Dear users, the configuration for this camera is professional, so please read the user manual carefully before using the camera.

IP Camera

(M series)

User manual

2013-01 V1.0

Statement

If the user manual can not help you to solve the problem, please call our technology center for solutions. We will update the content for the new functions without notice.

Notice

1、 Installation Environment

- Keep away from the places for high-temperature, heat source and direct sunlight;
- Keep away from water and when it gets wet, cut off the power immediately.
- Avoid using at damp environment; the reference range for operation humidity is below 85%RH.
- Avoid using in overheating and too cold environment, the reference range for operation temperature is -10℃~ +50℃
- Please install it horizontally or wall mounting, avoid strenuous vibration place and not put other equipments onto the item

2、 Transport and Handling

- The package is well-designed to ensure the security during the delivery, so please do not change the package at random.

1， Do not move the ip cameras from overheated to supercooled condition frequently, otherwise it will frost and shorten the service life.

2， Do not move the item when it is on, otherwise the main board might be damaged.

Notice:

1. Please check the power supply before it is working.
2. Be careful not to bang the camera or subject it to strong impacts or shocks.
3. Do not directly touch the optical components for the image sensor, if necessary, please place a clean and moistened cloth with alcohol and wipe the dirt gently; When not in use, please place the dust cover on to the item to protect the image sensor.
4. Do not aim the camera directly into the sun or at other intense light sources that could affect the image quality (it is not the problem for the ip camera), also shorten the service life for the image sensor.
5. Keep away from laser when it is working, otherwise the image sensor can be damaged.
6. If the equipment is not working properly, please contact the store or the service center, do not disassemble or modify the equipment in any way. (Problems caused by unauthorized modification or repair should be at your own risk.）

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APPENDIX：M SERIES IP CAMERA PARAMETERS COMPARISION LIST 1

FCC STATEMENT
THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

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

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

FCC Part 15.21 Statement

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

FCC RF Exposure Statement

To comply with FCC RF exposure compliance requirements, a separation distance of at least 20 cm must be maintained between the antenna of this device and all persons.

1. Product introduction

1.1. Product summary

Thank you for choosing our company's M series IP camera, which has several models, including indoor HD PTZ camera, indoor HD cube camera, outdoor HD waterproof camera etc. It is very suitable for family, shops, office building and so on.

Main features for M series：

- Support 3 kinds of H.264 video stream and 1 way MJPEG video stream simultaneously, suitable for Local, Internet and Cross-platform view;
- Support resolution for 1280*720/640*360/320*180;
- Support 4 ways view in a video stream;
- Support two-way intercom function, and G.711 and G.726 audio encoding;
- Support 802.11b/g/n protocol, build-in WiFi module to perform wireless monitoring;
- Support max. 32G SD/TF card for storing the alarm video and pictures, timing snapshot and recording;
- Built-in web server, use one port to send all the data, users can facilitates network setting;
- Support ONVIF and RTSP protocol, easy to integrate it to NVR or large client software;
- Support WPS/QSS function;
- Support POE function for some cameras, user optional;
- Support multi-languages web interface, support 1/4/9 split screen to perform several view at same time;
- Manufacturer puts a label of DDNS at the bottom of each IP Camera. When IP Camera is connected to the internet, this URL can be used to visit the device;
- Provide free client software, support Multi-view, Long time recording, video replay etc;
- Provide free software viewed by mobile phone.

1.2. Package for typical production

Accessory / Type	Power adaptor	CD	Cable	Bracket	Stand of plastic	Antenna
HD Cube camera	5V	√	√	√	√	Built in

 HD PTZ camera （Model A）	5V	√	√	√	√	Optional
 HD PTZ camera (Model B）	5V	√	√	√	√	√
 HD PTZ camera （Model C）	5V	√	√	√	√	Optional
 HD PTZ camera （Model D）	5V	√	√	√	√	Optional
 HD waterproof camera	12V	√	√	√	√	Optional

Notice:

- If you choose IP camera with wireless function, so it includes wifi module inside the camera and antenna in package.
- Please check carefully if all listed items are included in the package, if anything missing, please contact vendor in time.

2. Installation guide

2.1. Wired connection to LAN

- Power on the IP camera（please check carefully the voltage of power adaptor, don't insert incorrect power, otherwise it will be damaged）, connect IP camera to router by network cable and connect computer to the same router, example of figure 1.

Figure 1

- Insert attached CD to computer driver, double click "H&MSearch_en.exe" in the CD, will pop up the interface as figure 2, please operate as the following steps:

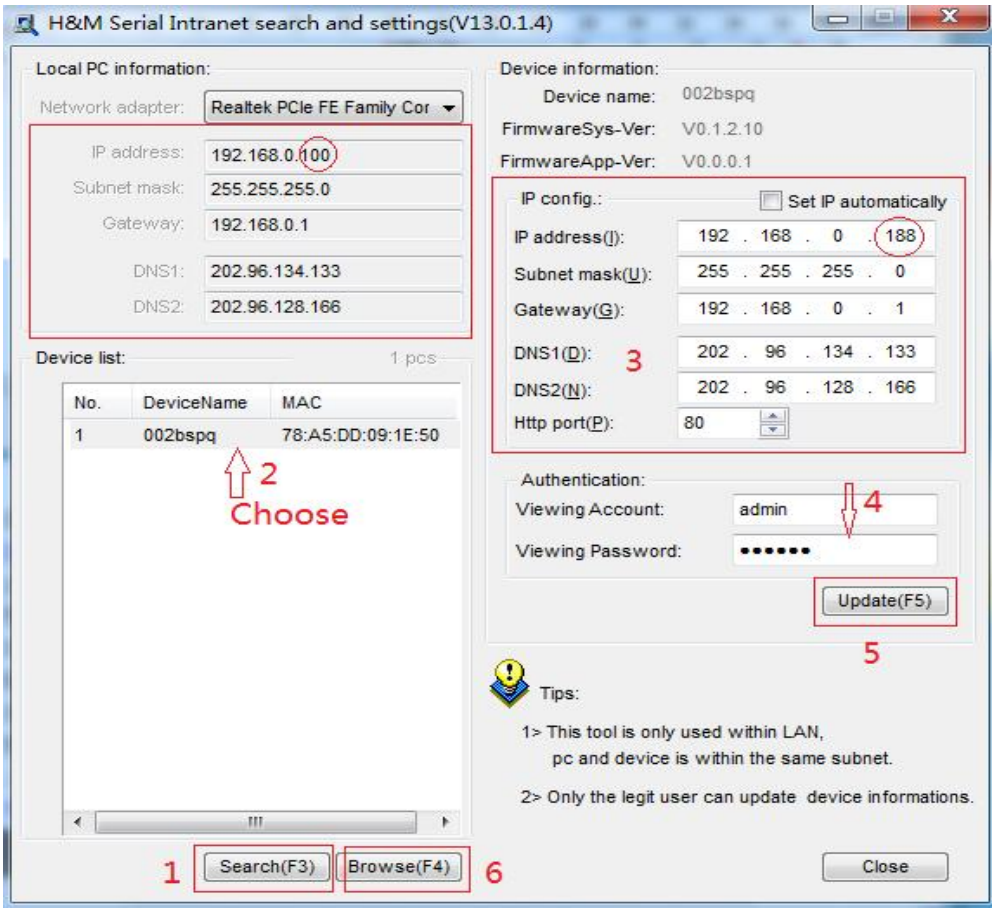


Figure 2

1) Click "Search"（Please make sure your firewall will not block up the item to be searched）
2) Choose a camera;
3) Change the ip address of the ip camera according to the information in the red

frame on the left. The numbers in the red circle should not be the same. The Http port should be a number between 80~65535;

4) Enter user name and password for the device, the default is “admin” and “123456”;
5) Click “update”;
6) After updating successfully, click “Search (F3)”, choose the device again and click “Browse (F4)”. Then you can run the web browser, enter user name and password and login IP camera to view the video, example of figure 3.（please use IE browser at first time）

Figure 3

Notice: Need to download ActiveX when first use, click “download ActiveX(when first use)” in figure 3, will display prompt as figure 4, click ‘run’ will download and install the ActiveX automatically.

Figure 4

Tips: You can hold on reset button on the camera for 10 seconds to restore factory default if you forget user name and password, or not sure the device parameters.

2.2. WiFi connection to LAN

After finishing the wired connection as chapter 2.1, you can connect the camera by WiFi. Login camera in wired connection and enter wifi setting, and then operate as the following step, example of figure 5.

Figure 5

Select ‘On’ and click ‘Search’, and then select wireless router in pop up menu, click ‘OK’ and enter its password, click ‘apply’ to save the wireless settings. And you can click ‘check’ to check if the wireless setting is successful. After setting successfully, please pull out network cable and reboot the camera to use the wireless function.

Because the camera supports WPS/QSS, so you can set wireless by simple way as below.

1) Please confirm if the router connected to camera supports WPS/QSS (you can check user manual of the router or get the support from router factory);
2) Press WPS/QSS button on the router, it will launch the function.
3) Press and hold on reset button for 2~5 seconds after it ran normally（not need connect cable）, it will launch the WPS/QSS function, then match the setting with the router, the status LED always on when it was matching, and it will flash after matching successfully.
4) Unplug power adaptor and reboot the camera, then you can use the wireless connect function.

Note: The camera will automatically stop the function when the matching is unsuccessful after continuing 50 seconds. Due to different kinds of the router, we don’t sure our camera can be connected to all routers successfully.

2.3. Connection to WAN

You should connect it to LAN network and do the port forwarding at first, and then connect the LAN network to WAN, connect as figure 6.

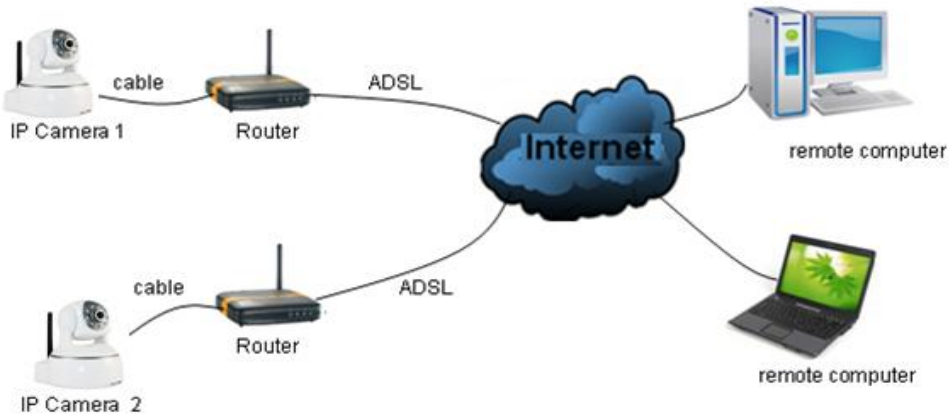


Figure 6

For example: operation step of port forwarding as figure 7.

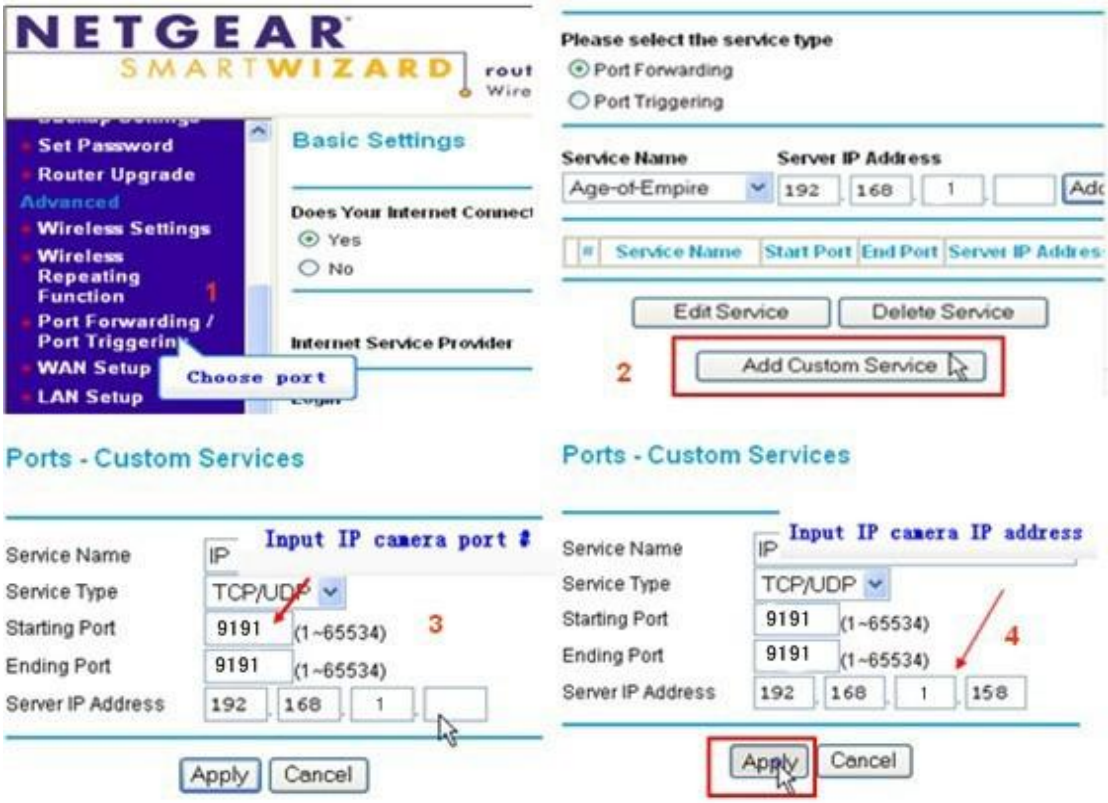


Figure 7

1) Please go to the setting interface of Router, and choose “Port Forwarding”;
2) Choose “Add custom Service” ;
3) Input IP camera http port;
4) Input LAN IP Address of the camera, click “Apply” (port number and IP address as you set in figure 2）

After finishing the port forwarding, you can use WAN IP address of router and http port of camera to visit the camera by remote computer as figure 6.

Notice: because the routers are different, so the interface and setting method of router are also different, how to do the port forwarding for various routers, please refer to the user manual of your router or consult with router manufacturer.

3. Operation of using IE browser

3.1. View video

Figure 8

1) Status bar

Figure 9

① Display connection status;

② Display record status: if click “Record”, it will show “REC” which stands for recording; click record button again, it will stop;

③ Zoom out, zoom in and restore digital zoom;

④ Set saving file path: set the location for recording and capturing file storage;

⑤ Talk button: Click this button to hear what the person at the side of computer talks. Click it again, it will stop playing;

⑥ Audio monitor button: Click this button to hear what people talking about at the side of IP Cameras,

2) Choose video stream

You can choose primary stream or second stream, third stream to view the video. Recommend to view by primary stream in LAN, by second stream in WAN and by third stream in mobile phone.

You can view the video by four, nine pictures in same screen, but need to set the camera in 3.6.6 multiple setting.

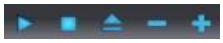
3) PTZ control

If the camera supports PTZ function, you can click up, down, left, right arrow to control

the camera moving, click button to center and stop the camera.

When you set camera to a preset position, and then click ' ', after the camera is changed to other direction, click can move the camera to the position you have set.

4) Snap /record / SD card/playback

- Click "Snap" button, to save the picture to the specified file.
- Click "Record" button to start record. Click again to stop record.
- Click "Check TF/SD card" can browse the files in the SD card (If the SD card already inside the camera), you can select file to download it;
- Click "Playback" button, it will show a player which can play the record video. For these buttons  means: play; stop; open video file; slow play; quick play.

3.2. Video setting

3.2.1. Video parameters

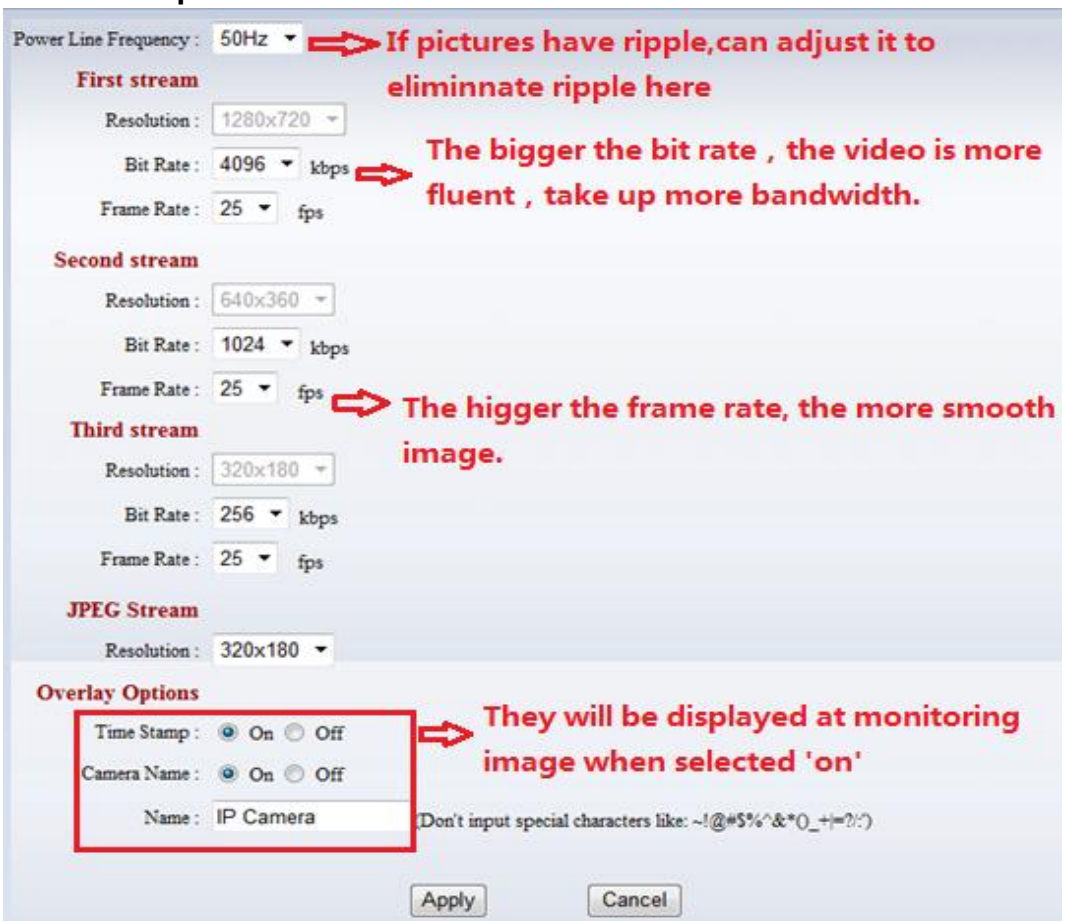


Figure 10

JPEG stream is for some views by non windows platform, for example, click 'mobile view' in first page, it will transmit JPEG stream actually.

3.2.2. Audio parameters

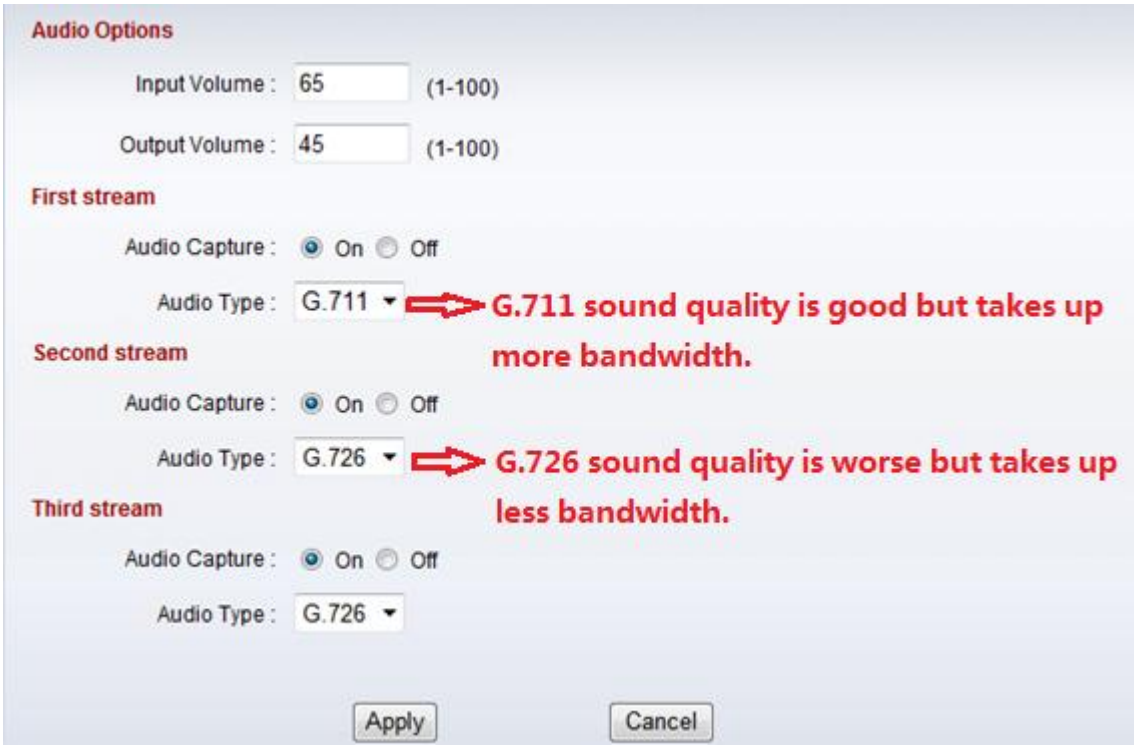


Figure 11

The camera supports G.711 and G.726 audio encoding format. The sound of the G.711 is better, but it occupies more bandwidth. If you click “On” of the audio capture, so it will transmit audio in corresponding video stream. Please open the audio here, should you hear the sound when clicking audio play button in figure 9.

3.2.3. Image parameters

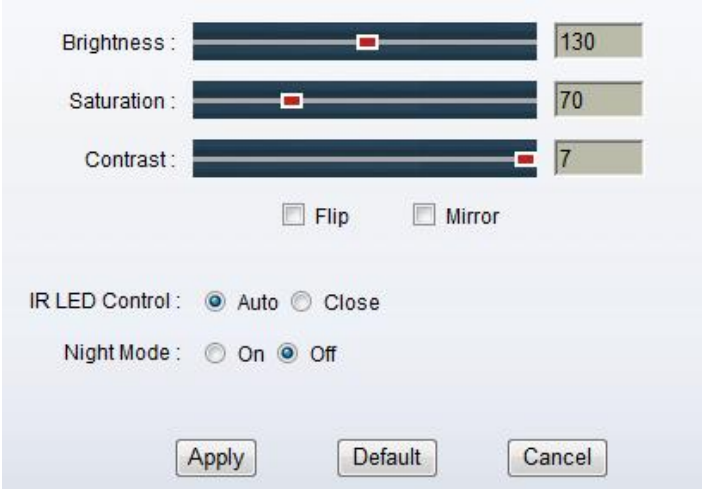


Figure 12

You can select “close” to disable IR LED when you don’t need it. It will cut frame rate automatically to enhance night vision at night when select “on”.

3.3. Web setting

3.3.1. Basic web setting

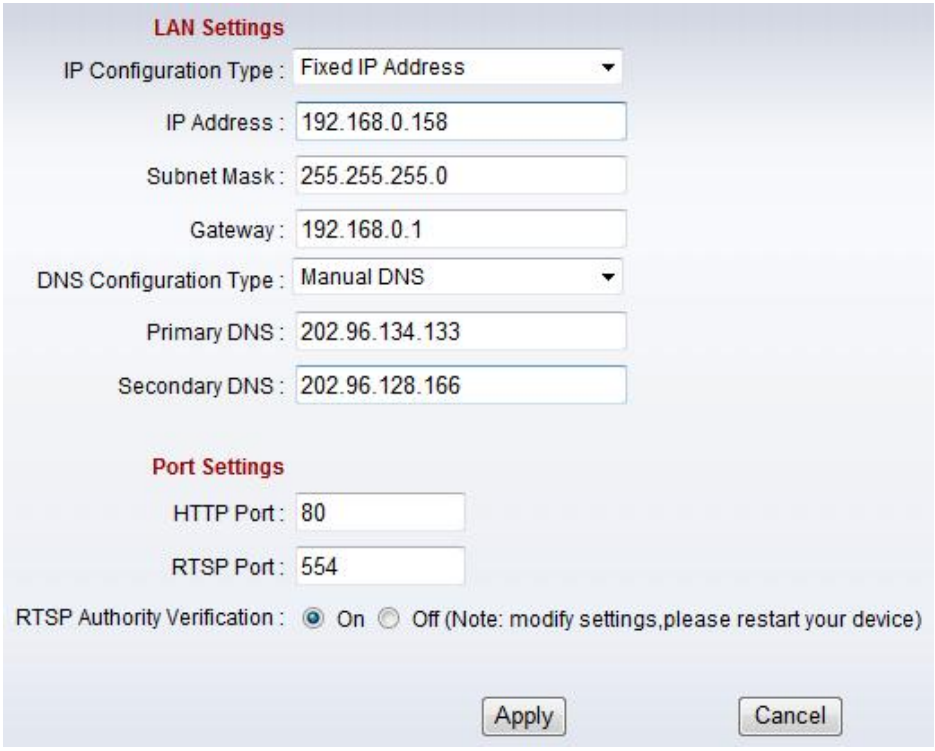


Figure 13

The cameras support RTSP protocol, if select “on” of “RTSP authority verification”, you need to enter user name and password when invoke video by RTSP protocol.

3.3.2. WIFI setting

Please refer to chapter 2.2.

3.3.3. WAN access setting

In chapter 2.3, you have known how to do port forwarding. After the success of the port forwarding, you can also visit camera by DDNS. The manufacturer has established a DDNS system, and allotted a DDNS to every device, the user can view it from remote PC, example of figure 14.

Figure 14

User can also use third party DDNS, such as www.dyndns.com. User applies a free domain name from this website and fills the info into below blanks (Figure 15) and saves the settings. Then the domain name can be used.

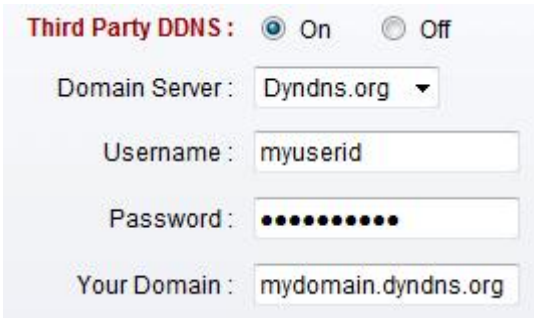


Figure 15

Notice: Using the third party DDNS, if the http port is not 80, the port number should be adding to the domain name with colon.

Example: ***http://mydomain.dyndns.org:81***.

3.3.4. ONVIF setting

Figure 16

The camera supports ONVIF protocol, so it can be interconnected with other factory camera with ONVIF.

3.4. Alarm setting

3.4.1. External Alarm Input

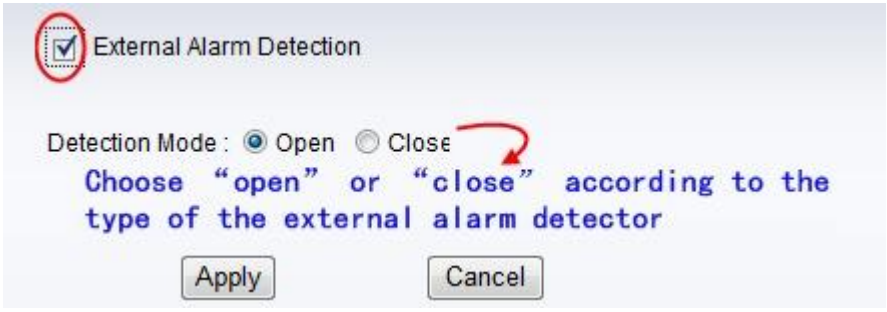


Figure 17

The camera should have external alarm input port for enable this functions. Connect external alarm detector to the input port, the detector will output switching signal when it detects any abnormal, input port of the camera will detect the level change, so it will detect the alarm, therefore the detector should be switching sensor (same as switch)

3.4.2. Motion Detection Setting

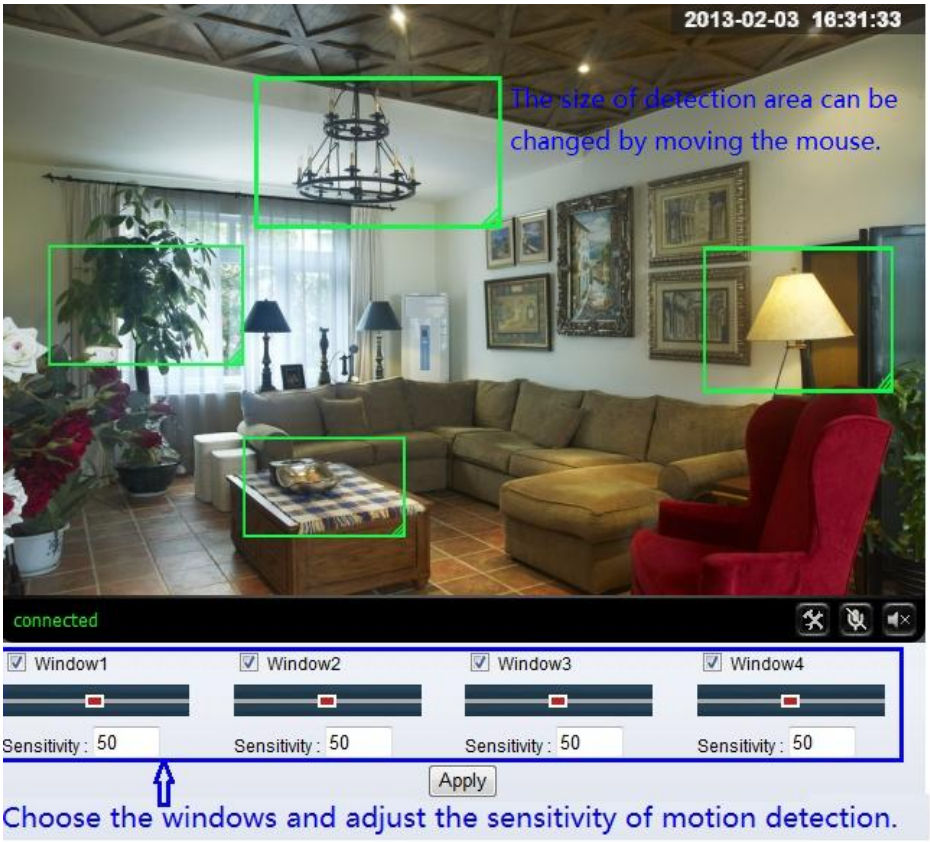


Figure 18

Please click “apply” after the settings are done, and motion detection takes effect. The higher value, the higher sensitivity. The camera will trigger corresponding alarm when any change occurs in the detection area.

3.4.3. Alarm mode setting

After camera detects any change, it will alarm as several mode, example of figure 18.

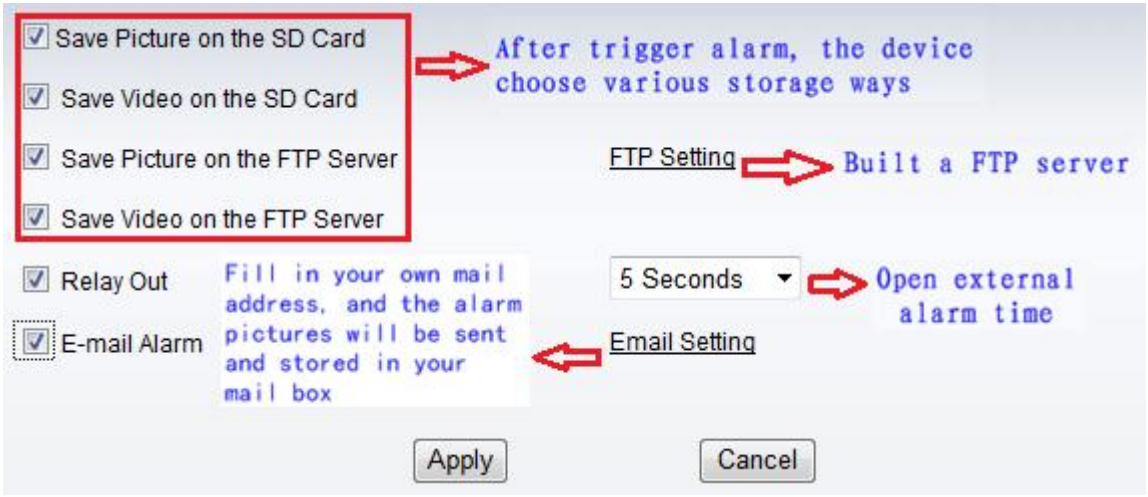


Figure 19

3.4.4. Alarm time setting

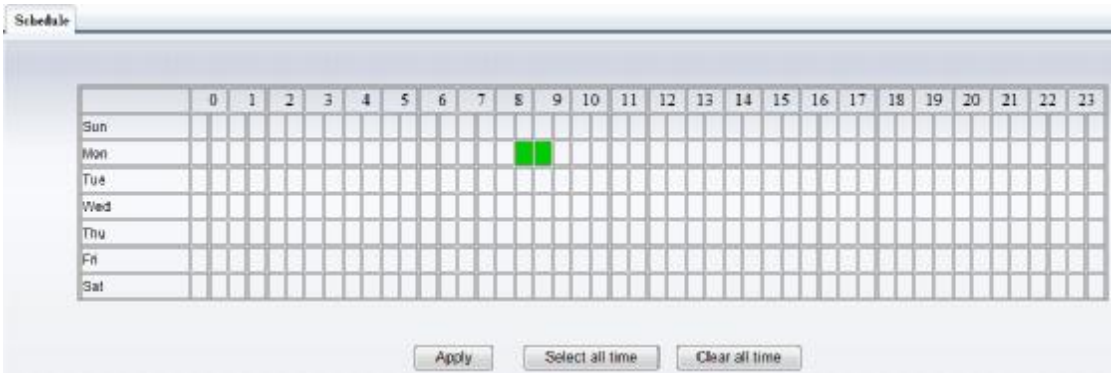


Figure 20

The device will trigger the alarm only during the scheduled time period, you can select the scheduled time according to your request. Example of figure 20, set armed time from Mon 8:30 to 9:00, you only need to click the corresponding time block to set them, the time block will become green when you selected.

Note: Please make sure your system time is correct before you set the alarm time period. Please refer to chapter 3.6.2 to set system time.

3.5. Advance setting

3.5.1. User management

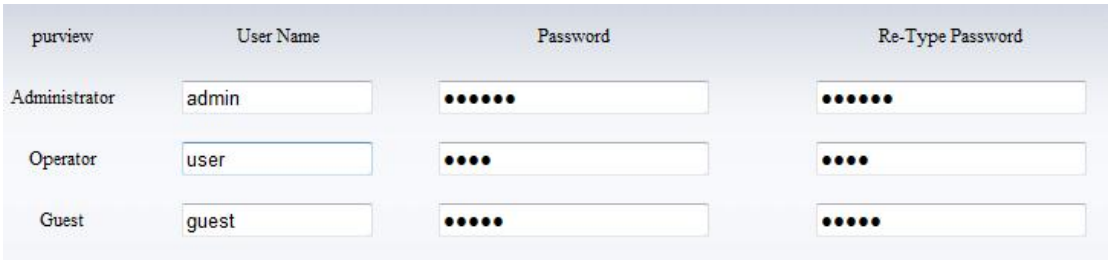


Figure 21

There are 3 levels of user authorization in it.

- Administrator: “admin” has the highest authority. It can do any settings. The factory default password: 123456.
- User: user can only operate the device but can’t do any settings. The default password is user.
- Guest: User can view the video, but can’t operate the device. The default password is guest.

Note: Please change these 3 level passwords when your first use to ensure your safety.

3.5.2. Auto Capture Setting

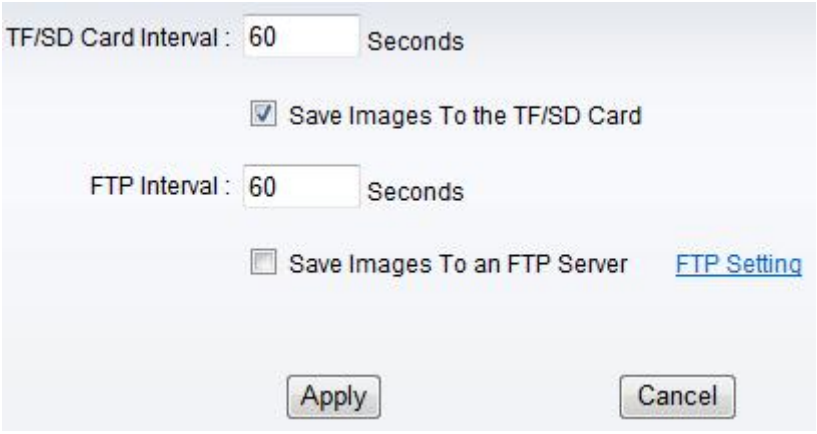


Figure 22

Tick “Save Images to the TF/SD card”, the snap pictures will be stored into SD card during the setting time.

3.5.3. Timer recording

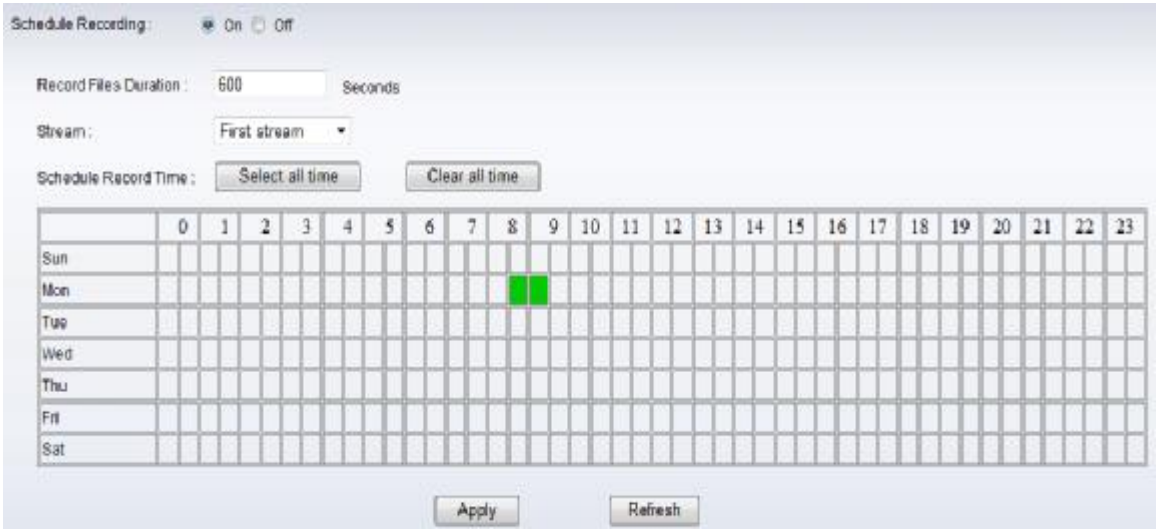


Figure 23

Example of figure 23, set recording time from Mon 8:30 to 9:00.

3.5.4. E-mail Setting

Figure 24

The SMTP server name: It is mailbox server, for example of SOHU mailbox, it is “smtp.sohu.com”. Please fill all blanks which we filled above in figure 24 as example. Otherwise, the settings will fail.

Please click “Test” to test if the E-mail setting is successful.

3.5.5. FTP setting

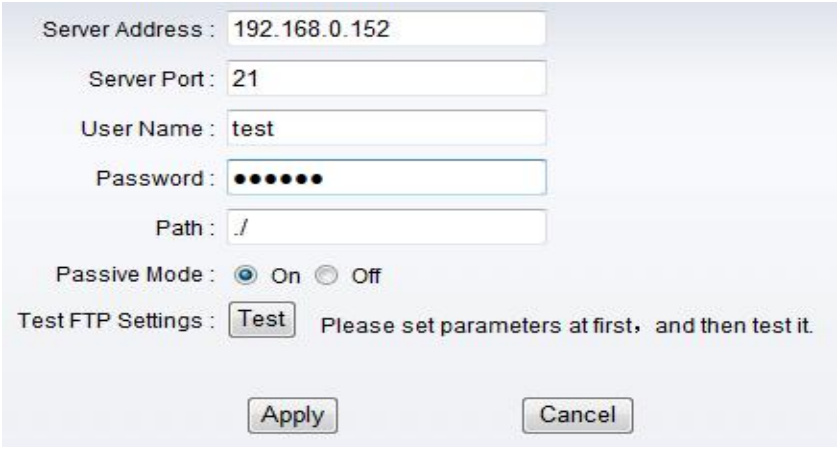


Figure 25

Before to use FTP function, please get the following ready.

1) FTP user name and password
2) FTP storage space and the authority
3) Create sub-category to store the video or pictures.

Notice: The password should not be special character; otherwise the camera can’t identify it.

3.5.6. Multiple settings

Figure 26

Please set multiple devices here first to view 4 or 9 split screen at chapter 3.1 browse interface.

3.6. System setting

3.6.1. Device information

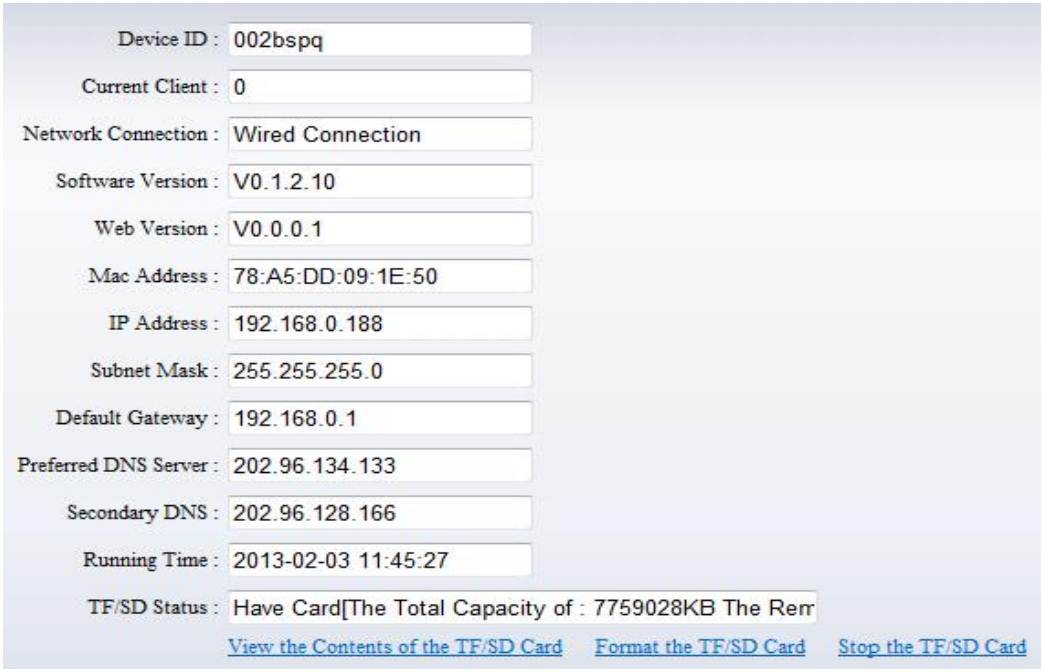


Figure 27

SD status shows the free capacity if SD card is installed.

Notice: the device supports max 32G SD card. Please format the SD card to FAT32 before use the card on camera. Please check if the SD Card matches the camera or not before purchasing the SD Card.

3.6.2. Date and time setting

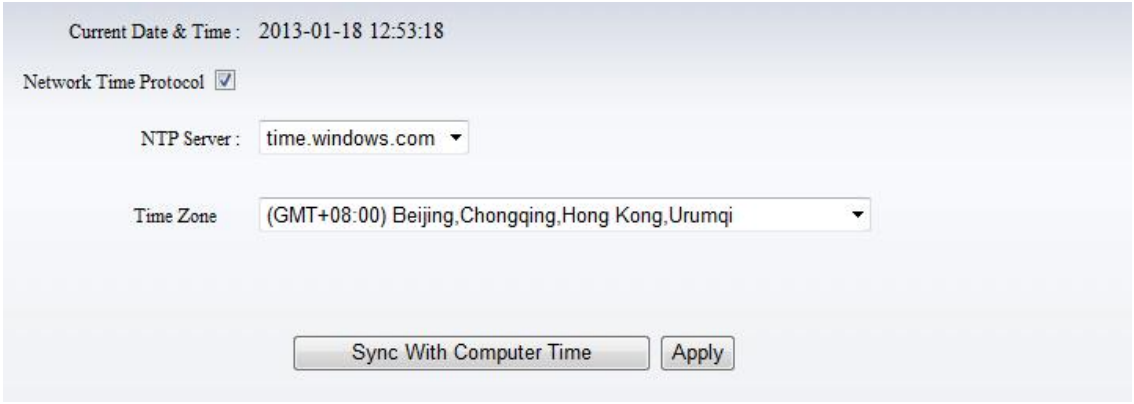


Figure 28

Example of figure 28, please select the time zone at first and then select a NTP server and obtain time from network time server.

3.6.3. Initialize setting

Figure 29

If you click “Confirm” of Backup setting data, the camera will create a file, you can store it to your computer, and you can directly call this file to restore the settings. The function helps to manage the cameras and no need to do all the settings again.

The firmware upgrade is for updating system firmware and web UI.

3.6.4. System Log

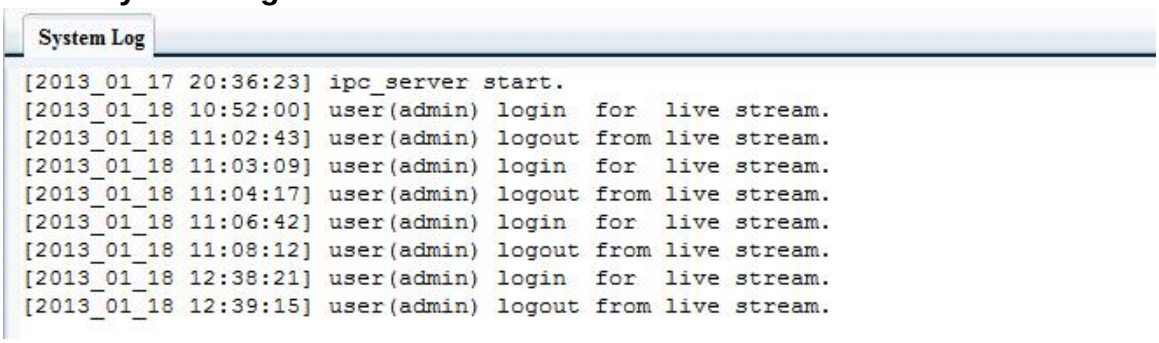


Figure 30

4. Visiting device by other software

4.1. Other web browser

In the Windows OS, for using browser with IE kernel, user must download the ActiveX. While for Safari and Firefox browsers, please Download “QuickTime” plug-in and install it to access the IP camera. After installation, please run the QuickTime program to access the QuickTime Preferences dialog box from Edit Menu, example as figure 31. Click “Advanced”, select “custom.” in the Transport Setup. It pops up the Streaming Transport dialog box. Please select “HTTP” for transport protocol and “80” as port ID, click “ok”, and then return to Transport Setup to change “Custom..” to “Auto”. Finally, click “ok” at the bottom. After finishing these settings, run the Firefox or Safari browser to view the video.

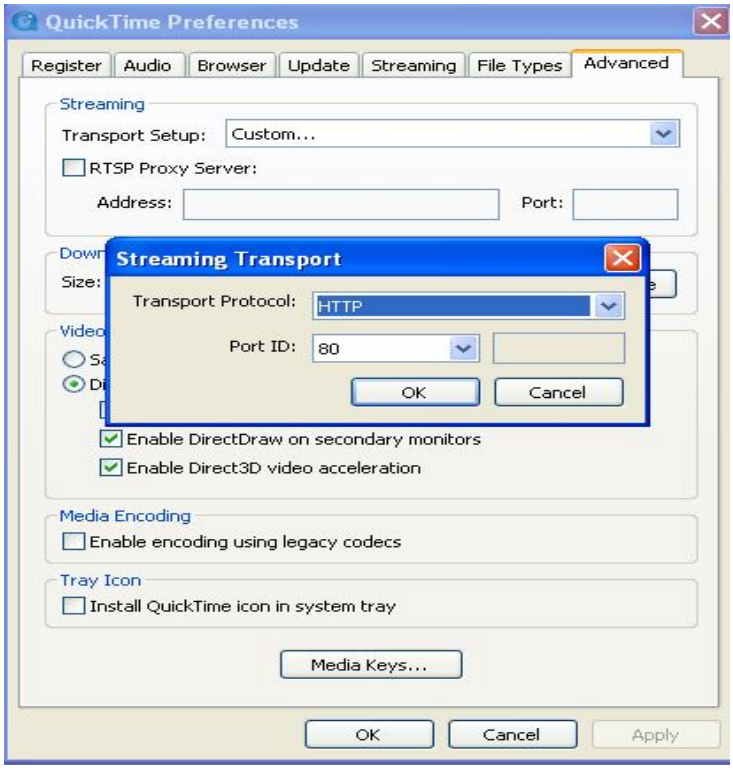


Figure 31

In Mac computer, the Quicktime is installed by default, so the user simply accesses setting tool folder at application folder and run the command program, enter command by command line mode:

qtdefaults write TransportSettings HTTP 80

And then run the Safari browser to view the video.

Note: Please select the G.711 audio code format for hearing sound in Quicktime plug-in.

4.2. Mobile phone software

For more information, please see the user manual for mobile phone in attached CD, or download the latest software and user manual in our website.

4.3. PC Client software

IPCMonitor is a free software offered by factory, several devices on LAN and WAN can be browsed at the same time. The software also support real time recording, schedule recording, alarm, snap, and so on. The interface is as Figure 32.

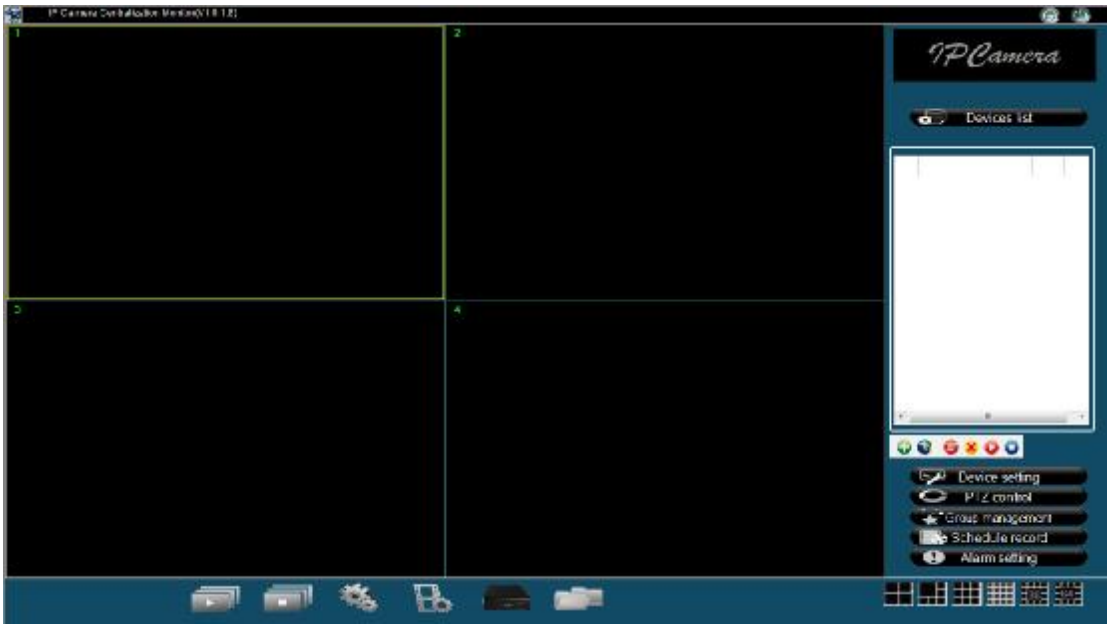


Figure 32

For more information, pls. refer the <<IPCMonitor User Manual>> in CD.

4.4. Other common software

As the device supports RTSP protocol, you can use VLC player to play IP Camera video. It is compatible with VLC 1.1.12 version or above. Please use below URL to visit:

rtsp://ip:port/11 （View the video by first stream）
rtsp://ip:port/12 (View video by second stream）
rtsp://ip:port/13 (View video by third stream）

The port is RTSP port; please refer to the settings of Figure 13.

5. Product family for M series

5.1. HD Cube Camera

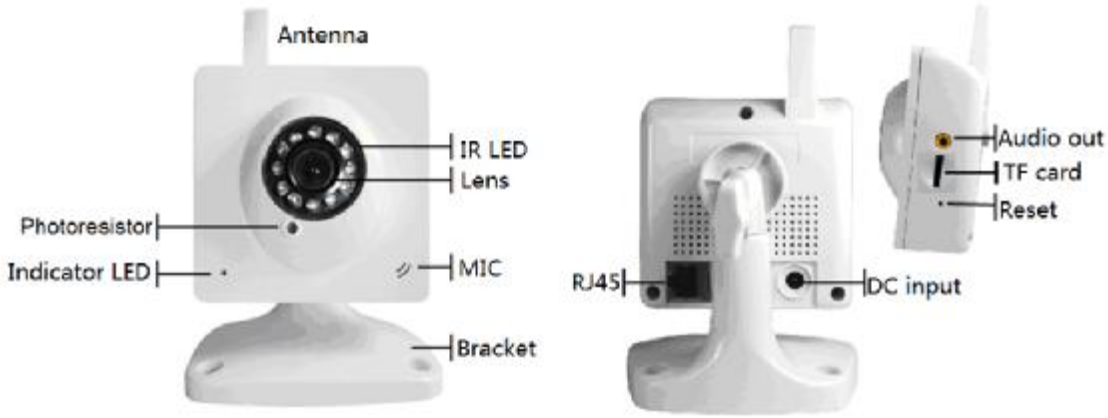


Figure 33 HD Cube Camera

Mega pixels CMOS sensor, IR-CUT, 3.6mm lens, built in MIC, support TF card, 12pcs IR LED, audio out interface. It uses 5V power adaptor.

5.2. HD PTZ Camera

Figure 34 Model A

Mega pixels CMOS sensor, IR-CUT, 3.6mm lens, built in PTZ, MIC, support TF card, 11pcs IR LED, audio out interface. It uses 5V power adaptor.

Figure 35 Model B

Mega pixels CMOS sensor, IR-CUT, 3.6mm lens, built-in PTZ, MIC, speaker, support TF card, 11pcs IR LED, audio out interface. It uses 5V power adaptor.

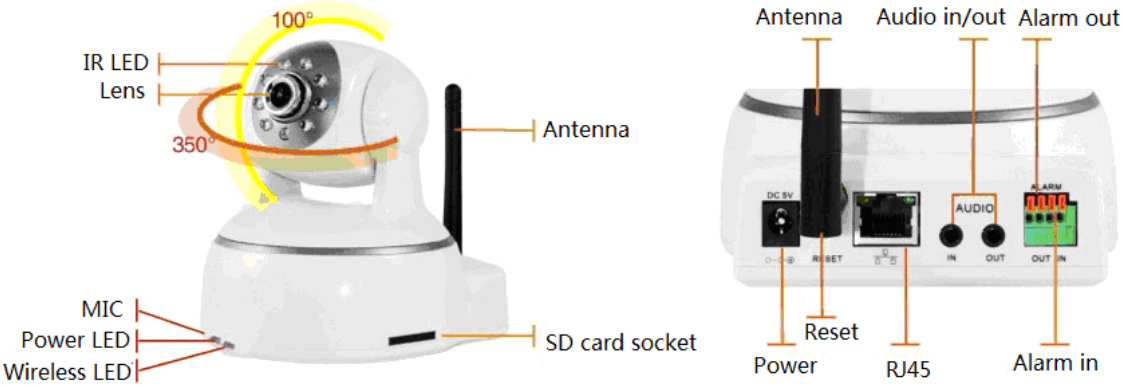


Figure 36 Model C

Mega pixels CMOS sensor, IR-CUT, 3.6mm lens, built in PTZ, MIC, support SD card, 8pcs IR LED, audio in/out interface, alarm in/out interface. It uses 5V power adaptor.

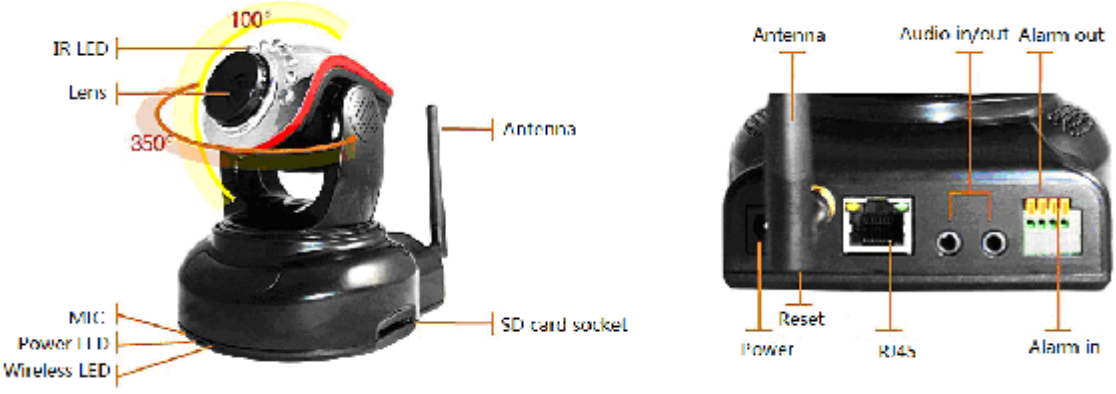


Figure 37 Model D

Mega pixels CMOS sensor, IR-CUT, 3.6mm lens, built in PTZ, MIC, support SD card, 10pcs IR LED, audio in/out interface, alarm in/out interface. It uses 5V power adaptor.

5.3. HD waterproof camera

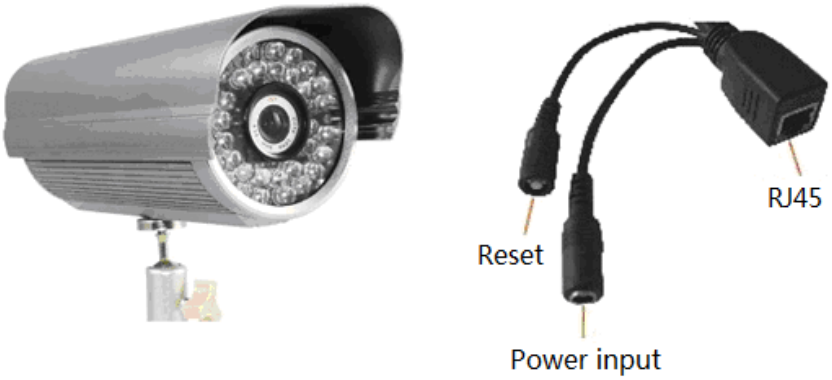


Figure 38 Waterproof camera

Mega pixels CMOS sensor, IR-CUT, 8mm lens, 36pcs IR LED, POE function optional, it uses 12V power adaptor.

Statement：

1. This manual may be different with your using camera, if you have any questions of the manual, please contact our technical support.
2. This manual will be updated periodically; the company reserved the right without prior notice.

Appendix：M series IP camera parameters comparision list

Product / Function						
Video Compression	H.264/M-JPEG					
Resolution	1280*720/640*360/320*180					
Max. Framerate	30fps					
Audio compression	G.711/G.726					
Main software function	Support HTTP, DHCP, IEEE 802.11b/g/n, NTP, FTP, SMTP, ONVIF, RTSP, WPS, P2P protocol etc; Support 32GB TF/SD card; support motion detection; three level of user authority; PTZ preset point; support upgrading online					
SD/TF	Micro SD（support Max. 32GB）				SD（ support Max. 32GB ）	
IR-cut	Yes					
Lens	3.6mm	8mm	3.6mm	3.6mm	3.6mm	3.6mm
Pan/Tilt	Tilt 100°Pan 350°	N/A	Tilt 100°Pan 350°	N/A	Tilt 100° Pan 350°	
Night vision	11pcs IR LED, 8m distance	36pcs IR LED, 25m distance	11pcs IR LED,8m distance	12pcs IR LED, 8m distance	8pcs IR LED, 5m distance	10pcs IR LED, 6m distance
Wi-Fi	optional	optional	Yes	Yes	optional	optional
Audio	Built in MIC, audio out	N/A	Built in MIC and speaker, audio out	Built in MIC, audio out	Built in MIC, audio in/out	
Alarm	N/A				1 way alarm in/out	
Power supply	5V power consumption<6W	12V power consumption<10W	5V power consumption<6W	5V power consumption<6W	5V power consumption<6W	5V power consumption<6W
Work condition	-10℃~ 50℃ under 85%RH					
Body size	106*99*126mm	220*112*106mm	102*110*130mm	48*85*110mm	102*107*148mm	111*110*125mm