful the image will be.

7.4.4 Sharpness

The value range is $0\sim99$. It applies image processing techniques to adjust the sharpness of live view. However, higher the value is, more the noise is.

7.4.5 Default

After the adjustment of all setting, you can still click Default to make the setting back to the original setting.



Chapter 8. Setting-Basic

Click the **Basic** folder to display the sub folders including **System**, **Camera**, **Network**, and **Security**.

8.1 System

Click the folder of **System** to display the sub-folders including **Information**, **Date** / **Time**, **Initialize**, and **Language**.

8.1.1 Information

The Information screen provides the product factory information which includes **Product** Name, Firmware Version.

вноме	Product name	H.264 Megapixel	I Box Camera w/ Two-way audio, DIDO (1/1), W
SETTING	Firmware version	MG.0.12.16.10	Tue Dec 16 14:12:27 CST 2008
BASIC			
System			
Information			
Date/Time			
Initialize			
Language			
🅑 Camera			
Network			
Security			
Advanced			

8.1.2 Date / Time

The Date/ Time screen displays all options of time setting.

Setting-Basic Information



🕲 номе	■ Current date/time	2009-02-11 12:06:00
SETTING	■ PC clock	2009-02-11 12:06:01
 BASIC System Information Date/Time 	■ Date/time format ■ Adjust	 yyyy-mm-dd hh:mm:ss Keep current setting Synchronize with PC Manual setting 2009 - 02 - 11
Initialize Language D Camera Network		2003 2003
 Security Advanced 	■ T ime zone	pool.ntp.org Auto Interval 1 hours (GMT+08:00)Taipei
	■ Daylight Saving Time	
	Start time	By date O By week number January First Mon 1 0 : 00
	End time	O By date ● By week number January ✓ First ✓ Mon 1 0 ✓ : 00 ✓ OK Cancel

- > Current Date / Time: This displays the current date and time of this IP Camera.
- > PC Clock: This displays the date and time of the monitoring PC clock.
- Date / Time Format: You can click the pull down box to select different time display formats.

Note: If you would like the Date / Time information shows on the Live View screen, please check "Setting \rightarrow Basic \rightarrow Camera \rightarrow General \rightarrow Date / Time " to execute the setting.

- > Adjust: You can select one of those four adjusting modes for your IP Camera.
 - •Keep current setting: Select this mode to keep the current date and time of this IP Camera.
 - •Synchronize: Select this mode to keep the date and time of this IP Camera is the same as the monitoring PC.
 - •Manual setting: Select this mode to adjust manually the date and time of this IP Camera.
 - •Synchronize with NTP: Specify the NTP server name and the Refresh Interval to synchronize the date and time of this IP Camera with those of the time server, known as the NTP server.



> Time Zone: Select the Time Zone format of Greenwich Mean Time among different

cities. The time display will be the same as the current date / time option.

- Daylight Saving Time: There are two modes to choose for setting up daylight saving time.
 - •By Date: Set the start and end time by select month, day, hour, and minute.
 - •By Week Number: Set the start and end time by select month, week, hour, and minute.

Note: The NTP server (Network Time Protocol) is the time server which is an Internet standard protocol built on the top of TCP / IP. This assures accurate synchronization to the millisecond of computer clock times in a network of computers.

8.1.3 Initialize

🗐 ном	E	=	Reboot	Reboot	
SETTING	5		Factory default	Factory default	
🕑 BAS	IC ystem	=	Backup setting data	Save	
	Information	=	Restore setting		Browse OK
	Date/Time	=	Firmware upgrade		Browse OK
	Initialize				
	Language				
🕑 c	amera				
• • N	letwork				
🕑 s	ecurity				
🕑 Adv	anced				

Reboot: Click this button to reboot this IP Camera. A confirmation dialogue will appear and then click "OK" to execute. It takes one minute to complete the reboot process.

Factory Default: Click this button to recover this IP Camera to the factory default setting. A confirmation dialogue will appear and then click "OK" to execute. The network indicator on this IP Camera will start to blink. This IP Camera will reboot automatically after completing adjustments to the default setting. Don't turn off this IP Camera until the device reboots.

> Backup Setting: You can save the setting data of this IP Camera into a file. Click "Save"

Setting-Basic Initialize



and follow the instructions on the browser to save the setting data file to the location you specified.

➤ **Restore Setting**: Download the saved setting data of this IP Camera. Click "Browse" and select saved file. Click "OK" and this IP Camera is adjusted according to the loaded data and then restarted.

➢ Firmware Update: Update the device software. Click "Browse" and select the file for updating. A confirmation dialogue will appear. Click "OK" to start. This IP Camera will reboot upon completion.

Note: When updating the firmware version, please use the file specific for the model. Otherwise, some problems may occur. Unless the updating completed, please don't turn off the power or disconnect the network.

8.1.4 Language

вноме	Upload language pack Browse OK
SETTING	Language : English
S BASIC	
🕑 System	
Information	
Date/Time	
Initialize	
Language	
🅑 Camera	
达 Network	
🍉 Security	
Advanced	

➤ Upload Language Pack: Clicking "Browse" and selecting the file for updating, the present language display of WEB User Interface could be changed. A confirmation dialogue will appear. Click "OK", then the update will be applied immediately. The default language is "English."



8.2 Camera

Click the folder of Camera to display the sub folders including General, H.264, MPEG-4, MJPEG, 3GPP, and Advanced.

8.2.1 Gene	eral	
SETTING		
S BASIC	E RTSP	RTSP port
🅑 System	E RTP	
🕑 Camera	Unicast streaming	
General		Port range 5000 (1024 ~ 65532) ~ 7999 (1027 ~ 65535)
H.264	Image rotated	None 💌
MPEG4	🔳 Audio Codec	g.711 u-law 💌
MJPEG	🗏 Audio mode	● Full duplex ○ Half duplex
3GPP	Video clip format	H.264 💌
Advance	LED Threshold	○ On ○ Off ⊙ Auto
Playback		Bright 50
Network		Dark 100
Security		
Advance	Overlay	🔿 Text overlay 🔿 Privacy mask 💿 Off

- RTSP: The default value is 554. If the IP Cameras connected with router and installed outside are over 2 sets and all of them need support RTSP, please fill some value in the blank space in the range from 1024 to 65535.
- RTP Unicast Streaming: The default value of port range is 5000 ~ 7999 and can be changed from 1024 to 65535.

Note: Under Unicast streaming mode, streaming video is delivered from the camera to a single client device.

> Image Rotated: Select the screen display "flip", "mirror", or "flip + mirror."

Audio Codec: Select one audio codec among G.711 U-law / G.711 A-law / AMR Audio / Off.

- •G.711 U-law : one codec for "Computer Audio", used in North America & Japan areas.
- •G.711 A-law : another codec for "Computer Audio", used in Europe and the rest of the world.
- •AMR Audio: an audio codec of the third generation communication for MOBIL PHONE. While the option selected, your mobile phone will receive the audio file from IP Camera. And you can choose the bit rate from 4.75k to 12.2k. However, the

Setting-Basic Camera



usage of this codec will cause frame-rate decreasing.

- •Off: Select Off, audio file won't be transmitted by IP CAM.
- > Audio Mode: You can select Full duplex or Half duplex.
 - •Full duplex: Select it for simultaneous communication in both direction between the connected administrator and IP CAM. It means both parties can speak and be heard at the same time.
 - •Half duplex: Select it for communication in both directions, but only one direction at a time (not simultaneously). It means one party begins receiving a signal, it must wait for the transmitter to stop transmitting, before replying. Therefore, once one party speak, he can't hear any voice from the other party, just like the communication by radio set.

> Video Clip Format: Select RECORDING compression format H.264 or MPEG-4.

- •**MPEG-4:** MPEG-4 has the advantage of sending a lower volume of date per time unit across the network (bit-rate) compared to Motion JPEG and therefore provides a relatively high image quality at a lower bit-rate (bandwidth usage).
- •H.264: H.264 provides higher compression rate than MPEG-4. Thus, H.264 can decrease the bandwidth usage and further apply on 3G. However, H.264 will occupy more system resources than MPEG-4. As long as the operating system appears operating difficulties under H.264 format, please change to select MPEG-4.
- > LED Threshold: Select LED light On, Off, and Auto.
 - •On: Select On will led always work.
 - •Off: Select off will disable led.
 - •Auto: Select Auto will appear two thresholds, Bright and Dark. You can adjust them for LED Auto-On and Auto-Off respectively. Bright value higher, LED **auto-off** more easily in the bright environment will be. Dark value higher, LED **auto-on** more easily in the dark environment will be. Bright Value is ranges from 0 to 70, and Dark Value is from 30 to 100. The interval value between both is at least 30. The default value for F3100/F3105 is 30 and 100.

> Overlay:

- •Text Overlay: Some information can be showed on the display screen, such as Date / Time and user-defined text. And the background color can be chosen.
- •Privacy Mask: A specific area of the video image can be covered.



8.2.2 H.264

🕏 Home	
SETTING Setting System Camera General H.264 MPEG4 MJPEG 3GPP Advanced Playback	H.264 ■ Viewer authentication ④ On ○ Off ■ Multicast streaming ④ On ○ Off Multicast address 228.0.0.1 Video port ④ Auto ○ (1024 ~ 65534) Audio port ④ Auto ○ (1024 ~ 65534) Time-To-Live 15 (1 to 255) ■ Image Size 1280x1024 ♥ ■ Frame rate 15 ♥ fps
Playback Network Security Advanced	 Quality Auto Fixed quality Excellent Fixed bitrate GM bps IP interval Auto OK Cancel

Viewer Authentication:

- •On: If the viewer authentication is On, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- •Off: If the viewer authentication is Off, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.h264" on the URL column directly.

> Multicasting Streaming (if it's on):

- •Multicast Address: The multicast server address will appear automatically.
- •Video / Audio Port: Specify the transmission port number of the video data, from 1024 to 65535.
- •Time to Live: Set the maximum TTL that multicast can pass through.

Note: Time To Live option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

➤ Image Size: Specify the image size when the network camera transmits. Choose one among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.

Frame Rate: Set the frame rate of H.264 image. Choose one value among 2, 3, 4, 5, 7, 10, 15, 20, 25, and 30 fps. The unit "fps" stands for "frames per second".

Note: The frame rate is up to 15 fps at 1280x1024, and up to 30 fps at 640x480. However, if you would like choose frame rate over 15 fps, the IMAGE SIZE of H.264/MPEG-4/MJPEG setting page has to been selected 320x240 or 640x480 at the

same time.

- ≻ Quality:
 - •Auto: The quality and bitrate will be adjusted automatically according to the frame rate.
 - •Fixed Quality: Select the value of quality among Medium, Good, Delicate and Excellent.
 - •Fixed Bitrate: Set the bitrate of H.264 image transmission for a line. Select one among 64Kbps, 128Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps, 4 Mbps, 5 Mbps, and 6 Mbps.

Note: Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the CHAPTER 10. APPENDIX / A. Frame-rate & Bitrate Table.

➤ IP Interval: It's the ratio of i-frame & p-frame. Select one among 1, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

Note: The IP interval value means a ratio of "P-frame / I-frame " in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval value to solve the problem.

Note: If Video Clip Format of General Menu (go "Setting → Basic → Camera → General"), which is for recording compression, is chosen H.264, the IP interval option will appear "Auto" automatically and can't select. The limit is for avoiding damaging the recording quality of 5 seconds temporary-saved video recorded on FTP server.

🔍 Home	
SETTING	MPEG4
Security	Viewer authentication () On () Off
System	Multicast streaming () On () Off
System	Multicast address 228.0.0.1
Camera	Video port () Auto () (1024 ~ 65534)
General	Audio port () Auto () (1024 ~ 65534)
H.264	Time-To-Live 15 (1 to 255)
MPEG4	Image Size 1280x1024 ()
MJPEG	Frame rate 15 () fps
3GPP	Quality
Advanced	() Auto
Playback	() Fixed quality Excellent ()
Security	Fixed bitrate 2M () bps
Advanced	IP interval Auto ()

8.2.3 MPEG-4



Viewer Authentication:

- •On: If the viewer authentication is On, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- •Off: If the viewer authentication is Off, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.mp4" on the URL column directly.

> Multicasting Streaming (if it's on):

- •Multicast Address: Specify the multicast server address.
- •Video / Audio Port: Specify the transmission port number of the video data, from 1024 to 65535.
- •Time to Live: Set the maximum TTL that multicast can pass through.

Note: Time To Live option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

➤ Image Size: Specify the image size when the network camera transmits. Choose one among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.

Frame Rate: Set the frame rate of the MPEG-4 image. Choose one from 1, 2, 3, 4, 5, 7, 10, 15, 20, 25, and 30 fps. The unit "fps" stands for "frames per second."

Note: The frame rate is up to 15 fps at 1280x1024, and up to 30 fps at 640x480. However, if you would like choose frame rate over 15 fps, the IMAGE SIZE of H.264/MPEG-4/MJPEG setting page has to been selected 320x240 or 640x480 at the same time.

➤ Quality:

- •Auto: The quality and bitratee will be adjusted automatically according to the frame rate.
- •Fixed Quality: Select the value of quality among Medium, Good, Delicate and Excellent.
- •Fixed Bitrate: Set the bitrate of MPEG-4 image transmission for a line. You can select one value among 64Kbps, 128Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps, 4 Mbps, 5 Mbps, and 6 Mbps.

Note: Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the CHAPTER 10. APPENDIX / A. Frame-rate & Bitrate Table.

IP interval: It's the ratio of i-frame & p-frame. You can select one among 1, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

Note: The IP interval value means a ratio of "P-frame / I-frame " in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval



value to solve the problem.

Note: If Video clip format of General Menu, which is for recording compression, is chosen MPEG-4, the IP interval option will appear "Auto" automatically and can't select. The limit is for avoiding damaging the recording quality of 5 seconds temporary-saved video recorded on FTP server.

8.2.4 MJPEG

De Home	
SETTING	MJPEG
S BASIC	Viewer authentication ③ On 〇 Off
System	Multicast streaming ③ On 〇 Off
🕑 Camera	Multicast address 228.0.0.1
General	Video port ④ Auto 〇 (1024 ~ 65534)
H.264	Audio port
MPEG4	Time-To-Live 15 (1 to 255)
MJPEG	
3GPP	Image Size 1280x1024 ¥
Advanced	🗏 Frame rate 15 💙 fps
Playback	Quality
Network	Auto
Security	Fixed quality Excellent
Advanced	OK Cancel

Viewer Authentication:

- •On: If the viewer authentication is On, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- •Off: If the viewer authentication is Off, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.mjpg" on the URL column directly.

> Multicasting streaming (if it's on):

- •Multicast Address : Specify the multicast server address.
- •Video / Audio Port: Specify the transmission port number of the video data, from 1024 to 65535.
- •Time to Live: Set the maximum TTL that multicast can pass through.

Note: Time To Live option determines the maximum length of time (measure as the number of network routers that can be passed before data arrives at its destination or is dropped) within which a multicast packet must reach its destination.

▶ Image Size: Specify the image size when the network camera transmits. Choose among 1280 x 1024, 1280 x 720, 640 x 480, and 320 x 240.

Frame Rate: Set the frame rate of the MJPEG image. Choose one among 1, 2, 3, 4, 5, 7,



10, 15, 20, 25, and 30 fps. The unit "fps" stands for "frames per second".

Note: The frame rate is up to 15 fps at 1280x1024, and up to 30 fps at 640x480. However, if you would like choose frame rate over 15 fps, the IMAGE SIZE of H.264/MPEG-4/MJPEG setting page has to been selected 320x240 or 640x480 at the same time.

≻ Quality:

- •Auto: The quality and bit rate will be adjusted automatically according to the frame rate.
- •Fixed Quality: Select the value of quality among Medium, Good, Delicate and Excellent.
- •Fixed Bitrate: Set the bitrate of MJPEG image transmission for a line. You can select one among 64Kbps, 128Kbps, 256Kbps, 384Kbps, 512Kbps, 768Kbps, 1Mbps, 1.5 Mbps, 2 Mbps, 3 Mbps, 4 Mbps, 5 Mbps, and 6 Mbps.

Note: Concerning how to select the suitable image quality for Fixed Quality or Fixed Bitrate, please refer to the CHAPTER 10. APPENDIX / A. Frame-rate & Bitrate Table.

8.2.5 3GPP

🗐 Home	
5	3GPP
SETTING	
S BASIC	Viewer authentication ③ On 〇 Off
System	Image Size 160x120 🗸
🕑 Camera	🗏 Frame rate 5 💌 fps
General	Quality
H.264	Auto
MPEG4	○ Fixed quality Excellent 🔽
MJPEG	● Fixed bitrate 64K bps
3GPP	🗏 IP interval 🗛 🖌
Advance Playback	OK Cancel

Viewer Authentication:

- •On: If the viewer authentication is On, the users will be requested to key-in username and password when using QuickTime Player to have live viewing.
- •Off: If the viewer authentication is Off, you can have live viewing on computer by QuickTime Player after entering "rtsp://ip:port/video.3gp" on the URL column directly.
- ▶ **Image Size**: Image size for 3GPP is 160 x 120.

Frame Rate: Set the frame rate of the 3GPP image. Choose one between 5 or 10 fps.

Setting-Basic Camera



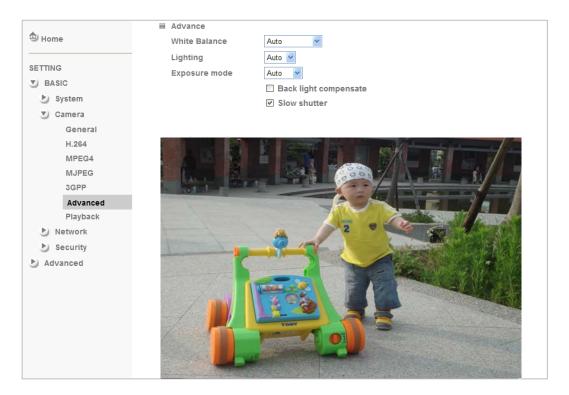
➤ Quality:

- •Auto: The quality and bit rate will be adjusted automatically according to the frame rate.
- •Fixed Quality: This item here can't be selected.
- •Fixed Bitrate: Set the bitrate of 3GPP image transmission for a line. You can select one among 64Kbps, 48Kbps, 32Kbps, 16Kbps.

IP Interval: It's the ratio of i-frame & p-frame. You can select one among 1, 5, 10, 15, 30, 60, and 120. The ratio smaller, the streaming smoother.

Note: The IP interval value means a RATIO of "P-frame / I-frame " in a certain section of frame sequences. The ratio lower, the live view clear. However, live view will lag if the bandwidth isn't big enough. In this situation, you have to choose another bigger IP interval value to solve the problem.

8.2.6 Advanced



➤ White Balance: Choose the white balance among Auto, Florescent, Incandescent and Black & White.

> Lighting: The default setting of lighting environment is Auto. However, you may also

choose 50 or 60 Hz upon the lighting environment of your country.

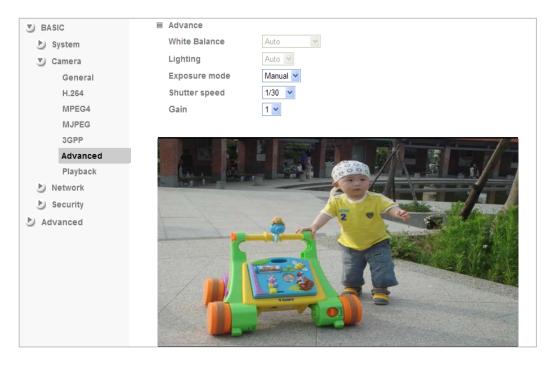
> Exposure Mode: Choose Auto, High Speed Mode, or Manual upon the capture

Setting-Basic Camera



environment.

- •Auto: Choose Auto and you have 3 options to adjust the exposure condition.
 - Back Light Compensate: Click it on and it helps avoid problems in situations where the main subject ends up being too dark, such as when shooting people or other subjects in front of a bright background.
 - Slow Shutter: Click it on and the range of shutter speed will be from 1/5 to 1/120 sec. It will adjust the shutter speed automatically and helpful to capture the clear image when shooting in a dark place.
- •High Speed Mode: Choose High Speed Mode and the shutter speed will be close 1/120 sec. as far as possible to help to capture the motion image of sports or high-speed phenomena.
- •Manual: Choose Manual and you can select options, including Shutter Speed and Gain.



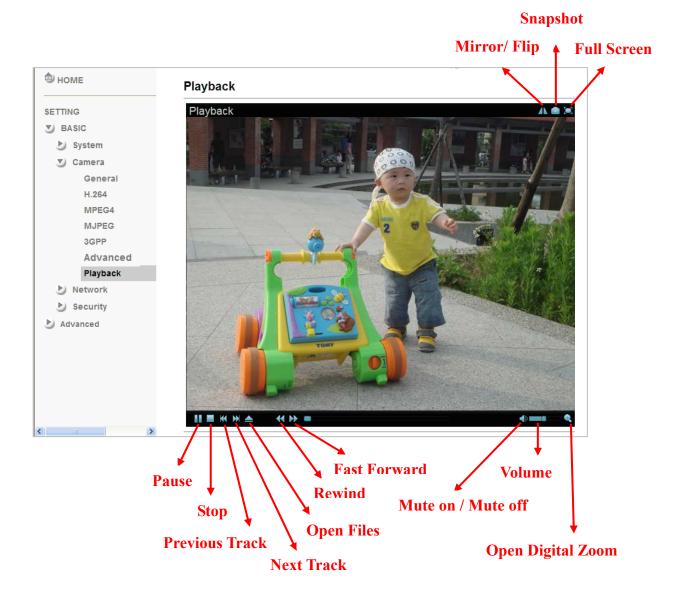
- ✓ Shutter Speed: The default value is 1/30 sec. and you can select the value among 1/4, 1/6, 1/12, 1/30, 1/60, and 1/120 sec.
- ✓ Gain: The default value is 2 and the value is adjustable among 0~9. It will influence the brightness of the image. The more the value is, the brighter the image is. However, the higher gain value might cause more noise.



F3105 User Manual

8.2.7 PLAYBACK

Clicking the button of "Open Files" and select the video file recorded previous, you can look for the desired image. Besides, you can still have the live view in the screen. The function of each button is as below illustration:





8.3 Network

Click the folder of Network to display the sub folders including Information, PPPoE, DDNS, UPnP, Bonjour, IP Notification, Wireless and Messenger.

8.3.1 Information

Display the MAC address of the device.

🕏 номе	MAC address	00:1B:CC:67:07:23
SETTING	Obtain an IP addres	s automatically (DHCP)
S BASIC	O Use the following IP	address
🅑 System		
🅑 Camera		
Network		
Information		
PPPoE	Obtain DNS server a	address automatically
DDNS	O Use the following D	NS server address
UPnP		
Bonjour		
IP Notification		
Wireless	HTTP port number	● 80 ○ (1024 to 65535)
Messenger		OK Cancel

> Obtain an IP address automatically (DHCP): If a DHCP server is installed on the network, to select this while the IP address is assigned by the DHCP server.

> Obtain DNS server address automatically: Select this to obtain the address of DNS server automatically.

🗐 НОМЕ	MAC address 00:1B:CC:67:07:23
SETTING	○ Obtain an IP address automatically (DHCP)
S BASIC	Use the following IP address
🅑 System	IP address 10 . 0 . 36
🅑 Camera	Subnet mask 255 . 255 . 0
Network	Default gateway
Information	
PPPoE	
DDNS	• Use the following DNS server address
UPnP	Primary DNS server 0 . 0 . 0 . 0
Bonjour	Secondary DNS server 0 .0 .0 .0
IP Notification	
Wireless	■ HTTP port number
Messenger	OK Cancel



Use the following IP address: Select this option when the fixed IP address is set.

- •IP address: Enter the IP address of the device.
- •Subnet mask: Enter the subnet mask.
- •Default gateway: Enter the default gateway.

> Use the following DNS server address: Select this when you set the fixed address as the

IP address of DNS server.

- •Primary DNS server: Enter the IP address of the primary DNS server.
- •Secondary DNS server: Enter the IP address of the secondary DNS server, if necessary.

> HTTP Port Number: Select 80 in general situations. If you want to use a port number

other than 80, select the text box and enter a port number between 1024 and 65535.

•When you have set the HTTP port number to a number other than 80 on the Network Setting screen in the Setup Program, access the device by typing the IP address of the device on the web browser as follows: Example: when HTTP port number is set to 2000 <u>http://192.168.1.100:2000/</u>

Note: The IP Camera needs to be rebooted after it finishes changing the network setting completely.

Note: If you connect the IP Camera with your computer directly, the default network domain

of camera is 192.168.1.xx

8.3.2 PPPoE

If your ISP provides Dynamic IP with authentication by username and password, type all PPPoE information in this part. When using the PPPoE function, you need to turn on the DDNS or IP Notification function at same time.

🕏 номе	Ī	□PPPoE ④ On 〇 Off	
SETTING		IP address	0.0.0,0
BASIC		User ID	
ಶ System		Password	
ಶ Camera		Re-type password	
🕙 Network		 Obtain DNS server ad 	dress automatically
Information			
PPPoE	=	O Use the following DNS	S server address
DDNS			
UPnP			
Bonjour			
IP Notification	2		
Wireless		Oł	< Cancel
Messenger			
ಶ Security			
Advance			



> **IP Address**: The IP address obtained at the PPPoE connecting with network.

➤ User ID: Enter the user ID for authentication necessary for PPPoE connections. Type it up to 64 characters.

Password: Enter the password for authentication necessary for PPPoE connections. Type it up to 32 characters.

Re-type Password: Re-type the password to confirm.

> Obtain DNS server address automatically: Select this to obtain the address of DNS server automatically.

🕲 номе	■PPPoE ④ On ○ Off
SETTING	IP address 0.0.0.0
S BASIC	User ID
🅑 System	Password
🅑 Camera	Re-type password
Network	Obtain DNS server address automatically
Information	
PPPoE	• Use the following DNS server address
DDNS	Primary DNS server 0 . 0 . 0 . 0
UPnP	Secondary DNS server 0 .0 .0 .0
Bonjour	
IP Notification	
Wireless	OK Cancel
Messenger	
Security	

> Use the following DNS server address: Select this when you set the fixed address as the IP address of DNS server.

- •Primary DNS server: Enter the IP address of the primary DNS server.
- •Secondary DNS server: Enter the IP address of the secondary DNS server.

Note : 1. PPPoE (Point-to-Point Protocol over Ethernet): PPPoE is a network protocol for encapsulating Point-to-Point Protocol frames insider Ethernet frames. PPPoE connection is used mainly with ADSL service where individual users connect to the ADSL transceiver (modem) over Ethernet work. It also widely used in XDSL (digital affiliate line such as ADSL, VDSL or SDSL)

2. The IP Camera needs to be rebooted after it finishes changing the network completely.

3. The IP Camera with Intelligent IP Installer can't be founded after turning on the PPPoE and reboot.



8.3.3 DDNS (Dynamic DNS)

DDNS is a system which allows the domain name data held in a name server to be updated in real time. The most common use for DDNS is allowing an internet domain name to be assigned to a computer with a varying / dynamic IP Address. This makes it possible for other sites on the internet to establish connection to the machine without needing to track the IP Address themselves.

🕏 номе	2	□DDNS O On O Off
SETTING		Server name
BASIC		User ID
ಶ System		Password
ಶ Camera		Re-type password
Network		
Information		Host name
PPPoE	=	
DDNS		OK Cancel
UPnP		
Bonjour		
IP Notification		
Wireless		
Messenger		
ಶ Security		
Advance		

Server Name: Choose the DDNS Server from the list.

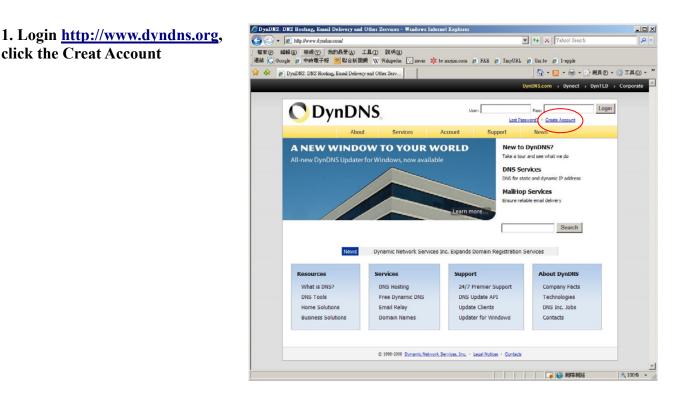
➤ User ID: Enter the user ID for authentication necessary for DDNS connections. Type it up to 64 characters.

➢ Password: Enter the password for authentication necessary for DDNS connections. Type it up to 32 characters.

> **Re-type Password**: Re-type the password to confirm.

Host Name: Enter the host name that is registered to the DDNS server.

Note : How to apply DDNS username and Host name?? You can apply DDNS username and Host name by the following steps:



2. Input all information and follow step by step with **DynDNS**

click the Creat Account

🖉 DynDNS Account Reg	istration - Windows Internet	Explorer					_ [] ×
	ww.dyndns.com/account/create.htn	1			🔒 🍫 🗙 🛛	ahoo! Search	P -
	R(V) 我的最愛(A) 工具(I) 計電子報 🛄 聯合新聞網 W		🗴 🕸 tw.mojim.com	遮 FAE 🍺 TinyUR	L 🙋 Orz.tw 🖉	1-apple	
🔆 🍻 💍 DynDNS Ace	count Registration				🔓 • 📾	- 🖶 - 🔂 網頁	e • ③ I具の • '
	_		_	_	DynDNS.com >	Dynect > DynT	LD > Corporate
🔿 Dyn	DNS			User:	Lost Passw	Pass:	Login
	About	Services	Account	Support	News		
My Account	Create Your	DynDNS Ac	count				
Create Account	Please complete the fo			unt.			
Lost Password?	-User Information -						
	User	name:					
Search	Email Ad	dress:		Instructions to activate y	our account will be sen	t to the email address p	rovided.
	Confirm Email Ad	dress:					
Search	Pas	sword:		Your password needs to Do not choose a passwo			
	Confirm Pas	sword:					
	- About You (option Providing this informal needs. Thanks for you	ion will help us to	better understand	our customers, and	tailor future offer	rings more accura	ately to your
	How did you hear	about			e <u>do not sel</u> l your accou idress.	int information to anyon	e, including your email
	C	etails:					
	-Terms of Service -						
	Please read the accep	atable use policy (.	AUP) and accept it	prior to creating you		ocknowledge that)網際網路	you may only



3. Login with new account and click Account \rightarrow My Hosts \rightarrow Add Host Services

連結 <u>G</u> Google 🙋 中時的	電子報 📴 聯合新聞網 W	Wikipedia 💽 zavio	🕸 tw.mojim.com 👔	e FAE 🤌 TinyURL		
👌 🍻 🔵 DynDNS: My	Account				🖸 • 🖾	- 🖶 - 🔂 網頁(2) - 🎯 工具(0)
_	_		_	i.	DynDNS.com >	Dynect > DynTLD > Corporate
🔿 Dyn	DNS					Logged In User: duckyi <u>My Services</u> - <u>My Cart</u> - <u>Log O</u>
	About	Services	Account	Support	News	
	Increa	ise your update abu	se threshold. Cons	der an <u>Account Upgr</u>	ade.	
My Account	Account Sum	mary for du	ckviaa			
My Services						
Account Settings	My Services		Billing		Accoun	t Settings
Billing		dify, purchase, and ır services.	infor	te your billing mation, complete a nase, and view invoid	es.	Update your email address, set preferences, and delete your account.
My Cart	My Zones		View Shopping	Cart	Change	e Email Address
	Add Zone Service	25	Active Service	8 11	Change	Password
Search	My Hosts		Order History		Change	e Username
	Add Host Service	-	Billing Profile a	nd Vouchers	Contac	t Manager
Search	Account Upgrades		Renew Service	<u>:s</u>	Mailing	Lists
	MailHop Outbound		Auto Renew S	ettings	Move S	Services
	Network Monitoring	i i	Sync Expiratio	ns	Prefere	ences
	SSL Certificates				Close /	Account
	Recursive DNS					
	Support					
	DNS Service Leve	el Agreement				
	Premier Support					

C DynDNS: My Account - Windows Internet Explore

4. Type domain in the Hostname field and select sub-domain

4 58 - O IP CA	MERA Setting	1	IP CAMERA S	-	-	🤌 FAE 🤌 TinyU. 5 Account 🗙		- 🖶 - 🔂 網頁 🕑 - 🎯 工具 (2)
		About	Service	s	Account	Support	News	
		Acce	ss to more doma	ins, <mark>Premiu</mark>	um Domains. (Consider an <u>Accoun</u>	t Upgrade.	
y Account	Add	New I	lostname					<u>↑ Host Services</u>
Account Upgrades ILA Iremier Support Ione Services			ccount upgrade			unctional and will a	dd several other f	Host Service features. Please features. <u>Learn More</u>
one Services ost Services			Hostname:			servebbs.org	-	
failHop Outbound Lecursive DNS letwork Monitoring ISL Certificates Lenew Services		s	Wildcard: ervice Type:	 Host Web 	alias "*.hostn with IP addre Hop Redirect ne Hostname	ame.domain" to sa ss		a
uto Renew Settings (nc Expirations						_		
count Settings			IP Address:	Use auto	detected IP a	ddress 122.124.2.2	15.	
lling				TTL valu	e is 60 second	ls. <u>Edit TTL</u> .		
My Cart <u>O items</u>								
earch		0	Mail Routing:	🗖 Yes,	let me configu	ure Email routing.		
Search							Create Host	



F3105 User Manual

-O×

5. After type information, check your DDNS service.

	·dyndns.com/account/services/hosts/ ② 我的最愛(A) 工具(T) 說	明(H)		🔒 🍫 🗙 Yab	100! Search
Contraction of the second s	10 - 秋日時後(20 工具(1) 153 112子報 122 聯合新聞網 WW Wiki		mojim.com 🤕 FAE 👩 Tinyl	JRL 🙍 Orz.tw 👩 1	-apple
	count Host Services				- 🖶 • 🕞 網頁 🕑 • 🍥 工具 🔘
				DynDNS.com >	Dynect > DynTLD > Corporate
🔿 Dynl	DNIS				Logged In User: duckyia
Uym					My Services - My Cart - Log Or
	About	Services A	ccount Support	News	
	Access to mo	re domaine Premium	Domains. Consider an Accou	int Ungrado	
	Access to mo	re domains, <u>Fremium</u>	bomana. consider an <u>Accou</u>	nic opgrade.	
ly Account	Host Services				
ly Services					
Account Upgrades			mic DNS hosts. If you wish to		
SLA	purchase an account upgra	<mark>ade</mark> . Each upgrade allo	ws you to create 20 addition	al hosts plus addition	nal features.
	10 52 01 0.1				
Premier Support	You like to see your currer	nt usage on the <u>Accour</u>	it Upgrade page.		
Premier Support Zone Services	You like to see your currer	nt usage on the <u>Accour</u>	<u>it Upgrade</u> page.		
Premier Support Zone Services Host Services	You like to see your currer <u>Hostname</u>	nt usage on the <u>Accour</u>			Last Updated
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS				Мау.	
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring	Hostname	Servic	e <u>Details</u>		Last Updated
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates	Hostname ducky-test.dyndns.org	<u>Servic</u> Host	20 Details 118.169.80.178	May.	Last Updated 29, 2008 8:43 PM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org	Servia Host Host	Details 118.169.80.178 61.216.173.2	May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org	Servia Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM
Premier Support Zone Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations Account Settings	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org zavio-inc.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations Account Settings Billing	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org zavio-inc.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations Account Settings	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org zavio-inc.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations Account Settings Billing My Cart	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org zavio-inc.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM
Premier Support Zone Services Host Services MailHop Outbound Recursive DNS Network Monitoring SSL Certificates Renew Services Auto Renew Settings Sync Expirations Account Settings Billing Wy Cart Stams	Hostname ducky-test.dyndns.org duckyiaa.dyndns.org senmei.dynalias.org zavio-cmos.dyndns.org zavio-inc.dyndns.org	Host Host Host Host Host	Details 118.169.80.178 61.216.173.2 218.170.28.152 61.216.171.170	May. May. May.	Last Updated 29, 2008 8:43 PM 30, 2008 2:41 AM 28, 2008 12:33 AM 29, 2008 6:41 AM

CDynDNS -- Account -- Host Services - Windows Internet Explorer

6. Type your DDNS User ID, Password and Host name in Setting → Network → DDNS. After completing setting, reboot IP Camera.

в номе							
- HOME	DDNS On O Of	f					
	Server name User ID	http://www.dyndns.org					
 System Camera Network Information PPPoE 	Password Re-type password Host name						
DDNS	OF	Cancel					
UPnP IP Notification Wireless Messenger Security Advance							
<u>↓</u>				- 📑 💽 網路	網路	100%	*



8.3.4 UPnP (Universal Plug and Play)

If you have a Router to access to internet and the Router supports UPnP IGD function, you need to turn on the UPnP Port Forwarding function.

🕏 номе	■ UPnP On O Off
SETTING	✓ Turn On UPnP port forwarding HTTP port
 System Camera Network 	SSL Port
Information PPPoE DDNS	OK Cancel
UPnP	
Bonjour	

- **HTTP Port**: Enter the HTTP port number and default HTTP port is 80.
- SSL Port: Enter the SSL port number and default SSL port is 443.
- **RTSP Port:** Enter the RTSP port, default value is 554 for computer view.

Note : UPnP (Universal Plug and Play): UPnP is a set of computer network protocol. It allows devices to connect seamlessly and simplify the implementation of networks in the home and corporate environments.



8.3.5 Bonjour

Bonjour, also known as zero-configuration networking, enables automatic discovery of computers, devices, and services on IP networks. Bonjour uses industry standard IP protocols to allow devices to automatically discover each other without the need to enter IP addresses or configure DNS servers.

🕲 номе	■Bonjour ④ On 〇 Off
SETTING	Device name Zavio-001BCC670723
S BASIC	
🅑 System	OK Cancel
🅑 Camera	
Network	
Information	
PPPoE	
DDNS	
UPnP	
Bonjour	
IP Notification	
Wireless	
Messenger	
Security	
Advance	

> Device Name: Enter Device Name you wish.

Note: How to use Bonjour in your Windows Browser UI? Please check the link below:

http://www.apple.com/support/downloads/bonjourforwindows.html



8.3.6 IP Notification

When network notify type is set to "ON", you can send an e-mail notification of the completion of the network setting.

🗐 номе	Notification ⊙ On ○ Of		-
	Notify type SMTP server name	DHCP Static IP PPPoE	-
SETTING	Sivill Server Haille		March 2014 March 1914
BASIC	SMTP server port	25 (1 ~ 65535)	SSL
ಶ System	Authentication	⊙ On ⊖ Off	
ಶ Camera		SMTP POP before SMTP	
Setwork			
Information			
PPPoE			
DDNS	Recipient e-Mail address		
UPnP	Administrator e-Mail address	6	
Bonjour	Subject	IP Notify	
IP Notification		Product Name : <product></product>	^
Wireless	Message	Web Version : <vweb> APP Version : <vfirm></vfirm></vweb>	=
Messenger		http:// <ip>:<port> MAC Address : <mac></mac></port></ip>	Help
ಶ Security			
Advanced			

> Notify Type: You can select the notify type among DHCP, Static IP, and PPPoE.

SMTP Server Name: Type the SMTP server name up to 64 characters, or the IP address of the SMTP server.

SMTP Server Port: You can set port number from 1~65535 according to your mail server. The default value is 25.

•Security setting: Tick SSL box if the mail server you use has security restriction.

Note: If you use g-mail as your mail server, you should set 25 as your port number and tick SSL box.

> Authentication: Select the authentication required when you send an email.

•Off: Select if no authentication is necessary when an email is sent.

•On: When authentication is necessary an e-mail is sent, there are **SMPT**, **POP before SMPT or both** three options.



	^		
🗇 номе		IP Notification 💿 On 🔘 Off	
	-	Notify type	🗆 DHCP 🔲 Static IP 🔲 PPPoE
SETTING		SMTP server name	
BASIC		SMTP server port	25 (1~65535) SSL
🍉 System		Authentication	⊙ On ◯ Off
🕑 Camera			SMTP POP before SMTP
Network		POP server name	
Information		User name	
PPPoE	=	Password	
DDNS		Recipient e-Mail address	
UPnP		Administrator e-Mail address	
Bonjour		Subject	IP Notify
IP Notification			Product Name : <product></product>
Wireless		Message	Web Version : <vweb> APP Version : <vfirm></vfirm></vweb>
Messenger		Ŭ	http:// <ip>:<port> MAC Address : <mac> Help</mac></port></ip>
🍉 Security		OK	
Advanced			
	~		

- > Authentication: Select the authentication required when you send an email.
 - •Off: Select if no authentication is necessary when an email is sent.
 - •On: When authentication is necessary an e-mail is sent, there are **SMPT**, **POP** before **SMPT** or both three options.
- > SMTP: Select if SMTP authentication is necessary when an e-mail is sent.

> POP before SMTP: Select if POP before SMTP authentication is necessary when an

e-mail is sent.

- •POP server name: It is necessary when the POP before SMTP is selected in Authentication. Type the POP (receiving mail) server name up to 64 characters, or type the IP address of the POP server. This setting is necessary when the SMTP server which sends e-mails performs authentication using the POP user account.
- •User name, Password: Type the user name and Password of the user who has the mail account. This setting is necessary when the SMTP server which sends e-mails performs authentication.

Recipient E-mail Address: Type the recipient e-Mail address up to 64 characters. You can specify up to three recipient E-mail addresses.

Administrator E-mail Address: Type the Administrator e-Mail address up to 64 characters. This address is used for reply mail and sending system messages from the SMTP server.

Subject: Type the subject/title of the e-Mail up to 64 characters. With respect to mail which is sent according to the IP notification.

Message: Type the text of the E-mail up to 384 characters. Default value provides network information including IP, Port, MAC, Model, Firmware Version and Web Version.



8.3.7 Wireless (For F3105)

The wireless network has to be set up by using cable network connection. After setting the camera correctly, the wireless function can work with cable network connection. Wireless settings must be the same as the access point or ad-hoc device. When changing the settings they should always be made first in the camera and then in the wireless access point. This ensures that the camera is always accessible when making changes.

вноме	∎ Wireless ⊙ On ⊖ Off	
SETTING BASIC	ESSID Mode	Status of wireless networks Security Channel Signal strength Bit rate
 System Camera Network 	Please refresh.	
Information PPPoE DDNS UPnP Bonjour IP Notification	 MAC address IP address ESSID 	RefreshManual setting
Mireless Messenger Security Advanced	 Mode Authentication Encryption Key length Active transmit key: 	 Managed ○ Ad-Hoc Open ♥ WEP ♥ 64 bit ○ 128 bit (26 HEX chars or 13 ASCII chars) Key 1: ♥ Re-type

Status of Wireless Network

This list is the result of network scan. The network is currently linked to will be shown in blue. The following information is provided.

- •ESSID The name of a wireless network (or ad-hoc device). If the same name occurs several times this means that several access points for that network were found. The camera cannot be configured to only associate with one particular access point.
- •Mode Shows if the network type is Master (access point or router) or Ad-Hoc (another client).
- •Security Shows which type of security the network uses. See below for the security types supported by the camera.
- •Channel Shows the wireless channel currently in use.
- •Signal Strength Shows the signal strength.
- •Bit Rate Shows the bit rate in Megabit/s. This can only be shown for the access point currently in use. Note that the bit rate shown is the current rate, and that this value may vary over time.



➤ Wireless Setting

These settings control how the camera interacts with the wireless network. It is also possible to enable wireless encryption apart from identifying the wireless network.

- •IP Address This displays blank, 0.0.0.0 or IP Address. When it is blank, the camera doesn't establish physical link with access point yet. The 0.0.0.0 means that physical link was established but trying to get IP address. When it displays IP address, then user can use wireless network.
- •ESSID (ESSID is sometimes written as SSID.) This is the name of the wireless network the camera is configured for. The field accepts up to 32 alphanumeric characters. The name must be exactly the same as that used in the wireless access point or the connection will not be established.
- •Leaving this field blank means the camera will attempt to access the nearest open network.
- •Mode Setting this to Managed means the camera will attempt to access the nearest open access point. The Ad-hoc option allows the camera to connect to other wireless devices clients.

Note : 1. WPA-/WPA2-PSK (Wi-Fi Protected Access - Pre-Shared Key) the camera uses a pre-shared key (PSK) to initiate WPA security. The pre-shared key is entered on the access point and on each device on the wireless network. The key can be entered either as Manual hex, as 64 hexadecimal (0-9, A-F) characters, or as a Passphrase, using 8 to 63 ASCII characters. The access point keeps out unauthorized users by requiring the key to communicate.

2. WEP (Wired Equivalent Protection) the original security standard used in wireless networks that provides a minimal level of security that can deter minor trespasses. The administrator can select the key length among 64 or 128 bits. 64bits is the default setting.



8.3.8 Messenger

Messenger function provide an easy-connect feature. User can easy to know what camera's private and public IP address is.

🗐 Home	Messenger	
	🗏 Messenger 💿 On	○ Off
SETTING	Protocol	msn
BASIC System	Login Account	
Camera	Password	
Network	Re-type password	
Information	Alias	
PPPoE DDNS	Port range	20000 (1024 ~ 65531) ~ 21000 (1028 ~ 65535)
UPnP	Video mode	○ Computer view ④ Mobile view
Bonjour	IP Notification	⊙ On ○ Off
IP Notification	Privacy	⊙ On ◯ Off
Wireless	User	
Messenger		Add Remove
Security		
Advanced		
	Allow list	
<		OK Cancel

Protocol: support MSN only.

Login Account: Camera will use this account to login MSN server. This MSN account should be applied form http://www.msn.com.

- > Password: password for this msn account.
- > Re-type Password: re-type password to double confirm.
- > Alias: This alias will display on MSN like the following which display in red frame.
- > Port Range: Camera will select one port from this port range for video transmission.
- Video Mode: You can choose to receive video streaming from Computer view(MPEG-4)
 - or Mobile view (3GPP).

> IP Notification: Switch the IP notification On / Off. If this feature switches On, camera will send IP notification to the users who are allowed.



> Privacy: Switch privacy On / Off. When privacy turns on, only those users in allow list can access the camera

▶ User: Input to this blank to edit allow list.

> Allow List: When privacy turns on, only those users in allow list can access the camera.



8.4 Security

Click the folder of Security to display the sub folders including Account and HTTPS.

8.4.1 Account

The device fault account and password setting is "admin / admin". That means everyone who knows IP address can access the device including all configuration. It is necessary to assign a password if the device is intended to be accessed by others.

🗐 НОМЕ	User ID	User name	Password	Re-type Password	Viewer mode
SETTING	Administrator	admin	••••	••••	Admin 🗸
BASIC					
🅑 System	User 1				Admin 🖌
🅑 Camera	User 2				Admin 🖌
Network	User 3				Admin 🖌
Security	User 4				Admin 🖌
Account	User 5				Admin 🖌
HTTPS	User 6				Admin 🖌
Advanced	User 7				Admin 🖌
	User 8				Admin 🖌
	User 9				Admin 🖌
		Viewer authentic	ation	F	

- ➤ User Name: Set a user name between 4-16 characters.
- > Password: Set a password between 4-16 characters.
- > **Re-type Password**: Re-type the password to confirm.

> Viewer Mode: Set the user mode among Admin, Operator, and Viewer. Different viewer mode has different limits of authority.

- •The Admin mode has all authority of configuration.
- •The Operator mode can not only view the Live View but also control the PTZ (only for PTZ models).
- •The Viewer mode only can view the Live View.

Viewer Authentication: Select On, allows any viewer direct access to Live View. Select Off, allow admin, operator, or viewer access to Live View.



8.4.2 HTTPS

HTTPS is a URL scheme used to indicate a secure HTTP connection. It is syntactically identical to the http:// scheme normally used for accessing resources using HTTP. Using an https: //URL/ with a different default TCP port (443) and an additional encryption / authentication layer between the HTTP and TCP. You can use the IP camera through HTTPS easily by using https:// instead of http://.

🗐 НОМЕ	Create & Install Create self-signed certificate
SETTING S BASIC	□ Installed Certificate Subject Name No certificate installed.
 System Camera 	Properties Remove
Network	HTTPS Connection Policy
Security Account	Administrator HTTP Y Operator HTTP Y Viewer HTTP Y
HTTPS	Set Policy
Advanced	

Create & Install: Create a self-signed certificate for HTTPS to recognize.

> Installed Certificate: Display or remove the properties of the installed certificate.

> HTTPS Connection Policy: Set HTTPS connection policy for different level of users.

> To use the HTTPS encryption, please set up "**Create self-signed certificate**" for the first time you use the HTTPS function, and then set up the connection policy for different users.

D HOME	Create & Install			eate self-signed certificat	and a set of the set o	age Dialog	
	Create self-sig	ned certificate		p://10.0.0.19/create_ssl_certifi			×.
			Crea	te self-signed certific	cate		
SETTING	Installed Certifica	ate		Country			
BASIC	Subject Name			State or province			
System	No certificate installe	d.					
-	Properties F	Remove		Locality			
Camera				Organization			
Network	HTTPS Connection	ion Policy		Organizational Uni	t		
Security	Administrator	HTTP	×	Common Name	-		
-	Operator	HTTP	·	Common Name			
Account	Viewer	HTTP	✓	Validity	365	days(1~1000)	
HTTPS	Set Policy			OK	Cancel		

Note: When enable HTTPS with RTSP on mode, the IP Camera only protect the setting such as username and password and do not protect video and audio. When enable HTTPS with RTSP off mode, the IP Camera will protect all setting including video and audio.

Setting-Basic Security

8.4.3 IP Filter

🕲 Home		
	IP Filter	
SETTING		
S BASIC	■ IP Filter ③ On 〇 Off	
System	Allow Range	
🅑 Camera		
Network	Start IP Address	
Security	End IP Address	Add
Account	■ Allow Range List	
HTTPS	0 0 0 0 ~ 255 255 255 255 v	Delete
IP Filter	0.0.0.0 ~ 205.205.205.205	Delete
Advanced		
	🗏 Deny Range	
	Start IP Address	
	End IP Address	Add
	🔳 Deny Range List	
	(Empty) 💌	Delete
	OK Cancel	

IP Filter provides the function of controlling the range of IP address, similar with firewall service.

- > **IP Filter:** Select if you would like to have IP filter function.
- Allow Range: The default range is from 0.0.0.0 to 255.255.255.255. Enter the "Start IP address" and "End IP address" in the range, then you can add a new allow range in allow range list.
- Allow Range List: Except the default range 0.0.0.0~255.255.255.255, the list allows to add four more sets of allow range at most.
- Deny Range: You can define the deny range by entering "Start IP address" and "End IP address"
- > Deny Range List: You can define not more than five sets of deny range in the list.



Chapter 9. Setting-Advanced

Click the folder of Advanced to display the sub folders including FTP client, SMTP, Network storage, Schedule, Alarm buffer, Motion detection, Audio detection, and System Log.

9.1 FTP Client

Use this menu to set up for capturing and sending a image or video clip to an FTP server. By using FTP client function, you can send files which has been shot and recorded linked with the external sensor input or with the built-in motion detection function to FTP server. FTP client setting menu is composed of two tabs, **General**, **Alarm Sending** and **Periodical Sending**.

9.1.1 General

Select **On** when you use FTP function. The FTP client Setting screen appears. Select **Off**, when you do not wish to use the FTP client function.

Note: The frame rate and operability on the main viewer may decrease while a file is being transmitted by the FTP client function.

🕏 Home	
SETTING	General
b BASIC	■ FTP client 💿 On 🔘 Off
Advanced	FTP server name
FTP client	User name
General	
Alarm sending	Password
Periodical sendin	Re-type password
SMTP	Passive mode 🛛 On 💿 Off
Network storage	Attached file type ③ Snapshot 〇 Video clip
Schedule	
Alarm buffer	
Motion detection	OK Cancel Test

FTP Server Name: Type the FTP server name to upload still images up to 64 characters, or the IP address of the FTP server.





- ➤ User Name: Type the user name for the FTP server.
- > **Password**: Type the password for the FTP server.
- Retype Password: To confirm the password, type the same characters as you typed in the Password box.
- Passive Mmode: Set whether you use the passive mode of FTP server or not when connecting to FTP server. Select On to connect to FTP server using the passive mode.
- Attached File Type: You can choose snapshot or video clip for alarm sending. Select "Snapshot," one snapshot will be transmitted to the specified FTP server while motion detection / audio detection triggered. Select "Video clip," one 5-seconds video clip will be transmitted.
- Test: After setting the FTP server information, you can tick the test key to test if the connection between IP CAM and FTP server works.

9.1.2 Alarm Sending

Set to forward a snapshot or video clip file to the specified FTP server linked with the alarm detection by the external sensor input or by the built-in motion detection function. Select **On** to send the file to FTP server linked with the alarm detection.

Home SETTING	Alarm sending	
 BASIC Advanced FTP client 	■ Alarm sending On Off Remote path Image file name	
General Alarm sending	Suffix ③ Date Time 〇 Sequence number	
Periodical sending SMTP Network storage Schedule	Alarm Motion detection Motion detection Image: Audio detection Audio detection Audio detection Image: Audio detection Network link down Alarm buffer)
Alarm buffer Motion detection Audio detection System Log	Effective Period O Always Schedule OK Cancel	

Remote Path: Type the path to the destination in FTP server up to 64 characters.



- Image File Name: Type the file name you want to assign to the files when sending to the FTP server. You can use up to 10 alphanumeric characters, (hyphen) and _ (underline) for naming.
- Suffix: Select a suffix to add to the file name
 - •Date & time: The date & time suffix is added to the Image file name. The date/time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits), second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number of 10 digits between 1 and 4294967295 and two fixed digits 00 is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns to 1.

≻ Alarm

• Motion Detection: Click it on for using Motion Detection function as a sensor. You can set motion detection function at the motion detection function screen.

Note: You can set motion detection at motion detection screen. (Please go "Setting \rightarrow Advanced \rightarrow Motion Detection \rightarrow Setting") For more details, you can check Chapter 9.6.

•Audio Detection: Click it on for using Audio Detection function as a sensor. You can set audio detection function at the audio detection function screen.

Note: You can set audio detection at audio detection screen. (Please go "Setting \rightarrow Advanced \rightarrow Audio Detection \rightarrow Setting") For more details, you can check Chapter 9.7.

Network Link Down: Click it on to receive a snapshot or a video clip while network link down. If Attached File Type (go "Setting → Advanced → FTP Client → General") was clicked as video clip, you can use Alarm Buffer function as a sensor.

It's for recording audio file in the IP CAM before and after disconnected network.

Note: You can set alarm buffer at alarm buffer screen. (Please go "Setting \rightarrow Advanced \rightarrow Alarm Buffer \rightarrow Setting") For more details, you can check Chapter 9.5.

Effective Period: Set the period when the periodical sending is effective.

- •Always: The periodical sending is always effective.
- •Schedule: You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

Note: You can set schedule function at schedule screen. (Please go "Setting → Advanced → Schedule → Setting") For more details, you can check Chapter 9.4.



9.1.3 Periodical Sending

Select **On**, you can set to send an image file to FTP server periodically.

lome	
SETTING	Periodical sending
 BASIC Advanced FTP client General Alarm sending Periodical sending SMTP Network storage Schedule Alarm buffer Motion detection Audio detection 	 Periodical sending On Off Remote path Image file name Suffix O None O Date Time Sequence number clear Clear Interval 00 H 30 M (MIN : 1min. MAX : 24-hour interval) Effective Period Always Schedule Schedule
System Log	OK Cancel

- Remote Path: Remote path: Type the path to storage location of FTP server which you have authorized.
- Image File Name: Type the file name of snapshot or video clip sent by SMTP up to 10 alphanumeric characters, (hyphen) and (under score).
- Suffix: Select a suffix to be added to the file name sent by SMTP.
 - •None: The name of the sent file will be the Image file name.
 - •Date & time: The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns to 1.

➤ Interval: Set the periodical sending is effective interval. Min value is 1 min and Max value is 24 hour.

Effective Period: Set the period when the periodical sending is effective.

- •Always: The periodical sending is always effective.
- •Schedule: You can specify the period when the periodical sending is effective in the schedule setting in the other section. Please check "Setting \rightarrow Advanced \rightarrow Schedule \rightarrow Setting".

Note: You can set schedule function at schedule screen. (Please go "Setting \rightarrow Advanced

 \rightarrow Schedule \rightarrow Setting") For more details, you can check Chapter 9.4.

Setting-Advanced FTP Client



SSL

9.2 SMTP

Set the SMTP menu when you want to send an image or video clip via e-mail. By using Mail (SMTP) function, you can send a mail with attached file which has been shot linked with the external sensor input or with the built-in motion detection function. The file can also be sent periodically. E-Mail (SMTP) setting menu is composed of three tabs, General, Alarm Sending and Periodical Sending.

9.2.1 General

Select On when you use the SMTP function. The common setting options are displayed below. Select Off, if you do not wish to use the E-mail (SMTP) function.

ľ

🕲 Home	General		
SETTING BASIC Advanced FTP client SMTP General Alarm sending	■ e-Mail (SMTP) ④ On ○ Off SMTP server name SMTP server port Authentication POP server name	25 (1 ~ 65535) ④ On ○ Off ☑ SMTP ☑ POP before SMTP]
Periodical sending Periodical sending Network storage Schedule Alarm buffer Motion detection Audio detection System Log	User name Password Recipient e-Mail address Administrator e-Mail address Attached file type Subject Message	Snapshot ○ Video clip OK Cancel]

SMTP Server Name: Type the SMTP server name up to 64 characters, or the IP address of the SMTP server.

SMTP Server Port: You can set port number from 1~65535 according to your mail server. The default value is 25.

•Security setting: Tick SSL box if the mail server you use has security restriction.



Note: If you use g-mail as your mail server, you should set 25 as your port number and tick SSL box.

> Authentication: Select the authentication required when you send an email.

- •Off: Select if no authentication is necessary when an email is sent.
- •On: When authentication is necessary an e-mail is sent, select one of the authentication methods from the followings.
- > SMTP: Select if SMTP authentication is necessary when an e-mail is sent.

> **POP Before SMTP**: Select when POP before SMTP authentication is necessary when an e-mail is sent.

Note : When you set to On, be sure to select either or both SMTP or / and POP before SMTP.

- •POP server name: It is necessary when the POP before SMTP is selected in Authentication. Type the POP (receiving mail) server name up to 64 characters, or type the IP address of the POP server. This setting is necessary when the SMTP server which sends e-mails performs authentication using the POP user account.
- •User name, Password: Type the user name and Password of the user who has the mail account. This setting is necessary when the SMTP server which sends e-mails performs authentication.

Recipient E-mail Address: Type the recipient e-Mail address up to 64 characters. You can specify up to three recipient E-mail addresses.

- Administrator E-mail Address: Type the Administrator e-Mail address up to 64 characters. This address is used for reply mail and sending system messages from the SMTP server.
- Attached File Type: You can choose snapshot or video clip for alarm sending. Select "Snapshot," one snapshot will be transmitted to the administrator's e-mail address while motion detection / audio detection triggered. Select "Video Clip," one 5-seconds video clip will be transmitted.
- Subject: Type the subject/title of the e-Mail up to 64 characters. With respect to mail which is sent according to the alarm detection when Alarm sending of the alarm tab is set to On, the characters standing for the sensor type added to the subject.
- Message: Type the text of the E-mail up to 384 characters. (A line break is equivalent to 2 characters.)
- Test: After setting the SMPT server information, you can tick the test key to test if the connection between IP CAM and the SMPT server works.



9.2.2 Alarm Sending

Set to send the mail with connection to the alarm detection by the external sensor input or by the built-in motion detection function. Select On to send the image file to SMTP server linked with the alarm detection.

Home Home	
SETTING	Alarm sending
 BASIC Advanced FTP client SMTP General 	■ Alarm sending ④ On 〇 Off File attachment ④ On 〇 Off Image file name Suffix ○ None ○ Date Time ④ Sequence number
Alarm sending	Sequence number clear Clear
Periodical sending	Alarm Motion detection Motion detection
Network storage	Audio detection Audio detection
Schedule Alarm buffer	Vetwork link down
Motion detection	
Audio detection	Effective Period 🔘 Always
System Log	Schedule Schedule
	OK Cancel

- > Alarm Sending: Select On to set to send mail with connection to the alarm detection.
- File Attachment: Set whether an image file is attached to the mail sent or not. When On is selected, the image file made by the settings below is attached. When Off is selected, only the message is sent.
- Image File Name: Type the file name you want to assign to the file attached to a mail. You can use up to 10 alphanumeric, - (hyphen) and _ (underscore) for naming.
- Suffix: Select a suffix to add to the file name
 - •None: The name of the sent file will be the Image file name.
 - •Date & time: The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns to 1.

≻ Alarm

•Motion Detection: Click it on for using Motion Detection function as a sensor. You can set motion detection function at the motion detection function screen.



Note: You can set motion detection at motion detection screen. (Please go "Setting \rightarrow Advanced \rightarrow Motion Detection \rightarrow Setting") For more details, you can check Chapter 9.6.

•Audio Detection: Click it on for using Audio Detection function as a sensor. You can set audio detection function at the audio detection function screen.

Note: You can set audio detection at audio detection screen. (Please go "Setting \rightarrow Advanced \rightarrow Audio Detection \rightarrow Setting") For more details, you can check Chapter 9.7.

Network Link Down: Click it on to receive a snapshot or a video clip while network link down. If Attached File Type was clicked as video clip (go "Setting → Advanced → FTP Client → General"), you can using Alarm buffer function as a sensor. It's for recording audio file in the IP CAM before and after disconnected network.

Note: You can set alarm buffer at alarm buffer screen. (Please go "Setting \rightarrow Advanced \rightarrow Alarm Buffer \rightarrow Setting") For more details, you can check Chapter 9.5.

Effective Period: Set the period when the periodical sending is effective.

- •Always: The periodical sending is always effective.
- •Schedule: You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

Note: You can set schedule function at schedule screen. (Please go "Setting → Advanced → Schedule → Setting") For more details, you can check Chapter 9.4.

9.2.3 Periodical Sending

You can set to send an image file by SMTP server periodically by selecting **On** to send the image file by SMTP server linked with setting period.

Demo Home	
SETTING	Periodical sending
D BASIC	🗏 Periodical sending 💿 On 🔘 Off
Advanced	Image file name
FTP client	Suffix O None O Date Time Sequence number
SMTP	
General	Sequence number clear Clear
Alarm sending	Interval 00 H 30 M
Periodical sending	(MIN : 30min. MAX : 24-hour interval)
Network storage	Effective Period 🔿 Always
Schedule	Schedule Schedule
Alarm buffer	
Motion detection	
Audio detection	OK Cancel



60



- Image File Name: Type the file name of the image sent by SMTP up to 10 alphanumeric characters, (hyphen) and _ (under score).
- > Suffix: Select a suffix to be added to the file name sent by SMTP.
 - •Date & time: The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns to 1.
- Interval: Set the periodical sending is effective interval. Min value is 1 min and Max value is 24 hour.
- **Effective Period**: Set the period when the periodical sending is effective.
 - •Always: The periodical sending is always effective.
 - •Schedule: You can specify the period when the periodical sending is effective in the schedule setting in the other section. Please check "Setting \rightarrow Basic \rightarrow Advanced

 \rightarrow Schedule \rightarrow Setting."

Note: You can set schedule function at schedule screen. (Please go "Setting → Advanced → Schedule → Setting") For more details, you can check Chapter 9.4.



9.3 Network Storage

Network storage provides the storage function for saving image files to the specified computer and folder connected with the operating computer.

9.3.1 General

Select On if you would like to use the network storage function. Then choose one protocol between Windows network (SMB/CIFS) and Unix network (NFS).

🕏 Home		
SETTING BASIC Advanced FTP client SMTP Network storage	General ■ Network storage ④ On C Protocol Network storage location (for example: my_nas:/fold	Unix network (NFS)
General		
Alarm sending Periodical record		

Protocol- Unix Network (NFS):

•Network storage location: Type the IP or name of specified computer and folder. For example, //IP/folder name or // my_nas:/folder name.

Home	
SETTING	General
BASIC	🖩 Network storage 💿 On 🔘 Off
Advanced	Protocol Windows network (SMB/CIFS)
FTP client	Unix network (NFS) Network storage location Windows network (SMB/CIFS) /IPCamera
SMTP	(for example: //my_nas/folder)
Network storage	
General	Workgroup
Alarm sending	User name
Periodical record	Password
Schedule	Re-type password
Alarm buffer	No the prostory
Motion detection	OK Cancel Test

> Protocol- Windows network (SMB/CIFS):

•Network Storage Location: Type the IP or name of specified computer and folder.

For example, //IP/folder name or // my nas:/folder name.

•Workgroup: Type the name of workgroup which the operating computer belongs.

Setting-Advanced Network Storage 62



- •User Name: Type the name of workgroup.
- Password: Type the password for workgroup.
- •Re-type password: Re-type password for workgroup.

Note: If the recording video file is assigned to be stored in a low-speed device (ex.

low-speed USB storage disk), there might be some problems to complete the storage.

9.3.2 Alarm Sending

Set to transmit the snapshot or video clip file with connection to the alarm detection by the external sensor input or by the built-in motion detection function. Select On to send the file to network storage location linked with the alarm detection.

Home Home	
SETTING	Alarm sending
 BASIC Advanced FTP client SMTP Network storage General Alarm sending 	 ■ Alarm sending ③ On ○ Off Image file name Alarm Suffix ○ Date Time ③ Sequence number Sequence number clear Clear Alarm ✓ Motion detection Motion detection
Periodical recordin Schedule Alarm buffer Motion detection Audio detection System Log	 Network link down Alarm buffer Recording time 5 Sec (5 - 60) Effective Period Always Schedule Schedule OK Cancel

- > Alarm Sending: Select On to set to send mail with connection to the alarm detection.
- Image File Name: Type the file name you want to assign to the file to attach a mail. You can use up to 10 alphanumeric, (hyphen) and (underscore) for naming.
- Suffix: Select a suffix to add to the file name
 - •Date & time: The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns

Setting-Advanced Network Storage



to 1.

- ≻ Alarm:
 - •Motion Detection: Click it on for using Motion Detection function as a sensor. You can set motion detection function at the motion detection function screen.

Note: You can set motion detection at motion detection screen. (Please go "Setting \rightarrow Advanced \rightarrow Motion Detection \rightarrow Setting") For more details, you can check Chapter 9.6.

•Audio Detection: Click it on for using Audio Detection function as a sensor. You can set audio detection function at the audio detection function screen.

Note: You can set audio detection at audio detection screen. (Please go "Setting → Advanced →Audio Detection → Setting") For more details, you can check Chapter 9.7.

•Network Link Down: Click it on to receive a video clip while network link down. It's for recording video file in the IP CAM before and after disconnected network.

Note: You can set alarm buffer at alarm buffer screen. (Please go "Setting \rightarrow Advanced \rightarrow Alarm Buffer \rightarrow Setting") For more details, you can check Chapter 9.5.

- **Effective Period**: Set the period when the periodical sending is effective.
 - •Always: The periodical sending is always effective.
 - •Schedule: You can specify the period when the periodical sending is effective in the Schedule setting in the other section.

Note: You can set schedule function at schedule screen. (Please go "Setting \rightarrow Advanced \rightarrow Schedule \rightarrow Setting") For more details, you can check Chapter 9.4.

9.3.3 Periodical recording

lome		
SETTING	Periodical rec	
BASIC	Periodical record	ding 💿 On 🔿 Off
3 Advanced	Image file name	Record
FTP client SMTP	Suffix	○ Date Time ④ Sequence number
Network storage	File size	Sequence number clear Clear
General	File size	10 (1~50 MB)
Alarm sending	Cyclic size	1024 (100~1024000 MB)
Periodical record	Recording time	Always
Schedule		Schedule Schedule
Alarm buffer		Ç
Motion detection	(OK Cancel

Setting-Advanced Network Storage



You can set up to transmit image files to the network storage location periodically by selecting **On**.

- Image file name: Type the file name you want to assign to the file transmitted to the network storage location. You can use up to 10 alphanumeric, (hyphen) and _ (underscore) for naming.
- Suffix: Select a suffix to add to the file name
 - •Date & Time: The date & time suffix is added to the Image file name. The date & time suffix consists of lower two-digits of year (2 digits), month (2 digits), date (2 digits), hour (2 digits), minute (2 digits) and second (2 digits), and consecutive number (2 digits), thus 14-digit number is added to the file name.
 - •Sequence number: A consecutive number is added to the Image file name.
 - •Sequence number clear: Click Clear and the suffix of the sequence number returns to 1.
- File Size: The file size of image or video clip transmitted to the network storage location can't over 50MB.
- Cyclic Size: The total amount of files transmitted to the network storage location has to be in the range from 100 to 1024000MB.
- **Recording Time:** Set the period when the periodical recording is effective.
 - •Always: The periodical recording is always effective.
 - •Schedule: You can specify the period when the periodical recording is effective in the Schedule setting in the other section.

Note: You can set schedule function at schedule screen. (Please go "Setting \rightarrow Advanced \rightarrow Schedule \rightarrow Setting") For more details, you can check Chapter 9.4.



9.4 Schedule

Click **Schedule** on the Advanced mode menu, the Schedule setting menu appears. This is the same menu as the setting menu which is displayed when you click **Schedule** to set Effective period and Schedule in **FTP** client, e-Mail (**SMTP**), Record, and Alarm out setting menu setting menu.

lome	Schedule
SETTING	
BASIC	E Schedule selection
Advanced	Start time 00 V : 00 V - End time 24 V : 00 V FTP - Alarm FTP - Periodical
FTP client	Mon (Empty) ▼ Add Delete 0 1 2 3 4 5 e-Mail(SMTP) - Alarm 12 13 14 15 16 17 18 19 20 21 22 23 HTTP event - Alarm
SMTP	Tue (Empty) Add Delete Record – Alarm Record – Periodical
Network storage	Wed (Empty) ~ Add Delete
Schedule	The average of the second
Alarm buffer	Thu (Empty) Add Delete
Motion detection	Fri (Empty) Add Delete
Audio detection	
System Log	Sat (Empty) Add Delete
	Sun (Empty) Add Delete
	✓ Use the same time schedule every day.
	OK Cancel

- Schedule Selection: Select the list box to specify the schedule you want to set.
 •FTP -Alarm / FTP Periodical / E-mail (SMTP) -Alarm / E-mail (SMTP) –Periodical / Record –Alarm / Record –Periodical
- > Mon (Monday) to Sun (Sunday): The time period on the right of the checked day is the

effective period of the schedule.

- > Start Time, End Time: Specify the Start Time and the End Time.
- Use the same time schedule every day: When this is checked, the Start Time and End Time set to Mon (Monday) are applied to all days. In this case, the Start Time and End Time of the other days than Mon (Monday) cannot be input.



9.5 Alarm Buffer

When you click **Alarm Buffer** on the Advanced mode menu, the Alarm buffer setting menu appears. You can set in this menu to enable alarm buffer function connected with **FTP Client**, **SMTP**, and Network Storage.

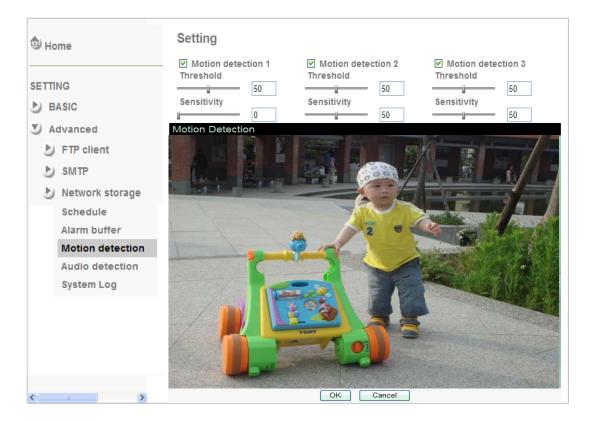
🕲 Home		
SETTING	Alarm buffer	
BASIC	Recording capacity	
Advanced	Pre-alarm period	5 Sec.
FTP client	Post-alarm period	5 Sec.
SMTP	■ Recording time	
Network storage	Pre-alarm period	5 Sec.
Schedule	Post-alarm period	5 Sec.
Alarm buffer		
Motion detection	OK Cancel	
Audio detection		
System Log		

Use alarm buffer function for recording audio and video file in the IP Camera before and after disconnected network. After re-connecting, these files will transmit to **FTP client, SMTP**, and **Network storage.** You can set the pre-alarm and post-alarm period up to 5 seconds in Alarm Buffer function screen.



9.6 Motion Detection

There are three Motion Detection functions as sensors to set for different detecting zones. Each one has Threshold and Sensitivity inputs which you can adjust to specific zone sequentially. Motion Detection function can support to **FTP Client, SMTP, and Network Storage**.

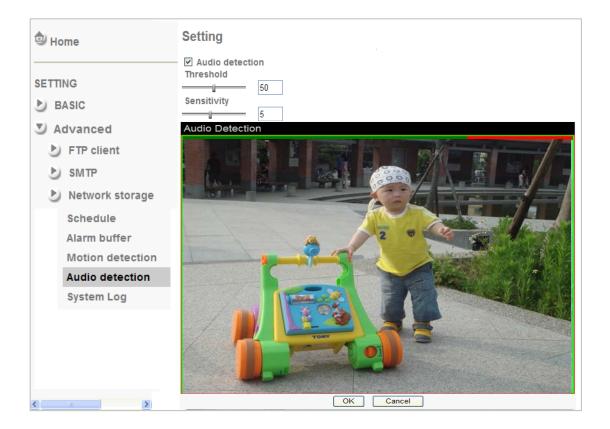


- Threshold: It means the extent which the alarm will be triggered. The default value is 50 and the value range is 0~100.
- Sensitivity: It means that how often the sensor will scan the image different. The higher sensitivity it is and the more frequently it scans. The default value is 50 and the value range is 0~100.
 - •Motion Detection 1: Click it on for using Motion Detection 1 function as a sensor. You can adjust and move the detecting zone by using mouse.
 - •Motion Detection 2: Click it on for using Motion Detection 2 function as a sensor. You can adjust and move the detecting zone by using mouse.
 - •Motion Detection 3: Click it on for using Motion Detection 3 function as a sensor. You can adjust and move the detecting zone by using mouse.



9.7 Audio Detection

The Audio detection has Threshold and Sensitivity inputs which you can adjust sequentially. Audio Detection function can support to FTP Client, SMTP, Network Storage, and HTTP Event.



Click it on for using **Audio Detection** function as a sensor. You can set audio detection function at the audio detection function screen.

- Threshold: It means the extent which the alarm will be triggered. The default value is 50 and the value range is 0~100.
- Sensitivity: It means that how often the sensor will scan the image different. The higher sensitivity it is and the more frequently it scans. The default value is 5 and the value range is 1~10.



9.8 System Log

The System Log function allows users to review any changes and events happened. The system starts logging automatically after started.

🕏 Home	System Log
SETTING BASIC Advanced	■ Remote Log ■ Enable remote log
 FTP client SMTP Network storage 	
Schedule Alarm buffer	OK Cancel
Motion detection Audio detection	Current Log Sep 11 13:18:48 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:19:09 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:19:32 <info< td=""> > ALARM: NS Alarm Success</info<></info<></info<>
System Log	Sep 11 13:19:32 > ALARM: NS Alarm Success Sep 11 13:19:55 > ALARM: NS Alarm Success Sep 11 13:20:18 > ALARM: NS Alarm Success Sep 11 13:20:39 > ALARM: NS Alarm Success Sep 11 13:21:02 > ALARM: NS Alarm Success
	Sep 11 13:21:23 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:21:44 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:22:07 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:22:28 <info< td=""> > ALARM: NS Alarm Success</info<></info<></info<></info<>
	Sep 11 13:22:51 <info> ALARM: NS Alarm Success Sep 11 13:23:12 <info> ALARM: NS Alarm Success Sep 11 13:23:55 <info> ALARM: NS Alarm Success Sep 11 13:23:56 <info> ALARM: NS Alarm Success</info></info></info></info>
	Sep 11 13:24:18 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:24:41 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:25:03 <info< td=""> > ALARM: NS Alarm Success Sep 11 13:25:24 <info< td=""> > ALARM: NS Alarm Success</info<></info<></info<></info<>
	Sep 11 13:25:46 <info> ALARM: NS Alarm Success</info>

> Enable Remote Log: Enables user to send the log data to a specified log server.



CHAPTER 10. APPENDIX

A. Frame-rate and Bitrate Table – Help to set IPCamera with your network environment to access Internet.

Base on your network upload environment to choose the suitable Image-Quality setting. For example, if the network environment is ADSL 256Kb(upload) / 2Mb(download), the most fluent Image-Quality needs to set up under 256 Kb situation.

A.1 Mega Mode

<u>11.204 @ 151ps</u>	/ Kops			
Quality	1280*1024	1280*720	640*480	320*240
Excellent	600	400	120	50
Detailed	200	150	100	30
Good	150	100	80	20
Standard	100	60	50	15
Medium	80	50	40	10

A.1.1. H.264 @ 15fps / kbps

A.1.2. H.264 @ 10fps / kbps

Quality	1280*1024	1280*720	640*480	320*240
Excellent	400	270	80	30
Detailed	140	100	70	20
Good	100	70	55	15
Standard	70	40	30	10
Medium	55	30	25	8

A.1.3. H.264 / kbps, fps

Image-Size	Bitrate Setting	Frame-Rate Setting	Current Bitrate	Current Frame-Rate
1280*1024	6144	15	6300	15
1280*1024	6144	10	6300	10
1280*1024	2048	15	2200	15
1280*1024	2048	10	2200	10
1280*1024	512	15	550	15
1280*1024	512	10	550	10
1280*720	6144	15	6300	15
1280*720	6144	10	6300	10
1280*720	2048	15	2200	15
1280*720	2048	10	2200	10
1280*720	512	15	550	15
1280*720	512	10	550	10



640*480	6144	15	6300	15
640*480	6144	10	6300	10
640*480	2048	15	2200	15
640*480	2048	10	2200	10
640*480	512	15	550	15
640*480	512	10	550	16
320*240	6144	15	5100	15
320*240	6144	10	3600	10
320*240	2048	15	2200	15
320*240	2048	10	2200	10
320*240	512	15	550	15
320*240	512	10	550	10

A.1.4. MPEG 4@ 15fps / kbps

Quality	1280*1024	1280*720	640*480	320*240
Excellent	1600	1000	300	100
Detailed	700	500	200	80
Good	500	300	150	60
Standard	350	250	100	40
Medium	300	200	80	35

A.1.5. MPEG4@ 10fps / kbps

	Jo r mopo			
Quality	1280*1024	1280*720	640*480	320*240
Excellent	1100	700	200	80
Detailed	500	350	120	60
Good	350	200	100	40
Standard	250	150	80	30
Medium	200	120	60	25

A.1.6. MPEG4 / kbps, fps

Image-Size	Quality Setting	Frame-Rate Setting	Current Bitrate	Current Frame-Rate
1280*1024	6144	15	5500	13
1280*1024	6144	10	6300	10
1280*1024	2048	15	2200	15
1280*1024	2048	10	2200	10
1280*1024	512	15	550	15
1280*1024	512	10	550	10
1280*720	6144	15	6300	15
1280*720	6144	10	6300	10
1280*720	2048	15	2200	15
1280*720	2048	10	2200	10
1280*720	512	15	550	15
1280*720	512	10	550	10
640*480	6144	15	6300	15
640*480	6144	10	6300	10
640*480	2048	15	2200	15
640*480	2048	10	2200	10



640*480	512	15	550	15
640*480	512	10	550	10
320*240	6144	15	2200	15
320*240	6144	10	1800	10
320*240	2048	15	2200	15
320*240	2048	10	1800	10
320*240	512	15	550	15
320*240	512	10	550	10

A.1.7. MJPEG @ 15fps / kbps

Quality	1280*1024	1280*720	640*480	320*240
Excellent	22000	16000	6000	2200
Detailed	12000	7000	3000	1200
Good	7000	5000	2500	1000
Standard	5500	4000	2000	800
Medium	4000	3000	1200	500

A.1.8. MJPEG@ 10fps / kbps

Quality	1280*1024	1280*720	640*480	320*240
Excellent	15000	11000	4000	1500
Detailed	8000	5000	2000	800
Good	5000	3500	1800	700
Standard	4000	3000	1500	600
Medium	3000	2000	800	350

A.1.9. MJPEG / kbps, fps

Image-Size	Quality Setting	Frame-Rate Setting	Current Bitrate	Current Frame-Rate
1280*1024	Excellent	15	22000	15
1280*1024	Excellent	10	15000	10
1280*1024	Good	15	7000	15
1280*1024	Good	10	5000	10
1280*1024	Medium	15	4000	15
1280*1024	Medium	10	3000	10
1280*720	Excellent	15	16000	15
1280*720	Excellent	10	11000	10
1280*720	Good	15	5000	15
1280*720	Good	10	3500	10
1280*720	Medium	15	3000	15
1280*720	Medium	10	2000	10
640*480	Excellent	15	6000	15
640*480	Excellent	10	4000	10
640*480	Good	15	2500	15
640*480	Good	10	1800	10
640*480	Medium	15	1200	15
640*480	Medium	10	800	10
320*240	Excellent	15	2200	15
320*240	Excellent	10	1500	10



F3105 User Manual

320*240	Good	15	1000	15
320*240	Good	10	700	10
320*240	Medium	15	500	15
320*240	Medium	10	350	10

A.2 VGA Mode

A.2.1 H.264 @ 30fps / kbps

Quality	640*480	320*240
Excellent	250	60
Detailed	120	40
Good	60	30
Standard	50	25
Medium	40	20

A.2.2 H.264@15 fps / kbps

Quality	640*480	320*240
Excellent	150	40
Detailed	80	30
Good	40	25
Standard	30	20
Medium	25	15

A.2.3 H.264 / kbps, fps

Image-Size	Bitrate Setting	Frame-Rate Setting	Current Bitrate	Current Frame-Rate
640*480	6144	30	6300	30
640*480	6144	15	6300	15
640*480	2048	30	2200	30
640*480	2048	15	2200	15
640*480	512	30	550	30
640*480	512	15	550	15
320*240	6144	30	6300	30
320*240	6144	15	5500	15
320*240	2048	30	2200	30
320*240	2048	15	2200	15
320*240	512	30	550	30
320*240	512	15	550	15

A.2.4 MPEG4 @ 30fps / kbps

Quality	640*480	320*240
Excellent	600	120
Detailed	300	80
Good	200	60
Standard	150	50
Medium	120	40



A.2.5 MPEG4@ 15fps / kbps

Quality	640*480	320*240
Excellent	400	80
Detailed	200	50
Good	150	40
Standard	100	30
Medium	80	20

A.2.5 MPEG4 / kbps, fps

Image-Size	Bitrate Setting	Frame-Rate Setting	Current Bitrate	Current Frame-Rate
640*480	6144	30	6300	30
640*480	6144	15	6300	15
640*480	2048	30	2200	30
640*480	2048	15	2200	15
640*480	512	30	550	30
640*480	512	15	550	15
320*240	6144	30	5100	30
320*240	6144	15	2800	15
320*240	2048	30	2200	30
320*240	2048	15	2200	15
320*240	512	30	550	30
320*240	512	15	550	15

A.3.7 MJPEG @ 30fps / kbps

Quality	640*480	320*240				
Excellent	13000	4500				
Detailed	6500	2500				
Good	5000	2000				
Standard	4000	1600				
Medium	2500	1000				

A.3.8 MJPEG@ 15fps / kbps

640*480	320*240
7000	2500
3500	1500
2800	1200
2100	1000
1400	700
	7000 3500 2800 2100

A.3.9 MJPEG / kbps, fps

Image-Size	Bitrate Setting	Frame-Rate	Current Bitrate	Current
iniage-5ize	Diffate Setting	Setting		Frame-Rate
640*480	Excellent	30	13000	30
640*480	Excellent	15	7000	15
640*480	Good	30	5000	30
640*480	Good	15	2800	15



F3105 User Manual

640*480	Medium	30	2500	30
640*480	Medium	15	1400	15
320*240	Excellent	30	4500	30
320*240	Excellent	15	2500	15
320*240	Good	30	2000	30
320*240	Good	15	1200	15
320*240	Medium	30	1000	30
320*240	Medium	15	700	15



B. Storage Requirement Table - Help to set Recording Storage System.

Please refer to the following table to find out the capability for recording into your hard disk.

B.1 Mega Mode

B.1.1 H.264 Storage Requirement GB / channel / day @ 15fps

Quality	1280*1024	1280*720	640*480	320*240
Excellent	50	45	10	4.2
Detailed	16.6	13	8.3	2.5
Good	13	8.3	6.7	1.7
Standard	8.3	5	4.2	1.3
Medium	6.7	4.2	3.4	1

B.1.2 H.264 Storage Requirement GB / channel / day @ 10fps

		, <u> </u>		
Quality	1280*1024	1280*720	640*480	320*240
Excellent	45	22.5	6.7	2.5
Detailed	12.5	8.3	5.9	1.7
Good	8.3	5.9	4.6	1.3
Standard	5.9	3.4	2.5	1.3
Medium	4.5	2.5	2.1	0.7

B.1.3 MPEG4 Storage Requirement GB / channel / day

Wi EO4 Storage Requirement OD / enamer / day					
Image-Size	Bitrate Setting	Frame-Rate Setting	Storage Requirement		
1280*1024	6144	15	522.9		
1280*1024	6144	10	522.9		
1280*1024	2048	15	182.6		
1280*1024	2048	10	182.6		
1280*1024	512	15	45.7		
1280*1024	512	10	45.7		
1280*720	6144	15	522.9		
1280*720	6144	10	522.9		
1280*720	2048	15	182.6		
1280*720	2048	10	182.6		
1280*720	512	15	45.7		
1280*720	512	10	45.7		
640*480	6144	15	522.9		
640*480	6144	10	522.9		
640*480	2048	15	182.6		
640*480	2048	10	182.6		
640*480	512	15	45.7		
640*480	512	10	45.7		
320*240	6144	15	423.3		
320*240	6144	10	298.8		



320*240	2048	15	182.6
320*240	2048	10	182.6
320*240	512	15	45.7
320*240	512	10	45.7

B.1.4 MPEG4 Storage Requirement GB / channel / day @ 15fps

0	1	<u> </u>	/ I	
Quality	1280*1024	1280*720	640*480	320*240
Excellent	133	83	25	8.3
Detailed	58.1	42	17	6.7
Good	42	25	12.5	5
Standard	30	21	8.3	3.4
Medium	25	17	6.7	3

B.1.5 MPEG4 Storage Requirement GB / channel / day @ 10fps

Ĩ	Quality	1280*1024	1280*720	640*480	320*240
	Excellent	02	58.1	17	6.7
-		94		1/	0.7
Ļ	Detailed	42	30	10	5
	Good	30	17	8.3	3.4
	Standard	21	12.5	6.7	2.5
	Medium	17	10	5	2

B.1.6 MPEG4 Storage Requirement GB / channel / day

Image-Size	Quality Setting		Storage Requirement
1280*1024	6144	15	431.6
1280*1024	6144	10	522.9
1280*1024	2048	15	182.6
1280*1024	2048	10	182.6
1280*1024	512	15	45.7
1280*1024	512	10	45.7
1280*720	6144	15	522.9
1280*720	6144	10	522.9
1280*720	2048	15	182.6
1280*720	2048	10	182.6
1280*720	512	15	45.7
1280*720	512	10	45.7
640*480	6144	15	522.9
640*480	6144	10	522.9
640*480	2048	15	182.6
640*480	2048	10	182.6
640*480	512	15	45.7
640*480	512	10	45.7
320*240	6144	15	182.6
320*240	6144	10	149.4
320*240	2048	15	182.6
320*240	2048	10	149.4
320*240	512	15	45.7
320*240	512	10	45.7



B.2 VGA Mode

1. 11.204 Storage Requirement OD / enamer / day @ 501ps						
	Quality	640*480	320*240			
	Excellent	21	5			
	Detailed	10	3.4			
	Good	5	2.5			
	Standard	4.2	2.1			
	Medium	3.4	1.7			

B.2.1. H.264 Storage Requirement GB / channel / day @ 30fps

B.2.2. H.264 Storage Requirement GB / channel / day @ 15fps

Quality	640*480	320*240
Excellent	12.5	3.4
Detailed	6.7	2.5
Good	3.4	2.1
Standard	2.5	1.7
Medium	2.1	1.3

B.2.3. H.264 Storage Requirement GB / channel / day

0	1			
Image-Size	Bitrate Setting	Frame-Rate Setting	Current Bitrate	Storage Requirement
640*480	6144	30	6300	522.9
640*480	6144	15	6300	522.9
640*480	2048	30	2200	182.6
640*480	2048	15	2200	182.6
640*480	512	30	550	45.7
640*480	512	15	550	45.7
320*240	6144	30	6300	522.9
320*240	6144	15	5500	456.5
320*240	2048	30	2200	182.6
320*240	2048	15	2200	182.6
320*240	512	30	550	45.7
320*240	512	15	550	45.7

B.2.4. MPEG4 Storage Requirement GB / channel / day @ 30fps

Quality	640*480	320*240			
Excellent	50	10			
Detailed	25	6.7			
Good	16.7	5			
Standard	12.5	4.2			
Medium	10	3.4			

B.2.5. MPEG4 Storage Requirement GB / channel / day @ 15fps

Quality	640*480	320*240
Excellent	33.2	6.7
Detailed	16.7	4.2
Good	12.5	3.4
Standard	8.3	2.5
	-0	



Medium	6.7	1.7
		· · · · · · · · · · · · · · · · · · ·

B.2.6. MJPEG	Storage Rec	uirement C	GB/G	channel /	dav

	(equilement of)		1	
Image-Size	Bitrate Setting	Frame-Rate	Current Bitrate	Storage
	Dittate Setting	Setting	Current Dittate	Requirement
640*480	6144	30	6300	522.9
640*480	6144	15	6300	522.9
640*480	2048	30	2200	182.6
640*480	2048	15	2200	182.6
640*480	512	30	550	45.7
640*480	512	15	550	45.7
320*240	6144	30	5100	423.3
320*240	6144	15	2800	232.4
320*240	2048	30	2200	182.6
320*240	2048	15	2200	182.6
320*240	512	30	550	45.7
320*240	512	15	550	45.7



C. System Requirement – Help to setup System

C.1. 16 Channel IPCamera with CIF Performance

Equipment Configuration

<u>quipinione ooningun</u>	
Software:	MainConsole Version 2.6.4 Professional
CPU:	Intel Core 2 Quad Q6600 @ 2400 MHz
Memory:	1024 MB (2 x 512 DDR2-SDRAM)
Ethernet:	Marvell Yukon 88E8052 PCI-E ASF Gigabit Ethernet Controller
Hard Disk:	ST3250620A (250 GB)
Graphic card:	ATI Technologies Inc Radeon X1300 Series
Operating System:	Windows XP Professional SP2

Results from Test with a Resolution of 352×240

320x240	Quality	Frame Rate	CPU Load	Bandwidth
16 IP camera	Good	20	65%	40~50 Mbps
16 IP camera	Excellent	20	67%	40~50 Mbps

C.2. 16 Channel IPCamera with D1 Performance

Equipment Configuration

Software:	MainConsole Version 2.6.4 Professional
CPU:	AMD Athlon 64*2 @3600+MHz
Memory:	2048 MB (2 x 1024 DDR2-SDRAM)
Ethernet:	VIA Rhine II Fast Ethernet Adapter
Hard Disk:	ST3250620A (250 GB)
Graphic card:	ATI Technologies Inc EAX1600 Series
Operating System:	Windows XP Professional SP2 x64

Results from Test with a Resolution of 704×480 CCD IPCamera

ſ	704x480	Quality	Frame Rate	CPU Load	Bandwidth
	16 IP camera	Excellent	30	95%	15~20 Mbps

Results from Test with a Resolution of 640×480 CMOS IPCamera

640x480	Quality	Frame Rate	CPU Load	Bandwidth
16 IP camera	Excellent	30	95%	10~15 Mbps



Europe – EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

Clause	Description	
EN 60950-1: 2001	Safety of Information Technology Equipment	
EN 50392: 2004	Generic standard to demonstrate the compliance of electronic and electrical	
	apparatus with the basic restrictions related to human exposure to	
	electromagnetic fields (0 Hz - 300 GHz)	
EN 300 328 V1.6.1 (2004-11)	Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband	
	transmission systems; Data transmission equipment operating in the 2,4 GHz	
	ISM band and using wide band modulation techniques; Harmonized EN	
	covering essential requirements under article 3.2 of the R&TTE Directive	
EN 301 489-17 V1.2.1	Electromagnetic compatibility and Radio spectrum Matters (ERM);	
(2002-08) and EN 301 489-1	ElectroMagnetic Compatibility (EMC) standard for radio equipment and	
V1.5.1 (2004-11)	services; Part 17: Specific conditions for 2,4 GHz wideband transmission	
	systems and 5 GHz high performance RLAN equipment	

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

تقČesky [Czech]	<i>[Jméno výrobce]</i> tímto prohlašuje, že tento <i>[typ zařízení]</i> je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
daDansk [Danish]	Undertegnede [fabrikantens navn] erklærer herved, at følgende udstyr [udstyrets typebetegnelse] overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF.
de Deutsch [German]	Hiermit erklärt [Name des Herstellers], dass sich das Gerät [Gerätetyp] in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 1999/5/EG befindet.
et Eesti [Estonian]	Käesolevaga kinnitab [tootja nimi = name of manufacturer] seadme [seadme tüüp = type of equipment] vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
enEnglish	Hereby, <i>[name of manufacturer]</i> , declares that this <i>[type of equipment]</i> is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.



esEspañol [Spanish]	Por medio de la presente <i>[nombre del fabricante]</i> declara que el <i>[clase de equipo]</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE.
៧Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ [name of manufacturer] ΔΗΛΩΝΕΙ ΟΤΙ [type of equipment] ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 1999/5/ΕΚ.
français [French]	Par la présente <i>[nom du fabricant]</i> déclare que l'appareil <i>[type d'appareil]</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE.
it Italiano [Italian]	Con la presente <i>[nome del costruttore]</i> dichiara che questo <i>[tipo di apparecchio]</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latviski [Latvian]	Ar šo [name of manufacturer / izgatavotāja nosaukums] deklarē, ka [type of equipment / iekārtas tips] atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių [Lithuanian]	Šiuo [manufacturer name] deklaruoja, kad šis [equipment type] atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
In Nederlands [Dutch]	Hierbij verklaart <i>[naam van de fabrikant]</i> dat het toestel <i>[type van toestel]</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG.
Malti [Maltese]	Hawnhekk, <i>[isem tal-manifattur]</i> , jiddikjara li dan <i>[il-mudel tal-prodott]</i> jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
huMagyar [Hungarian]	Alulírott, <i>[gyártó neve]</i> nyilatkozom, hogy a [<i>típus]</i> megfelel a vonatkozó alapvető követelményeknek és az 1999/5/EC irányelv egyéb előírásainak.
Polski [Polish]	Niniejszym [nazwa producenta] oświadcza, że [nazwa wyrobu] jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Pt Português [Portuguese]	[Nome do fabricante] declara que este [tipo de equipamento] está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
রাSlovensko [Slovenian]	<i>[Ime proizvajalca]</i> izjavlja, da je ta <i>[tip opreme]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Slovensky [Slovak]	<i>[Meno výrobcu]</i> týmto vyhlasuje, že <i>[typ zariadenia]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
[fi]Suomi [Finnish]	<i>[Valmistaja = manufacturer]</i> vakuuttaa täten että <i>[type of equipment = laitteen tyyppimerkintä]</i> tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar <i>[företag]</i> att denna <i>[utrustningstyp]</i> står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.



Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

IEEE 802.11b or 802.11g operation of this product in the U.S.A. is firmware-limited to channels 1 through 11.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

