

IP Camera NC400HD User Manual

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Chapter 1: Introduce

1.1 Product Introduce

This product is one of integrated IP camera developed for network video surveillance. Using high-performance chip makes the media processor that can integrate audio and video capture, compression, transmission all-in-one. H.264 encoding algorithm ensures a clearer, smoother video transmission. Allow users through the IE and other browsers/centralized monitoring terminal and system platform to real-time monitor and remote control the front of camera easily. The product has good reliability and compatibility. Easy to install, easy to operate features make users do not need any skills can connect the camera to the broadband internet in a few minutes.

1.2 Product Applications

IP Cameras can usually be used in large stores, schools, factories, and a series of public places. High-end IP cameras because of its powerful image processing capabilities more suitable for banks, traffic junctions that require a higher resolution image environment.

1.3 Environmental Requirements

Software Environment

IE 5.0 or above version

DirectX8.0 above version

TCP / IP protocols

Minimum Hardware Configuration

CPU: Pentium 1.6 GHz

Memory: 256MB

Sound Card: Needed voice monitor、 Tow-way intercom
necessary

Hard Disk: If you need to record images, should not be less than
40GB

Operating System:32, 64-bit Windows2000、 Windows XP、
Windows2003、 Windows Vista and other operating
systems.

Chapter 2: Function Introduce

2.1 Basic Function Introduce

IP Cameras are mainly used for remote video image transmission based on IP networks. Products using JPEG hardware compression technology can transmit quality (HD or VGA) real-time video images at 30 frames/second on the LAN/WAN. IP Camera completely built on open using TCP/IP standard protocols, built-in WEB server, and support IE browser., Product can be configured, started or firmware upgraded remotely over the network, equipment management and maintenance is very convenient. At any time and any place, you can easily by clicking on the network to monitor, control and zoom images.

2.2 Advanced Function Introduce

- Using high performance, powerful media processor 32BitRSIC
- High-resolution CMOS sensor chip, up to 30 frames per second in real time
- Optimized Motion-JPEG video compression algorithm to achieve the narrow-band high-definition image transmission.
- Supports up to four users to simultaneously browse, if you use the forwarding server function there is no limited.

- Built-in Web Server, users can achieve real time monitoring and setting management via standard browser.
- Support WIFI 802.11b/g/n wireless network
- Support remote system upgrading
- DDNS support, support for LAN and internet (dial-up Internet access, Internet routers, etc.)
- Support single/two-way voice intercom
- Motion detection alarm function, can set the sensitivity
- Dynamic alarm function, can set the alarm time
- Support E-mail sent, FTP pictures, external output function
- Support the mobile access

Specifications

Category	Type	Parameters
System	Operation system	Embedded Linux
	System Security	3 levels user rights management:
	Online Users	Support 4 users simultaneously view online
	DDNS	Comes with DDNS
Night Vision	Image sensor	1/4inch 1.3MegaPixel Progressive CMOS sensor
	Sensor Performance	Support AWB,AGC,AE
	Sensor size	3.888mm×2.430mm
	SNR	≥39dB
	Minimum Illumination	0.1Lux/F1.2 (color mode) ,0.01Lux/F1.2 (B&W mode)
	Lens	4.2mm/F2.0
	Night Vision	11pcs 850nmΦ5mm IR LED: IR irradiation distance up to10m
Video	Encode format	H.264 Basline Profile@Level 1-4.1
	Resolution	720P/VGA/QVGA
	Image adjustment	Brightness and Contrast can be adjusted
Audio	Input	1 Channel built-in Microphone
	Output	1 Channel Line output

	Sampling frequency/Bit wide	8KHz/16bit
	Encode format/Rate	32kbps/ADPCM
Network	Network Interface	10Base-T / 100Base-TX, RJ45 interface
	Protocols	TCP/IP,HTTP,TCP,UDP,SMTP,FTP,DHCP,DNS,DDNS,NTP,UPnP, RTSP,PPPoE, P2P etc.
	Wireless Network	WiFi802.11b/g/n
Alarm	Alarm Detection	Support Motion detection/1 Channel input trigger
	Alarm Actions	1 way output / E-mail pictures / upload video by FTP / messages alarm(coordinate to server)
Physical Instructions	Nominal Voltage	DC5±0.3V
	Power consumption	Rated power:3.5W(IR LED turn on)/Max:7W(P&T turn on)
	Working Environment	Temperature:-10~70℃,humidity:10~90%non-condensing
	Weight	0.6KG
	Package Size	200×120×180mm(L×W×H)

Chapter 4: Detailed Interface Introduce

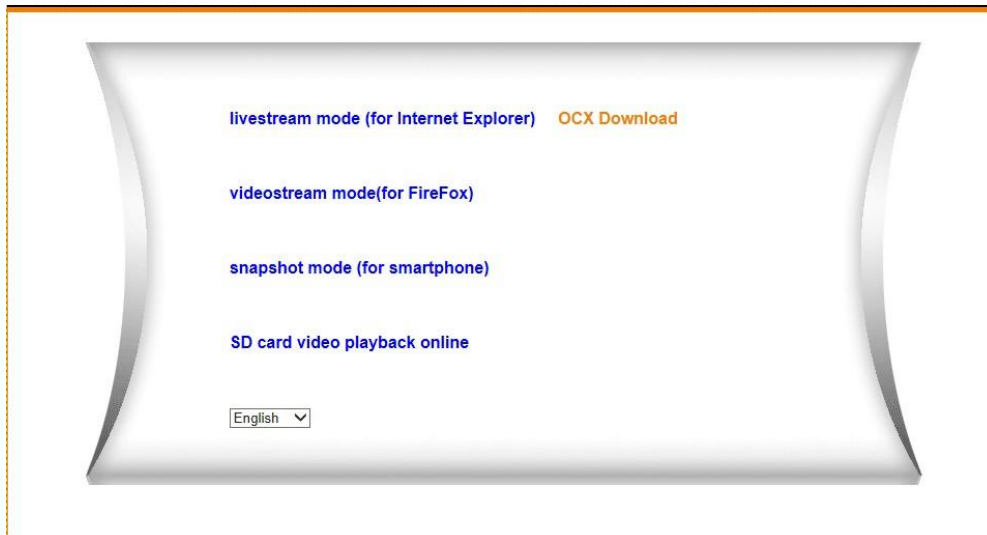
4.1 Login Interface

To verify the current user permissions prompt box, need to enter the correct user name and password to enter the camera. You can find the default user name and password in the bottom of the device.



4.2 Login Interface Options

Product support IE、 Firefox、 Safari、 google and other major browses/iPhone 、 iPad and other IOS devices and smart mobile browse.



According to your current way of opening the device to select the corresponding entrance to entry into interface. Wrong choice may prevent the entrance normal viewing screen.

4.3 Monitor Interface



The camera will Left-right cruising automatically after select on, it will cruising about 1 hours if no manual stopped. Infrared light will be start work automatically in low-light condition. The number larger, the speed faster. Infrared light turn off in low-light condition. Image inversion: In selected, the image displaying will be upside down. Mirror image mode: In Selected, the displayed image will reversed left to right.

Turn on the alarm terminal

Turn off the alarm terminal

Multiple screens setting

Preset positions setting

The first is a single screen, the second of four, the third of nine; IE browser supports up to 9 screens simultaneously watch

Preset settings can set up to 15 preset positions .

Setting process: Set the preset position first, then select to use.

Audio(Listening and speaking)/Setting

1) Voice monitor: The voice around of the camera could be heard in turn-on condition.

2) Two way radio: Use the microphone on computer do a conversation with camera.

3) The video to the local: In selected , Camera start to record, the videos will be stored in your own terminal equipment.

4) Parameter settings: Click into the IE settings interface.

4.4 Setting interface

4.4.1 Network setting

Basic network setting

Support DHCP Dynamic IP and Static IP. Use Static IP If you need set the router port mapping. Do not modify above parameters arbitrarily without certain levels computer network support.

Basic Network Settings	
Obtain IP from DHCP Server	<input type="checkbox"/>
IP Addr	192.168.0.191
Subnet Mask	255.255.255.0
Gateway	192.168.0.1
DNS Server1	8.8.8.8
DNS Server2	192.168.0.1
Http Port	81

Wireless LAN setting

Below set figure for wireless networking, where the security mode support :WEP、WPA Personal (TKIP)、WPA Personal (AES)、WPA2Personal (AES)、WAP2 (TKIP+AES) five ways., the camera will automatically match the wireless network encryption. Selected wireless network name that you want to add, input password click the “setting” button, unplug the network cable follow the page guides , it will be connect after the camera restart.

Wireless Lan Settings	
Wireless Network List	ID SSID MAC
	<input type="button" value="Scan"/>
Using Wireless Lan	<input checked="" type="checkbox"/>
SSID	Yelaw-ipc
Network Type	Infra
Authentication	WPA2-PSK Personal (AES)
Share Key	yelaw904905

The reason you can not connect the wireless camera are the following:

- 1) When using the scan button, the camera if you can search the wireless signal to the router?
- 2) SSID is consistent with the wireless router's SSID?
- 3) There is a special character of Wireless SSID and password or not, change it if yes.
- 4) Whether to open the wireless mac address filtering?
- 5) Whether to open the ARP binding ?(camera wireless and wired LAN is two mac address, the same IP).
- 6) Camera distance is not too far from the router?(Under normal indoor environment, try to stay within 20 meters).
- 7) Whether the antennal of the camera be tightened?

Setting:

Full name is Universal Plug and Play, Popular speaking ,it's automatic port mapping. Users To use this feature, you need the router supports UPnP function and turned on, select this button.

DDNS Settings:

The factory default is enabled manufacturers domain name, without setting a third party DDNS service can be directly accessed using the domain name manufacturers, third-party DDNS service support DynDns, 3322, 9299, etc.

Please check the following points if default domain can not be connected:

- 1) The parameters of cameras is correct or not , you can use network camera installation wizard do one key setting if you don't know how to set.
- 2) Whether the DNS address is correct .then you can check whether your

computer can browse web pages.

4.4.2 Alarm settings

Alarm settings

Alarm Service Settings	
Motion Detect Armed	<input type="checkbox"/>
Alarm Input Armed	<input type="checkbox"/>
Alarm trigger event	
Alarm Arming Time	

Alarm trigger

Alarm Service Settings	
Motion Detect Armed	<input checked="" type="checkbox"/>
Motion Detect Sensibility	10 <small>The smaller the value, the more sensitive</small>
Alarm Input Armed	<input checked="" type="checkbox"/>
Trigger Level	Low
Alarm trigger event	
Alarm preset linkage	None
IO Linkage on Alarm	<input type="checkbox"/>
Send Alarm Notification by Mail	<input type="checkbox"/>
Upload Image on Alarm	<input type="checkbox"/>
Alarm Arming Time	
Scheduler	<input checked="" type="checkbox"/>
select all	<input type="checkbox"/>
Day	0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23
Sun	
Mon	
Tue	
Wed	
Thu	
Fri	
Sat	

Mobile monitoring technology:

General be called motion detection. Commonly used in unmanned video surveillance and alarm. CPU through the camera will be carried out according to certain algorithms capture frame rate according to different calculating and comparing the resulting image when the screen changes, for example, people passed ,camera be moved , the the calculated result of the comparison show that the number will exceed the threshold and indicates the system can automatically make the appropriate treatment.

External input arming:When it is selected ,can alarm through the input signal of the GPIO external linkage equipments, also be called Linkage box alarm.

A complete alarm triggered task requires the following factors:

- 1) Triggering conditions
- 2) Triggering time
- 3) The action after triggered.

Such as set motion detection arming:

The first is the trigger condition ,and where the“Motion Detection Arming”need be selected.

Alarm Service Settings	
Motion Detect Armed	<input checked="" type="checkbox"/>
Motion Detect Sensibility	10 <input type="text"/> The smaller the value, the more sensitive

Motion detection sensitivity can be adjusted according to Testing environment.

Select the trigger time

Alarm Arming Time																								
Scheduler	<input checked="" type="checkbox"/>																							
select all	<input checked="" type="checkbox"/>																							
Day	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Sun																								
Mon																								
Tue																								
Wed																								
Thu																								
Fri																								
Sat																								

Fifteen minutes of a cell, set according to your own need.

Select the action after the trigger.

Send Alarm Notification by Mail	<input checked="" type="checkbox"/>
Upload Image on Alarm	<input checked="" type="checkbox"/>
Upload Interval (Seconds)	0 <input type="text"/> (0~255)

Recommendation: Select the mail alarm notifications and be sure selected

the alarm upload pictures, so that the camera can send alert message or photos to your email after camera triggered the alarm.

Upload pictures interval(seconds) means the interval of sending pictures to FTP sever. Enable the mail notice after alarm, do not forget to set the Mail Settings.

Mail settings

Mail Service Settings	
Sender	<input type="text"/>
SMTP Server	<input type="text"/> Please select <input type="button" value="v"/>
SMTP Port	<input type="text" value="25"/>
Need Authentication	<input type="checkbox"/>
SSL	<input type="text" value="NONE"/> <input type="button" value="v"/>
Receiver 1	<input type="text"/>
Receiver 2	<input type="text"/>
Receiver 3	<input type="text"/>
Receiver 4	<input type="text"/>
	<input type="button" value="Test"/> Please set at first, and then test.

Sender: The mailbox used to send email, make a example of NetEase 163 mail, eg:test@163.com;

SMTP sever: server to send and receive mail, built-in mainstream mail.

Server address, such as NetEase 163 mail,it's "smtp.163.com";

SMTP Interface: default 25.

Need to confirm: should be selected usually.

SSL: An encryption protocol, some mail service providers to support such encrypted communications, eg.: gmail

SMTP User: The sender's mailbox account login.

SMTP Code: password for test@163.com

Receiver: You can set up to four mailboxes for mail recipients. when there is an alarm action, the camera will automatically log in test@163.com and send mail to the receiver.

Notice: Please click on the "Settings" button, and click to save the parameters then test;

FTP settings

Ftp Service Settings	
FTP Server	<input type="text"/>
FTP Port	<input type="text" value="21"/>
FTP User	<input type="text"/>
FTP Password	<input type="password"/>
Upload Interval (Seconds)	<input type="text" value="0"/> Empty or 0 means do not upload pictures(0~3600)
	<input type="button" value="Test"/> Please set at first, and then test.

FTP settings and attention

- 1) Fill your current IP address of the FTP server in FTP server address , if you are using a domain name, make sure that your DNS settings are correct, if there is fixed public IP, we suggest you use it.
- 2) The default of FTP port is 21, the port based on FTP server's actual situation, do not need modifications on FTP port;
- 3) FTP user to fill in user in the FTP's settings, Note: Make sure the current account you are using has the right of read and write permissions
- 4) FTP upload it is based on FTP server's setting, e.g. If it is recorder in FTP's root, then you write [/] if there is secondary directory can fill / camera1 (According to the actual directory).

4.4.3 System settings

Camera information

Device information is in above's chart: wired LAN MAC, wireless LAN MAC, the device system firmware version, device application firmware version information.

Device Status	
Device Firmware Version	85.2.64.14
Device Embedded Web UI Version	0.0.0.67-hd
Alias	NC400HD
Device ID	PTP-000441-FTKWC
Alarm Status	None
UPnP Status	UPnP Succeed
DDNS Status	No Action
MAC	00:0A:EB:68:56:87
WIFI MAC	00:0A:EB:98:68:83
Externwifi status	Externwifi Error
sd total capacity(M)	7565 M
sd remaining capacity(M)	7565 M
sd state	SD card has been inserted
Language	English ▾

Refresh

Name settings

Here to display the camera name, such as name in find, followed by multiple devices settings's name etc.

Alias Settings	
Alias	NC400HD

Submit

Refresh

Time settings

Here you can set camera time through NTP server or PC user settings.

Device date&Time Settings	
Device Clock Time	Sat, 01 Mar 2014 17:19:56 GMT
Device Clock Timezone	(GMT +08:00) Beijing, Singapore, Taipei ▾
Sync with NTP Server	<input checked="" type="checkbox"/>
Ntp Server	time.nist.gov ▾
	Sync with PC Time

Submit

Refresh

See below, the user settings. The device supports managers, operators and

visitors

Users Settings		
	User	Password
Visitor	<input type="text"/>	<input type="text"/>
Operator	<input type="text"/>	<input type="text"/>
Administrator	admin	•••••

Multi-screen setup

When there are same types of products, you can set your browser to multi-screen viewing, you can set up to 9 simultaneous viewing.

This function supports the LAN device is automatically added after clicking refresh automatically scans all the same type of equipment local area, select list of the machine, and then enter the user name password.

Local video

You can set up a local recording path, video size, video length (the length of each video file), set the reserved disk space, video overwrite function;

Journal

Logging alarm status

Alarm Log	
motion alarm 2014-02-17 17:06:02	
motion alarm 2014-02-17 17:05:07	
motion alarm 2014-02-17 17:03:35	
motion alarm 2014-02-17 17:02:35	

Maintain

Click on "Restore Factory Settings", you can restore the factory default camera parameters.

Click the "Restart camera", you can reboot the camera.

Upgrade the system firmware: Click "Browse" to select the system firmware upgrade package file, click "Upgrade" Waiting camera system restart to complete the firmware upgrade is completed.

Interface Firmware upgrade Click "Browse" to select the interface firmware upgrade package file, click the "upgrade" the restart waiting for the camera to complete the interface firmware upgrade.

Upgrade Device Firmware			
Restore Factory Settings	<input type="button" value="Restore Factory Settings"/>		
Reboot Device	<input type="button" value="Reboot Device"/>		
Upgrade Device Firmware	<input type="text"/>	<input type="button" value="Browse"/>	<input type="button" value="Upgrade"/>
Upgrade Device Embedded Web UI	<input type="text"/>	<input type="button" value="Browse"/>	<input type="button" value="Upgrade"/>

Chapter 5 Network Camera

5.1 Monitor-Intercom

Monitor

Click the left mouse button to enable the listener to listen, When the icon turns to the below picture(right) means it is in a listening state;



Intercom

Click the left mouse button to enable the intercom intercom function, When the icon turns to the below picture(right) means it is in a listening state;



5.2 Photo and video

Photo

Left-click the photo button, the system will automatically capture the current screen and jump a new window display pictures;

Note: If you do not jump out the window, because your current browser may is prohibited to jump out the window, you can check in your browser settings to allow pop-up windows;



Video

Click the video button by left key of mouse, when the icon becomes to the one of right icon below, it means the camera is in a state of video.



Note: Video file is saved in Disc D, you can choose setting-system setting-local video to change the route

5.3 Set and callout presetting bit

What is presetting bit?

When the user monitor the object through controlling monitor PTZ of equipment terminal operation, the operator can set the monitor object to presetting bit, he can set a window, a counter, a desk, enter and entrance and the park to presetting bit; the presetting bit can save its current position in terminal monitoring PTZ decoder by control device software operate.

When the user need quick monitor the object, he can callout the position he want to monitor by callout command of control device.

How to set presetting bit?

Find the presetting bit in monitoring interface and set. Firstly, adjust the camera PTZ to the set position, click set button, preset form will pop up as follow icon, choose the preset number, the frame will shut off automatically.

Callout presetting bit

Pri Call

1	2	3	4	X
5	6	7	8	
9	10	11	12	
13	14	15	16	

Callout presetting bit: click callout button, choose the preset number to realize presetting bit callout.

5.4 Motion detection protection

What is motion detection protection?

Motion detection technology, is usually used in unattended surveillance video and automatic alarm. Through the camera, videos collected with different frames will be calculated and compared by certain arithmetic, when video changes such as people pass by or lens was moved. The figure will surpass threshold value and indicate system deal with it correspondingly automatically.

Motion diction technology is the base of motion detector video technology, which is extensive used in ip camera, car monitor key, digital protection, baby monitor, automatic sampling and

Automatic identification of entrance guard.

Set motion detection protection.

Details please check alarm set.

Chapter 6 Common questions

Q: Forget user name and password

A: Reset the camera, the user name and password is the value of restored factory settings. user:admin password is blank. Please connect with electricity before reset, then long press the reset button for 30 seconds to reach reset the camera.

Q: Unable to connect with WIFI?

A: Usually,if camera is unable to connect with WIFI, it is because of wrong set. please check it as following points

- 1) When use scan button, Can the camera search wireless signal of router?
- 2) Is SSID conformed with router wireless SSID?
- 3) Is wireless SSID and WIFI password set with specific symbol, if yes, please revise it.
- 4) Is wireless mac add filtering turned on?
- 5) Is APR binding turned on?(Camera wireless and network cable have two different mac addresses but the same IP).
- 6) The camera is too far away from router? Normally please keep the distance in 20M indoor.
- 7) The antenna is tightened?

Q:IP camera install wizard can't find the IP?

A: 1) Make sure the camera is under normal work situation: check the state of the lights near internet interface, the reticle is available and connected well, electricity indoor is cruised automatically etc...

2) Confirm the computer and camera in the same local internet and they are not in two VLAN, firewall stopped etc...

3) Faulty reticle will caused IP unable searched. please try to find a workable cable for replacement.

4) Please try to change the router back interfaces.

5) If all above tried but still failure, please connect the camera with computer with cable directly, then check if IP camera install wizard can find the IP.

Q: Under windows vista 7, IE cant find the video file.

A: Open control payout—system and safety—change user account control setting----Set the level to never notice.

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