Megapixel Indoor IP Camera User's Manual

Version 3.0.0

Welcome

Thank you for purchasing our IP camera!

This user's manual is designed to be a reference tool for your system.

Please read the following safeguard and warnings carefully before you use this series product!

Please keep this user's manual well for future reference!

Important Safeguards and Warnings

1．Electrical safety

All installation and operation here should conform to your local electrical safety codes.
The power shall conform to the requirement in the SELV (Safety Extra Low Voltage) and the Limited power source is rated 12V DC or 24V AC in the IEC60950-1.
Before you replace the SD card, please unplug the power cable and then remove the shell
We assume no liability or responsibility for all the fires or electrical shock caused by improper handling or installation.
We are not liable for any problems caused by unauthorized modification or attempted repair.

2．Installation

Do not apply power to the IP camera before completing installation.
Do not put object on the IP camera.

3．Environment

This series IP camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
The working temperature ranges from -10℃ to +60℃. Please keep it away from the electromagnetic radiation object and environment.
Please keep the sound ventilation.
Do not allow the water and other liquid falling into the IPC.
Thunder-proof device is recommended to be adopted to better prevent thunder.
The grounding studs of the product are recommended to be grounded to further enhance the reliability of the camera.

4. Daily Maintenance

Current series IPC has no power button. Please unplug all corresponding power cables before your installation.
Do not touch the CCD or CMOS part; you can use the blower to clean the dust on the surface of the lens. You can use the dry cloth with some alcohol to clear if necessary.
Please keep the dustproof cap back to protect the CCD or CMOS part if the IP camera does not work for a long time.
If there is too much dust on the housing, please use the water to dilute the mild detergent first and then use it to clean the device with the clear dry cloth. Finally use the dry cloth to clean the device.

5. Accessories

Please open the accessory bag to check the items one by one in accordance with the list below.
Contact your local retailer ASAP if something is missing or damaged in the bag.

Accessory Name		Amount
IPC Unit	■	1
C/CS adapter	■	1

Quick Start Guide	■	1
CD	■	1

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1 General Introduction

1.1 Overview

This series IP camera integrates the traditional camera and network video technology. It adopts audio video data collection, transmission, storage together. It can connect to the network directly without any auxiliary device.

This series IPC uses standard H.264 video compression technology and PCM, G.711a/u audio compression technology, which maximally guarantees the audio and video quality.

This series IPC has mega pixel resolution and supports 12V DC/24V AC power. It supports the wireless network application, bidirectional talk, digital water mark and etc.

It can be used alone or used in a network area. When it is used lonely, you can connect it to the network and then use a network client-end. Due to its high definition, multiple functions and various applications, this series IPC is widely used in many indoor environments and other important area surveillance.

1.2 Feature

User Management	● Different user rights for each group, one user belongs to one group. ● The user right can not exceed the group right.
Data Transmission	● Support cable network data transmission via Ethernet ● Wireless device supports WIFI/3G wireless data transmission.
Storage Function	● Support central server backup function in accordance with your configuration and setup in alarm or schedule setting ● Support record via Web and the recorded file are storage in the client-end PC. ● Support local SD card hot swap. Support short-time storage when encounter disconnection. ● Support network storage such as FTP.
Alarm Function	● Real-time respond to external on-off alarm input, and video detect as user pre-defined activation setup and generate corresponding message in screen and audio prompt(allow user to pre-record audio file) ● Real-time video detect: motion detect, camera masking.
Network Monitor	● IPC supports one-channel audio/video data transmit to network terminal and then decode. Delay is within 270ms (network bandwidth support needed) ● Max supports 20 connections. ● Adopt the following audio and video transmission protocol: HTTP, TCP, UDP, MULTICAST, RTP/RTCP, RTSP and etc. ● Support web access.
Network Management	● Realize IPC configuration and management via Ethernet. ● Support device management via web. ● Support various network protocols.
Peripheral Equipment	● Support peripheral equipment connection via the RS232 port, each peripheral equipment control protocol and interface can be set freely. ● Support serial port (RS232/RS485) transparent data transmission. ● Support the on-off alarm device to alarm via the sound or the light.

Power	● External power adapter. Support DC 12V/AC 24V power supply.
PoE	● Support Power over Ethernet (PoE). Conform to the IEEE802.3af standard. ● Connect the device to the switcher or the router that supports the PoE function to realize the network power supply. ● To guarantee proper performance, please make sure the power sourcing device can supply at least 10W power. ● Usually, do not use the PoE for the WIFI/3G device.
Assistant Function	● Day/Night mode auto switch (**ICR switch.**) ● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright. ● Support system resource information and running status real-time display. Support log function. ● Support video watermark function to avoid vicious video modification. ● Support auto aperture. ● Support picture parameter setup such as electronic shutter and gain setup. ● Support dual-stream, ACF(Active frame control)

1.3 Specifications

1.3.1 Performance

Please refer to the following sheet for IPC performance specification.

Model Parameter		IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
System	Main Processor	TI Davinci high performance DSP				
	OS	Embedded LINUX				
	System Resources	Support real-time network, local record, and remote operation at the same time.				
	User Interface	Remote operation interface such as WEB, DSS, PSS				
	System Status	SD card status, bit stream statistics, log, and software version.				
Video Parameter	Image Sensor	1/2.8-inch CMOS	1/2.8-inch CMOS	1/2.9-inch CMOS	1/3-inch CMOS	1/3-inch CCD
	Pixel	2560(H)*1920(V)	2080(H)*1553(V)	1920(H)*1200(V)	1280(H)*960(V)	1280(H)*960(V)
	Day/Night Mode	Support day/night mode switch and IR-CUT at the same time.				
	Auto Aperture	Optional				
	Gain Control	Fixed/Auto				
	White Balance	On/off				
	BLC	On/off				
	Electronic Shutter	Manual/Auto PAL: It ranges from 1/3 to 1/10000. NTSC: It ranges from 1/4 to 1/10000.				Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/3 to 1/100000.
	Video Compression Standard	H.264/JPEG/MJPEG				

Video Frame Rate	PAL: Main stream (2560*1920@8fps) Extra stream(704*576@8fps) Main stream (1920*1080@25fps) Extra stream (704*576@25fps)	PAL: Main stream (2048*1536@15fps) Extra stream(704*576@15fps) Main stream (1920*1080@25fps) Extra stream (704*576@25fps)	PAL: Main stream （1920*1080@25fps） extra stream （704*576@25fps）	PAL: Main stream （1280*960@25fps）, extra stream, （704*576@25fps）	PAL: Main stream （1280*960@12.5fps）, extra stream, （704*576@12.5fps） Main stream （1280*720@25fps）, extra stream (704*576@25fps）	
	NTSC：Main stream (2560*1920@8fps) Extra stream (704*480@8fps) Main stream (1920*1080@30fps) Extra stream (704*480@30fps)	NTSC：Main stream (2048*1536@15fps) Extra stream (704*480@15fps) Main stream (1920*1080@30fps) Extra stream (704*480@30fps)	NTSC：Main stream (1920*1080@30fps) Extra stream (704*480@30fps)	NTSC：Main stream (1280*960@30fps) Extra stream (704*480@30fps)	NTSC：Main stream (1280*960@12.5fps)Extra stream (704*480@12.5fps) Main stream (1280*720@30fps) Extra stream (704*480@30fps)	

Video Bit Rate	H.264: 56Kbps-8192Kbps. ＭJPEG is adjustable and bit rate is adjustable. Support customized setup.	
Video Flip	Support mirror. Support flip function.	
Snapshot	Max 1f/s snapshot. File extension name is JPEG	
Privacy Mask	Each channel supports max 4 privacy mask zones	
Video Setup	Support parameter setup such as bright, contrast.	
Video Information	Channel title, time title, motion detect, privacy mask.	
Lens	Optional	
Lens Interface	C/CS optional	
Audio Input	1-channel，3.5mm JACK LINE IN	
Audio **Audio Output**	1-channel，3.5mm JACK SPEAK OUT	
Bidirectional Talk Input	Reuse the first audio input channel	
Audio Bit Rate	16kbps 16bit	
Audio Compression Standard	G.711a/G.711u/PCM	

Video	Motion Detect	396 (18*22) detection zones；sensitivity level ranges from 1 to 6 (The 6th level has the highest sensitivity) Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.	
	Camera Masking	Sensitivity level ranges from 1 to 6. Each sensitivity level is the percentage of the privacy mask zone. Activation event, alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.	
Alarm Input		1-channel input，1-channel output	
Record and Backup	Record Priority	Manual>External alarm >Video detect>Schedule	
	Local Storage	Support local SD card hot swap	
	Storage Management	Support display local storage status	
Network	Wire Network	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	Network Protocol	Standard HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, UPNP, NTP, Bonjour, SNMP.	
	Remote Operation	Monitor, PTZ control, system setup, file download, log information, maintenance , upgrade and etc	
AUX Interface	Video Output	1-channel analog video output，BNC port	
	Network Interface	1-channel Ethernet, 10/100 Base-T Ethernet (The IPC-HF3110-F series product has the optical port.)	
	3G Port	Support 3G SIM card, TD/EVDO/WCDMA function. (For 3G series product only.)	
	Antenna Port	Support to receive the wireless signal (This function is for 3G and WIFI series product only.)	
	RS485 port	PTZ control interface. Support various protocols.	
General Parameter	Power	Support AC24V/DC12V power and PoE. (The IPC-HF3110-F/W/E/T/C series product **does not** support the PoE function.)	
	Power Consumption	<10W (For WIFI and 3G device, it is below 12W.)	
	Working Temperature	-10℃~+60℃ (For –W device, it is from -10℃~+55℃. For 3G device, it is from -10℃~+50℃)	
	Working Humidify	10%~90%	
	Dimensions	70*63.2*149.5	
	Weight	650g	
	Installation	Support various installation modes（Enclosure and bracket is optional）	

1.3.2 Factory Default Setup

Please refer to the following sheet for factory default setup information.

Setup		Item	Default Setup				
			IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
Camera	Conditions	Brightness	50				
		Contrast	50				
		Hue	50				

Setup	Item				Default Setup				
					IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
		Saturation			50				
		Gain Mode			Auto				
		Gain Adjust			50				
		Exposure Mode			Auto				
		Auto Iris			On				
		Scene Mode			Auto				
		Day/night Mode			Auto				
		BLC			Off				
		Flip			Off				
	Video	Video bit stream	Main Stream	Bit stream type	General				
				Encode mode	H.264				
				Resolution	1080P（1920*1080）			720P（1080*720）	
				Frame Rate （FPS）	PAL: 25 NTSC:30				
				Bit Rate Type	CBR				
				Recommended Bit	3584-8192 Kb/S				
				Bit Rate	8192				
				I Frame	50				
				Watermark	Enable				
				Watermark character	DigitalCCTV				
			Sub Stream	Enable	Enable				
				Bit stream type	General				
				Encode mode	H.264B				
				Resolution	CIF(352*288/352*240)				
				Frame Rate （FPS）	PAL: 25 NTSC:30				
				Bit Rate Type	CBR				

Setup	Item			Default Setup				
				IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
			Recommended Bit	192-1024Kb/S				
			Bit Rate	640				
			I Frame	50				
		Snapshot	Snapshot Type	General				
			Image Size	1080P（1920*1080）			720P（1080*720）	
			Quality	5				
			Interval	1s				
		Video Overlay	Privacy Mask	Disable				
			Channel Title	Enable				
			Time Title	Enable				
		Path	Snapshot Path	C:\PictureDownload				
			Record Path	C:\RecordDownload				
	Audio	Main Stream	Enable	Enable				
			Encode Mode	G.711A				
		Sub Stream	Enable	Disable				
			Encode Mode	G.711A				
Network		TCP/IP	Host Name	IPC				
			Ethernet Card	Wire(Default)				
			Mode	Static				
			Mac Address	Device MAC address when it is shipped out of the factory				
			IP Version	IPV4				
			IP Address	192.168.1.108				
			Subnet Mask	255.255.255.0				
			Default Gateway	192.168.1.1				
			Preferred DNS	8.8.8.8				

Setup	Item		Default Setup				
			IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
		Alternate DNS	8.8.8.8				
		Enable ARP/Ping set device IP address service	Enable				
	Connection	Max Connection	10				
		TCP Port	37777				
		UDP Port	37778				
		HTTP Port	80				
		RTSP Port	554				
	PPPoE	Enable	Disable				
		Username	N/A				
		Password	N/A				
	DDNS	Server Type	Disable，CN99 DDNS				
		Server IP	none				
		Server Port	80				
		Domain Name	none				
		User	none				
		Password	N/A				
		Update Period	5 minutes				
	IP Filter	Trusted sites	Disable				
	SMIT(Email)	SMTP Server	none				
		Port	25				
		Anonymity	Disable				

Setup	Item		Default Setup				
			IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
		User Name	anonymity				
		Password	N/A				
		Sender	none				
		Authentication (Encryption mode)	N/A				
		Title (Subject)	IPC Message				
		Attachment	N/A				
		Mail Receiver	0s				
		Email Test	Disable，interval=60 minutes				
	UPnP	Enable UPnP	Disable				
	SNMP	SNMP v1	Disable				
		SNMP v2	Disable				
		SNMP Port	161				
		Read Community	public				
		Write Community	private				
		Trap Address	N/A				
		Trap Port	162				
	Bonjour	Enable	Enable				
		Server Name	"Device name+SN". It depends on the device.				
	Multicast	Multicast Address	239.255.42.42				
		Port	36666				
	Auto Register	Enable	Disable				
		SN	1				
		Server IP	0.0.0.0				

Setup	Item			Default Setup				
				IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
			Port	7000				
			Sub-device ID	none				
		QoS	Real-time Monitor	0				
			Command	0				
Event	Video detect	Motion Detect	Enable	Disable				
			Anti-dither	5 seconds				
			Sensitivity	3				
			Record Channel	Enable				
			Record Delay	10 seconds				
			Relay out	Enable				
			Alarm Delay	10 seconds				
			Send Email	Disable				
			PTZ	Disable				
			Activation Operation	N/A				
			Address	0				
			Snapshot	Disable				
		Video Masking	Enable	Disable				
			Record Channel	Enable				
			Record Delay	10 seconds				
			Relay out	Enable				
			Record Delay	10 seconds				
			Send Email	Disable				
			PTZ	Disable				
			Activation Operation	N/A				
			Address	0				
			Snapshot	Disable				
		Alarm	Enable	Disable				

Setup	Item			Default Setup				
				IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
		Activation	Relay in	Alarm 1				
			Anti-dither	5 seconds				
			Sensor Type	NO				
			Record Channel	Enable				
			Record Delay	10 seconds				
			Relay out	Enable				
			Alarm Delay	10 seconds				
			Send Email	Disable				
			PTZ	Disable				
			Activation Operation	N/A				
			Address	0				
			Snapshot	Disable				
		Relay output		1				
	Abnormity	No SD Card	Enable	Disable				
			Relay out	Enable				
			Relay out Delay	10 seconds				
			Send email	Disable				
		Capacity Warning	Enable	Disable				
			Capacity Limit	10%				
			Relay out	Enable				
			Relay out Delay	10 seconds				
			Send Email	Disable				
		SD Card Error	Enable	Disable				
			Relay out	Enable				
			Relay out Delay	10 seconds				
			Send email	Disable				
		Disconnection	Enable	Disable				
			Record	Enable				

Setup	Item			Default Setup				
				IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
			Record Delay	10 seconds				
			Relay out	Enable				
			Relay out Delay	10 seconds				
		IP Conflict	Enable	Disable				
			Record	Enable				
			Record Delay	10 seconds				
			Relay out	Enable				
			Relay out Delay	10 seconds				
Storage	Storage	FTP	Enable FTP	Disable				
			Server IP	N/A				
			Port	21				
			Username	anonymity				
			Password	N/A				
			Remote path	share				
			Emergency (Local)	Disable				
		Network	Enable NAS	Disable				
			Protocol	NFS				
			Server IP	N/A				
			Port	21				
			Username	N/A				
			Password	N/A				
			Remote path	N/A				
		Record Control	Pack Duration	8 minutes				
			Pre-record	5 seconds				
			Disk Full	Overwrite				
			Record Mode	Auto				
System		Local Host	Device No	Device factory SN				

Setup	Item			Default Setup				
				IPC-HF3500 Series	IPC-HF3300 Series	IPC-HF3200 Series	IPC-HF3100 Series	IPC-HF3110 Series
			Language	English				
			Video Standard	PAL				
		Date and time	Date Format	Y-M-D				
			Time Format	24H				
			Time Zone	GMT+08:00				
			System Time	Sync				
			DST	Disable				
			DST Type	Week				
			Start Time	00:00:00 of the first Sunday of the month				
			End Time	00:00:00 of the second Monday of the month				
			NTP	Disable				
			NTP Server	clock.isc.org				
			Port	37				
			Update Period	10 minutes				
	PTZ		Protocol	PELCOD				
			Address	1				
			Baud Rate	9600				
			Data Bit	8				
			Stop bit	1				
			Parity	N/A				
	Auto Maintenance		Auto Reboot	Enable				
			Auto Delete Old Files	Disable				

2 Framework

2.1 Rear Panel

This series IP camera real panel is shown as below. See Figure 2-1.
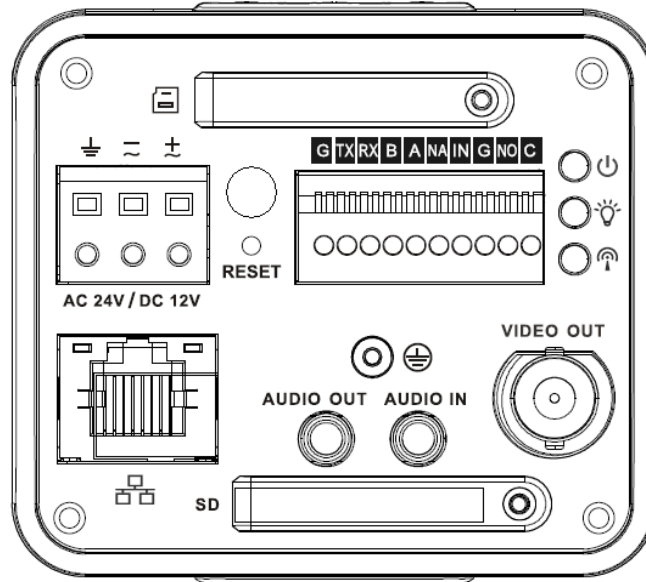
The rear panel with the network port
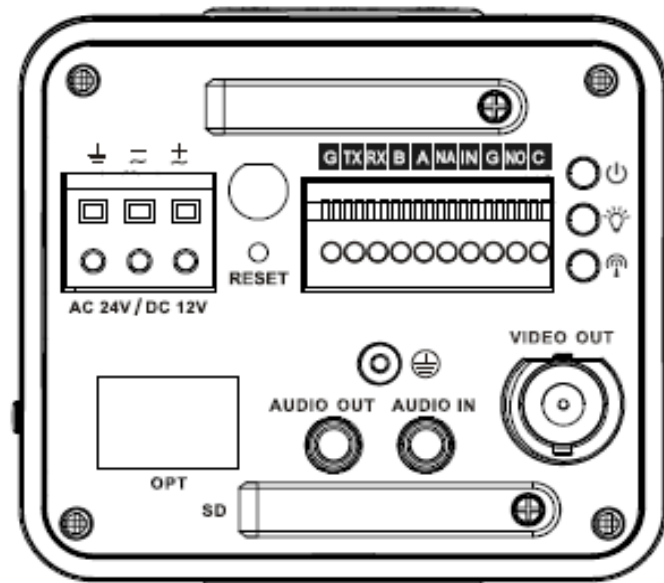
The rear panel with the 100M fiber port

Figure 2-1

Please refer to the following sheet for detail information.

Interface Name		Connector	Function
VIDEO OUT	Video output port	BNC	Output analog video signal. Can connect to

			TV monitor to view video.
AC 24V/ DC 12V	Power port		● Power port. ● Input 12V DC or AC 24V
STATUS Indication Light	Red light ⏻		● System boot up-red light is on ● System upgrades-red light flashes ● System resets-red light flashes.
	Green light 💡		● Normal working status-green light is on. ● Display record status: Record-green light flashes.
	Yellow light 📶		● Detect the wireless device-yellow light is on.
🗄	3G		Connect to 3G card. Please note it is for 3G series product only.
WIFI	Antenna port		Connect to 3G/WIFI antenna to receive the wireless signal. Please note this function is for some series products only.
IN	Alarm input port	I/O port	Alarm input port 1. To receive the signal from

			the external alarm device.
NO C	Alarm output port		Alarm output port. To output alarm signal to the alarm device. ● NO: Normal open alarm output end. ● C: Alarm output public end.
G	GND		Alarm input ground end.
A	RS485 port		RS485_A port, control external PTZ
B			RS485_B port, control external PTZ
RX	RS232 port		RS232_RX，RS232 receive end.
TX			RS232_TX，RS232 COM send out end.
G	GND		RS232 ground end
NA	IR light port		External IR light signal control port.
RESET	RESET button		Restore factory default setup. When system is running normally, press the RESET button for at least 5 seconds, system can restore factory default setup.
AUDIO OUT	Audio output port	Audio output 3.5mm JACK port.	Output audio signal to the passive device such as earphone.
AUDIO IN	Audio input port	Audio input 3.5mm	Input audio signal

		JACK port.	from devices such as pick-up.
LAN	Network port	Ethernet port	• Connect to standard Ethernet cable. • Support PoE function.
OPT	100M fiber port	155M single fiber dual-direction SFP fiber module	Transmit 100M Ethernet data.
SD	SD card port		Connect to SD card. **Note** • When you install the SD card, please make sure current card is not in write mode and then you can install it to the camera. • When you remove the SD card, please make sure current card is not in write mode. Otherwise it may result in data loss or card damage. • Before hot swap, please stop record operation.

	GND		Please make sure the device is securely earthed to prevent the thunderstorm strike.

2.2 Side Panel

Please refer to the following interface for side panel dimension information. The unit is mm. See Figure 2-2.
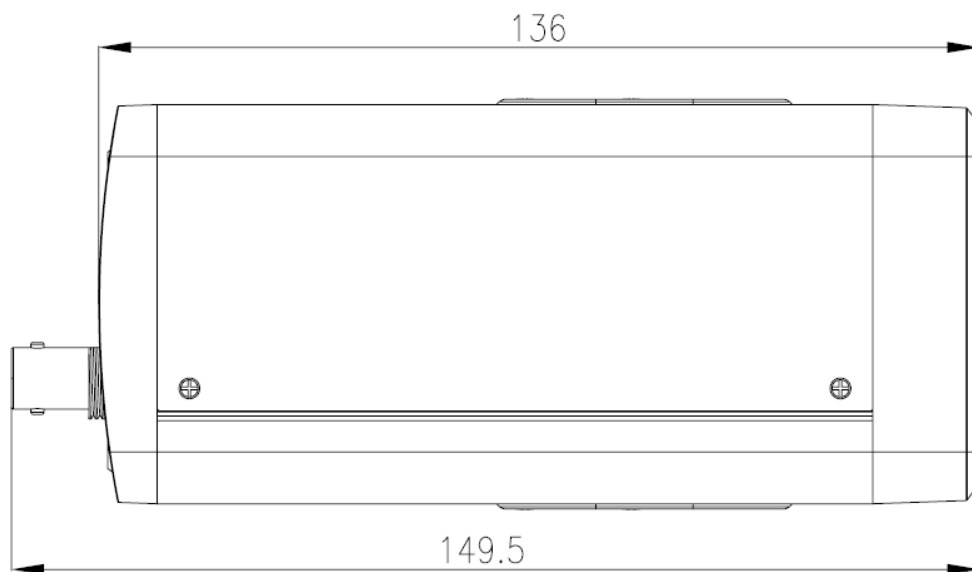
Figure 2-2

2.3 Front Panel

Please refer to the following interface for the front panel information. The unit is mm. See Figure 2-3.
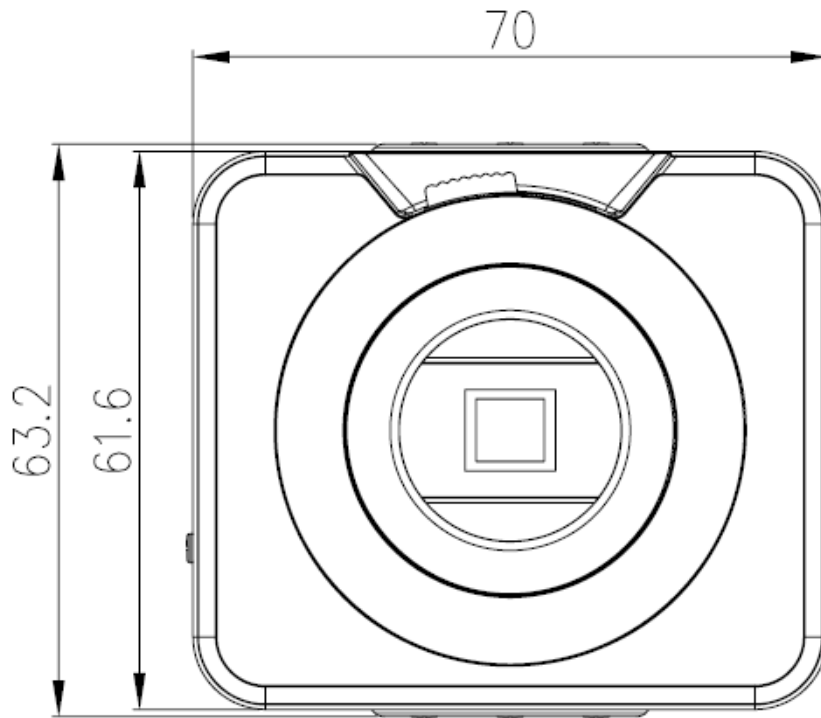
Figure 2-3

2.4 Bidirectional talk

2.4.1 Device-end to PC-end
Device Connection
Please connect the speaker or the pickup to the first audio input port in the device rear panel.
Then connect the earphone or the sound box to the audio output port in the PC.
Login the Web and then enable the corresponding channel real-time monitor.
Listening Operation
At the device end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the pc-end.

2.4.2 PC-end to the Device-end
Device Connection
Connect the speaker or the pickup to the audio output port in the PC and then connect the earphone or the sound box to the first audio input port in the device rear panel.
Login the Web and then enable the corresponding channel real-time monitor.
Listening Operation
At the PC-end, speak via the speaker or the pickup, and then you can get the audio from the earphone or sound box at the device-end.

2.5 Alarm Setup

The alarm setup interface is shown as below. See Figure 2-4.
● Connect the alarm input device to the alarm input port.

- Connect the alarm output device to the alarm output port and alarm output public port. The alarm output port supports NO (normal open) alarm device only.
- Open the Web, go to the Figure 2-4. Here you can set the alarm input setup and alarm output setup. Please set the alarm in for the alarm input in the rear panel. Then you can select the corresponding type (NO/NC) according to the high/low level type when an alarm occurs.
- Set the WEB alarm output. The alarm output 01 is the alarm output port of the device rear panel.
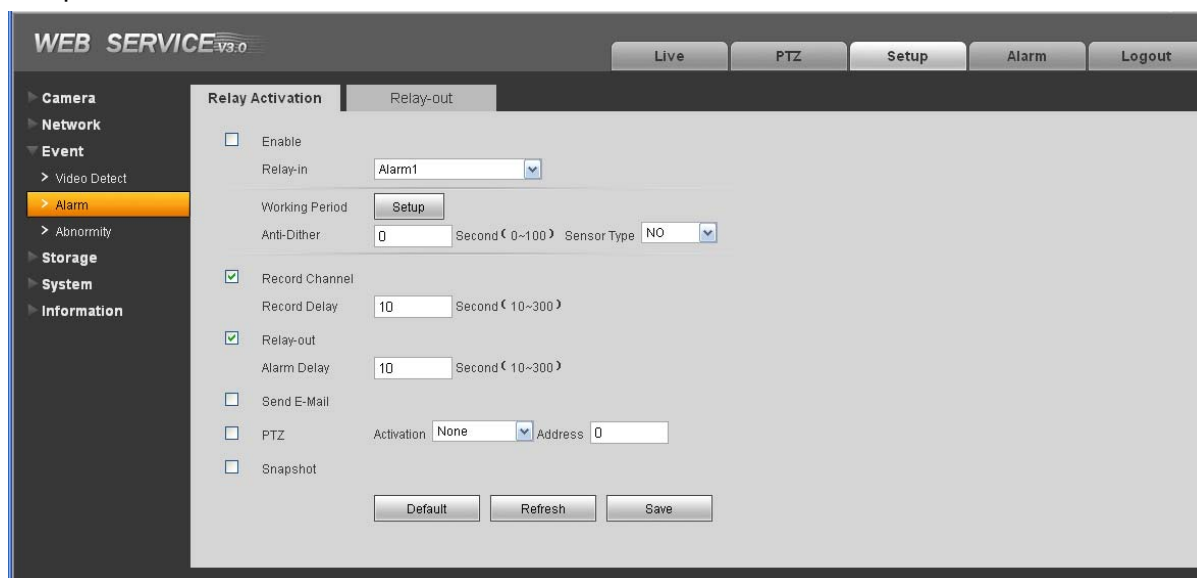
Figure 2-4

2.5.1 Alarm Input and Output Connection

Please refer to the following figure for alarm input information. See Figure 2-5.

Alarm input: When the input signal is idle or grounded, the device can collect the different statuses of the alarm input port. When the input signal is connected to the 5V or is idle, the device collects the logic "1". When the input signal is grounded, the device collects the logic "0".
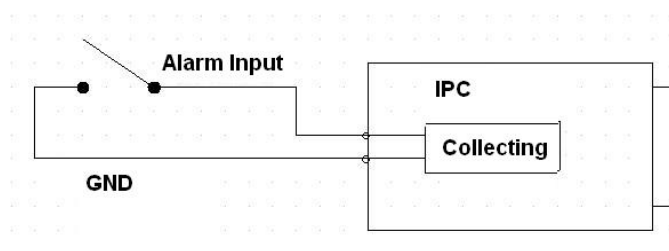
Figure 2-5

Please refer to the following figure for alarm output information. See Figure 2-6.

Port NO and Port C composes an on-off button to provide the alarm output.

If the type is NO, this button is normal open. The button becomes on when there is an alarm output.

If the type is NC, this button is normal off. The button becomes off when there is an alarm output.
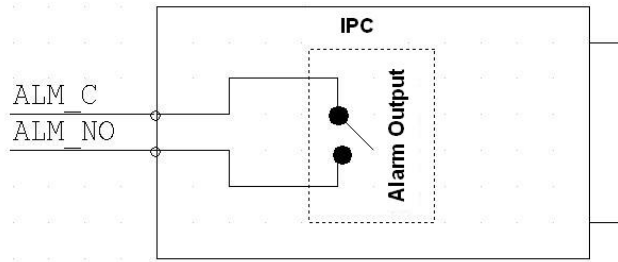
Figure 2-6

2.5.2 IR Light Connection

Please refer to the following figure for external IR light information. See Figure 2-7.

IR synchronization input signal. When the external IR light is on, the signal cable from the board outputs the 3.3V/1mA. It outputs the 0V when the IR light is off.
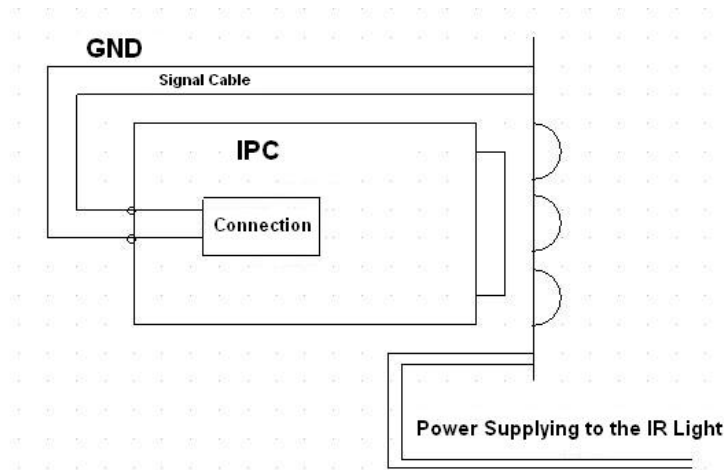
Figure 2-7

3 Installation

3.1 Lens Installation

3.1.1 Auto Aperture Lens

Please follow the steps listed below for auto aperture lens installation. The interface is shown as in Figure 3-1 and Figure 3-2.

● Remove the CCD protection cap of the device, and then line up the lens to the proper installation position. Turn clockwise until the lens is fixed firmly.
● Insert the lens cable socket to the auto lens connector in the side panel.
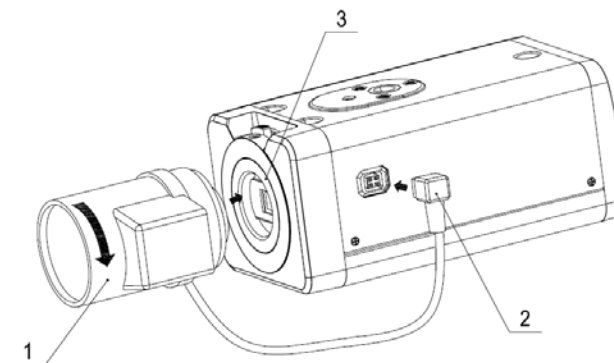
Figure 3-1

3.1.2 Manual Lens

Install C type lens

● Remove the CCD protection cap from the device.
● Install the C/CS adapter to the camera. Turn clockwise to secure against the focusing ring firmly.
● Line up the C lens to the installation position of the C/CS adapter. Turn clockwise to fix the lens.
● Use slotted screwdriver to fasten the screw near the focusing ring and then turn counter clockwise to move the focusing ring out for several millimeters. Now you can focus manually and check the video is clear or not. If you can not see the clear video, you can adjust via the flange-back.
● After you completed the focus setup, use the slotted screwdriver to fix the screw firmly. Fasten the focusing ring. Now the installation completed.

Install CS type lens

● Remove the CCD protection cap from the device.
● Line up the CS lens to the lens installation position of camera focusing ring. Turn clockwise to fix the lens.
● Use slotted screwdriver to fasten the screw near the focusing ring and then turn counter clockwise to move the focusing ring out for several millimeters. Now you can focus manually and check the video is clear or not. If you can not see the clear video, you can adjust via the flange-back.
● After you completed the focus setup, use the slotted screwdriver to fix the screw firmly. Fasten the focusing ring. Now the installation completed.
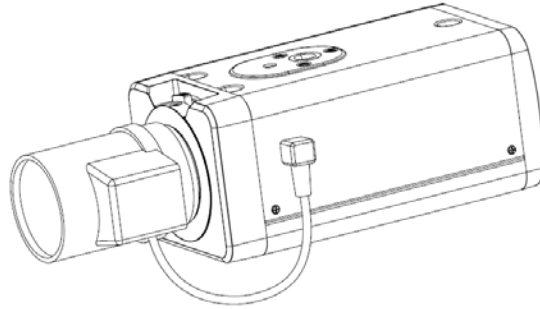
Figure 3-2

3.1.3 Remove Lens

Please follow the steps listed below to remove lens. The interface is shown as in Figure 3-3.

- Turn the lens counter clockwise and then remove it from the camera.
- Unplug the auto lens cable socket from the auto lens connector. If you are using the manual aperture lens, please skip to the following step.
- If there is no lens, please put the CCD protection cap back to protect the CCD.
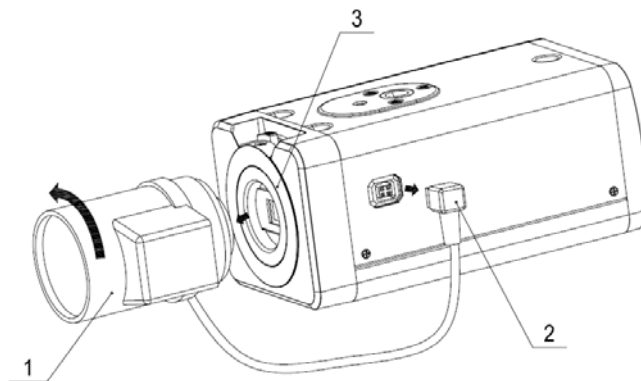
Figure 3-3

3.2 SD Card

3.2.1 Installation

Please follow the steps listed below to install SD card. The interface is shown as in Figure 3-4 and Figure 3-5.

- Use the screwdriver to loosen the SD card protection screw in the rear panel, and then remove the SD card protection cap from the camera.
- Install the SD card to the camera according to the proper installation position.
- Put the SD card protection cap back.
- Use the screwdriver to fix the SD card protection cap screw firmly to secure the SD card protection cap in the camera.
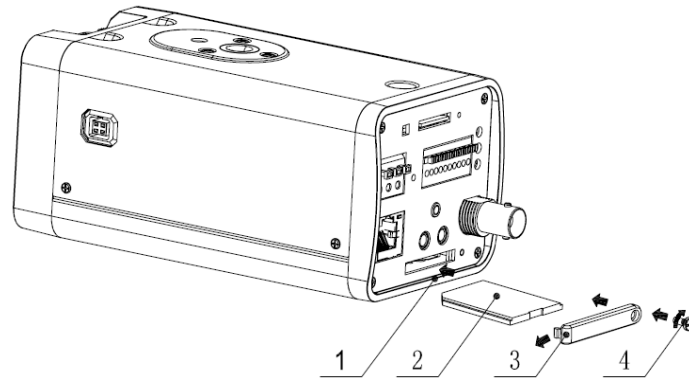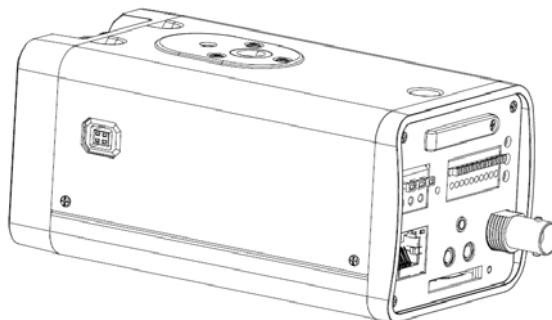
Figure 3-4
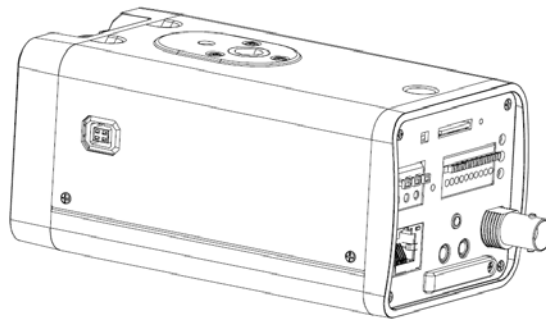
Figure 3-5

3.2.2 Remove

Please follow the steps listed below to remove SD card. The interface is shown as Figure 3-6.

- Use the screwdriver to loosen the screw of SD card protection cap in the rear panel. Remove the cap from the camera.
- Follow the SD card direction to remove the SD card.
- Insert the SD card protection cap.
- Use the screwdriver to fix the screw to secure the protection cap.
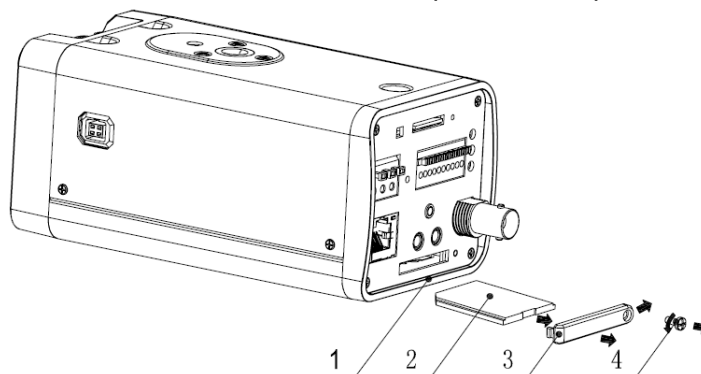
Figure 3-6

3.3 3G Card

3.3.1 Installation

The 3G card installation is the same with the SD card.

Please follow the steps listed below to install 3G card. The interfaces are shown as Figure 3-7 and Figure 3-8.

- Use the screwdriver to loosen the 3G card protection cap screw in the side panel, and then remove the 3G card protection cap from the camera.
- Install the 3G card to the camera according to the proper installation position.
- Put the 3G card protection cap back.
- Use the screwdriver to fix the 3G card protection cap screw firmly to secure the 3G card protection cap.
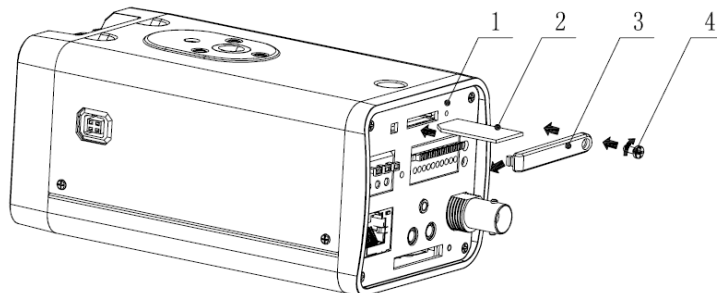
Figure 3-7

Figure 3-8

3.3.2 Remove

Please follow the steps listed below to remove 3G card. The interface is shown as Figure 3-9.

- Use the screwdriver to loosen the screw of 3G card protection cap in the rear panel. Remove the cap from the camera.
- Follow the 3G card direction to remove the 3G card.
- Insert the 3G card protection cap.
- Use the screwdriver to fix the screw to secure the protection cap.
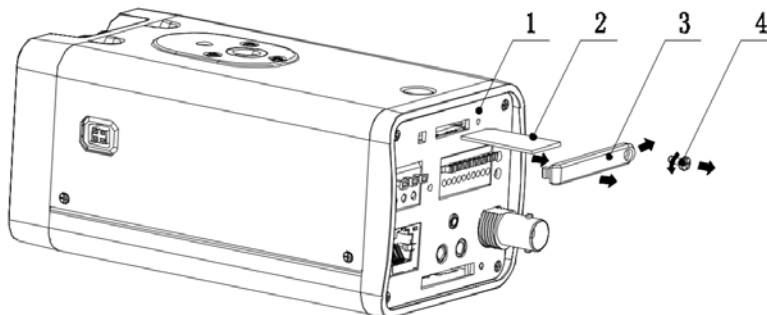
Figure 3-9

3.4 3G/WIFI Antenna

3.4.1 Installation

Line up the thread of the screw of the 3G/WIFI antenna to the thread of the rear panel. See Figure 3-10.

Please turn according to the direction in the following figure until antenna is secure firmly. See Figure 3-11.
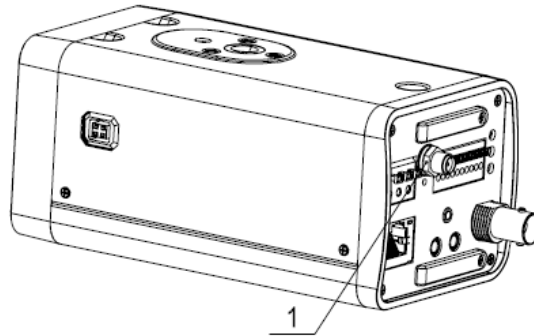
Figure 3-10
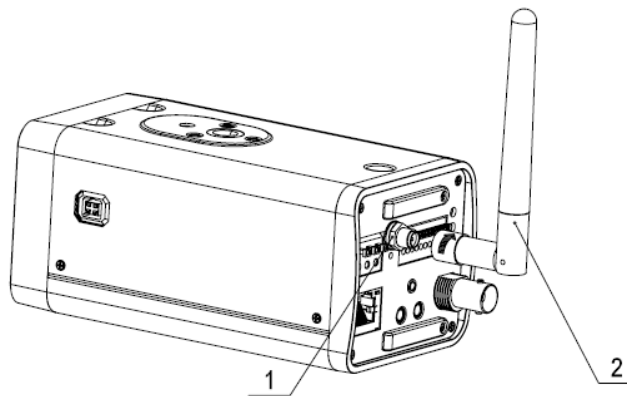
Figure 3-11

After you fix the 3G/WIFI antenna to the WIFI port of the rear panel, you can adjust the antenna direction. See Figure 3-12.
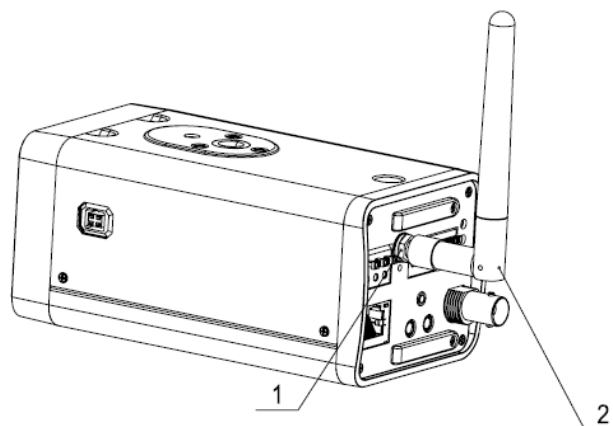
Figure 3-12

3.4.2 Remove

Use your hands to hold the 3G/WIFI thread end and then turn according to the following figure. See Figure 3-13.
Now you can see the antenna is away from the thread. See Figure 3-14.
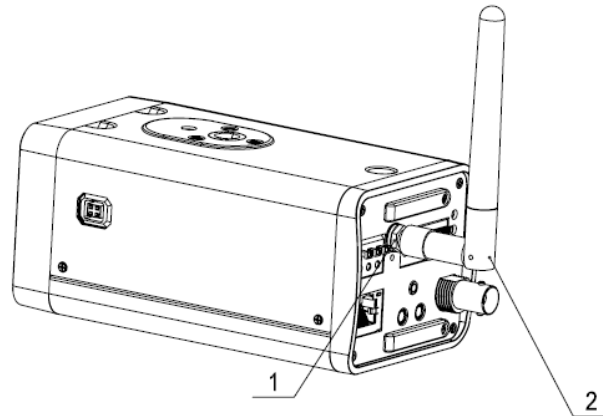
Figure 3-13
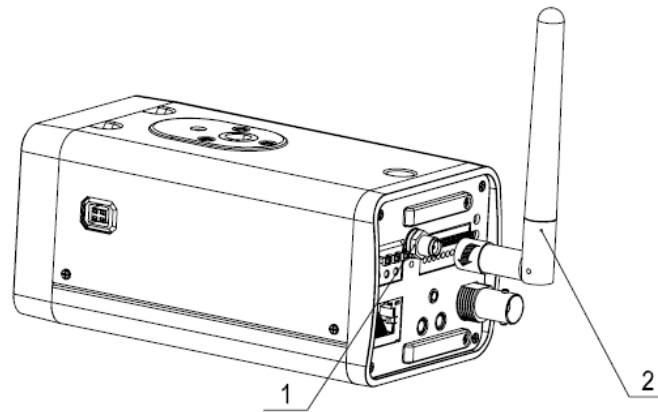
Figure 3-14

Remove the 3G/WIFI antenna from the port of the rear panel. See Figure 3-15.
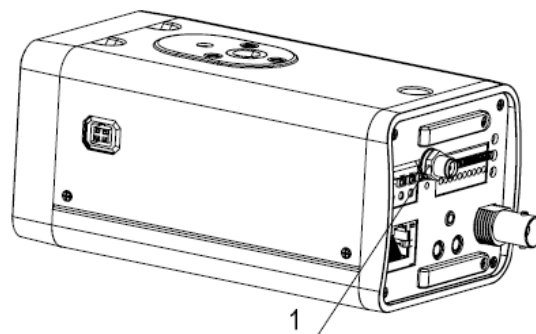
Figure 3-15

3.5 I/O Port

Install Cable
Please follow the steps listed below to install the cable. See Figure 3-16.

Use the small slotted screwdriver to press the corresponding button of cable groove. Insert the cable into the groove and then release the screwdriver.

Remove Cable

Please follow the steps listed below to remove the cable.

Use the small slotted screwdriver to press the corresponding button of cable groove. Remove the cable out of the groove and then release the screwdriver.
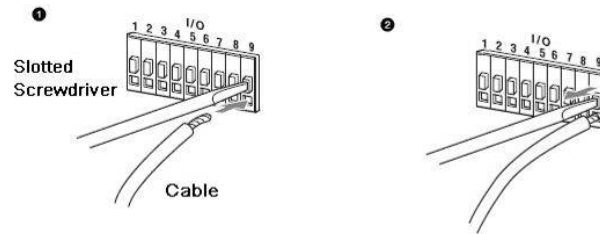
Figure 3-16

4 Quick Configuration Tool

4.1 Overview

Quick configuration tool can search current IP address, modify IP address. At the same time, you can use it to upgrade the device.

Please note the tool only applies to the IP addresses in the same segment.

4.2 Operation

Double click the "ConfigTools.exe" icon, you can see an interface is shown as in Figure 4-1. In the device list interface, you can view device IP address, port number, subnet mask, default gateway, MAC address and etc.
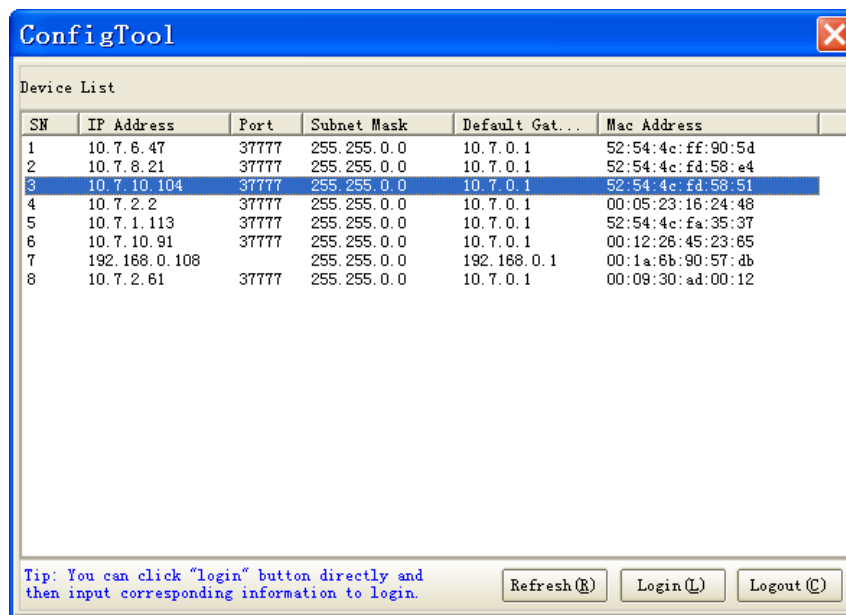

Figure 4-1

Select one IP address and then right click mouse, you can see an interface is shown as in Figure 4-2.
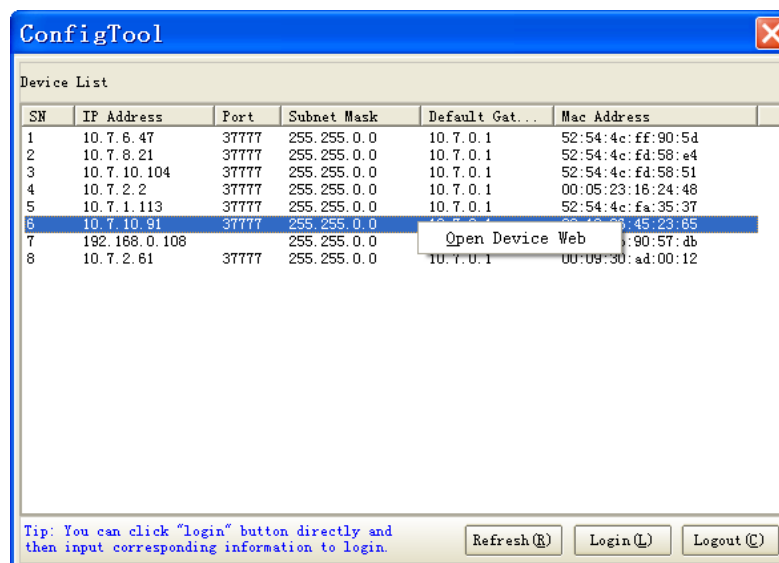

Figure 4-2

Select the "Open Device Web" item; you can go to the corresponding web login interface. See Figure 4-3.
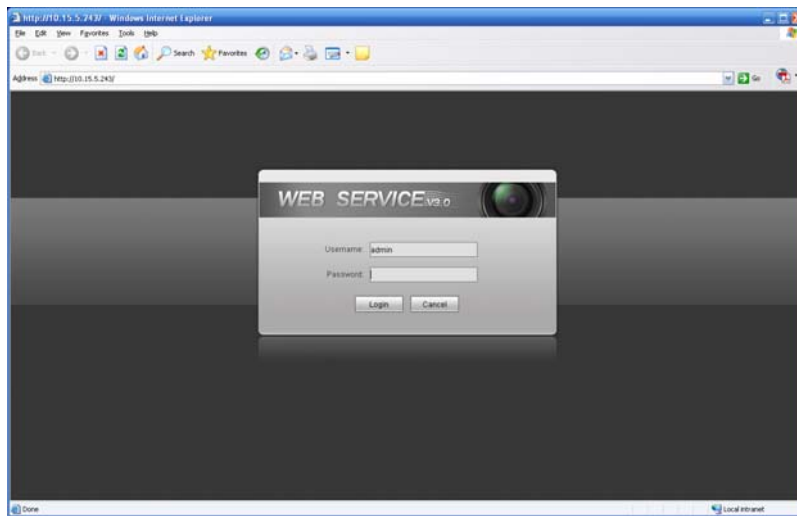

Figure 4-3

If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

In the configuration tool search interface (Figure 4-1), please select a device IP address and then double click it to open the login interface. Or you can select an IP address and then click the Login button to go to the login interface. See Figure 4-4.

In Figure 4-4, you can view device IP address, user name, password and port. Please modify the corresponding information to login.

Please note the port information here shall be identical with the port value you set in TCP port in Web Network interface. Otherwise, you can not login the device.

If you are use device background upgrade port 3800 to login, other setups are all invalid.

Figure 4-4

After you logged in, the configuration tool main interface is shown as below. See Figure 4-5.
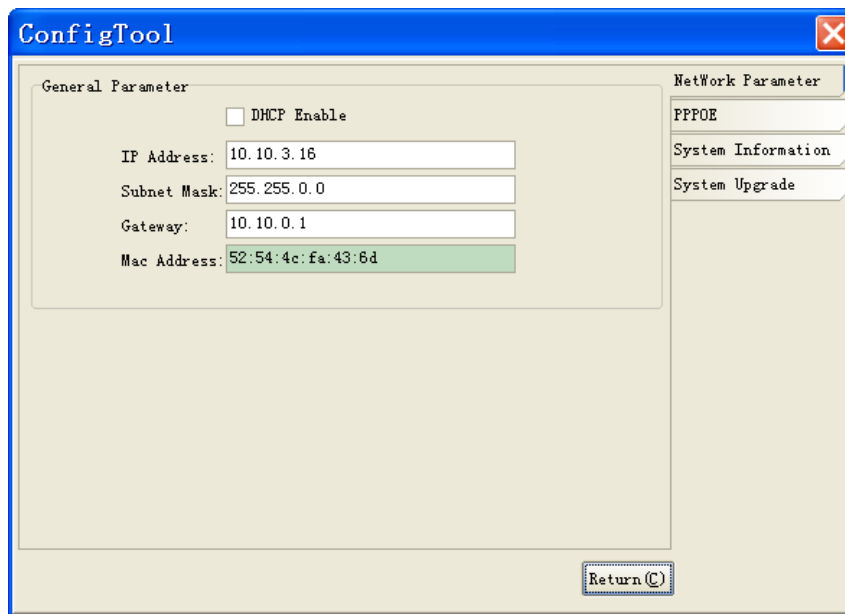
Figure 4-5

For detailed information and operation instruction of the quick configuration tool, please refer to the *Quick Configuration Tool User's Manual* included in the resources CD.

5 Web Operation

This series IPC product support the Web access and management via PC.
Web includes several modules: monitor channel preview, PTZ control, system configuration, alarm and etc.

5.1 Network Connection

Please follow the steps listed below for network connection.
- Make sure the IPC has connected to the network properly.
- Please set the IP address, subnet mask and gateway of the PC and the IPC respectively. IPC default IP address is 192.168.1.108. Subnet mask is 255.255.255.0. Gateway is 192.168.1.1.
- Use order ping ***.***.***.***(* IP camera address) to check connection is OK or not.

5.2 Login and Logout

Open IE and input IP camera address in the address bar.
For example, if your camera IP is 192.168.1.108, then please input http:// 192.168.1.108 in IE address bar. See Figure 5-1.
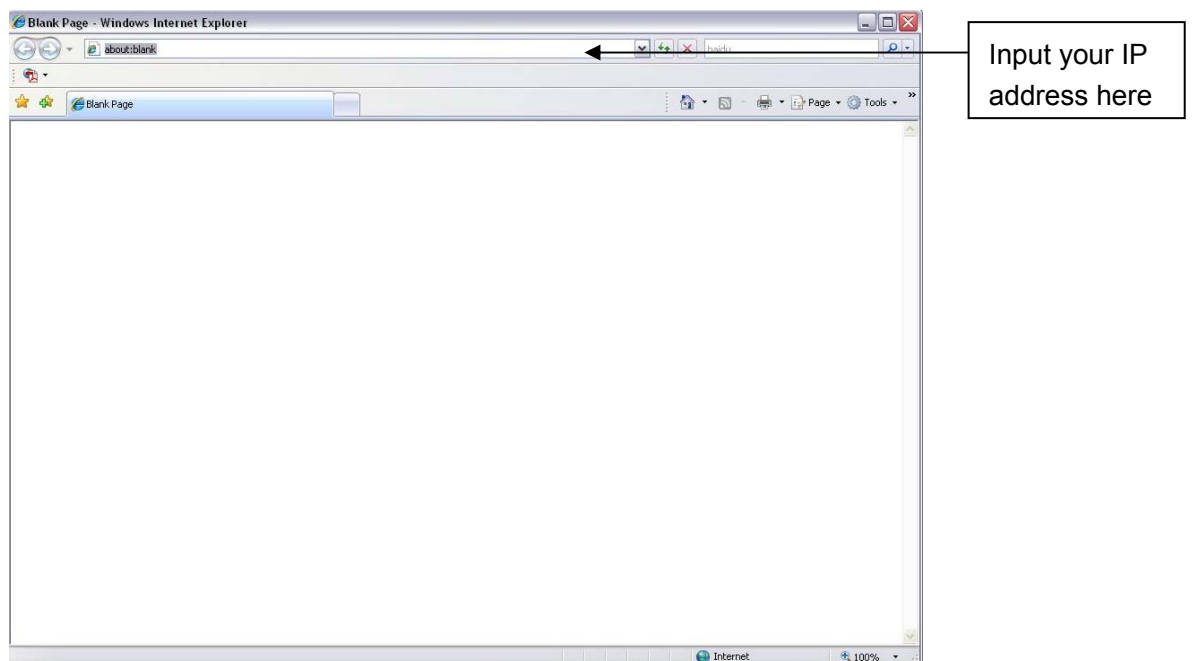

Figure 5-1

The login interface is shown as below. See Figure 5-2.
Please input your user name and password.
Default factory name is admin and password is admin.
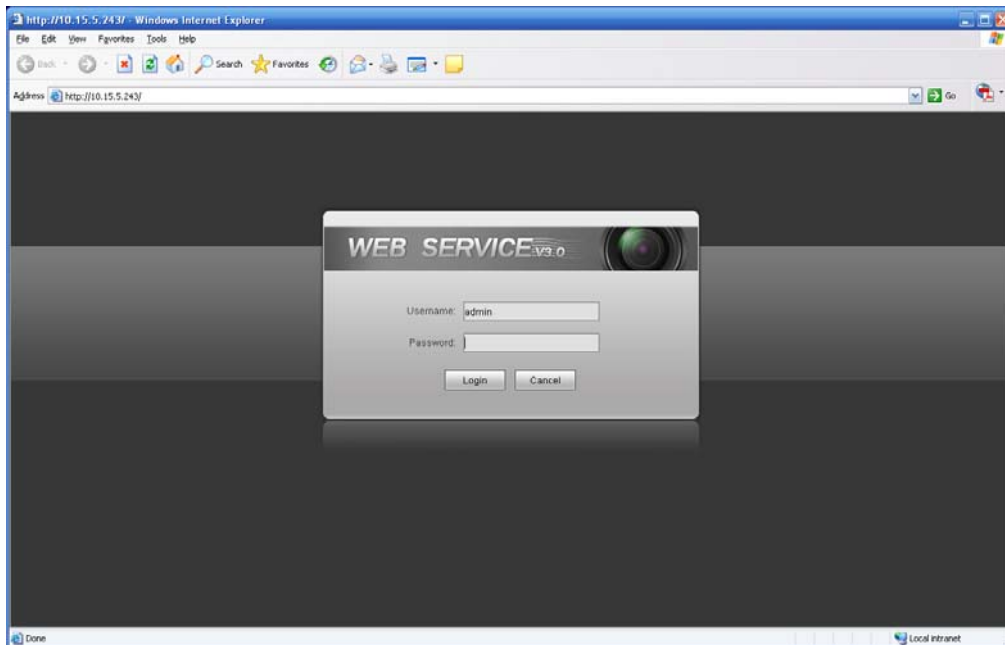**Note: For security reasons, please modify your password after you first login.**

Figure 5-2

If it is your first time to login in, system pops up warning information to ask you whether install control webrec.cab or not after you logged in for one minute. Please click OK button, system can automatically install the control. When system is upgrading, it can overwrite the previous Web too. If you can't download the ActiveX file, please check whether you have installed the plug-in to disable the control download. Or you can lower the IE security level. See Figure 5-3.
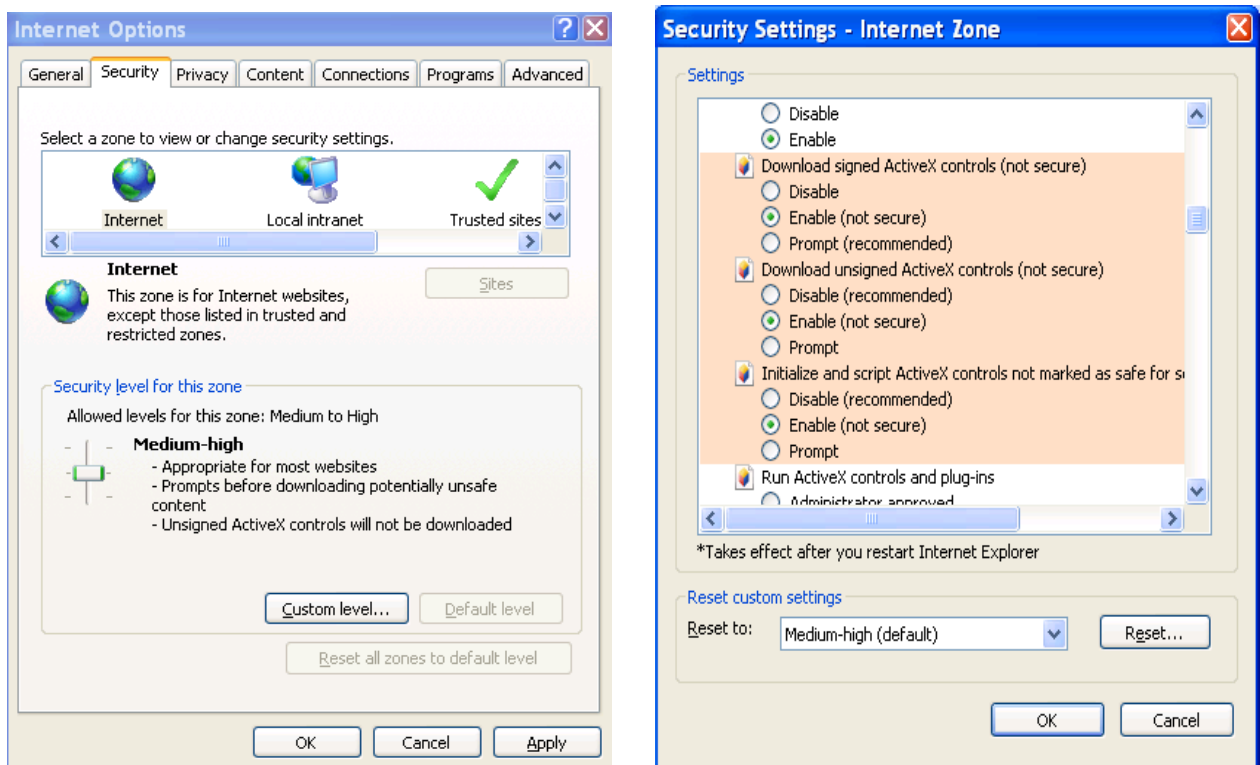

Figure 5-3

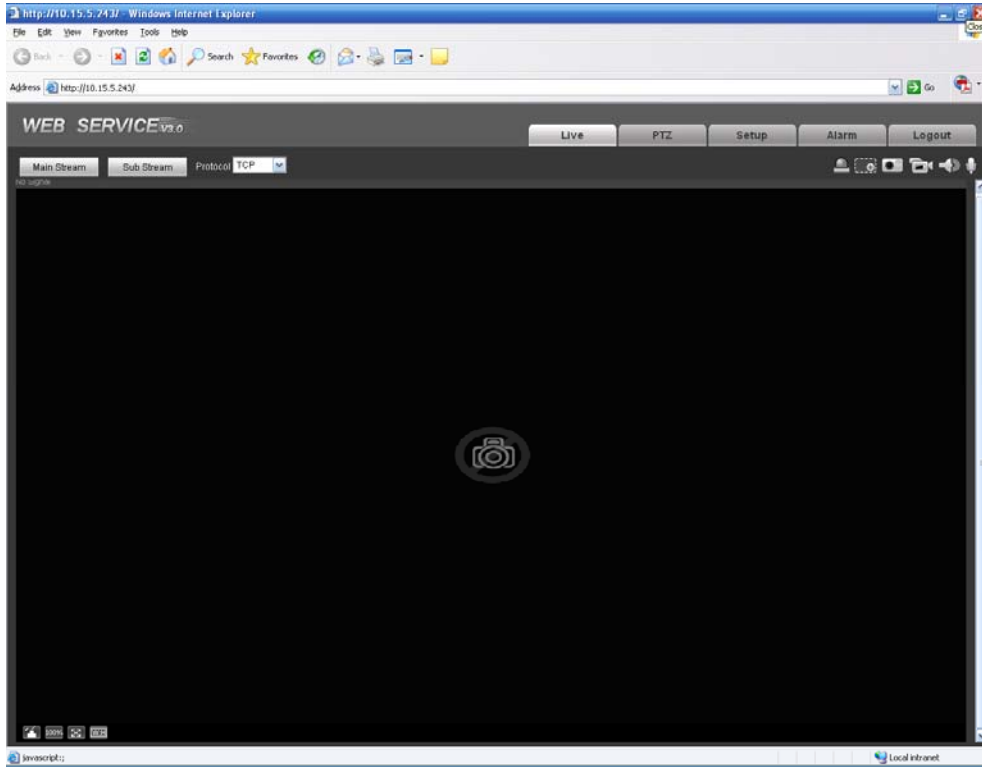After you logged in, you can see the main window. See Figure 5-4.

Figure 5-4

Please refer to the Web Operation Manual included in the resource CD for detailed operation instruction.

6 FAQ

Bug	
I can not boot up the device or can not control the device.	Please click RESET button for at least five seconds to restore factory default setup.
SD card hot swap	Before draw out SD card, please stop record or snapshot first and then wait for at least 15 seconds to remove the SD card. All the operations before is to maintain data integrity. Otherwise you can lose all the data in the SD card!
SD card write times	Do not set the SD card as the storage media to storage the schedule record file. It may damage the SD card duration.
I can not use the disk as the storage media.	When disk information is shown as hibernation or capacity is 0, please format it first (Via Web).
I can not upgrade the device via network.	The status indication light is shown as red when network upgrade operation failed. You can use port 3800 to continue upgrade.
Recommended SD card brand	Kingston 4GB, Kingston 16GB, Kingston32GB, Transcend 16GB, SanDisk 4GB, SanDisk 32GB. Usually we recommend the 4GB (or higher) high speed card in case the slow speed results in data loss.
Audio function	Please use active device for the audio monitor input, otherwise there is no audio in the client-end.

Appendix Toxic or Hazardous Materials or Elements

Component Name	Toxic or Hazardous Materials or Elements					
	Pb	Hg	Cd	Cr VI	PBB	PBDE
Circuit Board Component	○	○	○	○	○	○
Device Construction Material	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
Power Adapter	○	○	○	○	○	○
Packing Components	○	○	○	○	○	○
Accessories	○	○	○	○	○	○

O: Indicates that the concentration of the hazardous substance in all homogeneous materials in the parts is below the relevant threshold of the SJ/T11363-2006 standard.

X: Indicates that the concentration of the hazardous substance of at least one of all homogeneous materials in the parts is above the relevant threshold of the SJ/T11363-2006 standard. During the environmental-friendly use period (EFUP) period, the toxic or hazardous substance or elements contained in products will not leak or mutate so that the use of these (substances or elements) will not result in any severe environmental pollution, any bodily injury or damage to any assets. The consumer is not authorized to process such kind of substances or elements, please return to the corresponding local authorities to process according to your local government statutes.

Note
- **This user's manual is for reference only.**
- **Slight difference may be found in user interface.**
- **All the designs and software here are subject to change without prior written notice.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website for more information.**