HD Cube Network Camera User's Manual

Welcome

Thank you for purchasing our network 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. (Refer to general introduction) **Please note: Do not connect two power supplying sources to the device at the same time; it may result in device damage! The product must be grounded to reduce the risk of electronic shock.**
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．Transportation security

Heavy stress, violent vibration or water splash are not allowed during transportation, storage and installation.

3．Installation

Do not apply power to the camera before completing installation.
Please install the proper power cut-off device during the installation connection.
Always follow the instruction guide the manufacturer recommended.

4．Qualified engineers needed

All the examination and repair work should be done by the qualified service engineers.
We are not liable for any problems caused by unauthorized modifications or attempted repair.

5．Environment

This series network camera should be installed in a cool, dry place away from direct sunlight, inflammable, explosive substances and etc.
Please keep it away from the electromagnetic radiation object and environment.
Please make sure the CCD (CMOS) component is out of the radiation of the laser beam device.
Otherwise it may result in CCD (CMOS) optical component damage.
Please keep the sound ventilation.
Do not allow the water and other liquid falling into the camera.
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.

6. Daily Maintenance
Please shut down the device and then unplug the power cable before you begin daily maintenance work.

Do not touch the CCD (CMOS) optic component. You can use the blower to clean the dust on the lens surface.

Always use the dry soft cloth to clean the device. If there is too much dust, please use the water to dilute the mild detergent first and then use it to clean the device. Finally use the dry cloth to clean the device.

Please put the dustproof cap to protect the CCD (CMOS) component when you do not use the camera.

Dome enclosure is the optical component, do not touch the enclosure when you are installing the device or clean the enclosure when you are doing maintenance work. Please use professional optical clean method to clean the enclosure. Improper enclosure clean method (such as use cloth) may result in poor IR effect of camera with IR function.

7. Accessories

Be sure to use all the accessories recommended by manufacturer.

Before installation, please open the package and check all the components are included.

Contact your local retailer ASAP if something is broken in your package.

Accessory Name	Amount
Network Camera	1
Quick Start Guide	1
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CD	1

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1 General Introduction

1.1 Overview

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

This series product uses standard H.264 video compression technology, G.711a audio compression technology and etc, which maximally guarantees the video quality.

It supports PIR function to detect human body movement. It can activate the white light at the same to enable the record function at night. This series product supports real-time listening function when it is in real-time monitor mode. It supports dual-way bidirectional talk function.

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 multiple functions and various uses, this series network camera is widely used in many environments such as home, office, bank, road monitor and etc.

1.2 Features

User Management	● Different user rights for each group, one user belongs to one group. ● The user right shall not exceed the group right.
Data transmission	● Wire network data transmission via the Ethernet port. ● Wireless product series supports WIFI wireless network 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 Micro SD card storage (This function is optional. For some series product only.), alarm record or snapshot storage. ● Support network storage function such as FTP.
Alarm Function	● Real-time respond to external on-off alarm input, and video detect (This function is optional. For some series product only.)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, tampering, PIR human body movement detect.
Network Monitor	● Network camera supports one-channel video data transmit to network terminal and then decode. Delay is within 270ms (network bandwidth support needed) ● Max supports 20 connections. Max support 24Mbps output band width. The new query may fail if it has reached the threshold. ● Adopt the following video transmission protocol: HTTP, TCP, UDP, MULTICAST, RTP/RTCP, RTSP and etc. ● Support web access.
Network Management	● Realize network camera configuration and management via Ethernet. ● Support device management via web or client-end. ● Support various network protocols.
Power	● External power adapter DC12V.
PoE	● Support Power over Ethernet. Conform to IEEE802.3af standard. ● Connect the device to the switch or the router that supports the PoE function to realize the network power supply.

	Warning！ **Do not connect these two power supplying sources to the device at the same time; it may result in device damage!**
Assistant Function	● Log function. Support system resource information and running status real-time display. ● Backlight compensation: screen auto split to realize backlight compensation to adjust the bright. ● Support video watermark function to avoid vicious video modification. ● Support picture parameter setup such as electronic shutter and gain setup. ● Support motion detect function. ● Support dual-stream, ACF. ● Built-in microphone and speaker (This function is optional. For some series product only.). ● Support PIR human body movement detect. ● Support white light alarm function.

1.3 Specifications

1.3.1 Performance

Please refer to the following sheet for product performance specification.

Parameter	Model	IPC-K105	IPC-K100	IPC-K100A	IPC-K100W	IPC-K105W
System	Main Processor	TI Davinci high performance DSP				
	OS	Embedded LINUX				
	System Resources	Support real-time network monitor, local record, and remote operation at the same time.				
	User Interface	Remote operation interface such as WEB, DSS, PSS.				
	System Status	Bit stream statistics, log, and software version.				
Video Parameter	Image Sensor	1/3-inch CMOS				
	Pixel	1280(H)*960(V)				
	Gain Control	Fixed/Auto				
	White Balance	Manual/Auto				
	BLC	On/Off				
	Exposure Mode	Manual/Auto It ranges from 1/3 to 1/10000.				
	Video Compression Standard	H.264/H.264B/H.264H/MJPEG Note: Some versions do not support H.264H.				
	Video Frame Rate	PAL: Main stream(1280*960@15fps) extra stream(704*576@15fps), Main stream(1280*720@25fps） extra stream(704*576@25fps） NTSC: Main stream(1280*960@15fps) extra stream(704*480@15fps)), Main stream(1280*720@30fps) extra stream(704*480@30fps)				
	Video Bit Rate	H.264: 56Kbps-6144Kbps 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	Supports max 4 privacy mask zones		
	Video Setup	Support parameter setup such as bright, contrast.		
	Video Information	Channel title, time title, motion detect, tampering.		
	Lens	3.6mm. Fixed focus. Angle of view: 70°(H）*51.5°(V)		
	Lens Interface	M12. Lens is the default accessories		
Audio	Audio Bit Stream	Dual-way		
	Audio Input/Output	N/A	Built-in microphone and speaker	N/A
	Audio Bit Rate	N/A	8kbps 16bit	N/A
	Audio Compression Standard	N/A	G.711A/G.711Mu	N/A
Video	Motion Detect	396 (18*22) detection zones; sensitivity level ranges from 0 to 100; area threshold 0-100. Activation event, alarm device, audio/video storage, image snapshot, log, email function and etc.		
	Tampering	Activation event: alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.		
Alarm Port		N/A	1-channel input and 1-channel output (on-off)	N/A
Record and Backup	Record Priority	Manual>Video detect>Schedule		
	SD Card Storage	N/A	Support SD card	N/A
	NAS Storage	Support		
Network	Wire Network	1-channel wire Ethernet port, 10/100 Base-T Ethernet		
	Wireless Network	N/A	IEEE802.11a/b/g/n, built-in antenna	
	Network Protocol	HTTP, TCP, ARP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, IPv4/v6, SNMP, QoS, UPnP, NTP, HTTPS, 802.1x, Bonjour		
	Protocol	PSIA (optional), ONVIF		
	Remote Operation IR light	Monitor, system setup, file download, log information, maintenance , upgrade and etc.		
AUX Port	Compensation Light	White light (Max 1W) Auto turn on white light when an alarm is activated. The light can last until the alarm ends. Support compensation light brightness setup via the Web.		
	PIR Human Body Movement Detect	Max distance 7m under normal room temperature. Support compensation light activation, record at light.		
	WPS	N/A	Click one button to enable WIFI connection	

General Parameter	Power	DC 12V	DC 12V and PoE	DC 12V
	Power Consumption	4W MAX		6W MAX
	Working Temperature	-20℃~+60℃		-20℃~+50℃
	Working Humidify	≤95%		
	Dimensions(mm)	66.6*99.5*131.2		
	Weight	229g（Excluding box）		
	Installation	Installation with the bracket.		

Parameter	Model	IPC-KW100	IPC-KW105W	IPC-KW100W	IPC-KW100A
System	Main Processor	High performance DSP			
	OS	Embedded LINUX			
	System Resources	Support real-time network monitor, local record, and remote operation at the same time.			
	User Interface	Remote operation interface such as WEB, DSS, PSS.			
	System Status	Bit stream statistics, log, and software version.			
Video Parameter	Image Sensor	1/3-inch CMOS			
	Pixel	1280(H)*960(V)			
	Gain Control	Fixed/Auto			
	White Balance	Manual/Auto			
	BLC	On/Off			
	Exposure Mode	Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/4 to 1/100000.			
	Video Compression Standard	H.264/H.264H/MJPEG			
	Video Frame Rate	PAL: Main stream(1280*960@25fps) extra stream 1(704*576@25fps) extra stream 2(1280*720@8fps), NTSC: Main stream(1280*960@30fps) extra stream 1(704*480@30fps) extra stream 2(1280*720@1fps), Note: Extra stream 2's actual frame rate depends on device max capacity set which can be adjusted within its range.			
	Video Bit Rate	H.264H: 40Kbps-8192Kbps MJPEG: 40-Kbps-16384Kbps 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	Supports max 4 privacy mask zones		
	Video Setup	Support parameter setup such as bright, contrast.		
	Video Information	Channel title, time title, motion detect, tampering, overlay.		
	Lens	3.6mm. Fixed focus. Angle of view: 70°（H）*51.5°(V)		
	Lens Interface	M12. Lens is the default accessories		
Audio	**Audio Bit Stream**	N/A	One-way	Dual-way
	Audio Input/Output	N/A	Built-in microphone	Built-in microphone and speaker
	Audio Bit Rate	N/A	8kbps/16kbps 16bit	
	Audio Compression Standard	N/A	G.711A/G.711Mu	
Video	**Motion Detect**	396 (18*22) detection zones Activation event: video storage, image snapshot, log, email SMTP function and etc.		
	Tampering	Activation event: alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.		
Alarm Port		N/A		1-channel input and 1-channel output (on-off)
Record and Backup	**Record Priority**	Support remote record only		Manual>Video detect>Schedule
	SD Card Storage	N/A		Support
	NAS Storage	Support		
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet		
	Wireless Network	N/A	IEEE802.11a/b/g/n, built-in antenna	N/A
	Network Protocol	Standard HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP,UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, UPNP, NTP, Bonjour, SNMP, QoS, 802.1x.		
	Remote Operation IR light	Monitor, system setup, file download, log information, maintenance , upgrade and etc.		
	Protocol	PSIA, ONVIF		
AUX Port	**Compensation Light**	IR distance is 10M.		
	PIR Human Body Movement Detect	Max distance 7m under normal room temperature. Activation event: video storage, image snapshot, log, email SMTP function and etc.		
	WPS	N/A	Click one button to enable WIFI connection	N/A

General Parameter	Power	DC 12V and PoE	DC 12V	DC 12V and PoE
	Power Consumption	4W MAX	5.5W MAX	5W MAX
	Working Temperature	-20℃~+60℃	-20℃~+50℃	-20℃~+60℃
	Working Humidify	≤95%		
	Dimensions(mm)	66.6*99.5*131.2		
	Weight	229g（Excluding box）		
	Installation	Installation with the bracket.		

Parameter	Model	IPC-KW100W-R	IPC-KW105W-R
System	Main Processor	High performance DSP	
	OS	Embedded LINUX	
	System Resources	Support real-time network monitor, local record, and remote operation at the same time.	
	User Interface	Remote operation interface such as WEB, DSS, PSS.	
	System Status	Bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/3-inch CMOS	
	Pixel	1280(H)*960(V)	
	Gain Control	Fixed/Auto	
	White Balance	Manual/Auto	
	BLC	On/Off	
	Exposure Mode	Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/4 to 1/100000.	
	Video Compression Standard	H.264/H.264H/MJPEG	
	Video Frame Rate	PAL: Main stream(1280*960@25fps) extra stream 1(704*576@25fps) extra stream 2(1280*720@8fps) NTSC: Main stream(1280*960@30fps) extra stream 1(704*480@30fps) extra stream 2(1280*720@1fps) Note: Extra stream 2's actual frame rate depends on device max capacity set which can be adjusted within its range.	
	Video Bit Rate	H.264H: 40Kbps-8192Kbps MJPEG: 40Kbps-16384Kbps 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	Supports max 4 privacy mask zones	
	Video Setup	Support parameter setup such as bright, contrast.	
	Video Information	Channel title, time title, motion detect, tampering, overlay.	
	Lens	3.6mm. Fixed focus. Angle of view: 70°(H）*51.5°(V)	
	Lens Interface	M12. Lens is the default accessories	
Audio	**Audio Bit Stream**	Dual-way	One-way
	Audio Input/Output	Built-in microphone and speaker	Built-in microphone
	Audio Bit Rate	8kbps/16kbps 16bit	
	Audio Compression Standard	G.711A/G.711Mu	
Video	**Motion Detect**	396 (18*22) detection zones Activation event: video storage, image snapshot, log, email SMTP function and etc.	
	Tampering	Activation event: alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.	
Alarm Port		8 channel wireless input	
Record and Backup	**Record Priority**	Manual>Video detect>Schedule	Support remote record only
	SD Card Storage	Support	N/A
	NAS Storage	Support	
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	3G	N/A	
	Wireless Network	IEEE802.11a/b/g/n, built-in antenna	
	Network Protocol	Standard HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP,UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, UPNP, NTP, Bonjour, SNMP, QoS, 802.1x.	
	Remote Operation IR light	Monitor, system setup, file download, log information, maintenance , upgrade and etc.	
	Protocol	PSIA, ONVIF	
AUX Port	**Compensation Light**	IR distance is 10M.	
	PIR Human Body Movement Detect	Max distance 7m under normal room temperature. Activation event: video storage, image snapshot, log, email SMTP function and etc.	
	WPS	Click one button to enable WIFI connection	

General Parameter	Power	DC 12V
	Power Consumption	5.5W MAX
	Working Temperature	-20℃~+50℃
	Working Humidify	≤95%
	Dimensions(mm)	66.6*99.5*131.2
	Weight	229g（Excluding box）
	Installation	Installation with the bracket.

	Model Parameter	IPC-K205	IPC-K200	IPC-K200A	IPC-K200W
System	Main Processor	High performance DSP			
	OS	Embedded LINUX			
	System Resources	Support real-time network monitor, local record, and remote operation at the same time.			
	User Interface	Remote operation interface such as WEB, DSS, PSS.			
	System Status	Bit stream statistics, log, and software version.			
Video Parameter	Image Sensor	1/2.8-inch CMOS			
	Pixel	1920(H)*1080(V)			
	Gain Control	Fixed/Auto			
	White Balance	Manual/Auto			
	BLC	On/Off			
	Exposure Mode	Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/4 to 1/100000.			
	Video Compression Standard	H.264/H.264H/MJPEG			
	Video Frame Rate	PAL: Main stream(1920*1080@25fps) extra stream 1(704*576@25fps) extra stream 2(1280*720@11fps) NTSC: Main stream(1920*1080@30fps) extra stream 1(704*480@30fps) extra stream 2(1280*720@1fps) Note: Extra stream 2's actual frame rate depends on device max capacity set which can be adjusted within its range.			
	Video Bit Rate	H.264H: 40Kbps-8192Kbps MJPEG: 40Kbps-16384Kbps 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	Supports max 4 privacy mask zones			

	Video Setup	Support parameter setup such as bright, contrast.	
	Video Information	Channel title, time title, motion detect, tampering, overlay.	
	Lens	3.6mm. Fixed focus. Angle of view: 86.5°(H）*61°(V)	
	Lens Interface	M12. Lens is the default accessories	
Audio	**Audio Bit Stream**	N/A	Dual-way
	Audio Input/Output	N/A	Built-in microphone and speaker
	Audio Bit Rate	N/A	8kbps/16kbps 16bit
	Audio Compression Standard	N/A	G.711A/G.711Mu
Video	**Motion Detect**	396 (18*22) detection zones Activation event: video storage, image snapshot, log, email SMTP function and etc.	
	Tampering	Activation event: alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.	
Alarm Port		N/A	1-channel input and 1-channel output (on-off)
Record and Backup	**Record Priority**	Support remote record only	Manual>Video detect>Schedule	Support remote record only
	SD Card Storage	N/A	Support SD card	N/A
	NAS Storage	Support		
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet	
	Wireless Network	N/A	IEEE802.11a/b/g/n, built-in antenna
	Network Protocol	Standard HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP,UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPOE, UPNP, NTP, Bonjour, SNMP, QoS, 802.1x.	
	Remote Operation IR light	Monitor, system setup, file download, log information, maintenance , upgrade and etc.	
	Protocol	PSIA, ONVIF	
AUX Port	**Compensation Light**	● White light (Max 1W) ● When alarm is triggered, turn on white light until alarm stops. ● You can set compensation light on WEB.	
	PIR Human Body Movement Detect	Max distance 7m under normal room temperature. Support activation compensation light and night time record.	
	WPS	N/A	Click one button to enable WIFI connection

General Parameter	Power	DC 12V	DC 12V and PoE	DC 12V
	Power Consumption	4W MAX	4.5W MAX	5W MAX
	Working Temperature	-20℃~+60℃		-20℃~+50℃
	Working Humidify	≤95%		
	Dimensions(mm)	66.6*99.5*131.2		
	Weight	229g（Excluding box）		
	Installation	Installation with the bracket.		

Parameter	Model	IPC-KW100C/E-R
System	Main Processor	High performance DSP
	OS	Embedded LINUX
	System Resources	Support real-time network monitor, local record, and remote operation at the same time.
	User Interface	Remote operation interface such as WEB, DSS, PSS.
	System Status	Bit stream statistics, log, and software version.
Video Parameter	Image Sensor	1/3-inch CMOS
	Pixel	1280(H)*960(V)
	Gain Control	Fixed/Auto
	White Balance	Manual/Auto
	BLC	On/Off
	Exposure Mode	Manual/Auto PAL: It ranges from 1/3 to 1/100000. NTSC: It ranges from 1/4 to 1/100000.
	Video Compression Standard	H.264/H.264H/MJPEG
	Video Frame Rate	PAL: Main stream(1280*960@25fps) extra stream (704*576@25fps) NTSC: Main stream(1280*960@30fps) extra stream (704*480@30fps)
	Video Bit Rate	H.264: 16Kbps-8192Kbps MJPEG 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	Supports max 4 privacy mask zones
	Video Setup	Support parameter setup such as bright, contrast.
	Video Information	Channel title, time title, motion detect, tampering, overlay.
	Lens	3.6mm. Fixed focus. Angle of view: 70°(H）*51.5°(V)
	Lens Interface	M12. Lens is the default accessories
Audio	**Audio Bit Stream**	Dual-way
	Audio Input/Output	Built-in microphone and speaker
	Audio Bit Rate	8kbps/16kbps 16bit
	Audio Compression Standard	G.711A/G.711Mu/PCM
Video	**Motion Detect**	396 (18*22) detection zones Activation event: video storage, image snapshot, log, email SMTP function and etc.
	Tampering	Activation event: alarm device, audio/video storage, image snapshot, log, email SMTP function and etc.
Alarm Port		8-ch wireless alarm input
Record and Backup	**Record Priority**	Support remote record only
	SD Card Storage	N/A
	Storage Management	Support status info of network storage
Network	**Wire Network**	1-channel wire Ethernet port, 10/100 Base-T Ethernet
	Wireless Network	N/A
	Network Protocol	HTTP, TCP/IP, ARP, IGMP, ICMP, RTSP, RTP, UDP, RTCP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, UPnP, NTP, Bonjour, SNMP
	Remote Operation	Monitor, system setup, file download, log information, maintenance , upgrade and etc.
AUX Port	**IR Light**	IR distance 10 meters
	PIR Human Body Movement Detect	Max distance 7m under normal room temperature. Activation event: video storage, image snapshot, log, email SMTP function and etc.
	WPS	N/A
General Parameter	**Power**	DC 12V
	Power Consumption	8.5W MAX

	Working Temperature	-20℃~+50℃
	Working Humidify	≤95%
	Dimensions(mm)	66.6*99.8*132.9
	Weight	320g（Excluding box）
	Installation	Installation with the bracket.

2 Framework

2.1 Device Components

You can refer to the following figure for component information. See Figure 2-1.
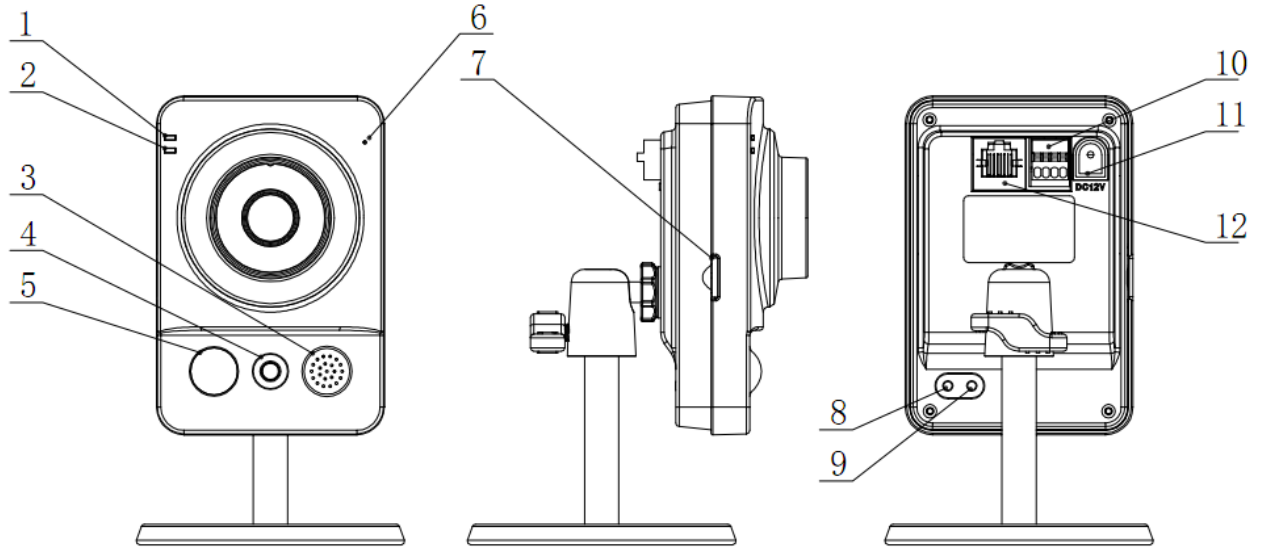

Figure 2-1 Component

Please refer to the following sheet for detailed information.

SN	Port Name	Indicator	Connector	Note
1	Power indicator light	POWER	/	● When system boots up–Green light becomes on. ● When system is upgrading – Green light flashes. Interval is 0.5s. ● When system is alarming– Green light flashes. Interval is 0.2s. ● When system has delay in arming-Green light flashes. Interval is 1s.
2	Network indicator light	NET	/	● Wire network connection-Red light is on. ● Wireless network connection-Green light is on.
3	Speaker	/	/	Output audio signal. (This function is optional. For some series product only.)

SN	Port Name	Indicator	Connector	Note
4	White light/IR light	/	/	Can activate motion detect, PIR human body movement detect, external alarm.
5	PIR sensor	PIR	/	Passive IR motion detect port. It can detect the IR object movement (such as human body or other heating object).
6	Microphone	/	/	Directly receive audio signal. (This function is optional. For some series product only.).
7	Micro SD card	Micro SD	Micro SD card slot	SD card storage. (This function is optional. For some series product only.).
8	Reset button	Reset	/	Restore factory default setup. When system is running normally, press the RESET button for at least 5 seconds, system can restore factory default setup.
9	WPS button	WPS	Fast wireless connection	Press the WPS button of the router and the device respectively for at least 2 seconds. Usually the device can connect to the router within 1 minute. **Please note it is for wireless series product only and it is for the wireless router of the WPS function.**
10	Alarm pin	/	I/O port	Alarm signal input/output (This function is optional. For some series product only.).
11	Power port	DC12V	/	Input DC 12V power.
12	Network port	LAN	Ethernet port	● Connect to standard Ethernet cable. ● Support PoE function.

Port Name	Cable SN	Cable Port Name	Function Description
I/O Port	1	ALARM_COM	Alarm output public end.
	2	ALARM_NO	Alarm output port. Output alarm signal to alarm device. NO: Normal open alarm output end.
	3	GND	Ground end.

4	ALARM_IN	Alarm input port. It is to receive the on-off signal from the external alarm source.

2.2 Dimensions

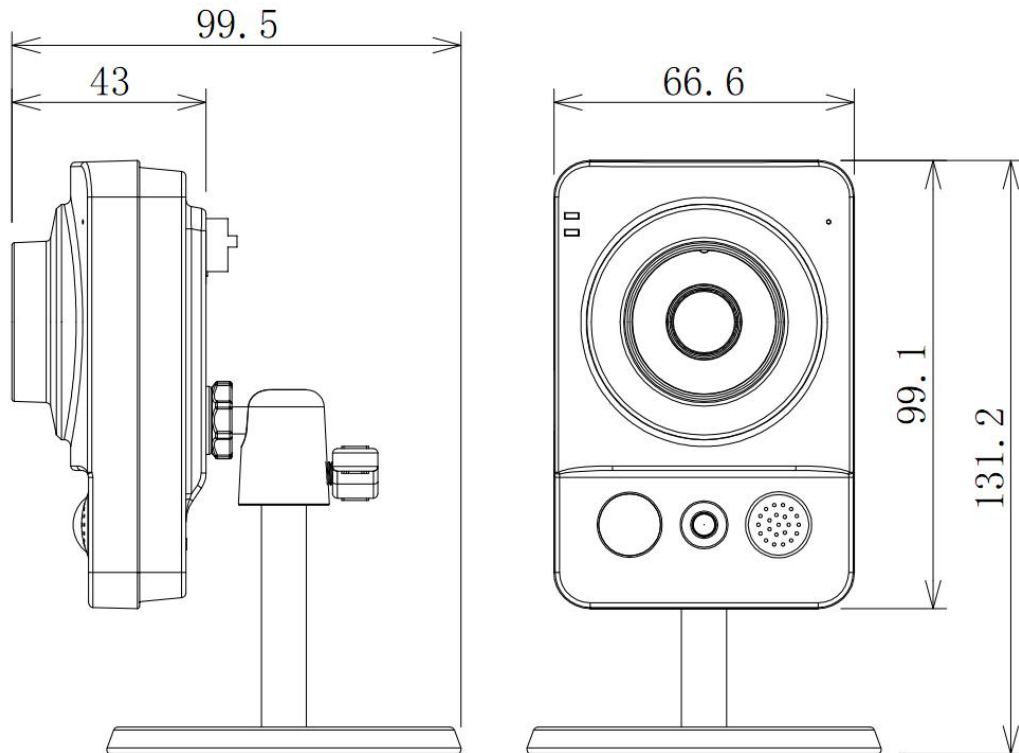Please refer to the following figure for dimension information. The unit is mm. See Figure 2-2.

Figure 2-2 Dimension

2.3 Bidirectional talk

2.3.1 Device-end to PC-end
Device Connection

Please connect the earphone to the audio output port in the PC. Login the Web and then click the Audio button to enable the bidirectional talk function. You can see the button becomes yellow after you enabled the audio talk function. Click Audio button again to stop the bidirectional talk function.

Listening Operation

Speak or play music at the device-end, you can use the earphone or the sound box of the PC-end to listen the audio information from the device-end.

2.3.2 PC-end to the Device-end
Device Connection

Connect the speaker or the MIC to the audio input port in the PC. Login the Web and then click the Audio button to enable the bidirectional talk function. You can see the button becomes yellow after you enabled the audio talk function. Click Audio button again to stop the bidirectional talk function.

Listening Operation

Speak or play music at the PC-end, you can use the built-in speaker of the device-end to listen.

Note

Please go to the Master Volume interface of the PC to set first if you want to use the dual-way bidirectional talk. Please select Front Mic mode in the record control interface. (You can select microphone enhanced in Advanced interface if the audio is too low.)

2.4 Alarm Setup

The alarm setup interface is shown as below. See Figure 2-3.
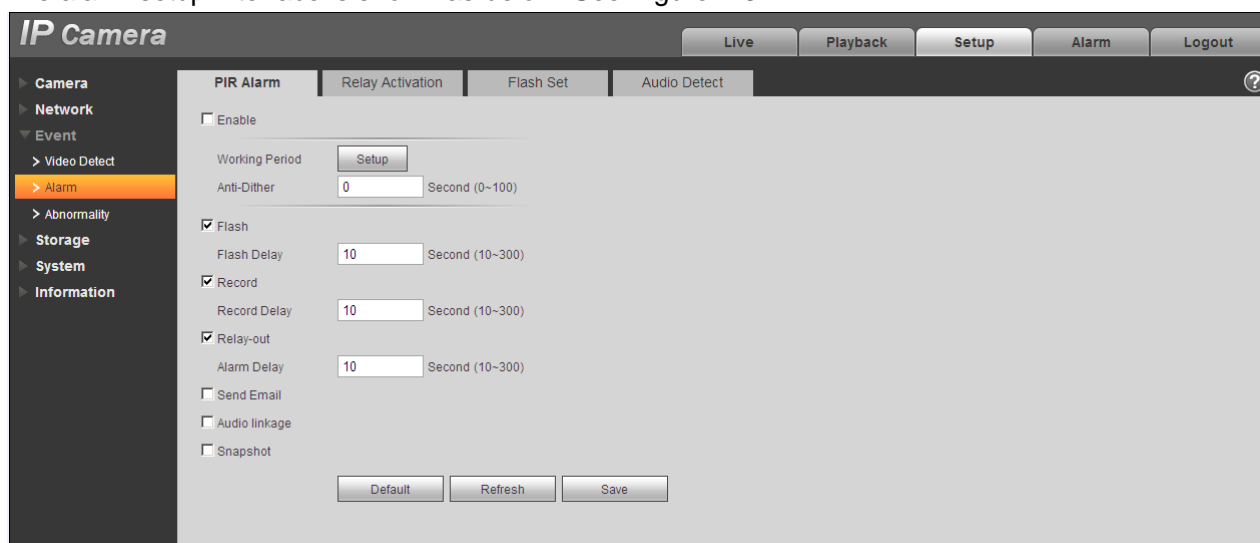
Figure 2-3 Alarm

Please follow the steps listed below for local alarm input and output connection.

1) Connect the alarm input device to the alarm input port of the I/O cable.

2) Connect the alarm output device to the alarm output port of I/O cable and alarm output public port. The alarm output port supports NO (normal open) alarm device only.

3) Open the Web, go to the Figure 2-3. Please set the alarm input and output port. Web alarm input corresponds to device I/O.Based on alarm input device signal of high or low level, set NO/NC input.

4) Set alarm output at Web end. Alarm output corresponds to device alarm output port, as alarm output port on I/O cable.

2.4.1 Alarm Input and Output Connection

Please refer to the following figure for alarm input information. See Figure 2-4.

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 3.3V or is idle, the device collects the logic "1". When the input signal is grounded, the device collects the logic "0".
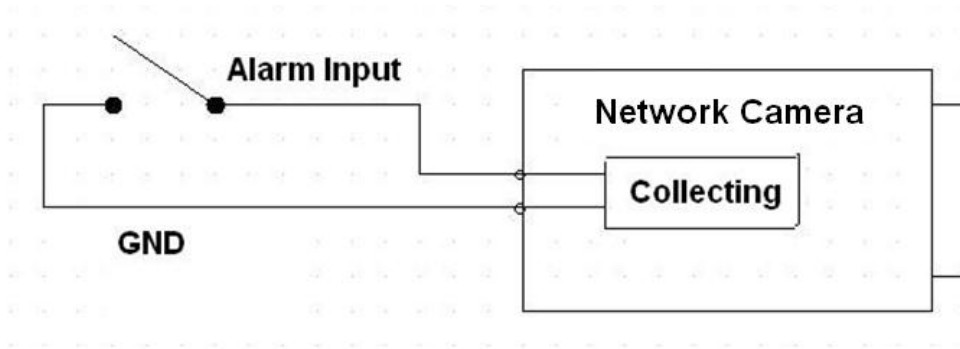
Figure 2-4 Input

Please refer to the following figure for alarm output information. See Figure 2-5.
Port NO and Port C composes an on-off button to provide the alarm output.
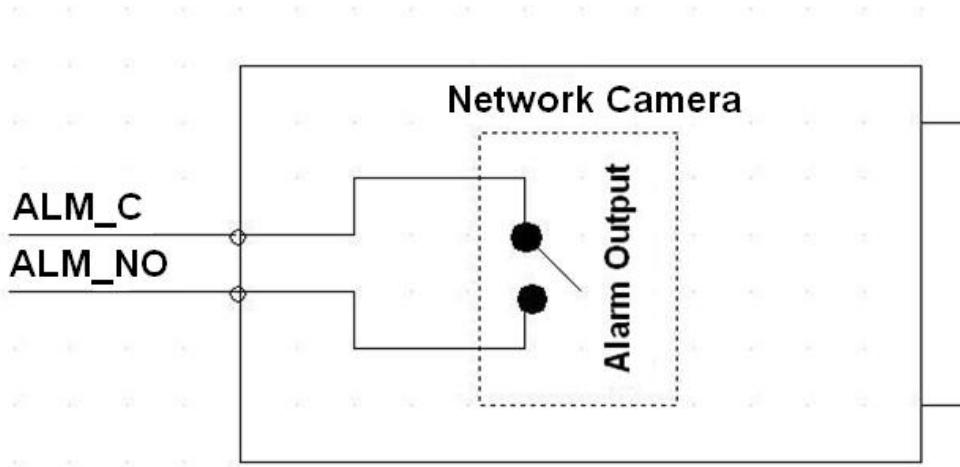This button is normal open. The button becomes off when there is an alarm output.

Figure 2-5 Output

3 Device Installation

This series camera support two installation modes: wall mount and pendant mount. See Figure 3-1 and Figure 3-2.

Important

Please make sure the installation surface can min support the 3X weight of the camera and the bracket.

Step 1

Paste the installation positioning map on the installation surface such as wall, ceiling or the wood.

Step 2

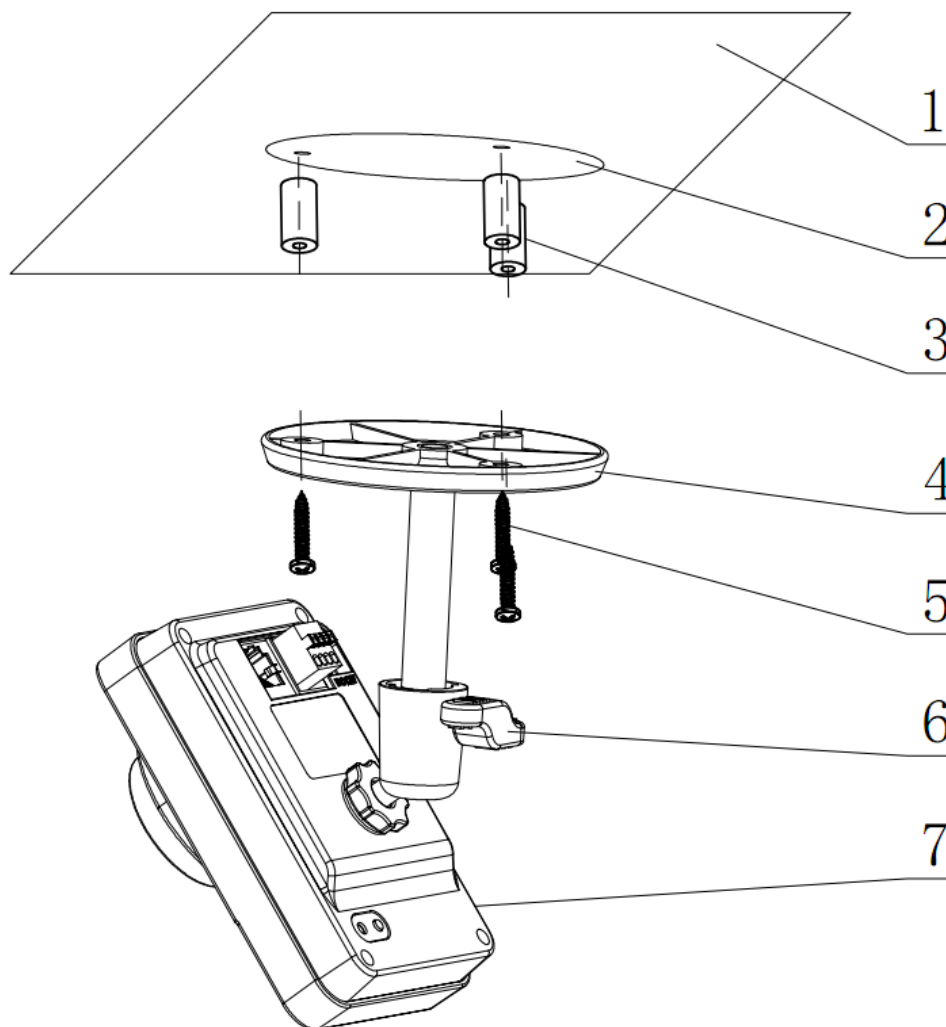Dig holes in the installation surface according to the installation positioning map.

Figure 3-1 Installation 1

Step 3

Insert the expansion bolts from the accessories bag to the holes you just dug. If it is the wood surface you can skip to the next step.

Step 4

Connect the cable and then boot up the device.

Step 5

Loosen the adjust knob for a little bit, adjust the camera to proper surveillance position according to

your actual requirements.

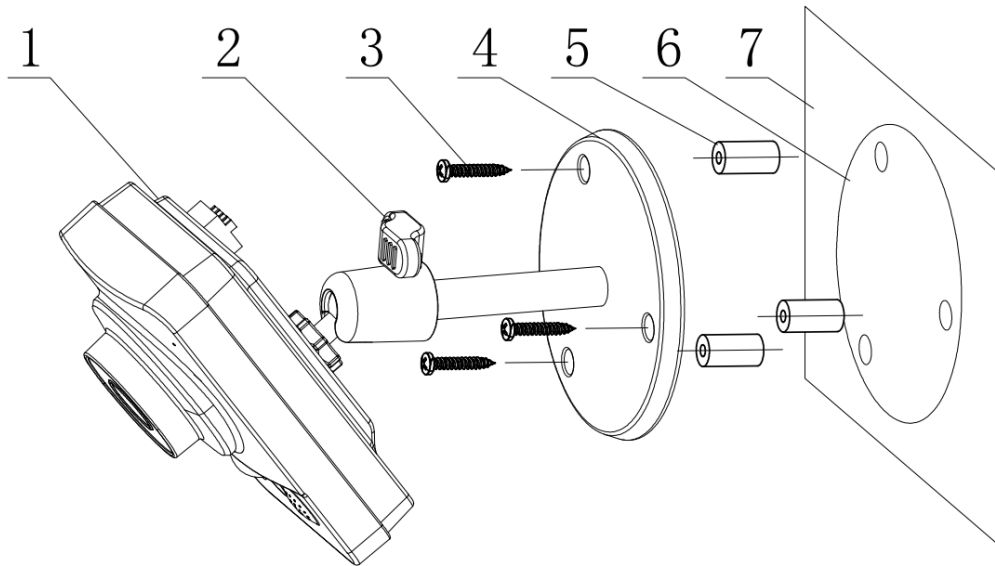**Step 6**

Secure the knob of the bracket to fix the camera.

Figure 3-2 Installation 2

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 Search interface

Select one IP address and then right click mouse, you can see an interface is shown as in Figure 4-2. Select the "Open Device Web" item; you can go to the corresponding web login interface.

Figure 4-2 Search interface 2

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 4-3.

In Figure 4-3, 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 using device background upgrade port 3800 to login, other setups are all invalid.
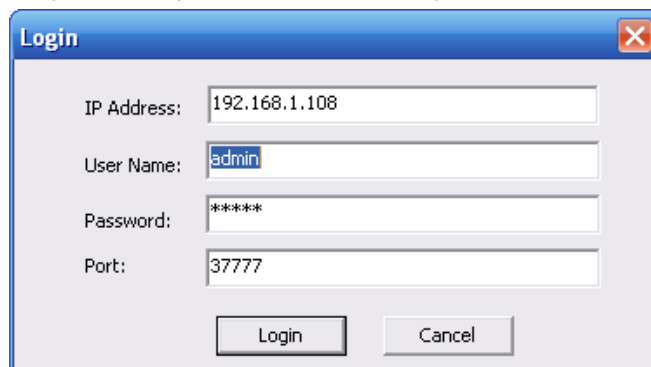
Figure 4-3 Login prompt

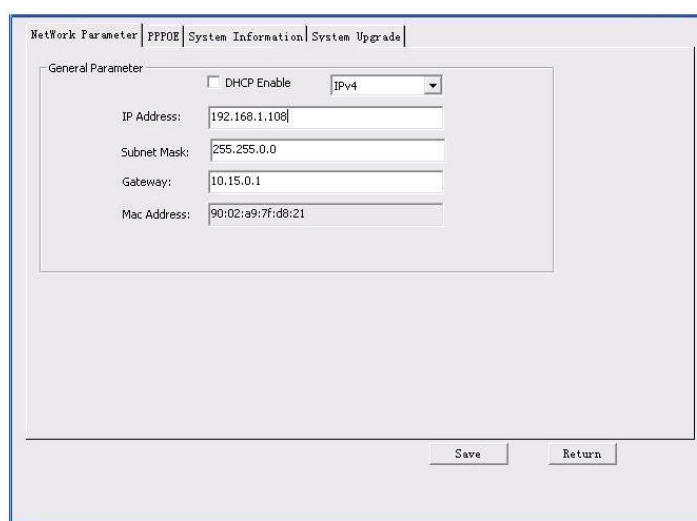After you logged in, the configuration tool main interface is shown as below. See Figure 4-4.

Figure 4-4 Main interface

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 network camera products support the Web access and management via PC.

Web includes several modules: Monitor channel preview, system configuration, alarm and etc.

5.1 Network Connection

Please follow the steps listed below for network connection.

● Make sure the network camera has connected to the network properly.

● Please set the IP address, subnet mask and gateway of the PC and the network camera respectively. Network camera default IP address is 192.168.1.108. Subnet mask is 255.255.255.0. Gateway is 192.168.1.1

● Use order ping ***.***.***.***(* network camera address) to check connection is OK or not.

5.2 Login and Main Interface

Open IE and input network camera address in the address bar. See Figure 5- 1.
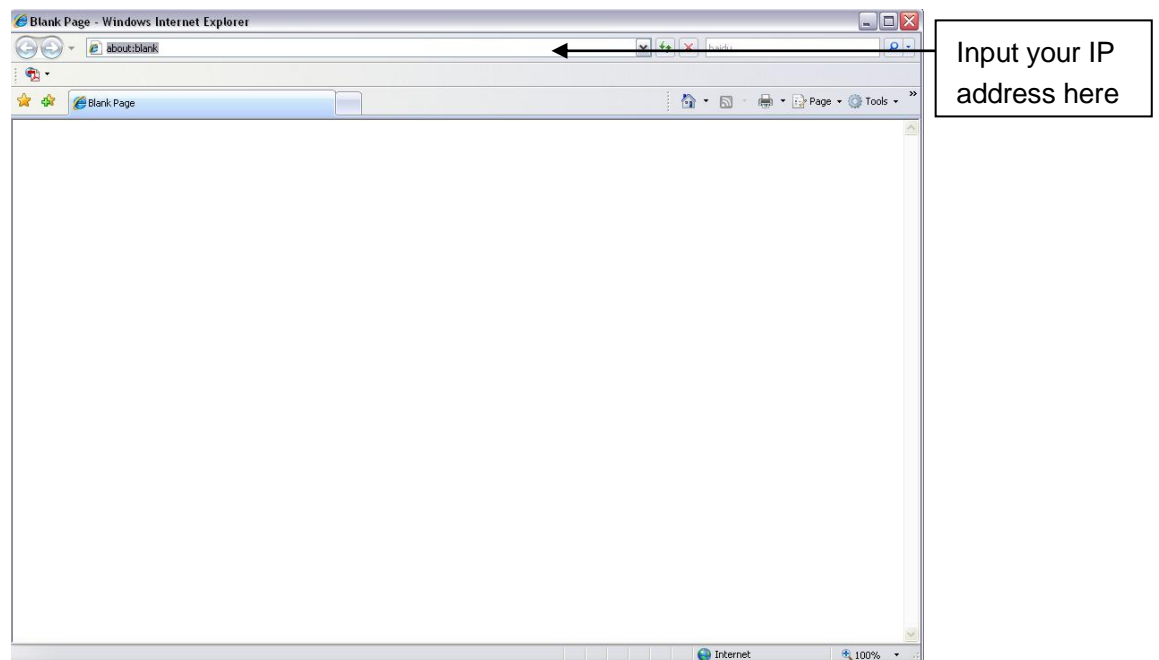

Figure 5- 1 IP address

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 Web login

After you successfully logged in, please install WEB plug-in unit. Please refer to the Web Operation Manual included in the resource CD for detailed operation instruction.
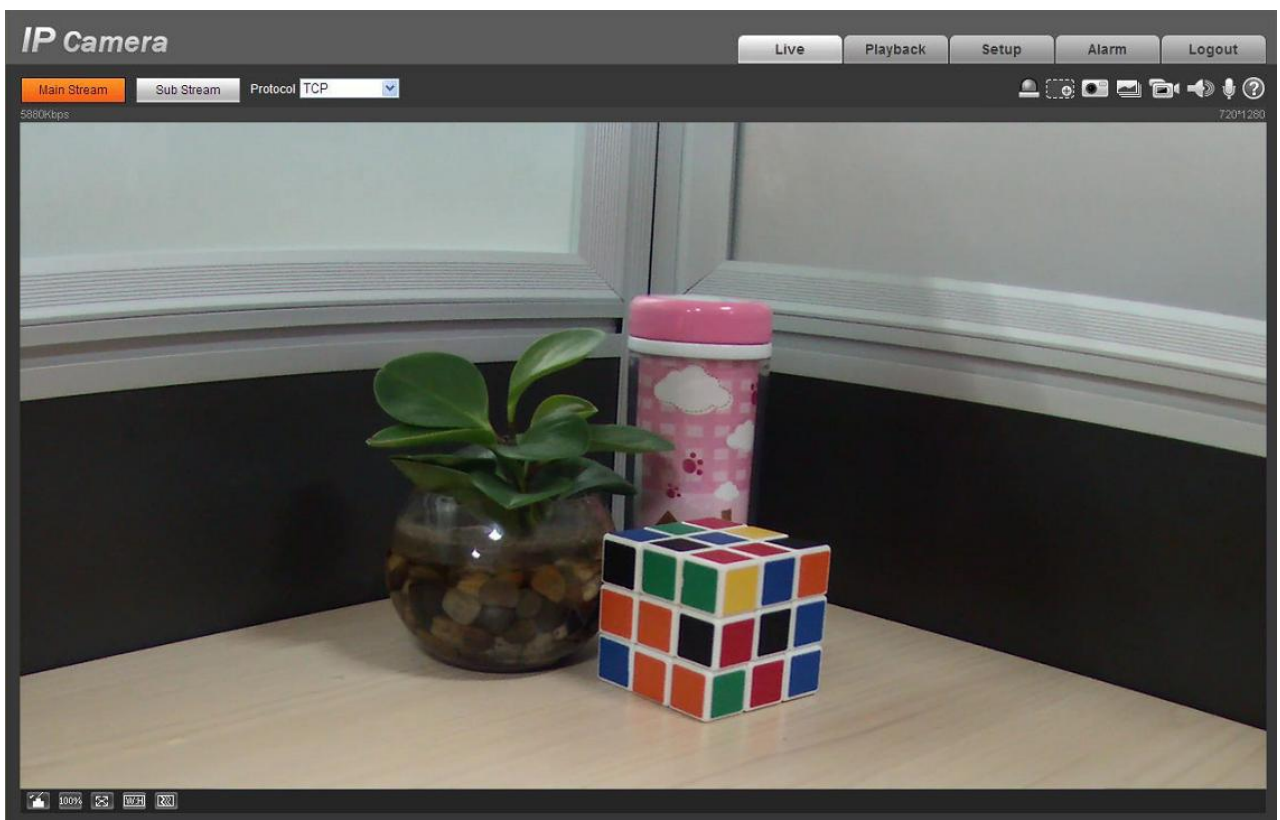See Figure 5- 3.

Figure 5- 3 Web monitoring window

6 FAQ

Bug	
I can not boot up 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).
Recommended SD card brand	Kingston 4GB,Kingston 16GB,Kingston32GB,Transcend 16GB, SanDisk 4GB, SanDisk 32GB. Usually we recommend the 4GB (or higher) or industry-level high speed card in case the slow speed results in data loss.
I can not use PIR function.	● There are heating sources around the device environment. It may result in false alarm. ● The detect object is too long. The PIR sensitivity becomes lower greatly when the distance is more than 6m.
I can not upgrade the device via network.	When network upgrade operation failed, you can use port 3800 to continue upgrade.
I can not login the client-end or the WEB.	● For Windows OS 98 or Windows ME user, if you can not install the client-end or can not view after the installation. We recommend the win2000sp4 OS or install the client-end of the low version. ● The Active X control is blocked. ● The display card version shall be dx8.1 or higher. ● Network connection error occurred. ● Invalid network setup. ● Invalid user name or password.
I can not play the download file.	● There is no player. ● There is no DX8.1 or higher. ● For the MEDIA PLAYER, there shall be Div X503Bundle.exe plugin if you play the .AVI file. ● For Windows XP user, you need to install the plugin DivX503Bundle.exe and ffdsho-2004 1012.exe.
To guarantee setup update	After you modified the important setup, please reboot the device via the software to make sure the setup has been updated to the storage medium.
Power adaptor	The general power adapter can work ranging from 0℃ to 40 ℃. The device may result in unstable power supply when the temperature exceeds the working temperature. Please replace an industry-level power adapter if you are using in the harsh environments.

Bug	
Power adapter	• The general power adapter can work ranging from 0℃ to 40 ℃. The device may result in unstable power supply when the temperature exceeds the working temperature.
	• Please replace an industry-level power adapter if you are using in the harsh environments.

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 Case	○	○	○	○	○	○
Wire and Cable	○	○	○	○	○	○
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.**
- **All trademarks and registered trademarks mentioned are the properties of their respective owners.**
- **If there is any uncertainty or controversy, please refer to the final explanation of us.**
- **Please visit our website for more information.**