

HD Megapixel Indoor 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 Unit	1
C/CS Adapter ring	1
Quick Start Guide	1
CD	1

Table of Contents

1	General Introduction	1
1.1	Overview	1
1.2	Feature.....	1
1.3	Specifications.....	2
1.3.1	Performance	2
2	Framework.....	9
2.1	Rear Panel.....	9
2.2	Side Panel.....	14
2.3	Front Panel	15
2.4	Bidirectional talk.....	15
2.4.1	Device-end to PC.....	15
2.4.2	PC to the Device-end.....	15
2.5	Alarm Setup	16
2.5.1	Alarm Input and Output Connection.....	16
2.5.2	IR Light Connection	17
3	Installation	18
3.1	Lens	18
3.1.1	Lens Installation.....	18
3.1.2	Remove Lens.....	19
3.2	SD Card	19
3.2.1	Installation.....	19

3.2.2	Remove	20
3.3	WIFI Antenna	20
3.3.1	WIFI Antenna Installation.....	20
3.3.2	Remove WIFI Antenna.....	21
3.4	I/O Port.....	21
4	Quick Configuration Tool	23
4.1	Overview	23
4.2	Operation	23
5	Web Operation	25
5.1	Network Connection.....	25
5.2	Login and Main Interface.....	25
6	FAQ	27
	Appendix Toxic or Hazardous Materials or Elements	28

1 General Introduction

1.1 Overview

This series network 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 network camera 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 network camera 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 network camera is widely used in many indoor environments and other important area surveillance.

1.2 Feature

User Management	<ul style="list-style-type: none">● Different user rights for each group, one user belongs to one group.● The user right cannot exceed the group right.
Data Transmission	<ul style="list-style-type: none">● Support cable network data transmission via Ethernet● Wireless device supports WIFI/3G network data transmission.
Storage Function	<ul style="list-style-type: none">● 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 Micro SD card hot swap. Support short-time storage when encounter disconnection.● Support network storage such as FTP.
Alarm Function	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● Network camera 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	<ul style="list-style-type: none">● Realize network camera configuration and management via Ethernet.● Support device management via web.● Support various network protocols.
Peripheral Equipment	<ul style="list-style-type: none">● 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	<ul style="list-style-type: none">● External power adapter. Support DC 12V/AC 24V power supply. <p>Warning!</p>

	Do not connect two power supplying sources to the device at the same time; it may result in device damage!
PoE	<ul style="list-style-type: none"> ● 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. ● For WIFI/3G devices, PoE is not recommended.
Assistant Function	<ul style="list-style-type: none"> ● 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 network camera performance specification.

		Model	
		IPC-HF8101E	IPC-HF8201E
Parameter			
System	Main Processor	TI 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	SD card status info, bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/3-inch CMOS	
	Pixel	1280(H)×1024(V)	1920(H)×1080(V)
	Day/Night Mode	Support IR-CUT electromagnetic switch	
	Auto Aperture	DC drive	
	Lens	C/CS port, lens optional	
	Illumination	0.01Lux/F1.2 (color mode), 0.001Lux/F1.2 (black white mode)	
	SNR	52db and up	
	Gain Control	Manual/Auto	
	White Balance	Manual/Auto	
	NR	Support 3D NR	
	WRD	120dB WDR	
	BLC	Off/BLC/WDR (1-100 adjustable)/HLC(anti-flicker is outdoor and is valid only when exposure mode is auto with range 1-100)	
	Electronic Shutter	Manual/Auto It ranges from 1/3 to 1/30000.	
Smart Focus	Support ABF		

	Video Compression Standard	H.264/H.264H/H.264B/MJPEG	
	Video Frame Rate	PAL: Main stream Max(1280*1024@25fps), Extra stream Max(704*576@25fps), Third stream Max(1280*1024@25fps)	PAL: Main stream Max(1920*1080@25fps), Extra stream Max(704*576@25fps), Third stream Max(1920*1080@25fps)
		NTSC: Main stream Max(1280*1024@30fps), Extra stream Max(704*480@30fps), Third stream Max(1280*1024@30fps)	NTSC: Main stream Max(1920*1080@30fps), Extra stream Max(704*480@30fps), Third stream Max(1920*1080@30fps)
	Video Bit Rate	16K-14Mbps, adjustable and bit rate is adjustable. Support customized setup.	16K-20Mbps, adjustable and bit rate is adjustable. Support customized setup.
	Video Setting	Support rotate mode	
	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 brightness, contrast, acutance.	
	Video Information	Channel title, time title, motion detect, tampering.	
	Intelligent Detection	Tripwire, cross warning zone, abandoned /missing object detection, scene change detection, defocus detection.	
	Face Detection	Detect face in video and link according to the result.	
	Audio Detection	Detect if there is audio input, filter noise, scream emergency and etc.	
	Lens Interface	C/CS optional	
	Video Interface	1-ch composite analog video output	
Audio	Audio Input	1-channel, 3.5mm JACK LINE IN/ in-built MIC IN	
	Audio Output	1-channel, 3.5mm JACK LINE OUT	
	Audio Bit Rate	64kbps 16bit	
	Audio Compression Standard	G.711a/G.711Mu	
Video	Motion Detect	396 (18*22) detection zones; sensitivity level ranges from 0 to 100; area threshold ranges from 0 to 100. Activation event, video storage, image snapshot, log, email function and etc.	
	Video Loss	Activation event: video storage, image snapshot, log, email function and etc.	
Alarm Interface		2 channel input, 1 channel output (on-off)	
Record and Backup	Record Priority	Manual >Video detect>Schedule	
	Storage Function	Support Micro SD card (64G) local storage, NAS storage	
Network	Wire Network	1-channel 100M/1000M Ethernet, RJ45 port. Note: Ethernet port device.	
	Network Protocol	Standard HTTP, TCP/IP, IPv4/IPv6, ARP, IGMP, ICMP, RTSP, RTP, UDP, SMTP, FTP, DHCP, DNS, DDNS, PPPoE, UPnP, NTP, Bonjour, SNMP	
	Protocol	ONVIF(default), GB28181	
	Local Storage	Support Micro SD card (64G) local storage	

AUX Interface	Reset	External reset button
	RS485 port	1-channel, support transparent channel connection. Support various PTZ protocols.
General Parameter	Power	Support AC24V/DC12V/PoE power supply Note: Don't use AC24V and DC12V (two power modes) to the device at the same time.
	Power Consumption	Max 10W (ABF and ICR enabled)
	Working Temperature	-30°C ~+60°C
	Working Humidify	≤95%
	Dimensions	74.1*65.5*135.4
	Weight	0.30kg
	Installation	Support various installation modes

		Model	
Parameter		IPC-HF8301E	IPC-HF8281E
System	Main Processor	TI 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 info, bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/3-inch CMOS	1/1.9-inch CMOS
	Pixel	2048(H)×1536(V)	1920(H)×1080(V)
	Day/Night Mode	Support IR-CUT electromagnetic switch	
	Auto Aperture	DC drive	
	Lens	C/CS port, lens optional	
	Illumination	0.01Lux/F1.2(color mode), 0.001/F1.2 (black white mode)	0.002Lux/F1.2(color mode), 0.0002/F1.2 (black white mode)
	SNR	52db and up	
	Gain Control	Manual/Auto	
	White Balance	Manual/Auto	
	NR	3D NR	
	WRD	120dB WDR	
	BLC	Off/BLC/WDR (1-100 adjustable)/HLC(anti-flicker is outdoor and is valid only when exposure mode is auto with range 1-100)	

	Electronic Shutter	Manual/Auto, It ranges from 1/3 to 1/30000.		
	Smart Focus	Support ABF		
	Video Compression Standard	H.264/H.264H/H.264B/MJPEG		
	Video Frame Rate	PAL: Main stream Max(2048*1536@25fps), Extra stream Max(704*576@25fps), Third stream Max(1920*1080@25fps)	PAL: Main stream Max(1920*1080@50fps), Extra stream Max(704*576@50fps), Third stream Max(1920*1080@50fps)	
		NTSC: Main stream Max(2048*1536@30fps), Extra stream Max(704*480@30fps), Third stream Max(1920*1080@30fps)	NTSC: Main stream Max(2048*1536@60fps), Extra stream Max(704*480@60fps), Third stream Max(1920*1080@60fps)	
	Video Bit Rate	16K-32Mbps, and bit rate is adjustable. Support customized setup.		
	Video Flip	Support rotate mode		
	Snapshot	Max 1f/s snapshot. File extension name is JPEG		
	Privacy Mask	Each channel supports max 4 privacy mask zones		
	ROI	Support 4 ROI.		
	Video Setup	Support parameter setup such as brightness, contrast.		
	Video Information	Channel title, time title, motion detect, tampering, overlay.		
		Intelligent Detection	Tripwire, cross warning zone, abandoned /missing object detection, scene change detection, defocus detection.	
Face Detection		Detect face in video and link according to the result.		
Audio Detection		Detect if there is audio input, filter noise, scream emergency and etc.		
Lens Interface		C/CS optional		
Audio	Audio Input	1-channel, 3.5mm JACK LINE IN/ in-built MIC IN		
	Audio Output	1-channel, 3.5mm JACK LINE OUT		
	Audio Bit Rate	64kbps 16bit		
	Audio Compression Standard	G.711a/G.711Mu		
Video	Motion Detect	396 (18*22) detection zones; sensitivity level ranges from 0 to 100; area threshold ranges from 0 to 100. Activation event, video storage, image snapshot, log, email function and etc.		
	Video Loss	Activation event: video storage, image snapshot, log, email function and etc.		
Alarm Interface		2 channel input, 1 channel output (on-off)		
Record and Backup	Record Priority	Manual >Video detect>Schedule		
	Storage Function	Support Micro SD card (64G) local storage, NAS storage		
Network	Wire Network	1-channel 100M/1000M Ethernet, RJ45 port.		
	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,		
	Protocol	ONVIF(default), GB28181		
	Local Storage	Support Micro SD card (64G) storage		

AUX Interface	Reset	External reset button
	RS485 port	1-channel, support transparent channel connection. Support various PTZ protocols.
General Parameter	Power	Support AC24V/DC12V/PoE power supply Note: Don't use AC24V and DC12V (two power modes) to the device at the same time.
	Power Consumption	Max 10W (ABF and ICR enabled)
	Working Temperature	-30°C ~ +60°C
	Working Humidify	≤95%
	Dimensions	74.1*65.5*135.4
	Weight	0.30kg
	Installation	Support various installation modes

		Model	
Parameter		IPC-HF8600E	IPC-HF81200E
System	Main Processor	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 info, bit stream statistics, log, and software version.	
Video Parameter	Image Sensor	1/1.8-inch CMOS	1/2.3-inch CMOS
	Pixel	3072(H)×2048(V)	4000(H)×3000(V)
	Day/Night Mode	Support IR-CUT electromagnetic switch	
	Auto Aperture	DC drive (-P model supports P-IRIS)	
	Lens	C/CS port, lens optional	
	Illumination	0.01Lux/F1.2(color mode), 0.001/F1.2 (black white mode)	0.01Lux/F1.2(color mode), 0.001/F1.2 (black white mode)
	SNR	52db and up	
	Gain Control	Manual/Auto	
	White Balance	Manual/Auto	
	NR	3D NR	
	WRD	72.4dB WDR	
	BLC	Off/BLC/WDR (1-100 adjustable)/HLC(anti-flicker is outdoor and is valid only when exposure mode is auto with range 1-100)	

	Electronic Shutter	Manual/Auto, It ranges from 1/3 to 1/100000.		
	Smart Focus	Support ABF		
	Video Compression Standard	H.264/H.264H/H.264B/MJPEG		
	Video Frame Rate	PAL: Main stream Max(3072*2048@25fps), Extra stream Max(D1@50fps), Third stream Max(1920*1080@50fps)	PAL: Main stream Max(4000*3000@15fps), Extra stream Max(D1@50fps), Third stream Max(1920*1080@50fps)	
		NTSC: Main stream Max(3072*2048@30fps), Extra stream Max(D1@60fps), Third stream Max(1920*1080@60fps)	NTSC: Main stream Max(4000*3000@15fps), Extra stream Max(D1@60fps), Third stream Max(1920*1080@60fps)	
	Video Bit Rate	32K-48Mbps,and bit rate is adjustable.Support customized setup.	32K-96Mbps,and bit rate is adjustable.Support customized setup.	
	Video Flip	Support rotate mode		
	Snapshot	Max 1f/s snapshot. File extension name is JPEG		
	Privacy Mask	Each channel supports max 4 privacy mask zones		
	ROI	Support 4 ROI.		
	Video Setup	Support parameter setup such as brightness, contrast.		
Video Information	Channel title, time title, motion detect, tampering, overlay.			
	Intelligent Detection	Tripwire, cross warning zone, abandoned /missing object detection, scene change detection, defocus detection.		
	Face Detection	Detect face in video and link according to the result.		
	Audio Detection	Detect if there is audio input, filter noise, scream emergency and etc.		
	Lens Interface	CS, lens optional		
Audio	Audio Input	1-channel, 3.5mm JACK LINE IN/ in-built MIC IN		
	Audio Output	1-channel, 3.5mm JACK LINE OUT		
	Audio Bit Rate	64kbps or 128kbps		
	Audio Compression Standard	G.711a/G.711Mu		
Video	Motion Detect	396 (18*22) detection zones; sensitivity level ranges from 0 to 100; area threshold ranges from 0 to 100. Activation event, video storage, image snapshot, log, email function and etc.		
	Video Loss	Activation event: video storage, image snapshot, log, email function and etc.		
Alarm Interface		2 channel input, 1 channel output (on-off)		
Record and Backup	Record Priority	Manual >Video detect>Schedule		
	Storage Function	Support Micro SD card (128G) disconnection local storage, NAS storage		
Network	Wire Network	1-channel 100M/1000M Ethernet, RJ45 port.		
	Network Protocol	StandardHTTP,TCP/IP,IPv4/IPv6,ARP,IGMP,ICMP,RTSP,RTP,UDP,SMTP,FTP,DHCP,DNS,DDNS,PPPoE,UPnP,NTP,Bonjour,SNMP,Qos,802.1x		
	Protocol	ONVIF(default), GB28181		
	Local Storage	Support Micro SD card (128G) storage		

AUX Interface	Reset	External reset button
	RS485 port	1-channel, support transparent channel connection. Support various PTZ protocols.
General Parameter	Power	Support AC24V/DC12V/PoE power supply Note: Don't use AC24V and DC12V (two power modes) to the device at the same time.
	Power Consumption	Max 12W (ABF and ICR enabled)
	Working Temperature	-30°C ~+60°C
	Working Humidify	≤95%
	Dimensions	74.1*65.5*135.4
	Weight	0.30kg
	Installation	Support various installation modes

2 Framework

2.1 Rear Panel

This series network camera rear panel is shown as below. See Figure 2-1.

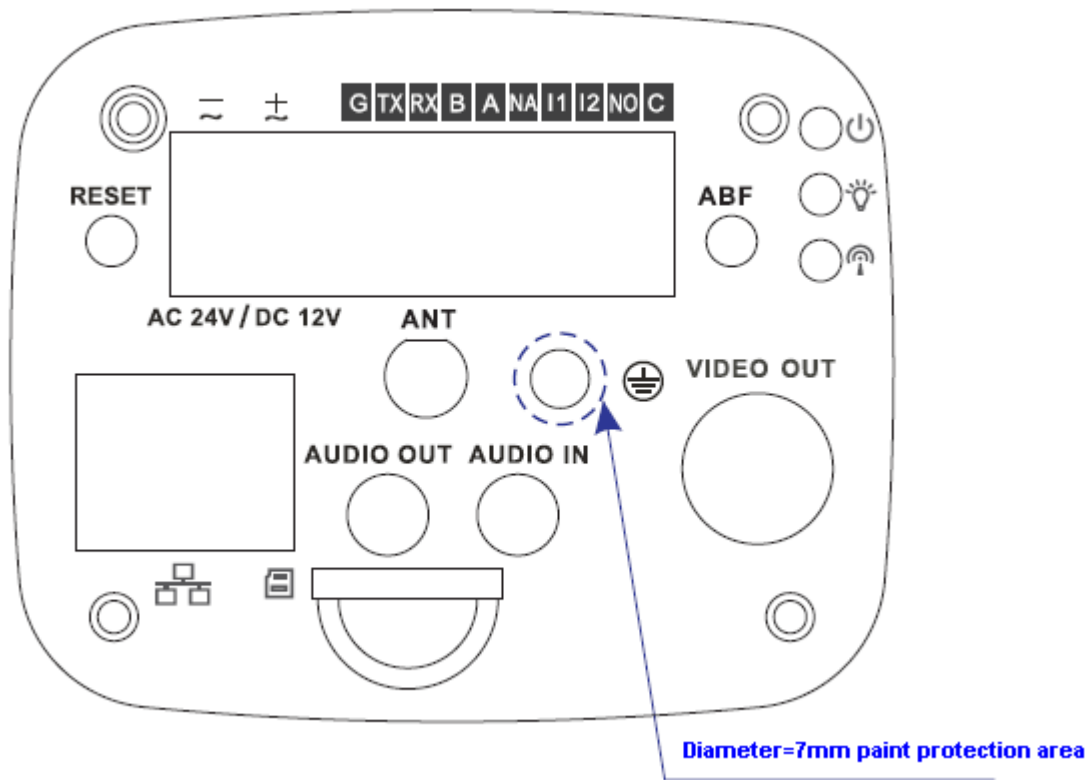


Figure 2-1 Rear panel with network port

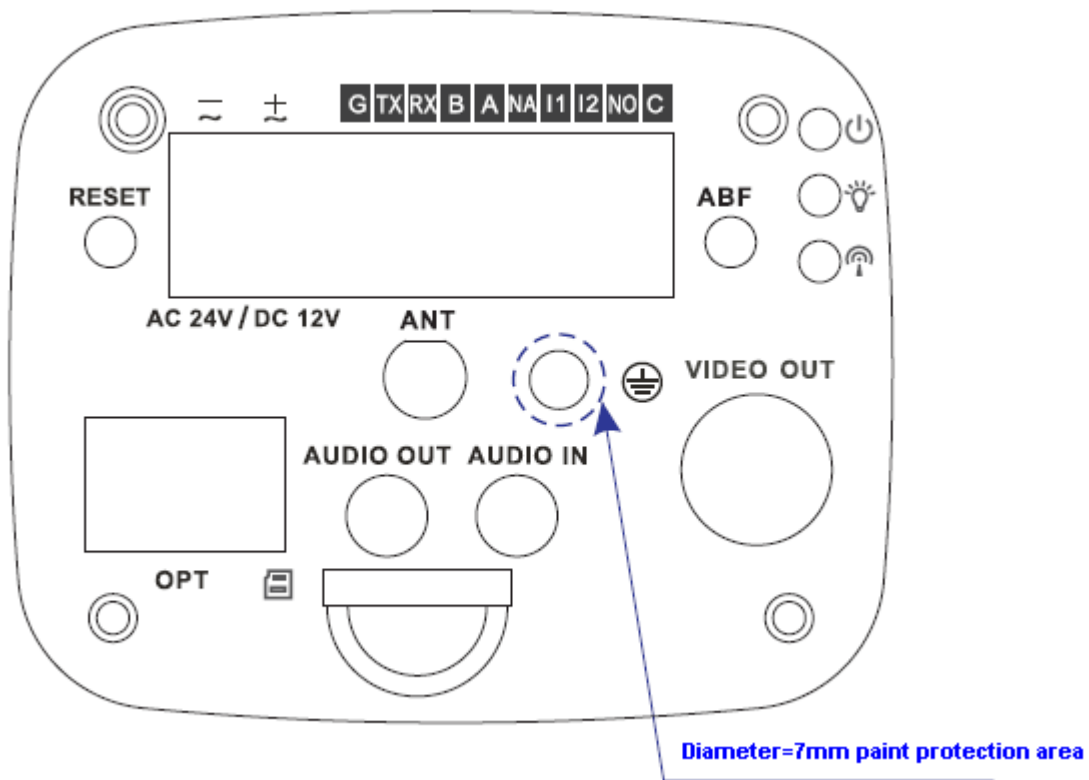






Figure 2-2 Rear panel with MB optical fiber port


Note: Picture in this chapter is for reference only and actual rear panel may vary.


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		<ul style="list-style-type: none"> ● Power port. ● Input 12V DC or AC 24V

STATUS Indication Light	Red light 		<ul style="list-style-type: none"> ● System boot up- red light is on ● System upgrades-red light flashes ● System resets- red light flashes.
	Green light 		<ul style="list-style-type: none"> ● Normal working status-green light is on. ● Display record status: Record-green light flashes.
	Yellow light 		<ul style="list-style-type: none"> ● Detect the wireless device- yellow light is on.
	3G port	-	<ul style="list-style-type: none"> ● Connect to 3G card. ● Note: Only 3G model supports 3G function.
WIFI	Antenna port	-	<ul style="list-style-type: none"> ● Connect to 3G/WIFI antenna, receiving wireless signal. ● Note: Only some models support this function.
IN1	Alarm input port 1	I/O port	Alarm input port. To receive the signal from the external alarm device.
NO	Alarm output port		Alarm output port. To

C			output alarm signal to the alarm device. <ul style="list-style-type: none"> ● NO: Normal open alarm output end. ● C: Alarm output public end.
IN2	Alarm input port 2		Alarm input port. To receive the signal from the external alarm device.
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.
ABF	Auto back focus adjustment	-	Auto back focus adjustment, by adjusting Sensor position to achieve precise focus.

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 JACK port.	Input audio signal from devices such as pick-up.
LAN 	Network port	Ethernet port	<ul style="list-style-type: none"> ● Connect to standard Ethernet cable. ● Support PoE function.
OPT	MB optical fiber port	155M single-fiber bidirectional SFP optical module	Transmit MB Ethernet data.
SD	SD card port		<p>Connect to SD card.</p> <p>Note</p> <ul style="list-style-type: none"> ● When you install the Micro 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 Micro SD card, please make sure current card is not in write mode. Otherwise it may result in data loss or card damage.

			<ul style="list-style-type: none"> ● 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 2-3.

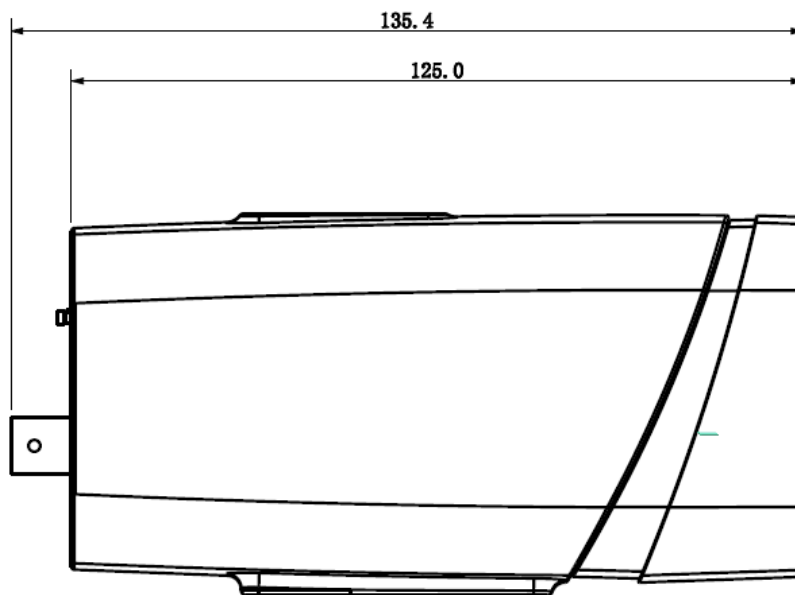


Figure 2-3 Side panel

2.3 Front Panel

Please refer to the following interface for the front panel information. The unit is mm. See Figure 2-4.

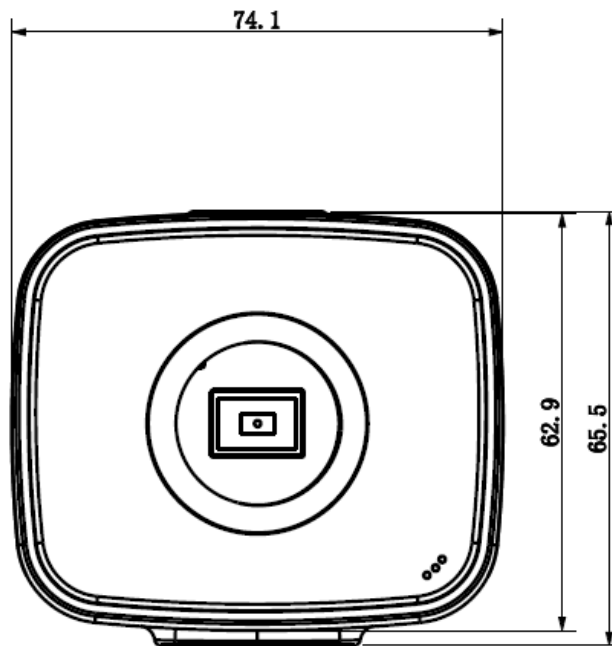


Figure 2-4 Front panel

2.4 Bidirectional talk

2.4.1 Device-end to PC

Device Connection

Please connect the speaker or the MIC to the audio input port in the device rear panel. Then 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 orange after you enabled the audio talk function.

Click Audio button again to stop the bidirectional talk function.

Listening Operation

At the device end, speak via the speaker or MIC, and then you can get the audio from the earphone or sound box at the pc-end.

2.4.2 PC to the Device-end

Device Connection

Connect the speaker or the MIC to the audio input port in the PC and then connect the earphone to the audio output port in the device rear panel.

Login the Web and then click the Audio button to enable the bidirectional talk function.

You can see the button becomes orange after you enabled the audio talk function.

Click Audio button again to stop the bidirectional talk function.

Please note the listening operation is null during the bidirectional talk process.

Listening Operation

At the PC-end, speak via the speaker or MIC, and then you can get the audio from the earphone or sound box at the device-end.

2.5 Alarm Setup

The alarm interface is shown as in Figure 2-5.

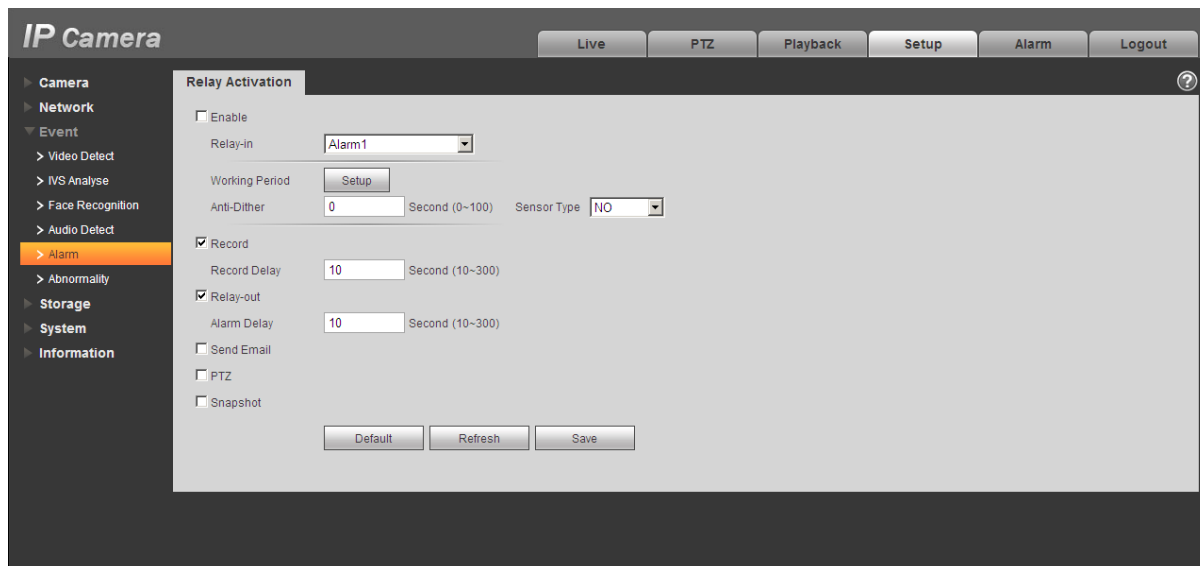


Figure 2-5 Alarm

The alarm setup interface is shown as below.

- Step 1. Connect the alarm input device to the IN alarm input port on the rear panel I/O port.
- Step 2. Connect the alarm output device to the NO alarm output port and C alarm output public port on the rear panel I/O port. The alarm output port supports NO (normal open) alarm device only.
- Step 3. Open the Web, go to the Figure 2-5. Here you can set the alarm input setup and alarm output setup. Here the alarm input is the alarm input on the rear panel I/O port (as IN port). Then you can select the corresponding type (NO/NC) according to the high/low level type when an alarm occurs.
- Step 4. Set the WEB alarm output. The alarm output 01 is the alarm output port of the device rear panel I/O port (as the NO port).

2.5.1 Alarm Input and Output Connection

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

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”.

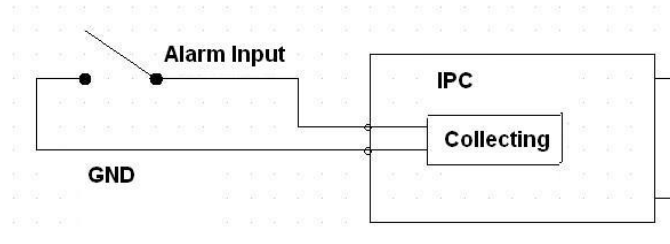


Figure 2-6 Alarm input

Please refer to the following figure for alarm output information. See Figure 2-7.

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.

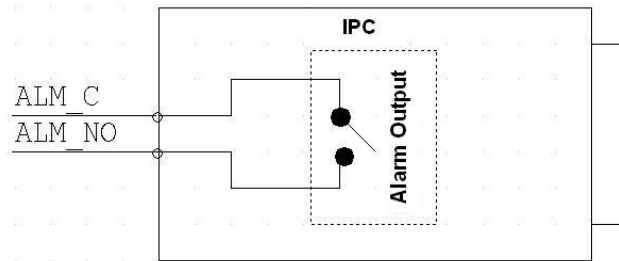


Figure 2-7 Alarm output

2.5.2 IR Light Connection

Note:

- Device shall have external port for IR function.
- Log in Web, select Setup -> Camera -> Day&Night, and select sensor input. If it is not available, then you do need to set it.

Please refer to the following figure for external IR light information. See Figure 2-8.

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.

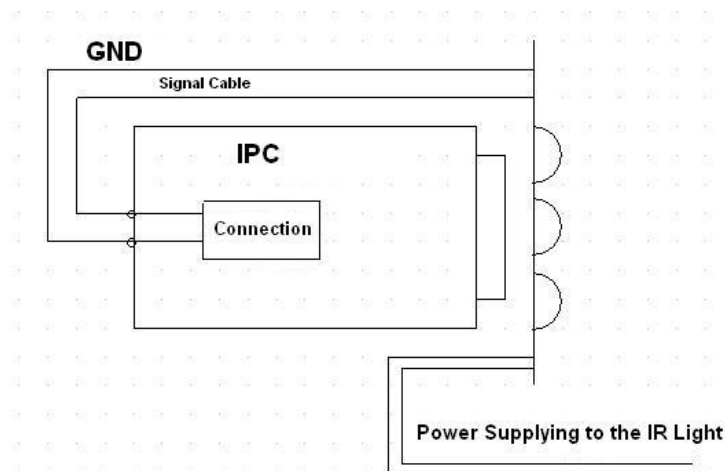


Figure 2-8 IR light connection

3 Installation

3.1 Lens

3.1.1 Lens Installation

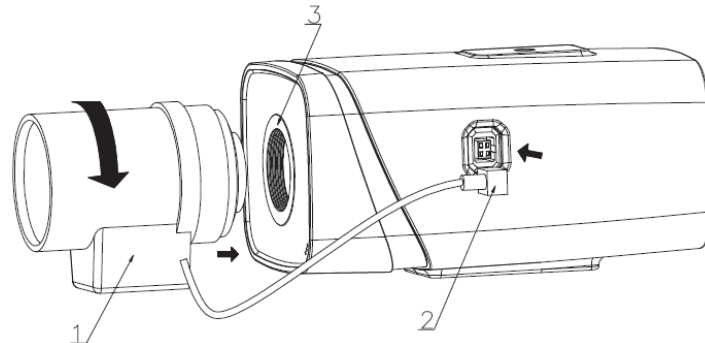


Figure 3- 1 Lens installation 1

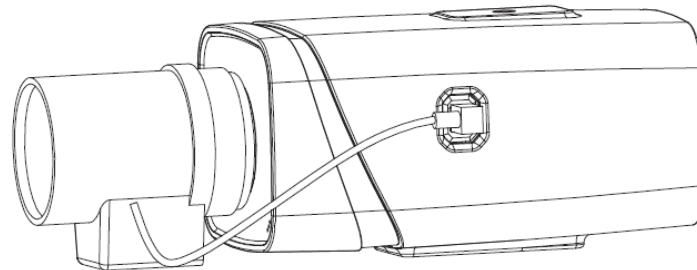


Figure 3- 2 Lens installation 2

3.1.1.1 Auto Aperture Lens

Please follow the steps listed below for auto aperture lens installation.

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.

Step 1. Insert the lens cable socket to the auto lens connector in the side panel.

Step 2. Adjust focus length.

3.1.1.2 Manual Lens

Install C type lens

Step 1. Remove the CCD protection cap from the device.

Step 2. Install the C/CS adapter to the camera. Turn clockwise to secure against the focusing ring firmly.

Step 3. Line up the C lens to the installation position of the C/CS adapter. Turn clockwise to fix the lens.

Step 4. 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.

Step 5. 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

Step 1. Remove the CCD protection cap from the device.

Step 2. Line up the CS lens to the lens installation position of camera focusing ring. Turn clockwise to fix the lens.

Step 3. 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 cannot see the clear video, you can adjust via the flange-back.

Step 4. After you completed the focus setup, use the slotted screwdriver to fix the screw firmly. Fasten the focusing ring. Now the installation completed.

3.1.2 Remove Lens

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

Remove lens.

Requirements for recording audio:

1. A single file size cannot exceed 800K or free space.
2. User customized audio file cannot exceed 8.
3. During recording, you must enable main stream audio since without stream, recording will fail.
4. Record max length is 30s. Overtime and insufficient capacity will cause recording to end automatically.

Step 1. Turn the lens counter clockwise and then remove it from the camera.

Step 2. 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.

Step 3. If there is no lens, please put the CCD protection cap back to protect the CCD.

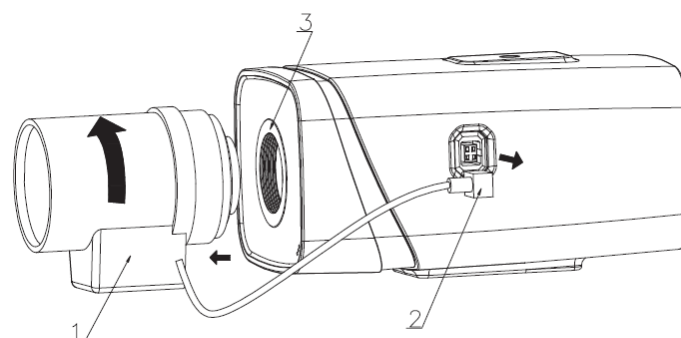


Figure 3- 3 Remove lens

3.2 SD Card

3.2.1 Installation

Please see Figure 3- 4 SD card installation to insert Micro SD card into the SD slot. The slot is flexible, so the Micro SD card can be embedded via lightly pressing.

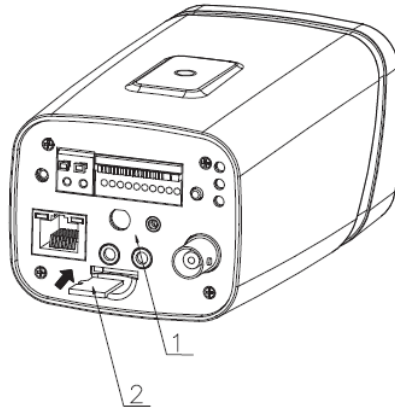


Figure 3- 4 SD card installation

3.2.2 Remove

Please see Figure 3- 5 Remove Micro SD card to lightly press Micro SD card and it will automatically eject.

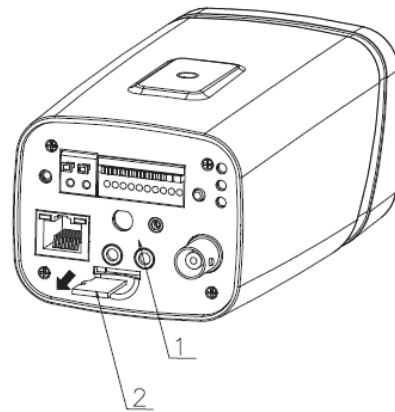


Figure 3- 5 Remove Micro SD card

3.3 WIFI Antenna

3.3.1 WIFI Antenna Installation

WIFI antenna installation illustration is shown in Figure 3- 6 WIFI antenna installation.

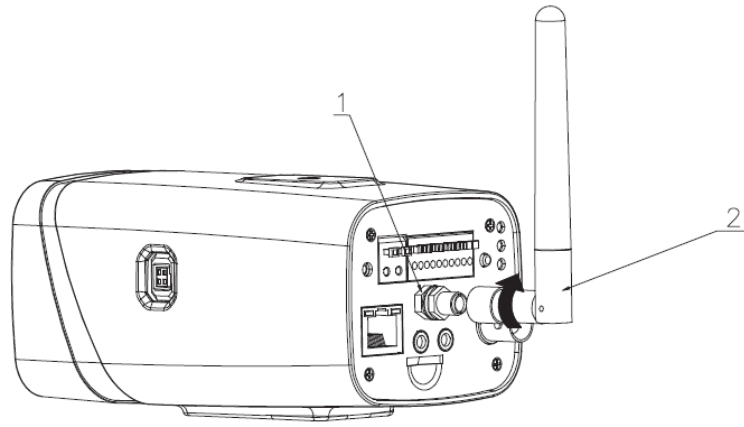


Figure 3- 6 WIFI antenna installation

Step 1. Face screw on WIFI antenna toward bolt of port on rear panel. Rotate according to the figure until the antenna is fixed in place.

Step 2. After WIFI antenna is fixed on WIFI port on rear panel, you can adjust direction of WIFI antenna corresponding to actual need.

3.3.2 Remove WIFI Antenna

Please see Figure 3- 7 Remove WIFI antenna to remove the antenna.

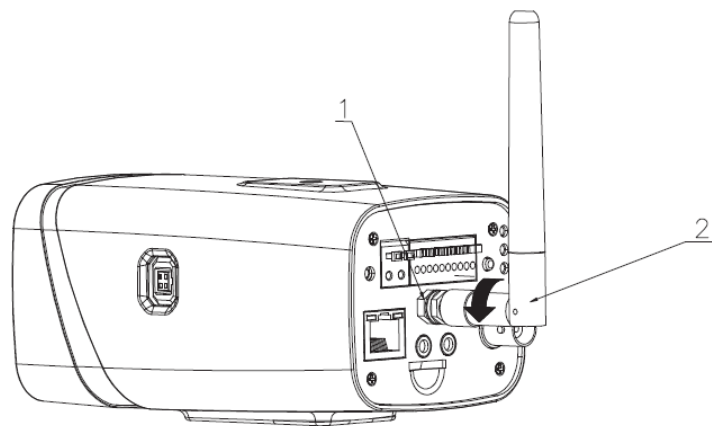


Figure 3- 7 Remove WIFI antenna

Step 1. Hold threaded end of WIFI antenna, rotate it according to direction in the figure until WIFI antenna is removed from bolt of port.

Step 2. Take down WIFI antenna from port on rear panel.

3.4 I/O Port

Install Cable

Please follow the steps listed below to install the cable. See Figure 3- 8 I/O port.

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.

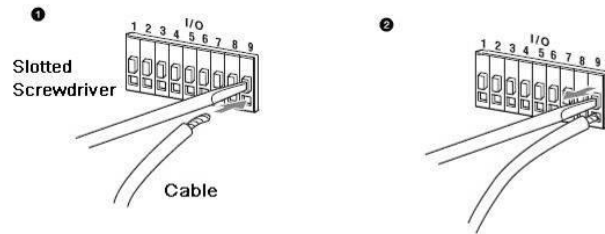


Figure 3- 8 I/O port

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.

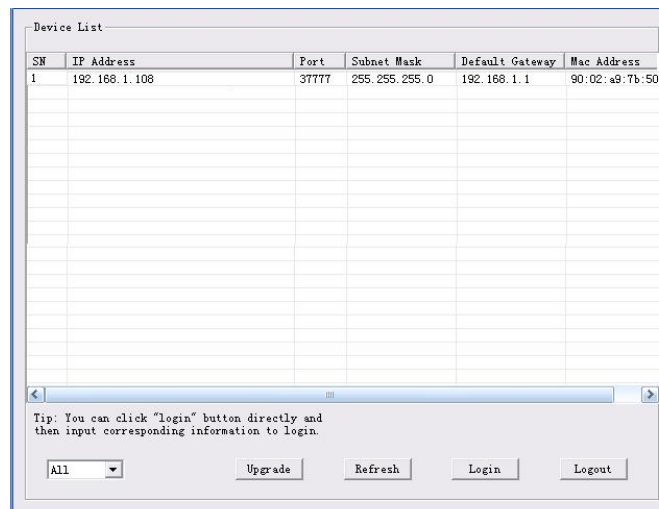


Figure 4-1 Search interface

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.

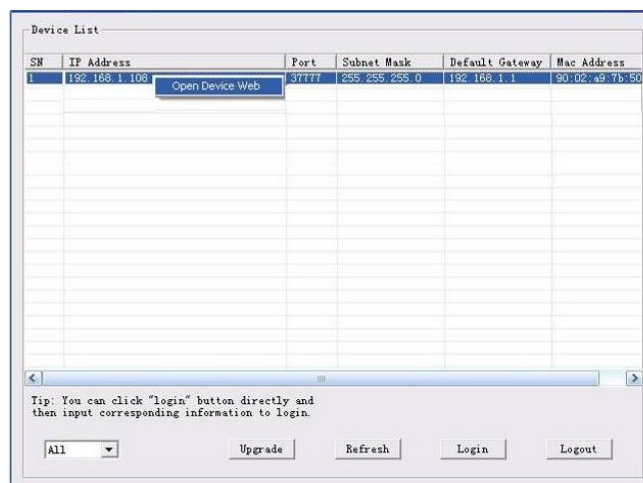


Figure 4-2 Search interface 2

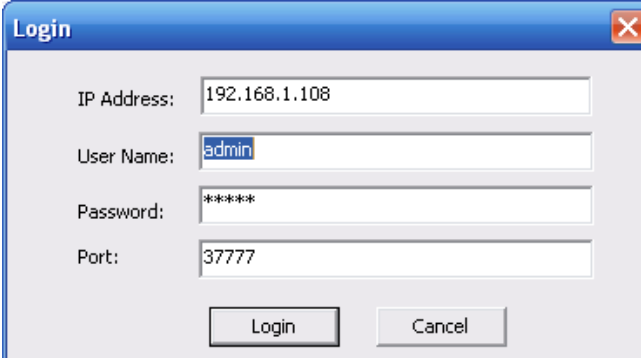
If you want to modify the device IP address without logging in the device web interface, you can go to the configuration tool main interface to set.

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 cannot login the device.

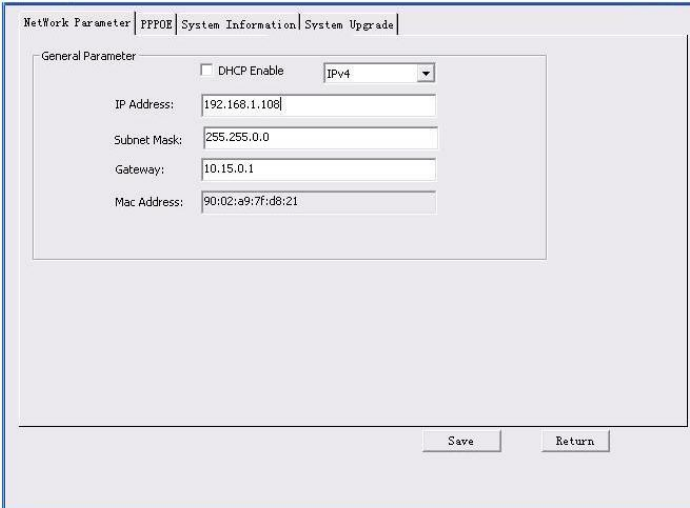
If you are using device background upgrade port 3800 to login, other setups are all invalid.



The image shows a 'Login' dialog box with a blue title bar and a close button (X) in the top right corner. It contains four text input fields: 'IP Address' with the value '192.168.1.108', 'User Name' with the value 'admin', 'Password' with the value '*****', and 'Port' with the value '37777'. At the bottom, there are two buttons: 'Login' and 'Cancel'.

Figure 4-3 Login prompt

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



The image shows the main interface of the configuration tool. It has a menu bar with 'Network Parameter', 'PPPOE', 'System Information', and 'System Upgrade'. Below the menu bar is a 'General Parameter' section with a 'DHCP Enable' checkbox (unchecked) and a 'IPv4' dropdown menu. There are four text input fields: 'IP Address' with the value '192.168.1.108', 'Subnet Mask' with the value '255.255.0.0', 'Gateway' with the value '10.15.0.1', and 'Mac Address' with the value '90:02:a9:7f:d8:21'. At the bottom, there are two buttons: 'Save' and 'Return'.

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.

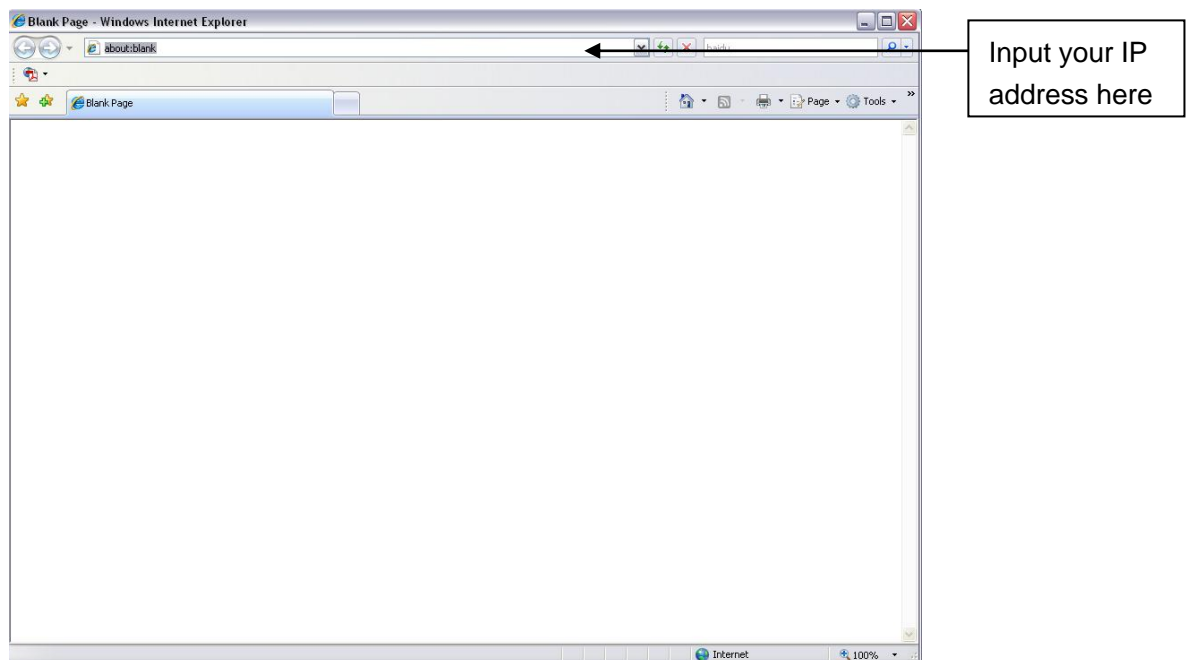


Figure 5- 1 IP address

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.

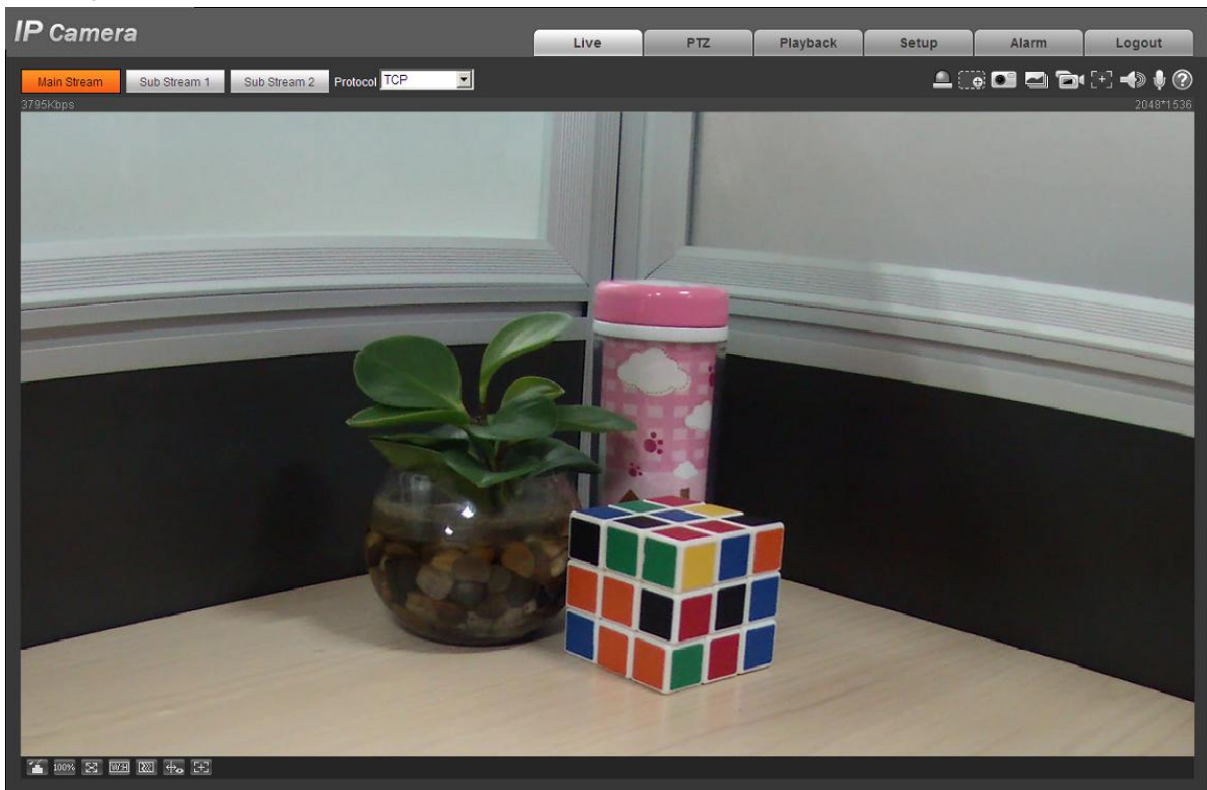


Figure 5- 3 Web monitoring window

6 FAQ

Bug	
I can not boot up the device or can not control the device.	Please click RESET button for at least five seconds to restore factory default setup.
Micro SD card write times	Do not set the Micro SD card as the storage media to storage the schedule record file. It may damage the Micro 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 Micro 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.
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.
General power adapter	<ul style="list-style-type: none"> ● The general power adapter can work ranging from 0°C to 40 °C. 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	○	○	○	○	○	○
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.