

# **1080P 23X Network IR PTZ Camera**

## **User manual**

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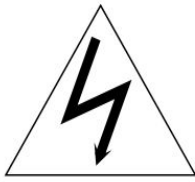
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## CAUTION

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- Non-technician should not try to operate this high speed dome before reading this manual carefully. (This manual are subject to change without prior notice.)
- Cut the power supply off before operating the device to avoid damage caused by mal-operation.
- Interior of the camera are precision optical and electrical instruments. Heavy pressure, shock and other incorrect operations should be prevented. Otherwise, may cause damage to product.
- Please do not use the product under circumstances where the limits exceed the maximum specified temperature, humidity or power supply specifications.
- Contents in this manual may be different from the edition that you are using. Should any unsolved problem occur given that the product is used according to this manual, please contact our technical support department or your product suppliers.
- This manual content will be updated unscheduled, our company reserves the right to do manual contents update without further notice.
- The default user name for this device is “admin”, and the password is “blank” (Users can set the password according to the reminder). Default IP address is 192.168.1.188, HTTP port is 80, device port is 5050. Default communication protocol is pelcoD, baud rate is 115200 BIT/s, and PTZ address is No.1
- Device will enable preheat function when it is cold booting below  $-20\text{ }^{\circ}\text{C}$ , it will take about 30 minutes to warm up and get the device to start normal work.
- PTZ camera installation grounding lightning protection: ground resistance  $\leq 4\Omega$ , ground wire (Olivine copper wire) sectional area  $\geq 1.2\text{mm}^2$ .

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## PACKING LIST

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Check if the packing contents match the packing list on receiving the products. The packing list is as below.

Part	Quantity
Network IR PTZ Camera	1
Wall mounting bracket	1
Power supply	1
Screws bag	1
CD	1
Glove	2

Contact your local retailer if anything is missing in your package.



# 1 Introduction

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## Performance Characteristics Features

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- Support max 1920\*1080@30fps HD video output
- H.264/H.265/MJPEG encoding
- Low illumination 0.02Lux/F1.6(Color), 0.002Lux/F1.6(B/W), 0 Lux(IR on)
- 23X 2MP UHD optical zoom auto focus lens
- Support 3DNR, WDR, defog, HLC, anti shake, etc
- Support 360° pan endless; tilt 0°-90°
- Support manual speed: 0.1°-180°/S, preset:200°/S
- 256 presets, 4 pattern scan, 8 preset cruise
- 3D positioning, privacy mask, PTZ watch
- Support target counting, Object Left/Lost, area detection, line crossing detection
- 1CH audio input, 1CH audio output
- 2CH alarm input, 1CH alarm output, support alarm linkage
- Support smart IR grouping control, IR distance can reach 120m
- Support max 128G Micro SD card
- SDK, ONVIF, API, GB/T28181 protocol
- Lightning Protection, surging prevention, anti surge, IP66 protection level

## 2 Hardware Installation

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### System requirement

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- LAN or WAN Internet to connect server, via PC Ethernet ( network card or network cable) TCP/IP protocol (Windows /NT/2000/XP) connect , suggest Internet Explorer 9.0 version or later.
- Monitor and PC configuration:  
CPU: PIII or latter, RAM: 512M or latter( Above DirectX8.1)
- Monitor: 17",1920×1080 resolution
- Operation system: Windows NT, Windows2000, Windows XP or later.

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### Installation environment

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#### Installation environment requirements

Far away from humid or high-temperature environment; Choose proper place for ventilation; avoid installing on shaky place, and try to stay away from heat device.

#### Recommend operating environment

-30°C~60°C

#### Hardware installation steps

Please make sure LAN and WAN are working in order before installation of the Network High Speed Dome. After checked all the network system in good condition, keep your hands clean and dry, following the steps below.

- Unpack the box to check the goods
- Take out all goods which needed for installation from the box
- Take off the protection cover and insert the TF card. Please refer to the TF card installation steps below.



Remove the screws of ornament(2pcs), then take off ornament

Figure 2-1



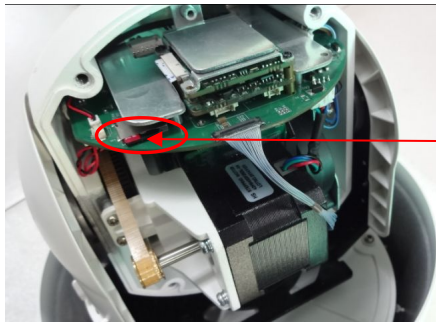
Loosen the screws of horizontal installation panel(4pcs), then put up the panel for a little

Figure 2-2



Loosen the screws of back cover(4pcs),and take off the cover

Figure 2-3



Insert TF card

Figure 2-4

- Connect related cables according to actual need (Power line, network line, audio line etc.)
- Connect the power supply

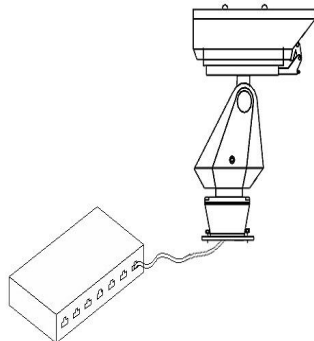
Please read the **Note** carefully, any question you should contrast us without hesitation.

**Note:**

- When open the box, please check all of parts carefully, confirm the parts in the box as same as packing list.
- Please read the user manual carefully before the installation.
- Make sure to turn off all the power when install the camera
- Please confirm the power transformer, avoid the device damage with unmatched power source

**Network connection**

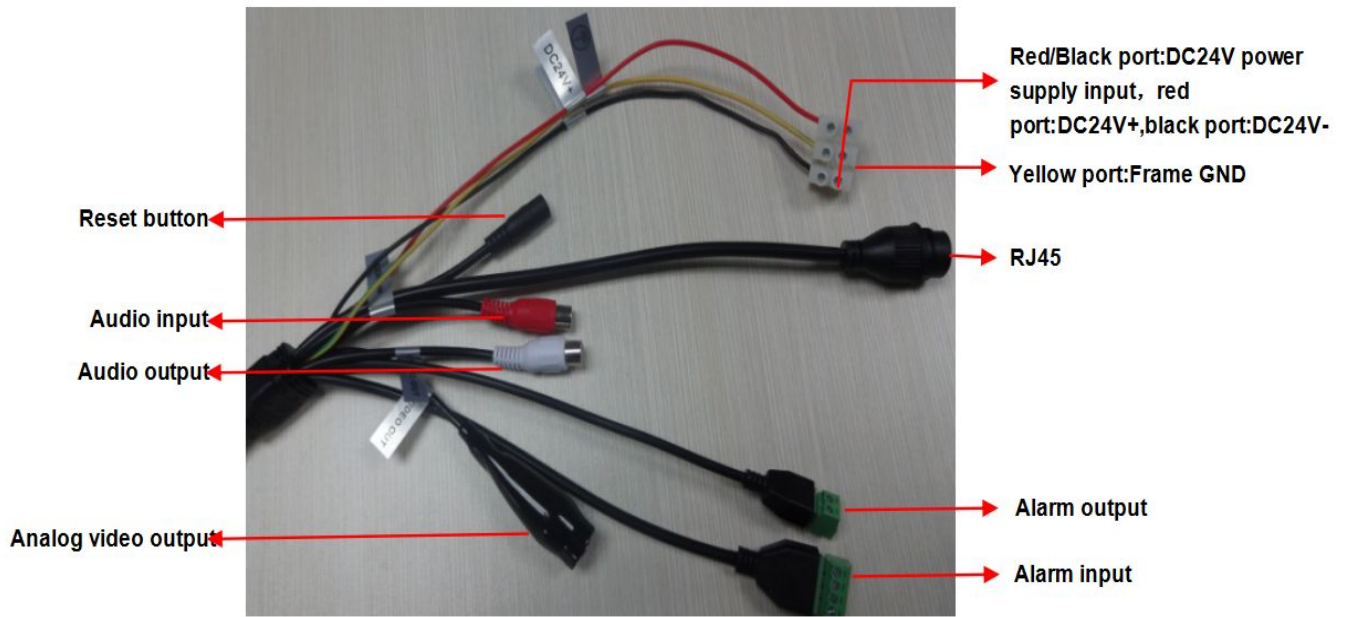
- LAN connection  
Use one network line to connect IP camera with concentrator or switchboard of the LAN. As shown below, you can also use one network line to directly connect Network High Speed Dome with your network card or switchboard
- WAN connection  
Use one network line to connect Network High Speed Dome with Router or XDSL Modem/Cable Modem. as shown bellow.



- Connect the power supply  
After connect the power source, the network camera will start operation automatically.



## Connection instruction

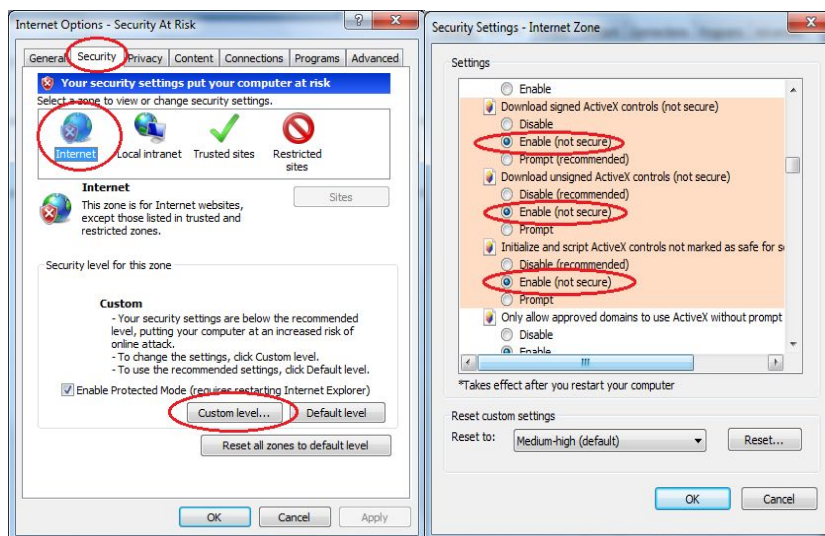
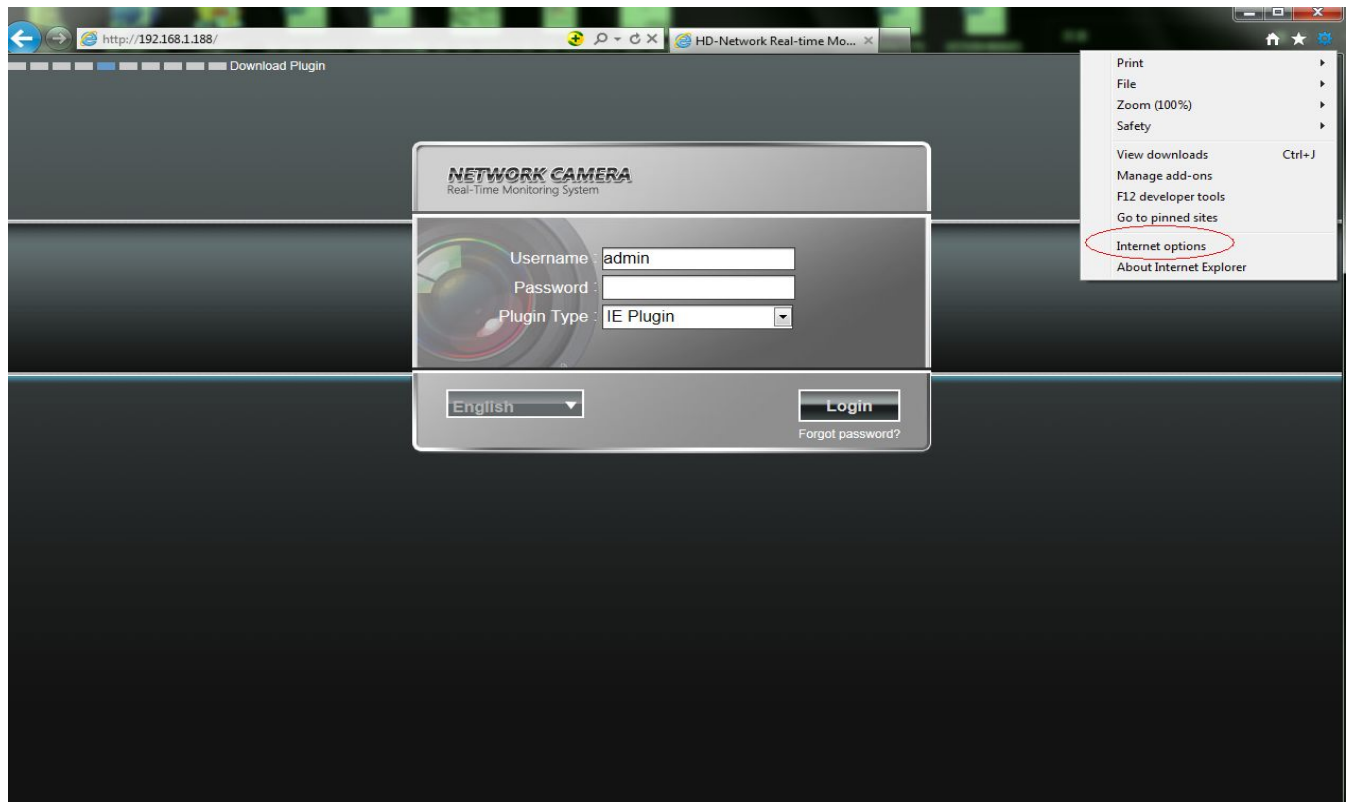


# 3 Operating Guide for Network High Speed Dome

## Set the IE Browser

Due to the high level of IE security settings, the downloading of ActiveX and the updating of software will be influenced, probably failed to conduct that. To realize the function of visiting the network PTZ camera video, it need to set the IE browser previously.

Setting Method: Open the IE browser, click "Internet Options" into the "tools/Internet Options/Security/Custom Level" page, click the "Custom Level", and then "Start Using" the "ActiveX and plugins". You can choose the recommended choice if it's unsafe to start using, as shown in the figure below:



## Download and Install ActiveX

You need to install ActiveX Control when you visit Network High Speed Dome for the first time through IE browser.ActiveX installing method:

Download installation

Input the IP address of Network High Speed Dome(default address <http://192.168.1.188>.) in Internet Explorer to enter into login page, Click to download and install Active X, it will pop-up installation control message after clicking, Click "run", install the ActiveX according to the prompt.as shown in the following figure:

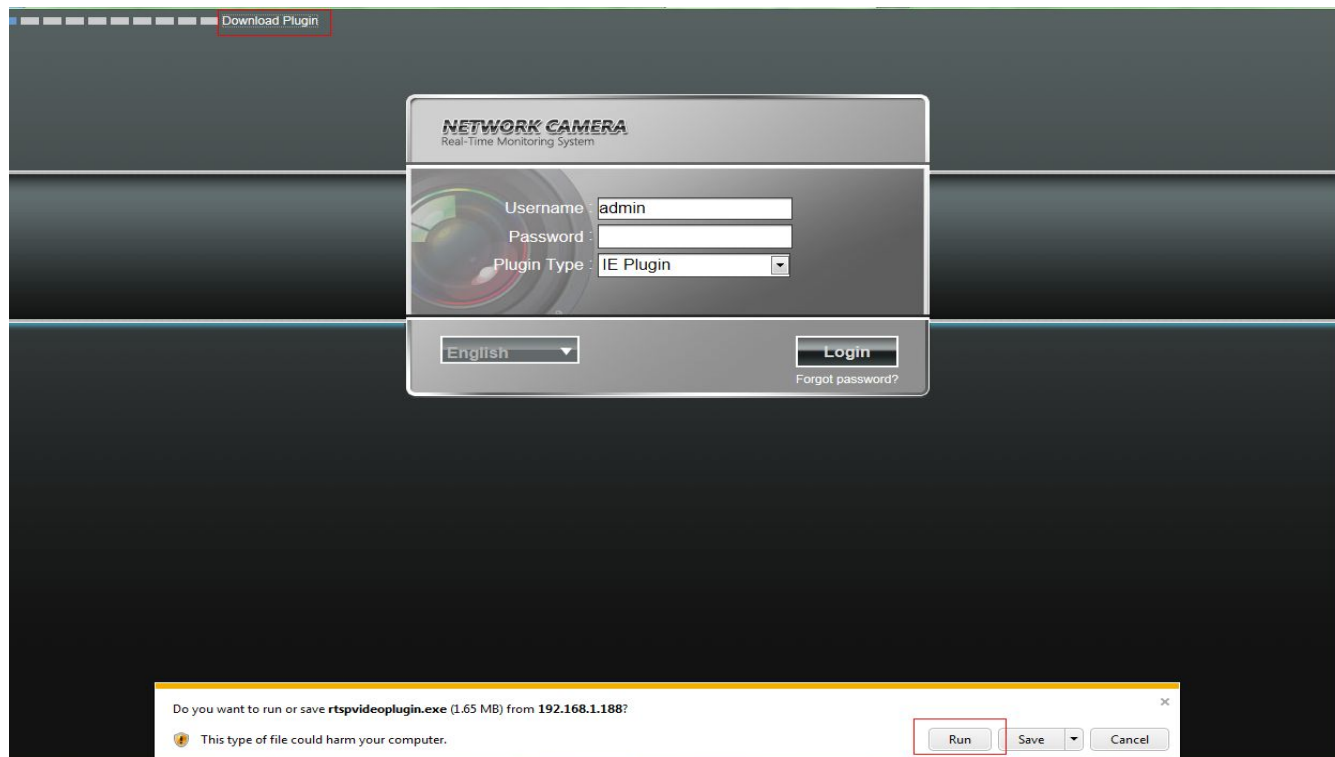


Figure 3-1

A file download dialog will pop out, click "Next" to installation. as shown in the follow figure 3-2

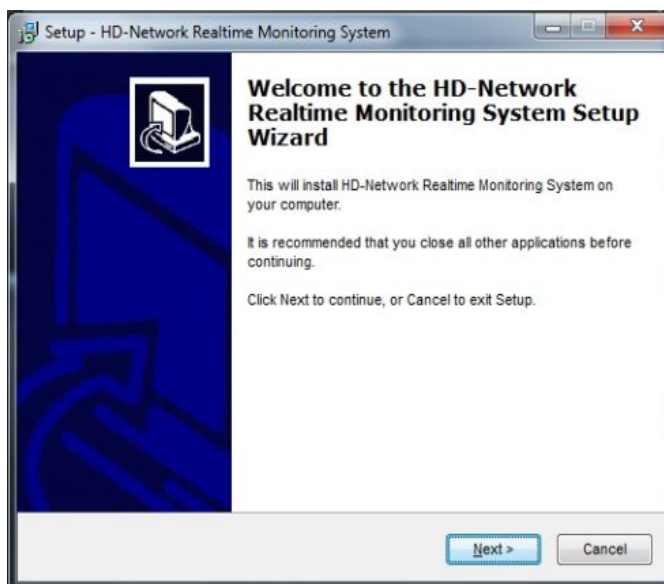


Figure 3-2

Select the ActiveX installation and storage file, the default installation and storage file is `c:\Program Files\webactivex-rtsp`, and click "Next" to enter next dialog. as shown in the follow figure 3-3



Figure 3-3

Click "Install" to enter into the next dialog, as shown in the follow figure 3-4

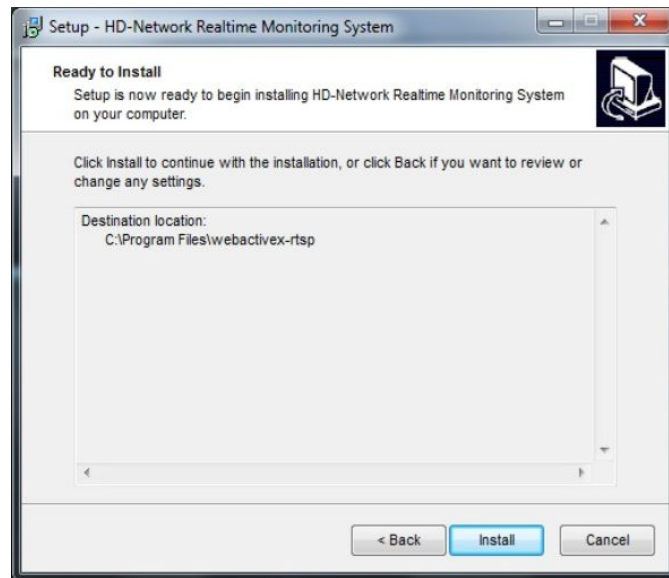


Figure 3-4

Click "Finish" to complete the ActiveX installation, as shown in the follow figure 3-5

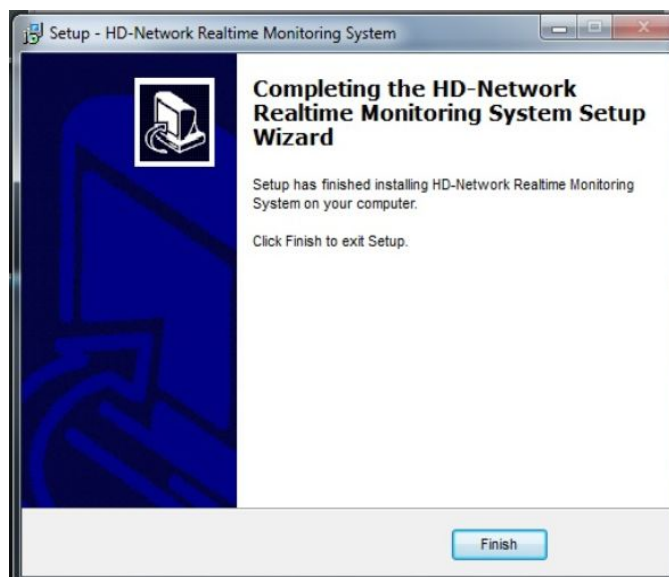


Figure 3-5

# Login

After installing the Active X, click "Login" will prompt whether to change the password, as shown in the following figure:

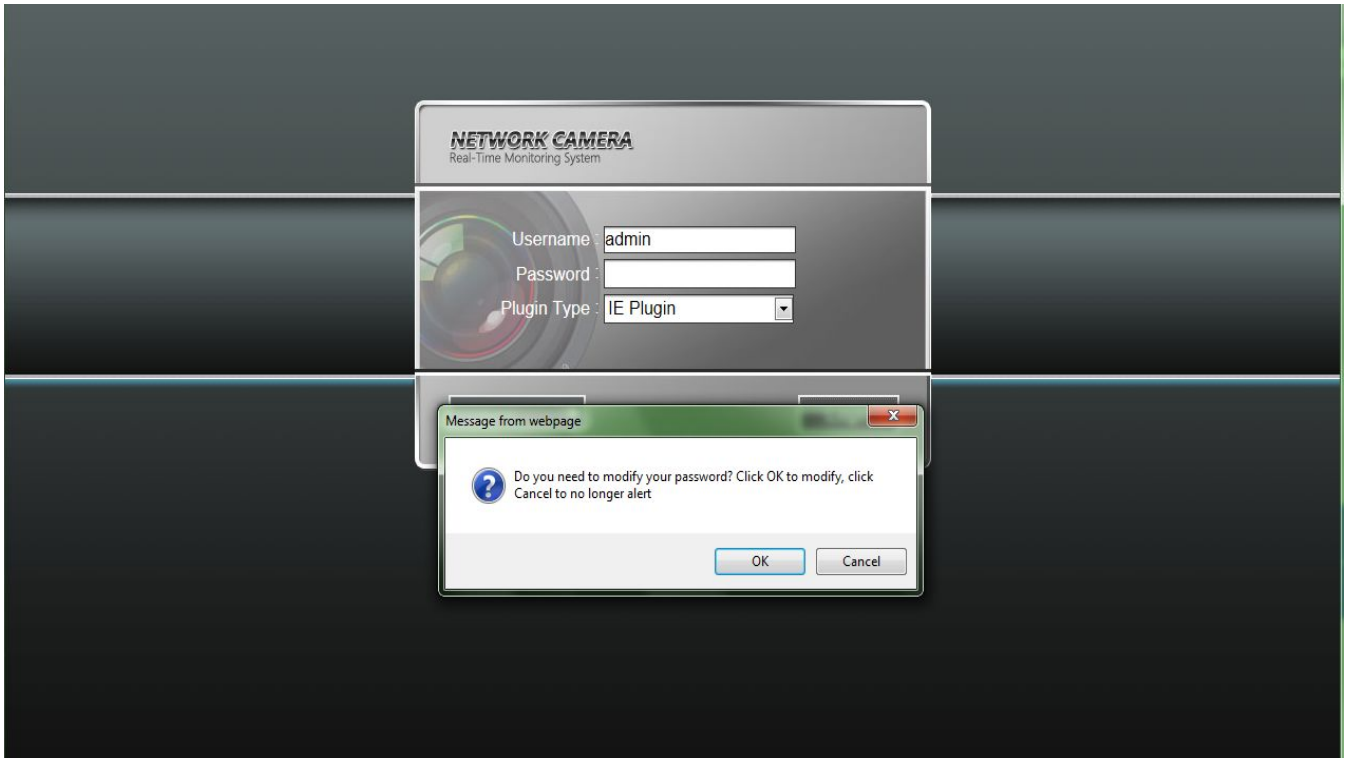


Figure 3-6

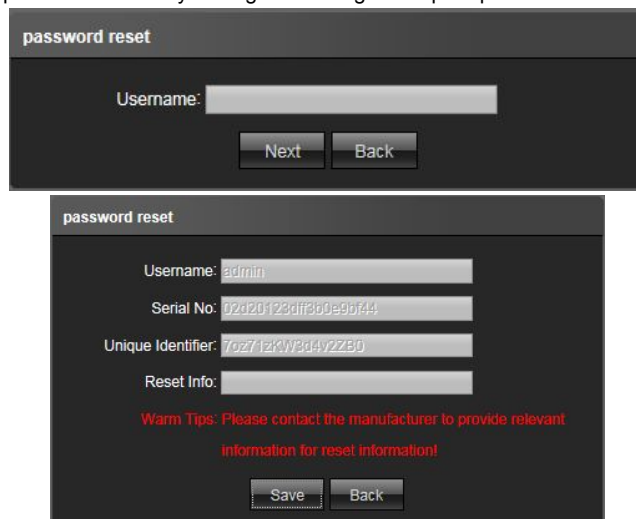
**User Name:** admin (default setting)

**Password:** blank (default setting) (Users can set the password according to the reminder)

**Plugin Type:** IE Plugin or Flash Plugin. If you use IE browser, then please select IE Plugin to login. While you use other browsers, then select Flash Plugin to login. (Note: Select Flash Plugin without installing Activex control)

**Select Language:** English, implied Chinese, traditional Chinese

Note: if user sets password and then forgets, click on [Forgot password?](#) below the "login", will pop-up password reset window (user name default admin), can return password to factory settings according to the prompt.





## Live view

Note: The inserted TF card is for full function display interface, otherwise, it's for simple type interface.

Live preview interface as shown in the follow figure:

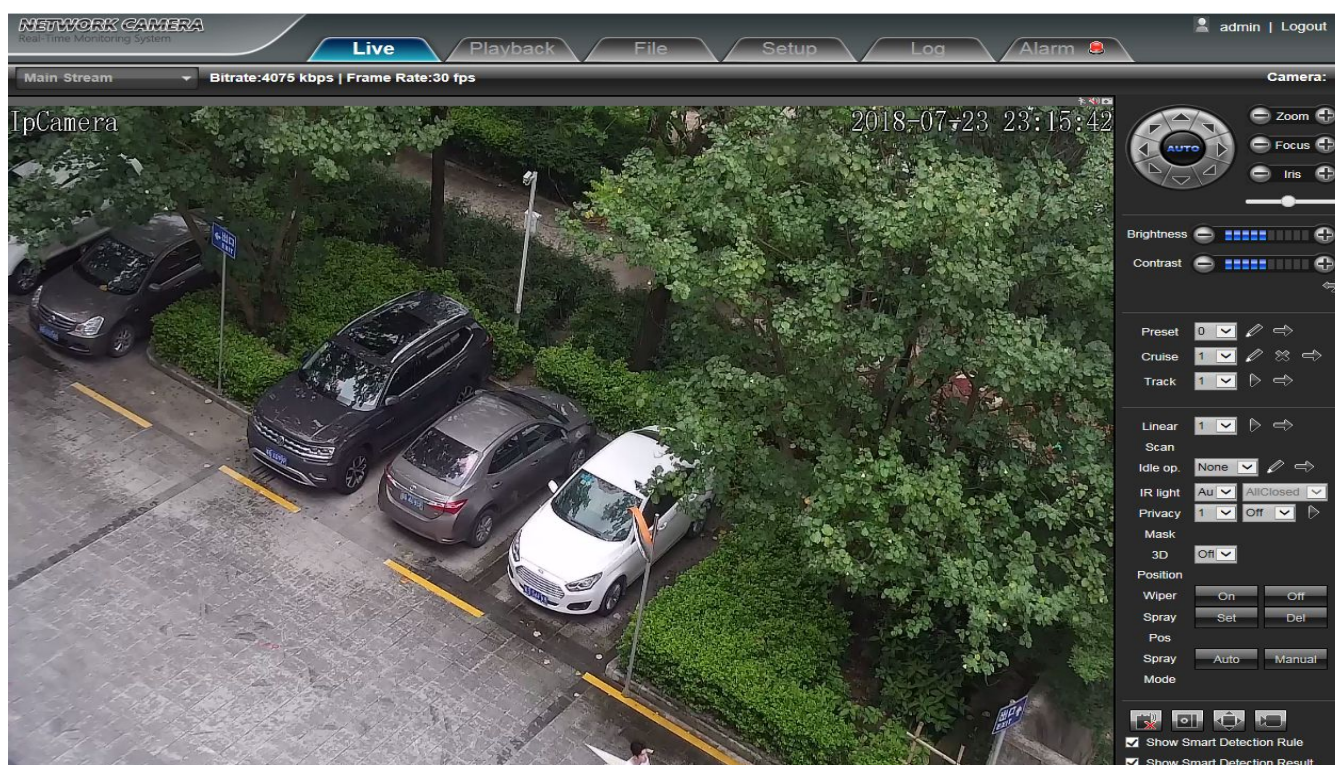











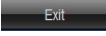

Figure 3-7


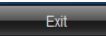

In the Live view interface, users can do operations such as voice intercom, listen, capture, full-screen preview, video record, Event Type check, PTZ and lens control, brightness, contrast, preset setting, cruise, track setting, linear scan, idle op., IR light, Privacy Mask, 3D Position, etc.


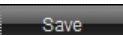

- **Voice intercom:** Connect sound pick-up device on the audio input port and active loud speaker on the audio output port, then click the talkback icon. Turn on the voice intercom switch and the icon shows as , the talkback between PC and Network High Speed Dome can be performed. Audio input setting as default mode.
- **Capture:** click  button, snap the current image and save it in .JPG format automatically to the storage directory of snapped images. The default path is C:\Program Files\PREVIEW, and the storage path is changeable.
- **Full Screen:** press  button or click right mouse button to live preview in full screen, press the Esc key or remove clip to exit full screen
- **Record:** ON/ OFF selectable. When select ON, the icon turn blue as , and device do video recording and saved in the appointed files as AVI format
- **Event Type:** Warns light flashing when camera device inform alarm. Support kinds of alarms record, and setup or remove the alarm setting, clear the alarm information.
- **Zoom-in:** Use the mouse to do local zoom for the video display area by scrolling the mouse wheel.
- **PTZ control:** Up/ down/ left/ right/ auto/ adjust the PTZ rotate speed, etc. as shown in the follow figure 3-8.
- **Lens control:** Do scaling, focus, iris operation, as shown in the follow figure 3-8.
- **Brightness:** The brightness of graphics can be adjusted, but it can only change the brightness what the current previewed graphics displayed, and it won't be effective in the video, as shown as in the figure 3-9.
- **Contrast:** The contrast ratio of graphics can be adjusted, but it can only change contrast ratio of what the current previewed graphics displayed, and it won't be effective in the video, as shown as in the figure 3-9.
- **Cyclotron arrow:** Restore the default parameters of brightness and contrast. as shown in the follow figure 3-9.
- **PTZ setting:** preset setting, cruise, track setting, linear scan, idle ope, IR light, Privacy Mask, 3D Position, as shown in the follow figure 3-10.

**Preset setting:** Adjust the camera to the appointed angle and location through directional buttons, and then select a preset number on the preset drop down list, click  to set it. Call preset: Select a preset number which needed to call on the preset drop down list, then click  to call it.


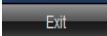
**Cruise:** 0-255 presets addable, stay time 1-255s adjustable, cruise speed 1-7 levels selectable. All cruise tracking can be call and delete independently. Clear cruise: Click  to clear all cruise scan setting, Call cruise: Click  to call the cruise scan which has been set

**Track setting:** Select a number at the tracking drop down list, click , and do a serious PTZ operation, then click  to save and exit the tracking path setting. Call tracking path: Select a number at the tracking drop down list, click  to call tracking path

**Linear Scan:** Select a number at the linear drop down list, click  to set the linear scan initial position, and do a serious PTZ operation, then click  to save and exit the linear scan setting. Linear scan only supported horizontal scan, and the vertical angle depend on the final position, linear path is two point minimum path. Call linear: Select a number at the linear drop down list, click  to call linear scan

**Idle op. :** Idle op. include None, preset setting, cruise scan, tracking, linear scan. Click  to set idle ope, and the idle time is 1-15 min selectable, click  to save the idle op. setting, click  to verify whether the idle ope setting completed. When set idle ope successfully, speed dome camera will do idle ope operation after the idle time that has been set

**IR light:** Auto/ Manual selectable, when select Auto, it will turn on the IR led according to the zoom module multiples. When select Manual, there All close/ near open/ middle open/ far open totally four kind of choices

**Privacy Mask:** Select a number at the Mask drop down list, click  to set the masking area, then click  to save and exit the masking setting

**3D Position:** 3D position function can be opened or closed

- **Show smart detection rule:** choose whether to display intelligent detection types (total four types: Target Count, Object Left/Lost, Area Detection, Line Crossing).
- **Show smart detection result:** choose whether to display intelligent detection statistical result.



Figure 3-8



Figure 3-9

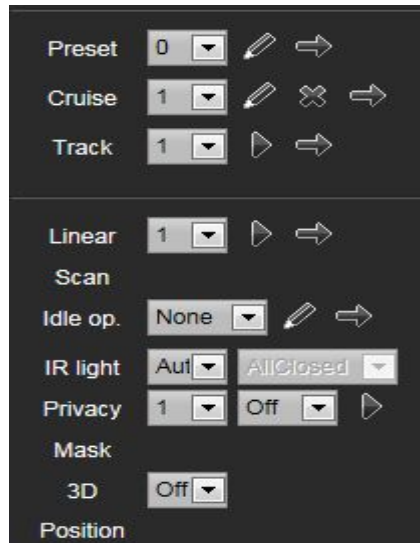


Figure 3-10

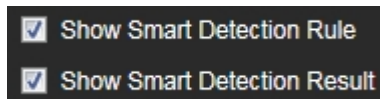

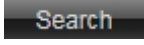


Figure 3-11

## Playback

Playback interface as shown in the follow figure. Click the icon , next select the date time of the calling video in need, then click the icon , the record video will search automatically.

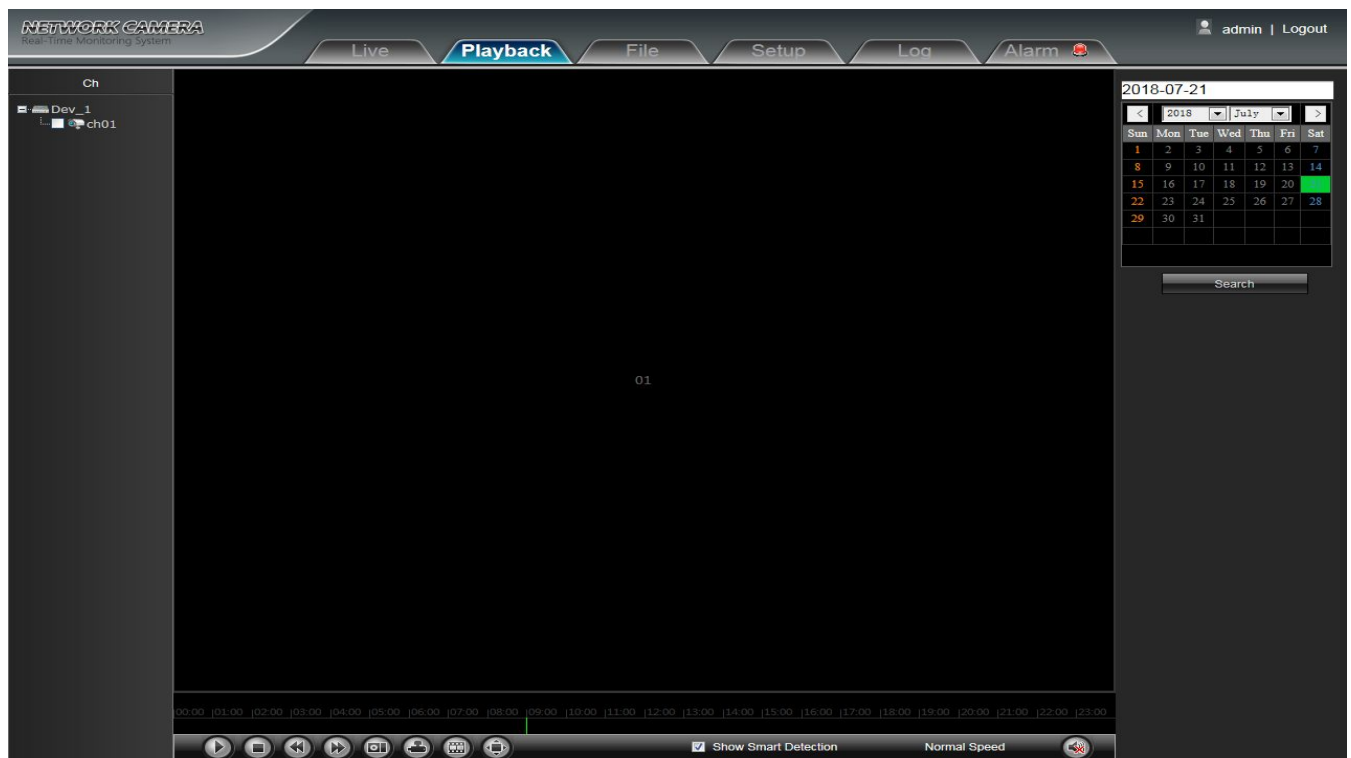




Figure 3-12

-  **Start:** Start the current playback
-  **Stop:** Stop the current playback



- **Slow:** Slow down the playback speed(1/2, 1/4, 1/8, 1/16 times optional)
- **Fast:** Speed up the playback speed(2, 4, 8, 16 times optional)
- **Snapshot:** Can be snapshot in playback channel
- **Backup:** Can be backup video in playback channel
- **Frame Play:** Single frame to play
- **Full Screen:** Playback video will display with full screen
- **Show smart detection:** when the video is to intelligent detect video,it can display intelligent Detection rules and statistical result.
- **Voice:** Adjust the volume of playback audio

(Note: device should support TF card storage to enable this function)

## File management

Network High Speed Dome“File management” setting interface as shown in the follow figure.

Note: The inserted TF card is for full function display interface, otherwise, it's for simple type interface.

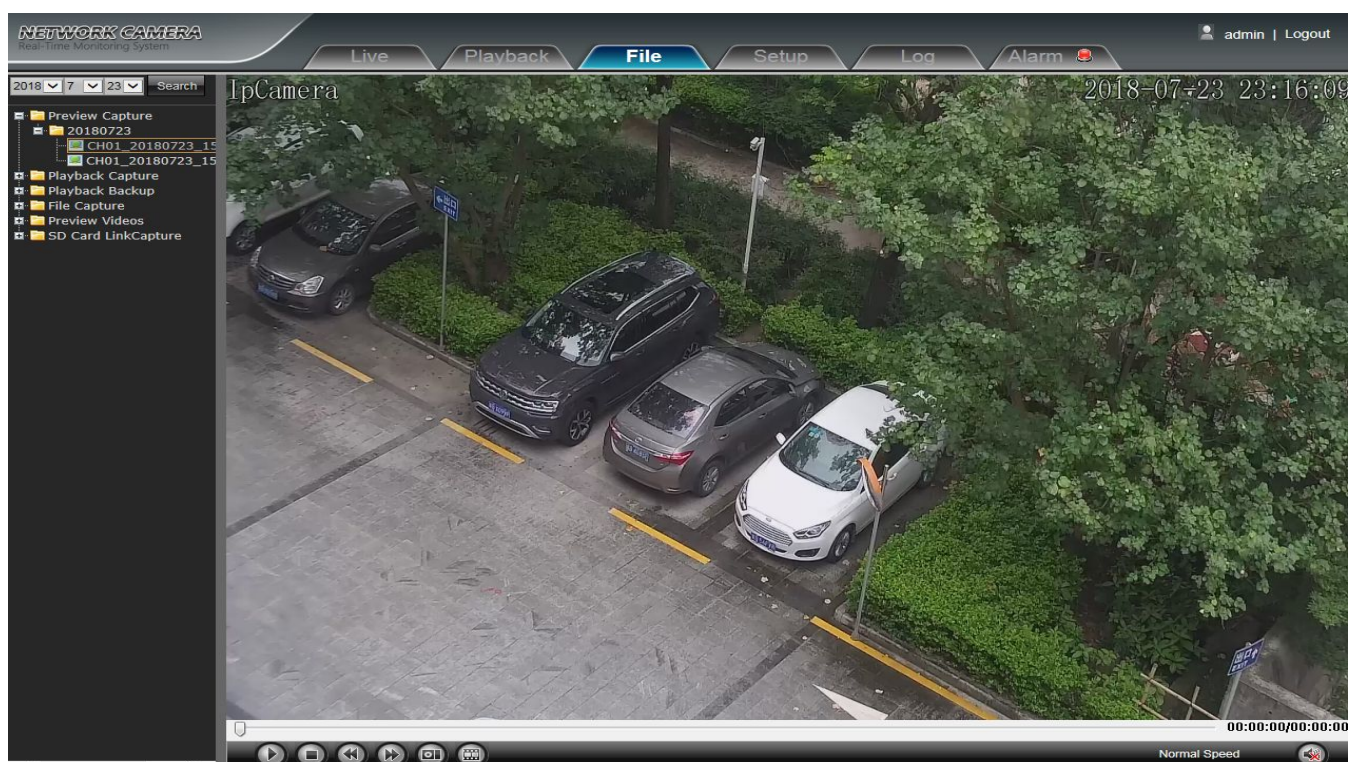
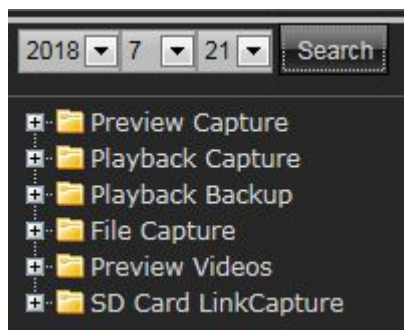









Figure 3-13

- **Search:** Input the concrete time, and click the **Search** button, the lower part displays searched images and videos (double click to display files)



- **Preview Capture:** To review video record preview capture files, search and double click the image files directly
- **Playback Capture:** To review video record playback capture files, search and double click the image files directly.

- **Playback Backup:** To review playback video files, search and double click the video files directly.
- **File Capture:** To review capture files in file management, search and double click the image files directly.
- **Preview Videos:** To review preview interface video record files, search and double click the video files directly.
- **SD Card Link Capture:** To review SD Card Link Capture files, search and double click the video files directly.
- **Backup Video Play:**

- ◆ **Start:** Click  button to play the backup video image file
- ◆ **Stop:** Click  button to stop the the play
- ◆ **Slow:** Click  button to slow play the backup video image file
- ◆ **Fast:** Click  button to fast play the backup video image file
- ◆ **Frame:** Click  button to play the backup video image file by frame
- ◆ **Capture:** Click  button to snap the backup video image during display
- ◆ **Voice:** Click  button to select turn on/off the voice during backup video image display

## System specification setting

Note: The inserted TF card is for full function display interface, otherwise, it's for simple type interface.

### Device Information

Network High Speed Dome“Device Information” interface as shown in the follow figure:

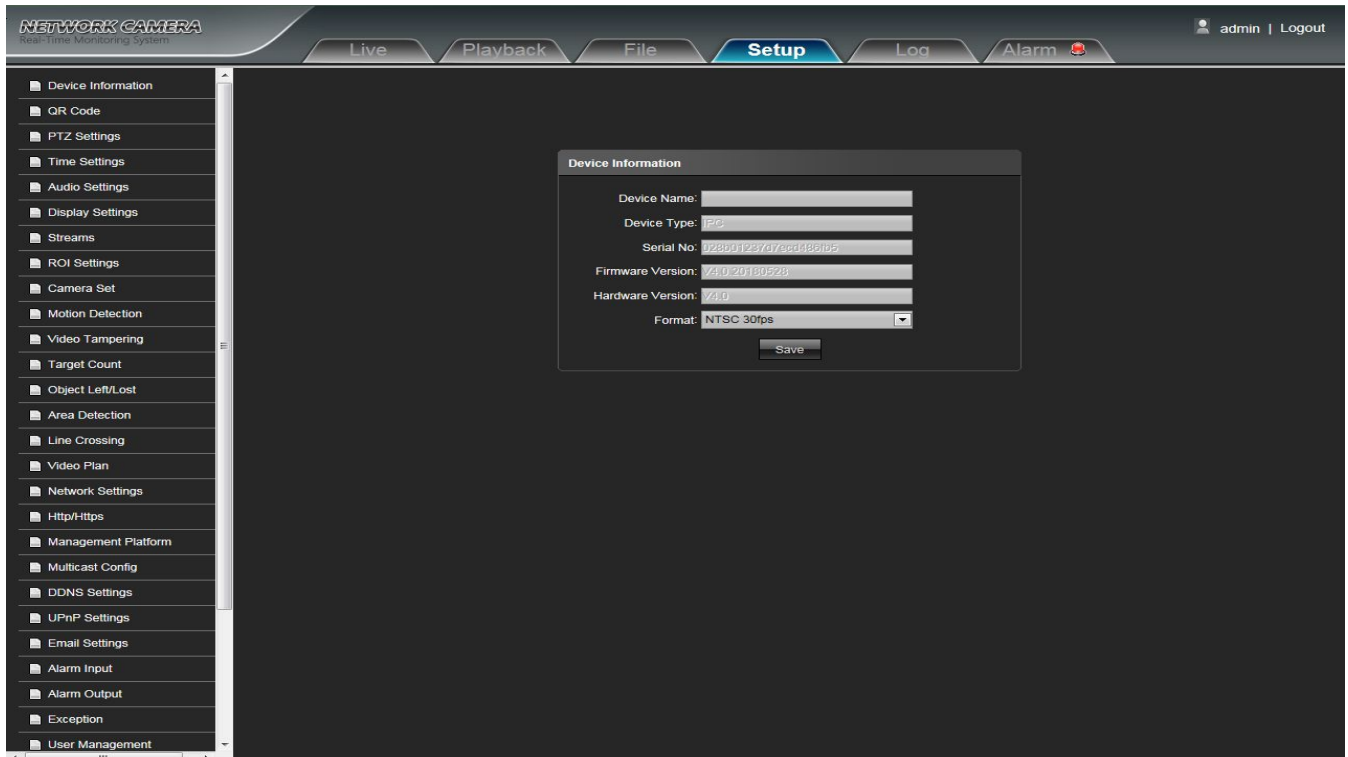


Figure 3-14

- **Device Name:** Edit the camera name
- **Device Type:** Display the device type
- **Serial No. :** Display the product serial No.
- **Firmware Version:** Display the software version date (Note: Based on the version information which displayed in factory product)
- **Hardware Version:** Display the hardware version number
- **Format:** Switch to select the PAL and NTSC image scanning system

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## QR code

The display interface of QR code of IP Camera is shown as below, iphone users use the "RichScan" browser to scan IOS APP QR code to turn to Fseye downloading interface, Android mobile users use the "RichScan" of browser to scan the Android APP QR code to turn to Fseye downloading interface. Use Fseye mobile client can directly scan the Device ID QR code to login.

(Note: The Device ID QR icon will display only after the opening the corresponding agreement in platform management interface, and it supports QR code at present: Fseye, Fseye is corresponding to Fseye client in platform management interface)

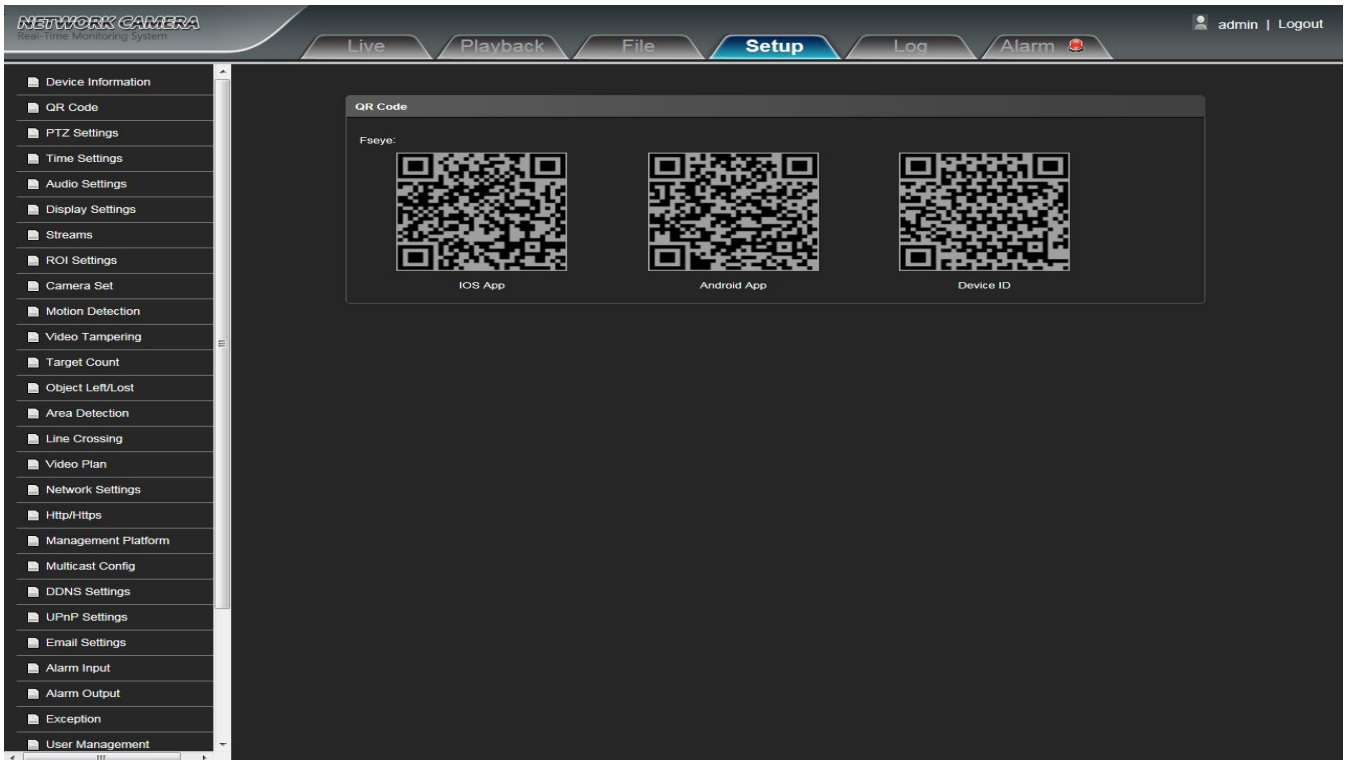


Figure 3-15

## PTZ Settings

Network High Speed Dome "PTZ Settings" interface as shown in the follow figure.

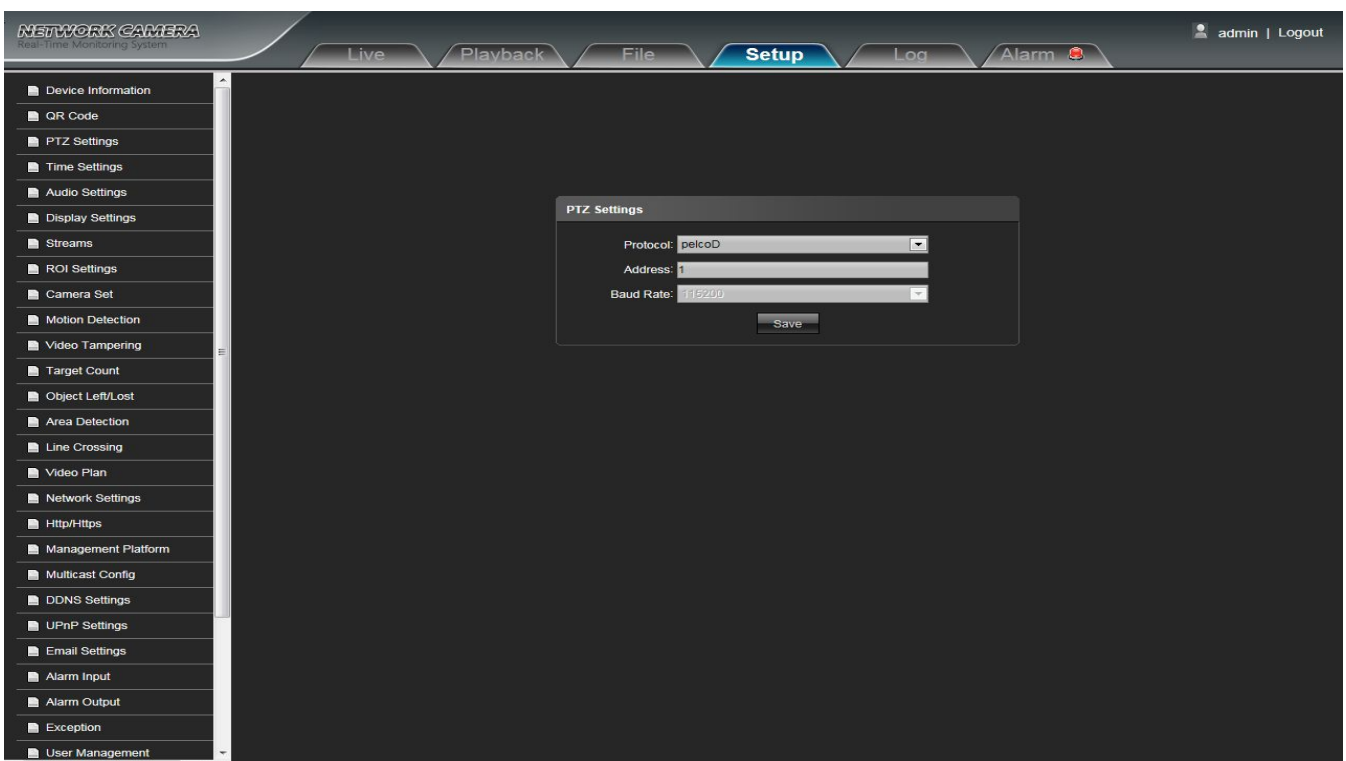


Figure 3-16

- **Protocol:** Support pelcoD and pelcoP protocol
- **Address:** 1-255 adjustable, default is 1
- **Baud Rate:** Baud rate 115200 supported only

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Time Settings

Network High Speed Dome “Time Settings” interface as shown in the follow figure.

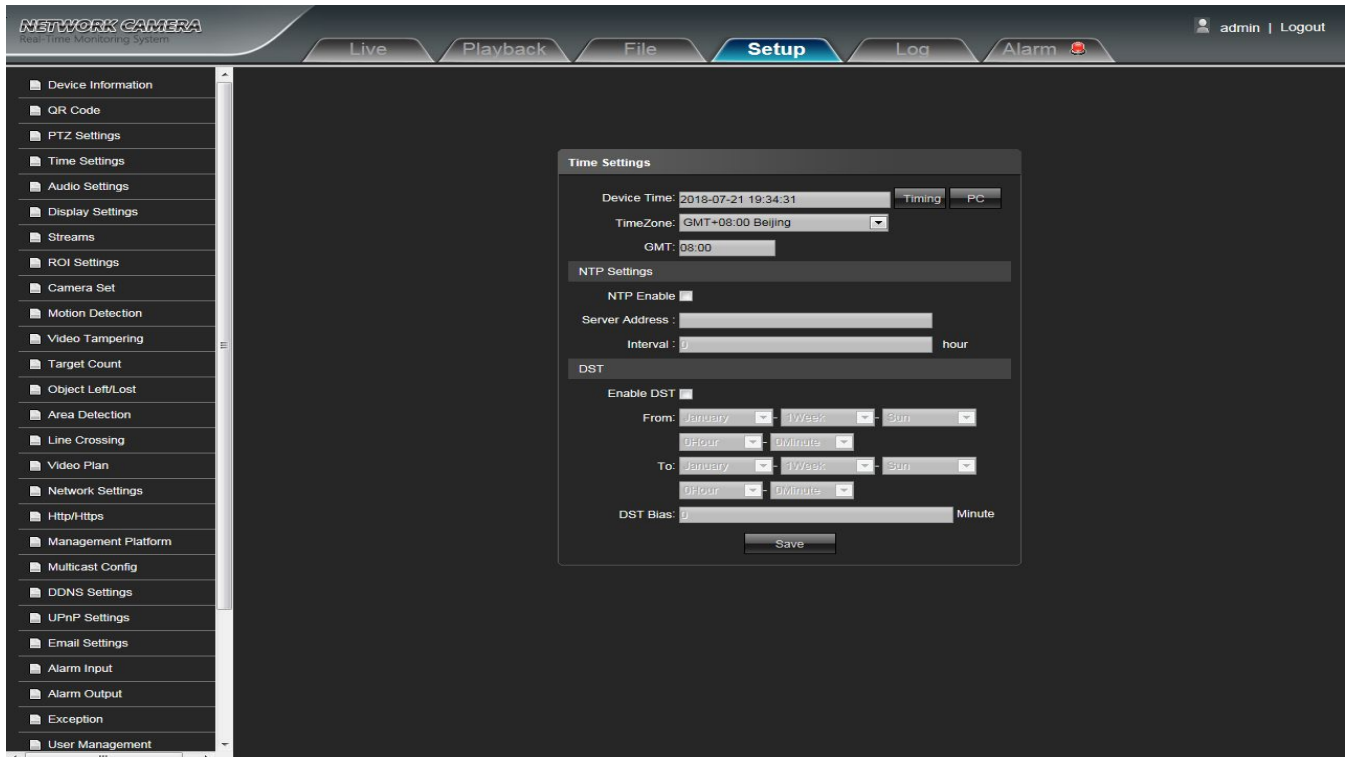


Figure 3-17

- **Device Time:** Set and display the device current time
- **Time Zoom:** Different area time format selectable
- **GMT:** Adjust the time more exact
- **NTP Enable:** Click to determine whether to use NTP
- **Server Address:** Input NTP server IP address
- **Interval:** Input the interval time
- **Enable DST:** Can choose to enable or close the DST function, If in the implementation of daylight saving time region, just click **Enable DST**  the enable daylight saving time
- **From:** Set begin DST time
- **To:** Set end DST time
- **DST Bias:** Set DST offset time

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Audio Settings

Network High Speed Dome “Audio Settings” interface as shown in the follow figure.

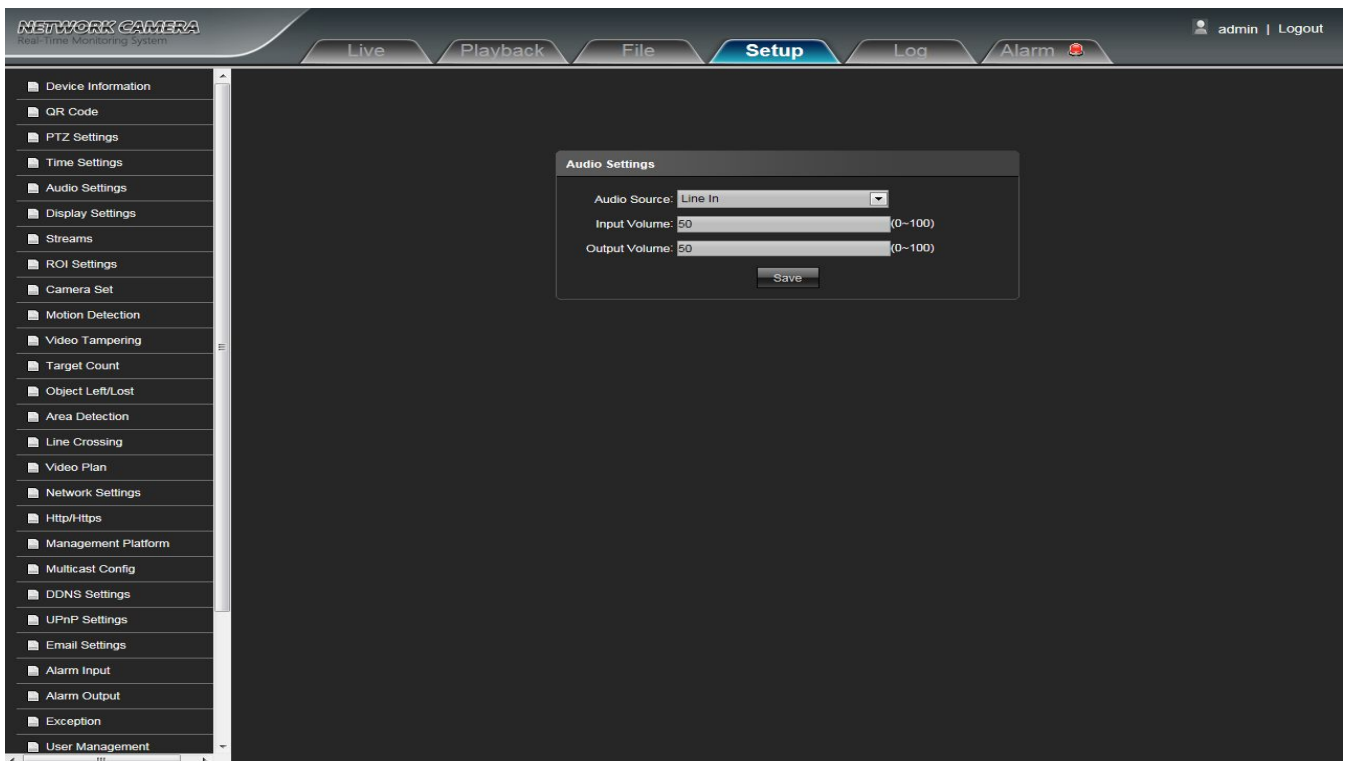


Figure 3-18

- **Audio Source:** Select the audio input mode, LineIn or MicIn selectable
- **Input Volume:** Set the size of the input volume, the range of volume:0-100, default is 50
- **Output Volume:** Set the size of the output volume, the range of volume:0-100, default is 50

After all parameters setting completed, click “Save” and then it comes into effect immediately.



## Display settings

Network High Speed Dome "Display settings" interface as shown in the follow figure.

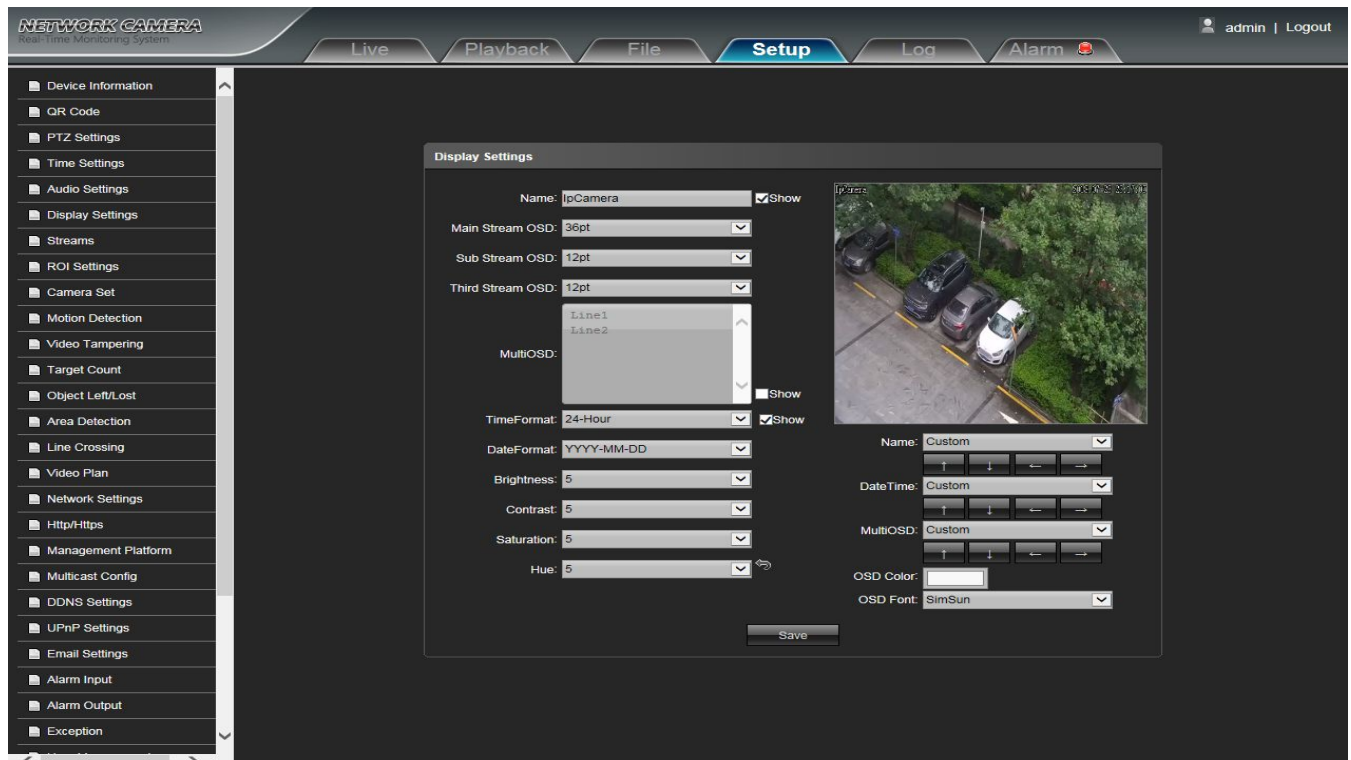


Figure 3-19

- **Name:** Modify the appointed channel name
- **Main Stream OSD:** Modify the appointed channel font of main stream OSD
- **Sub Stream OSD:** Modify the appointed channel font of sub stream OSD
- **Third Stream OSD:** Modify the appointed channel font of Third stream OSD
- **Multi OSD:** Add multi user-defined OSD, it can be selected Show or not
- **Time Format:** Select different time display mode for the appointed channel
- **Date Format:** Select different date display mode for the appointed channel
- **Bright:** Adjust the brightness for the appointed channel
- **Contrast:** Adjust the contrast for the appointed channel
- **Saturation:** Adjust the saturation for the appointed channel
- **Hue:** Adjust the hue for the appointed channel
- **Cyclotron Arrow:** Restore the default parameters(Only for Bright, Contrast, Saturation and Hue)
- **Name:** Set the channel title location for the appointed channel
- **Date Time:** Set the channel date location for the appointed channel
- **Multi OSD:** Multi-line OSD characters can be set up the corresponding location
- **OSD Color:** Can set the color of the OSD font
- **OSD Font:** Optional OSD font

After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Streams

Network High Speed Dome“Streams” setting interface as shown in the follow figure.

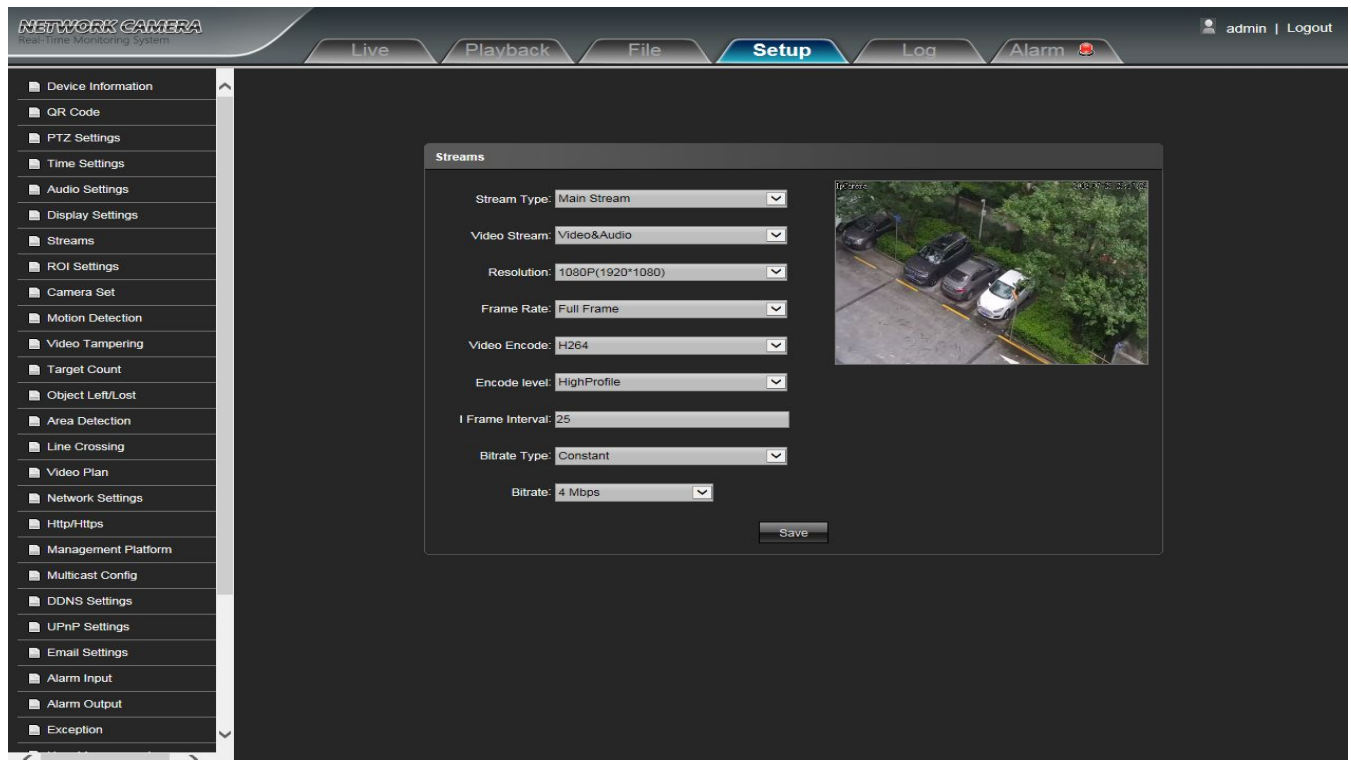


Figure 3-20

- **Compress type:** Primary Stream(Normal)/ Sub Stream/Third Stream selectable
- **Stream:** Including complex stream/ video stream two types
- **Resolution:** The camera supports several resolution, will display here
- **Frame Rate:** Select different frame rate in the drop-down list, default is Full Frame
- **Video Encode:** H.264/H.265/MJPEG three kinds of video encode format
- **H264 Profile:** There are MainProfile/ Baseline/ HighProfile three types optional
- **I frame Interval:** Set the I frame interval size
- **Bitrate Type:** Constant/ Variable selectable
- **Bitrate:** Set different bitrate for different channels

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## ROI Settings

IP Camera ROI Settings setting interface as shown in the follow figure:

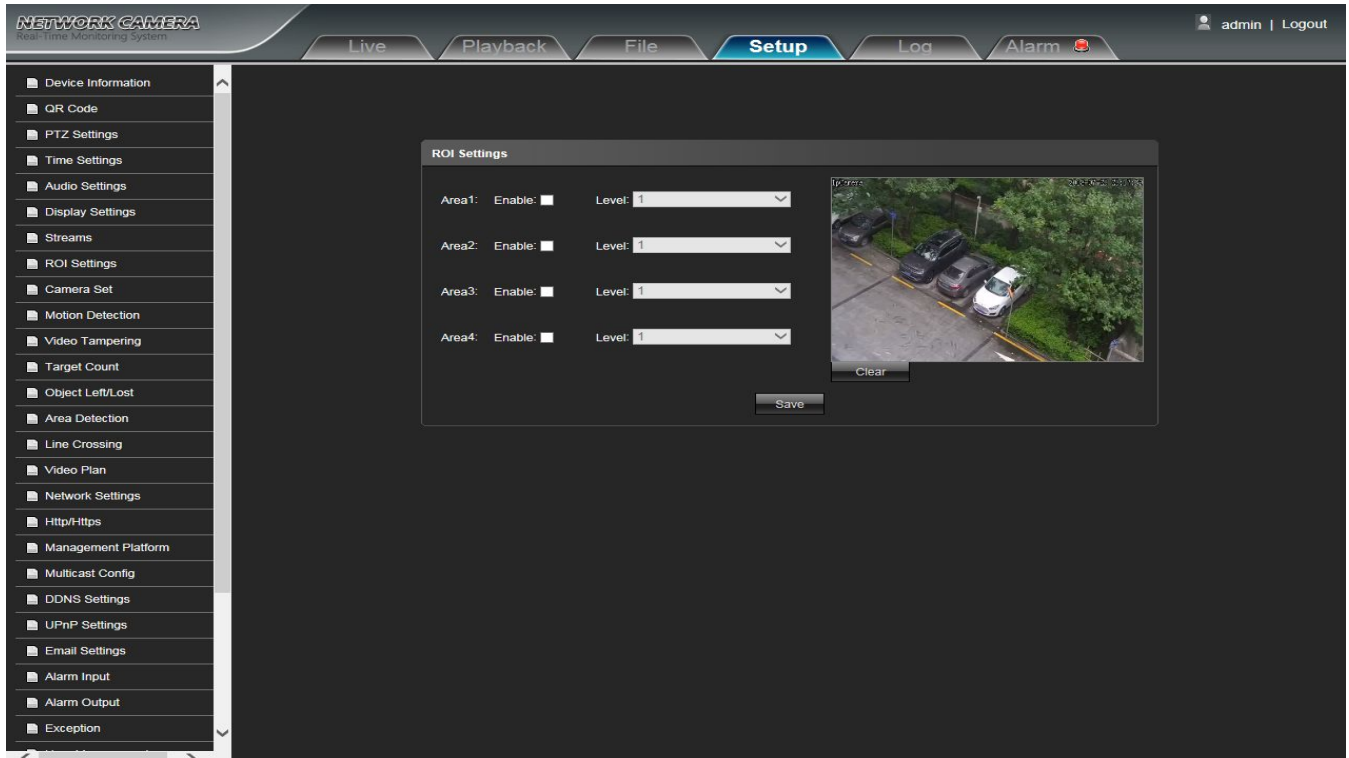


Figure 3-21

- **ROI Setting:** On the preview window, hold down the left mouse button and drag to set the ROI area. A total of four ROI areas can be set, click  Enable:  to set the corresponding ROI region coding level, the higher the level of coding, the stronger the ROI region encoding

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Camera set

Network High Speed Dome“Camera set” setting interface as shown in the follow figure.

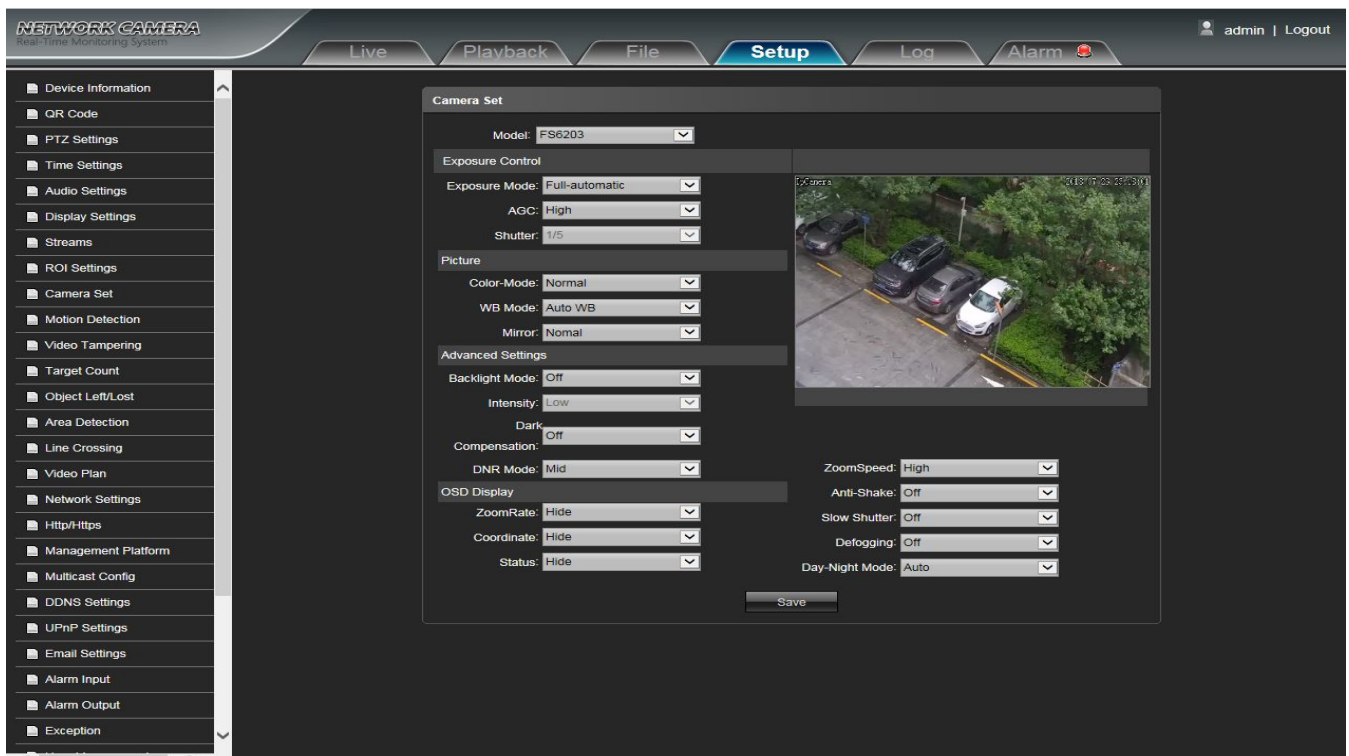




Figure 3-22

- **Exposure Mode:** Exposure mode include Full-automatic/ Shutter Priority/ Anti-Flicker, default is Full-automatic. When select Full-automatic or Anti-Flicker, the shuttle value can not be set, and when select Shutter Priority, the shuttle value can be set.
- **AGC:** Low/ Mid/ High selectable, default is High. The bigger of the gain value, the higher of the low illumination sensitivity, and the more obvious of noisy point
- **Shutter:** 1/5~1/10000, the smaller of the shutter value, the darker of the brightness
- **Color-Mode:** Normal/ Bright/ Nature selectable, default is Normal
- **WB Mode:** Auto WB/ Inside/ Outside selectable, select different white balance mode according to different scenes, default is Auto WB
- **Mirror:** Normal/ Horizontal Mirror/ Vertical Mirror/ 180 rotation selectable, default is Normal
- **Backlight Mode:** Off/ WDR/Highlight Correction/Backlight correction selectable, default is Off
- **Intensity:** Low/ Mid/ High selectable. It is invalid when Backlight mode set Off
- **Dark Compensation:** Off/On selectable, default is Off
- **DNR Mode:** Off/ Low/ Mid/High selectable, default is Mid
- **Zoom Rate:** Show/ Hide selectable, set the zoom rate and view the corresponding effect on the screen interface
- **Coordinate:** Show/ Hide selectable, set the zoom rate and view the corresponding effect on the screen interface
- **Status:** Show/ Hide selectable, set the zoom rate and view the corresponding effect on the screen interface
- **Zoom Speed:** Low/ Mid/ High selectable, default is High
- **Anti-Shake:**Off On selectable, default is Off
- **Slow Shutter:** Off/ On selectable, default is Off
- **Defogging:**Off/ On selectable, default is Off
- **Day-Night Mode:** Auto/ Color/ Black White three kinds of mode selectable,default is Auto, According to the actual scene to select the Day&Night mode

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Motion Detection

Network High Speed Dome“Motion Detection” setting interface as shown in the follow figure.

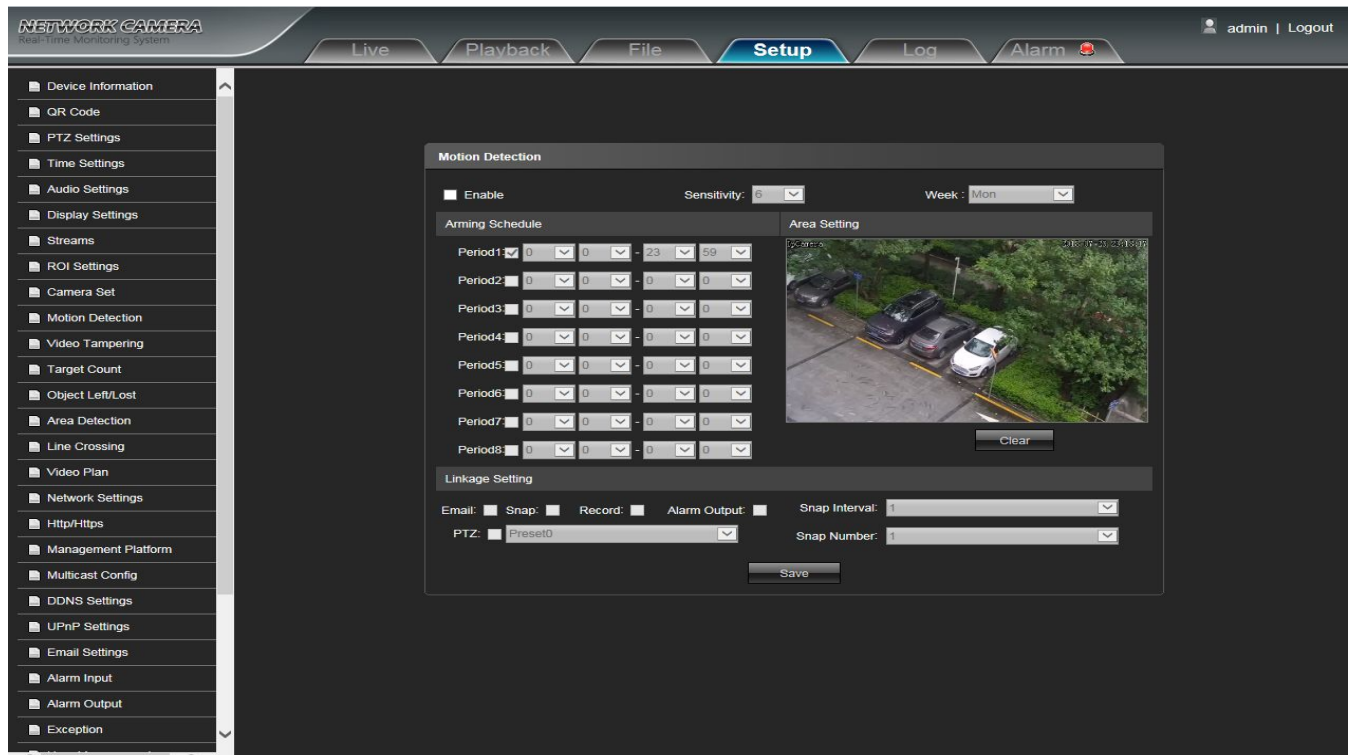


Figure 3-23

- **Enable:** Select whether open the motion detection function.
- **Sensitivity:** The higher of the sensitivity, the obvious of the motion detective.
- **Week:**The protection time can be set up from Monday to Sunday.
- **Arming Schedule:** Can set up protection period of time, one day can set up 8 time quantum.
- **Area Setting:** Press and drag the left mouse button in the Area Setting preview interface, then draw the small check optional to set the detective areas
- **Clear:** Click Clear to clear the current detective areas.
- **Email:** Send Email to appointed mailbox when alarm triggered.

- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card.
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and restore it in the TF card.
- **Alarm Output:** There is a warner connect the alarm output port, alarm triggered the embedded relay switch to make alarm output.
- **PTZ:** Enable or disable PTZ function
- **Preset:** When motion detection triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Video Tampering

Network High Speed Dome “Video Tampering” setting interface as shown in the follow figure.

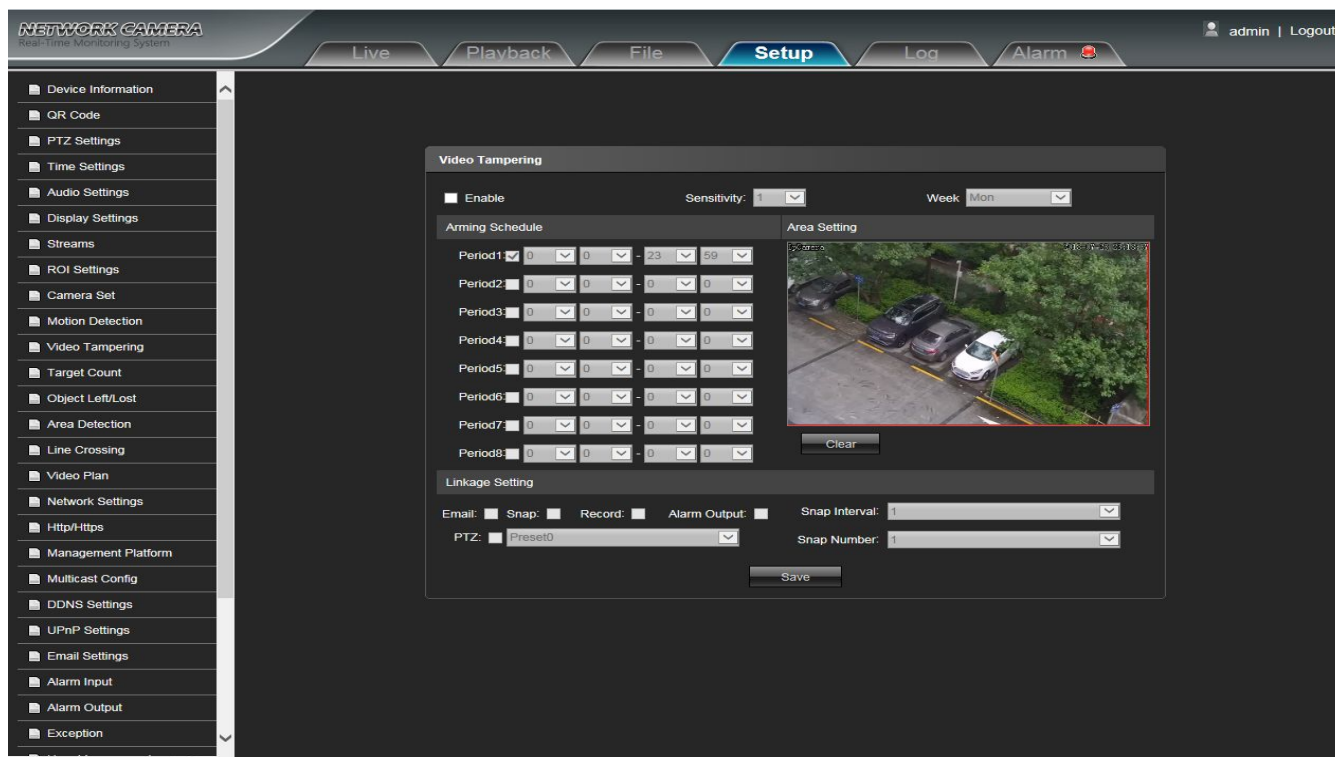


Figure 3-24

- **Enable:** Set whether open the video tempering
- **Sensitivity:** The higher the sensitivity, the more easier to trigger the video block alarm
- **Week:** The protection time can be set up from Monday to Sunday.
- **Arming Schedule:** Can set up protection period of time, one day can set up 8 time quantum.
- **Area Setting:** Press and drag the left mouse button in the Mask Set preview interface, then draw the small check optional to set the detective areas
- **Clear:** Click Clear to clear the current detective areas.
- **Email:** Send Email to appointed mailbox when alarm triggered.
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card.
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and restore it in the TF card.
- **Alarm Output:** There is a warner connect the alarm output port, alarm triggered the embedded relay switch to make alarm output.
- **PTZ:** Enable or disable PTZ function
- **Preset:** When motion detection triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Target Count

Network High Speed Dome Target Count setting interface as shown in the follow figure.

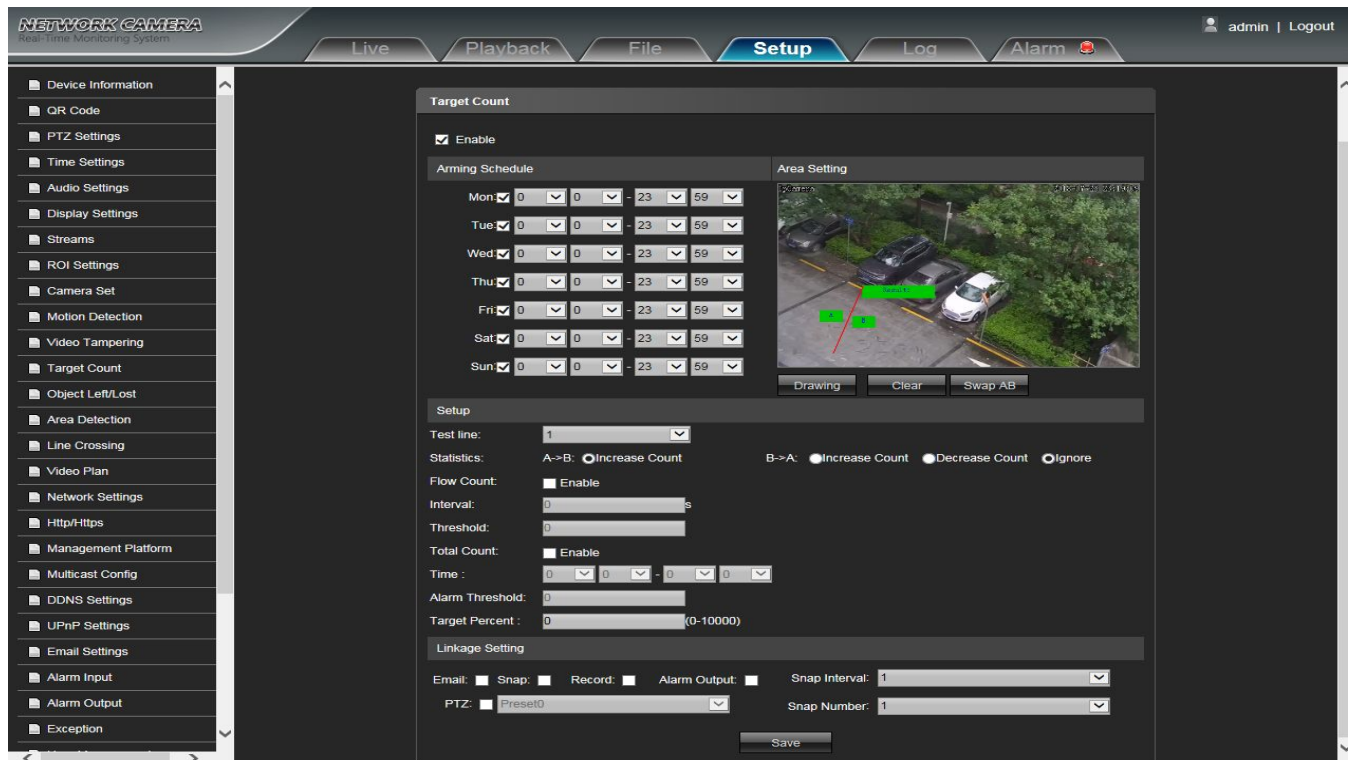


Figure 3-25

- **Enable:** Enable or disable the target counting function
- **Arming Schedule:** Arm schedule can be set from Monday to Sunday
- **Area Setting:** In preview interface of "Area Setting", click "drawing", then click the left mouse button to set detection line, then right-click to complete, the target will be counted when going through the line.
- **Clear:** Click Clear to delete all the test lines
- **Swap AB:** Click "swap AB" to exchange position between A and B.
- **Test Line:** To add new test lines (support max. 4 test lines), or set the parameter setting for the corresponding test line optional
- **Statistics:** Set the test lines for targets passing through, there are A→B and B→A two statistical methods.
- **Flow Counter:** Enable or disable the Flow Counter function
- **Interval:** Set the counting time interval, when it is more than the time interval, the flow counter will reset and enter into next counting period automatically
- **Threshold:** Set the upper limit value for counting, when it is more than the setting value, it will trigger alarm function automatically
- **Total Counter:** Enable or disable the Total Counter function
- **Time:** Set the effective time period for the day's total counter
- **Alarm Threshold:** Set the upper limit value for the day's total flow, when it is more than the setting value, it will trigger alarm function automatically
- **Target Percent:** Set the min. area percent for the effective counting targets, once the area of targets passing through the test line are smaller than the setting value, it will be invalid without be counted
- **Email:** Click Email. Once alarm triggers that it will send Email to appointed mailbox
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and store it in the TF card.
- **Alarm Output:** There is a active warmer connected to the alarm output port. Once alarm triggers that it will linkage embedded relay switch to make alarm output
- **PTZ:** Enable or disable PTZ function
- **Preset:** When target counting triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Object Left/Lost

Network High Speed Dome Object Left/Lost setting interface as shown in the follow figure.

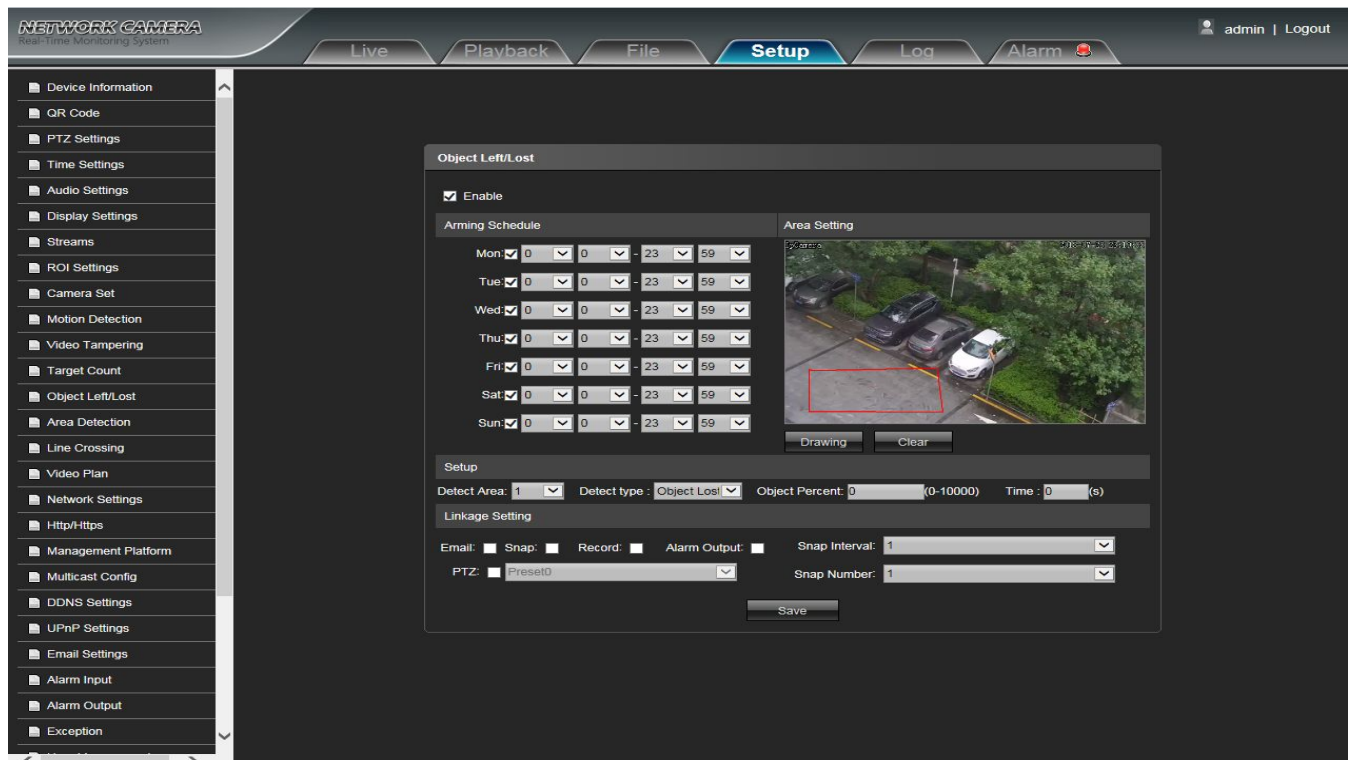


Figure 3-26

- **Enable:** Enable or disable the object detection function
- **Arming Schedule:** Can be set the arm schedule from Monday to Sunday
- **Area Setting:** In preview interface of "Area Setting", click "drawing", then click the left mouse button to set detection area, then right-click to complete, items in the area will be monitored and detected
- **Clear:** Click Clear to delete all the detect zones.
- **Detect Area:** To add new detect zone (support max. 4 detect zones), can be set the parameter setting for the corresponding detect zone optional
- **Detect Type:** Set the object detection type, there are three detection types, both of them will trigger alarm. Item lost refers to once the object lost in the detect zone, the camera will trigger alarm, Item left refers to once the new added object detected in the detect zone, the camera will trigger alarm. Item lost or left refers to both of object lost and adding, the camera will trigger alarm.
- **Object Percent:** Set the min. area percent for the object, the area of object is smaller than the setting value, it will be invalid
- **Time:** Set the upper limit value for the item lost and item left, when it is more than the setting value, it will trigger alarm function automatically
- **Email:** Click Email. Once alarm triggers that it will send Email to appointed mailbox
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and store it in the TF card.
- **Alarm Output:** There is a active warner connected to the alarm output port. Once alarm triggers that it will linkage embedded relay switch to make alarm output
- **PTZ:** Enable or disable PTZ function
- **Preset:** When object detection triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Area Detection

Network High Speed Dome Area Detection setting interface as shown in the follow figure.

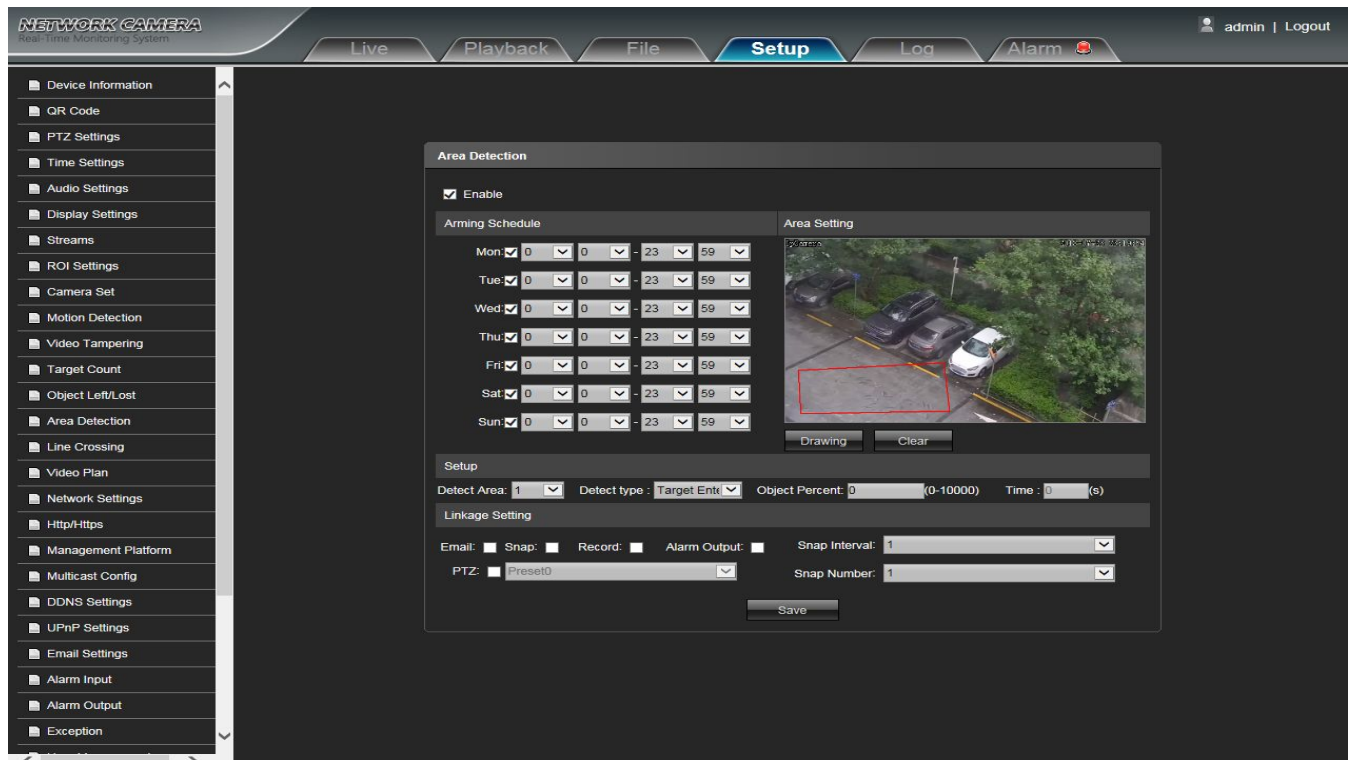


Figure 3-27

- **Enable:** Enable or disable the area detection function
- **Arming Schedule:** Can be set the arm schedule from Monday to Sunday
- **Area Setting:** In preview interface of "Area Setting", click "drawing", then click the left mouse button to set detection area, then right-click to complete, items in the area will be monitored and detected
- **Clear:** Click Clear to delete all the detect zones.
- **Detect Area:** To add new detect zone (support max 4 detect zones), can be set the parameter setting for the corresponding detect zone optional
- **Detect Type:** Set the target detect type, there are four detect types, all of them will trigger alarm. Target enter refers to once the target enter into the detect zone, the camera will trigger alarm, Target leave refers to the target go out the detect zone, the camera will trigger alarm, Target enter or leave refers to both of them happen, the camera will trigger alarm. When the staying time of target wander target entering into detection area exceeds the upper limit of setting time, it will trigger the alarm
- **Object Percent:** Set the min. area percent for the object, the area of object is smaller than the setting value, it will be invalid
- **Time:** When the staying time of the set target entering into detection area exceeds the upper limit of setting time, it will trigger the alarm
- **Email:** Click Email. Once alarm triggers that it will send email to appointed mailbox
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and store it in the TF card.
- **Alarm Output:** There is a active warner connected to the alarm output port. Once alarm triggers that it will linkage embedded relay switch to make alarm output
- **PTZ:** Enable or disable PTZ function
- **Preset:** When area detection triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click "Save" and then it comes into effect immediately.



## Line Crossing

Network High Speed Dome Line Crossing setting interface as shown in the follow figure.

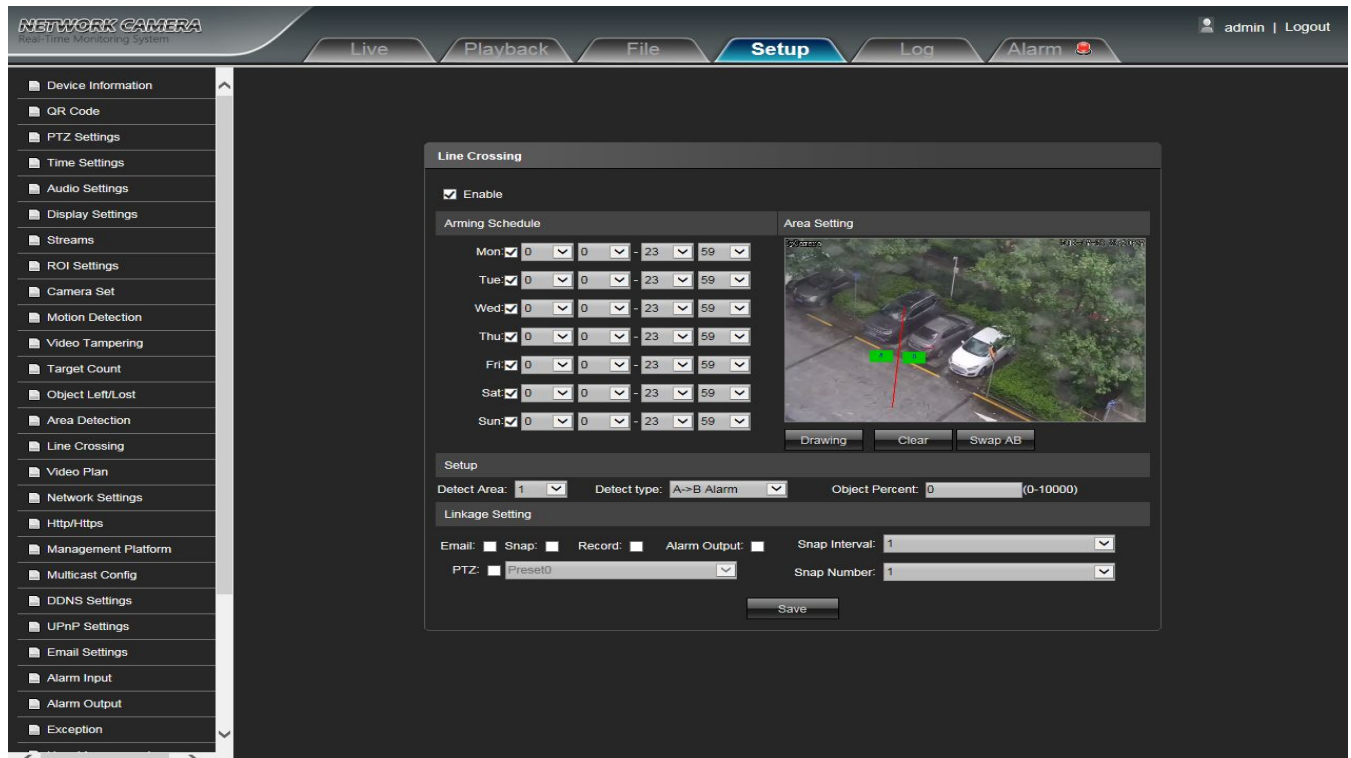


Figure 3-28

- **Enable:** Enable or disable the virtual guard function
- **Arming Schedule:** Can be set the arm schedule from Monday to Sunday
- **Area Setting:** In preview interface of "Area Setting", click "drawing", then click the left mouse button to set warning line, then right-click to complete, the target will trigger the alarm when going through the line
- **Clear:** Click Clear to delete all the detect zones.
- **Swap AB:** Click "swap AB" to exchange position between A and B
- **Detect Area:** To add new guard line (support max. 4 guard lines), can be set the parameter setting for the corresponding guard lines optional
- **Detect Type:** Set the guard lines to trigger alarm. A→B refers to the targets pass through the guard line from A area to B area and trigger alarm. A←→B refers to the targets pass through the guard line from A area to B area or from B area to A area, both of them will trigger alarm.
- **Object Percent:** Set the min. area percent for the object, the area of target passing through the guard line is smaller than the setting value, it will be invalid without triggering alarm
- **Email:** Click Email. Once alarm triggers that it will send Email to appointed mailbox
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and store it in the TF card.
- **Alarm Output:** There is a active warner connected to the alarm output port. Once alarm triggers that it will linkage embedded relay switch to make alarm output
- **PTZ:** Enable or disable PTZ function
- **Preset:** When virtual guard triggers alarm, it will linkage the presets
- **Snap Interval:** Set the snapshot interval time
- **Snap Number:** Set the snapshot image count for every time

After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Video Plan

IP Camera Video Plan setting interface as shown in the follow figure:

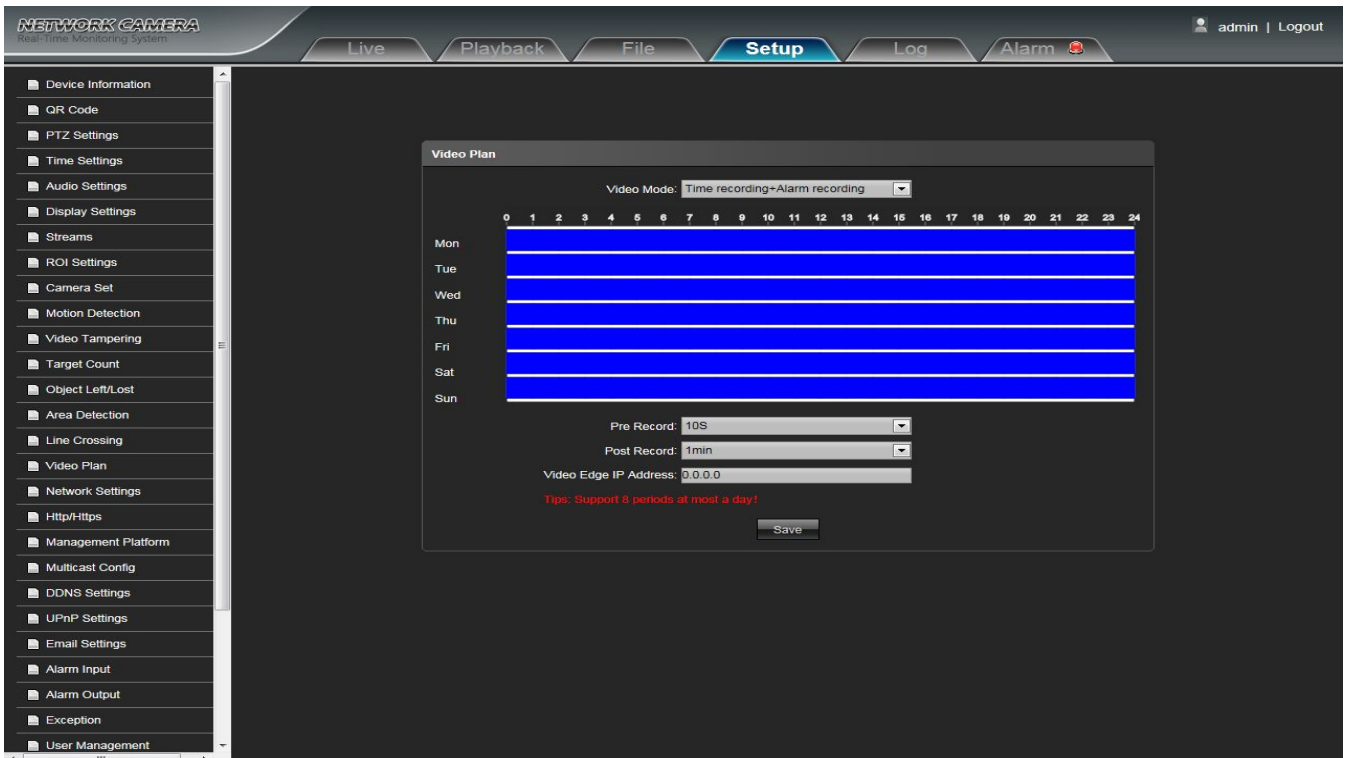


Figure 3-29

- **Video Mode:** Select the video mode, there are Time recording + Alarm recording, Time recording, Alarm recording, No video four modes optional
- **Week:** You can set the recording time from Monday to Sunday
- **Pre Record:** Pre-recording time can be set
- **Post Record:** You can set the recording delay time
- **Video Edge IP Address:** enter the IP of NVR or server

After complete all parameters setting, click Save, the settings will take effect immediately.

## Network Settings

Network High Speed Dome "Network Settings" interface as shown in the follow figure.

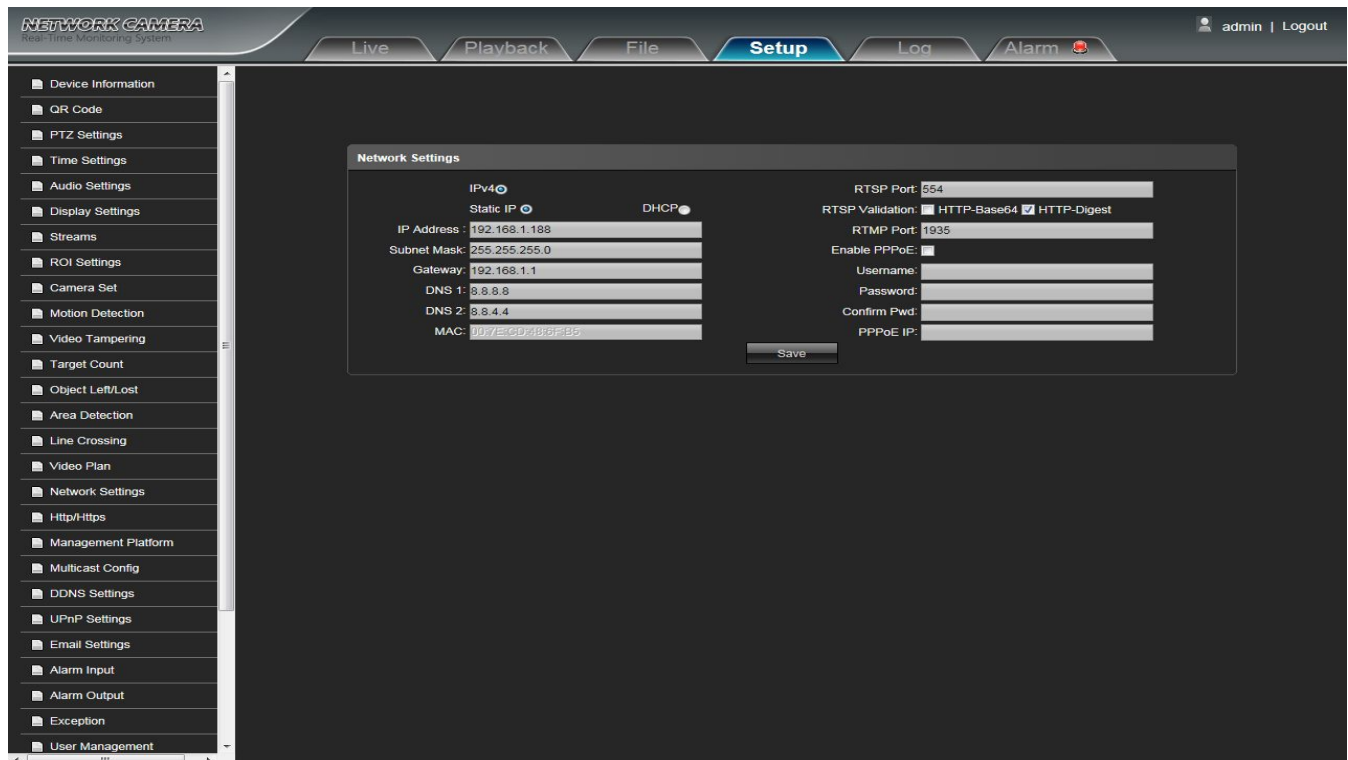


Figure 3-30

- **IPv4:** IP protocol version No. is 4
- **Static IP:** The device IP address is permanent
- **DHCP:** Click DHCP, when turn on the router's DHCP, the camera will get the IP address from router automatically
- **IP address:** Input the corresponding numbers to change the IP address
- **Subnet Mask:** Input the corresponding IP subnet mask
- **Default Gateway:** Input the corresponding gateway address
- **DNS 1:** DNS server address
- **DNS 2:** DNS server standby address
- **RTSP Port:** Use domain name to access and login device need mapping RTSP, default port is 554
- **RTSP Validation:** Choose RTSP verification mode, Http-Base64, Http-Digest selectable. After clicking to check and enable the corresponding RTSP verification mode, When playing RTSP real-time stream, it needs to verify the user name and password
- **RTMP Port:** Use domain name to access and login device need mapping RTMP, default port is 1935
- **Enable PPPoE:** Click to enable PPPOE
  - User Name:** Input the user name
  - Password:** Input the password
  - Confirm pwd:** Input the password again to confirm it
  - PPPoE IP:** Input device dynamic address

After all parameters setting completed, click "Save" and then it comes into effect immediately.



## Http/Https

Network High Speed Dome “Http/Https” interface as shown in the follow figure.

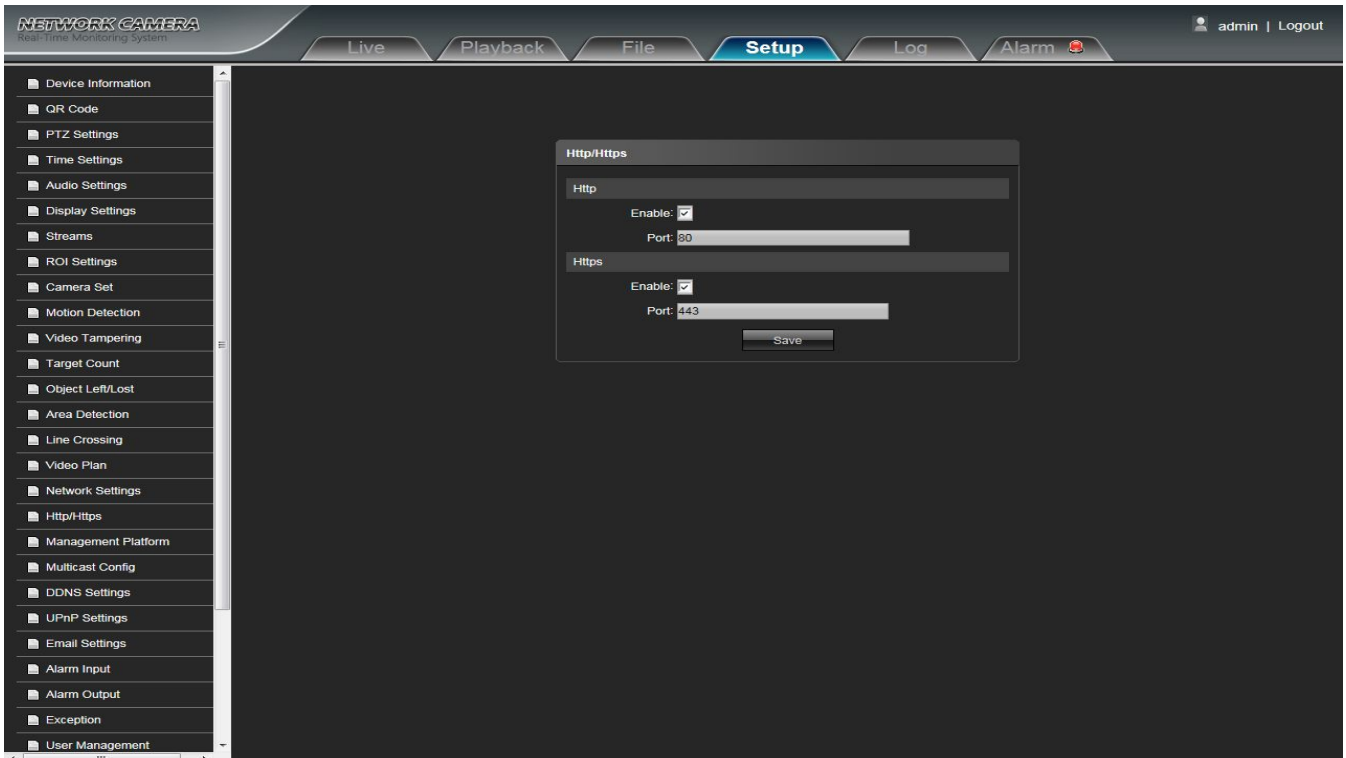


Figure 3-31

- **Enable:** Select whether to enable the http/https
- **HTTP Port:** Input the corresponding port ( Default is 80)
- **HTTPS Port:** Input the corresponding port ( Default is 443)

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Management Platform

Network High Speed Dome “Management Platform” interface as shown in the follow figure.

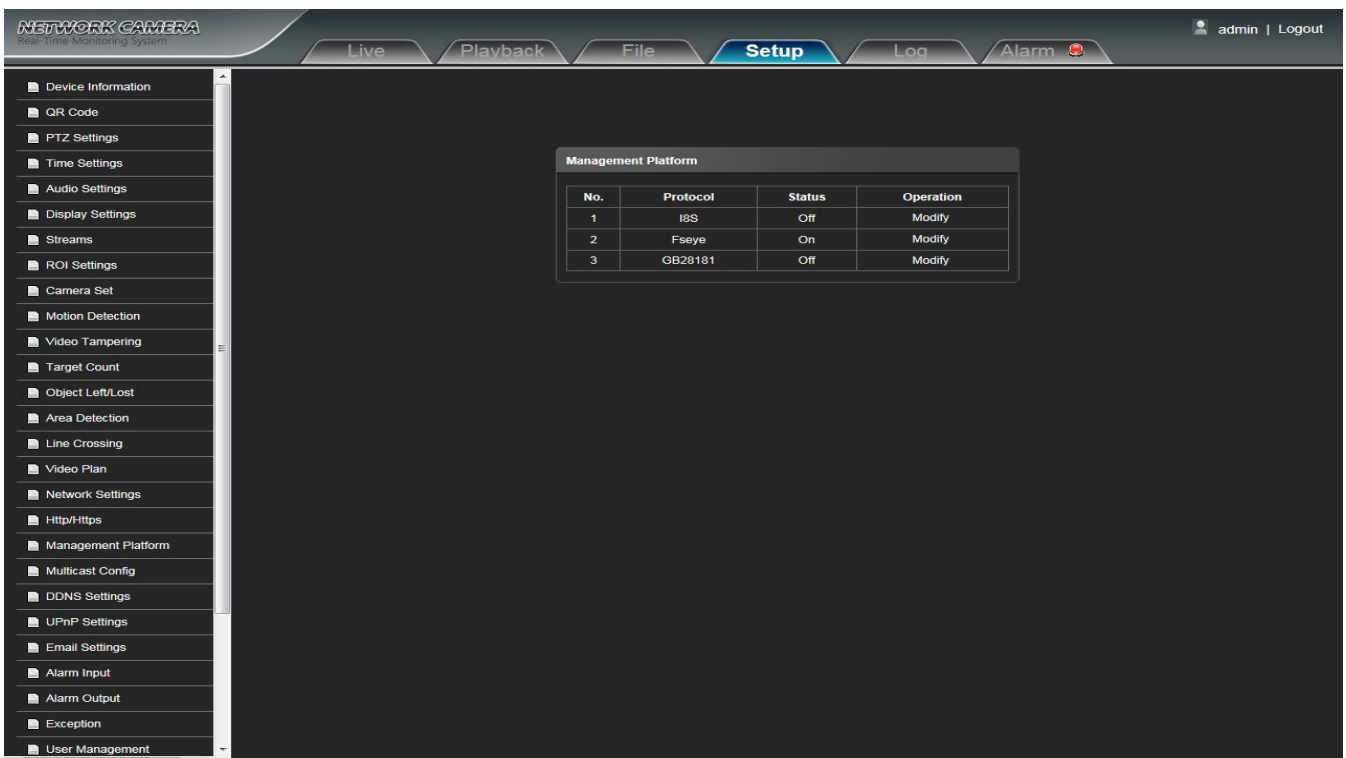


Figure 3-32

User can open,close,edit,delete the protocol.

## Multicast Config

Network High Speed Dome“Multicast Config”setting interface as shown in the follow figure.

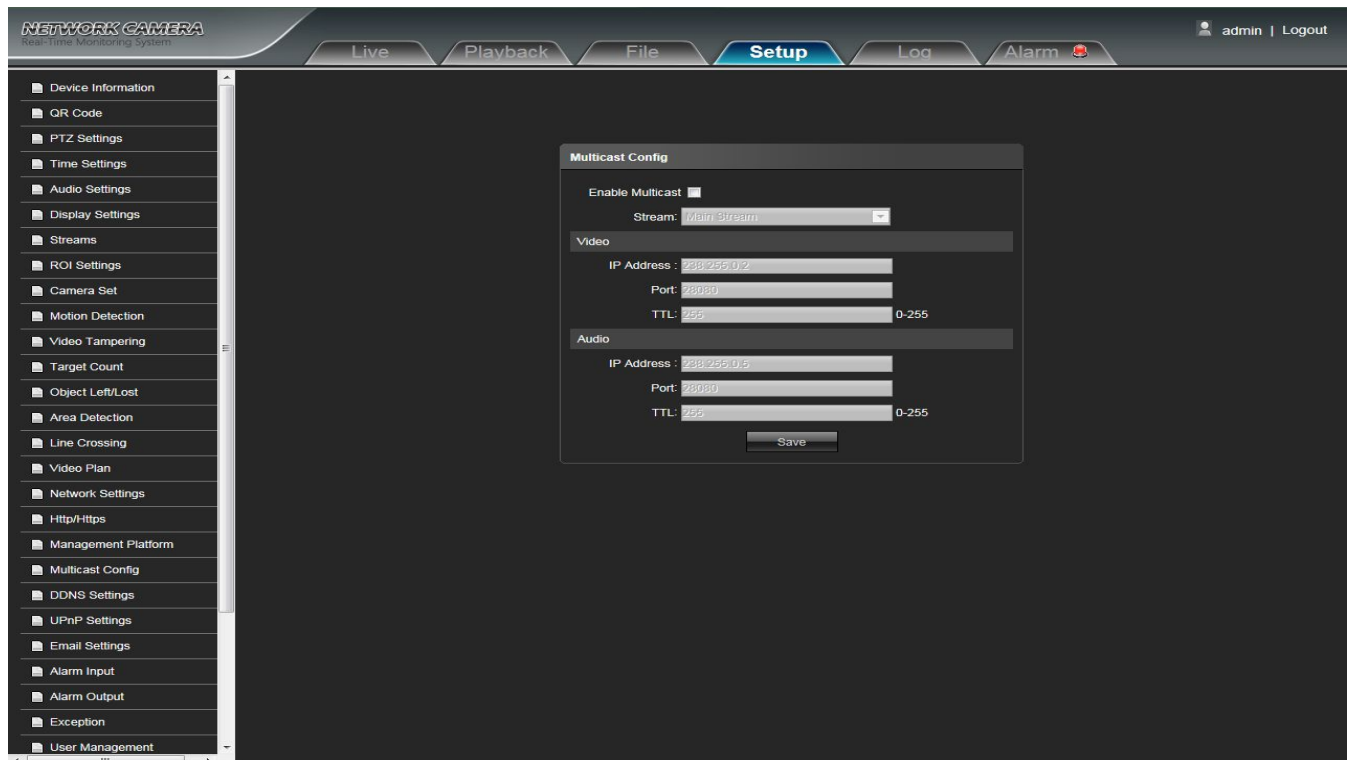


Figure 3-33

Default disabling for multicast config. After click"Enable Multicast", users can set the primary stream video,primary stream audio, sub stream video, sub stream audio, third stream video, third stream audio.

## DDNS Setting

DDNS is implemented through a dynamic domain resolution server. It requires a PC with fixed IP address on the Internet, on which the dynamic domain resolution server runs. Network High Speed Dome DDNS setting interface as below:

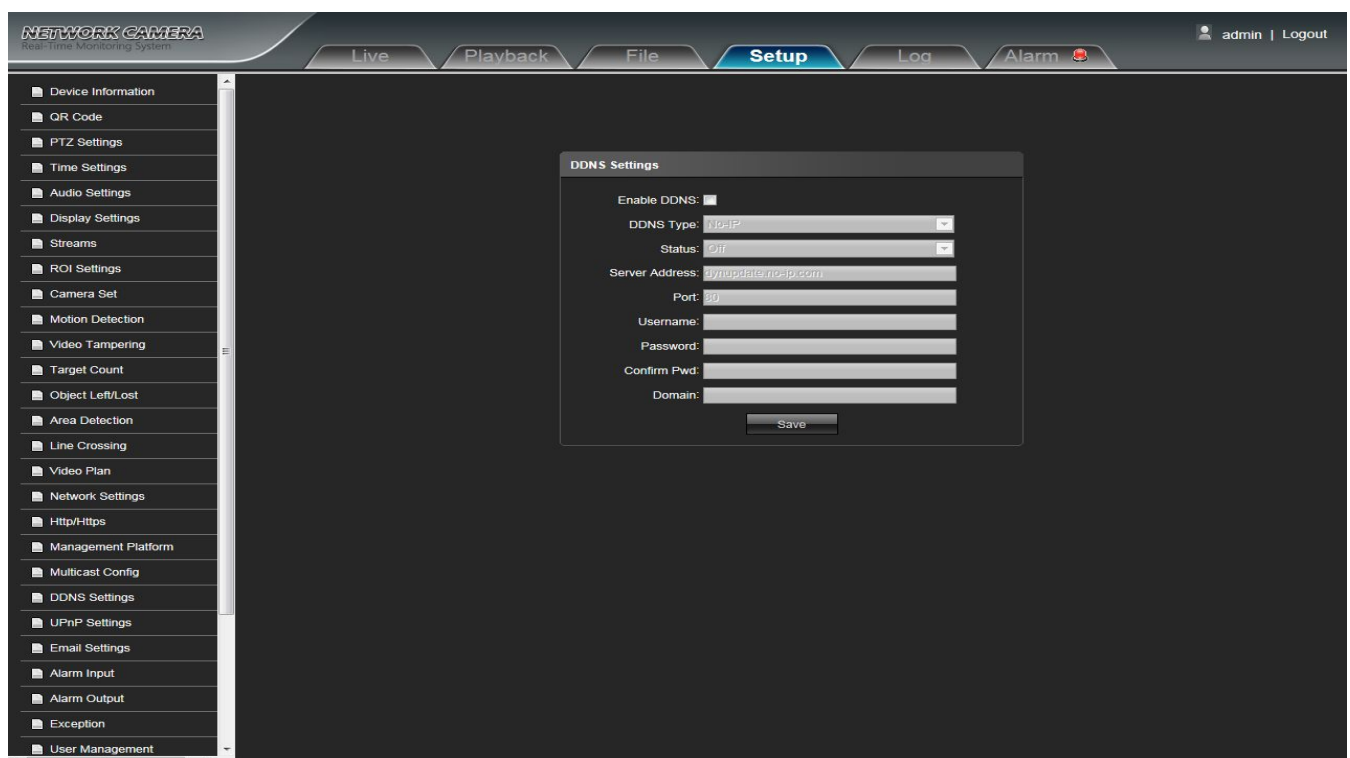


Figure 3-34

- **Enable DDNS:** Click to determine whether to use Dynamic Domain Name Server
- **Server Type:** Select DDNS server type (There are DynDNS/ PeanutHull/ NO-IP/ 3322/ DnsDynamic five types selectable)
- **Status:** Select on or off
- **Server Address:** Input server name, for example, members.3322.org
- **Port:** Input port No. (default is 80)
- **User Name:** Input user name
- **Password:** Input password
- **Confirm Pwd:** Input the password again to confirm it
- **Domain:** Input the standby domain

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## UPnP Settings

Network High Speed Dome “UPnP Settings” interface as shown in the follow figure.

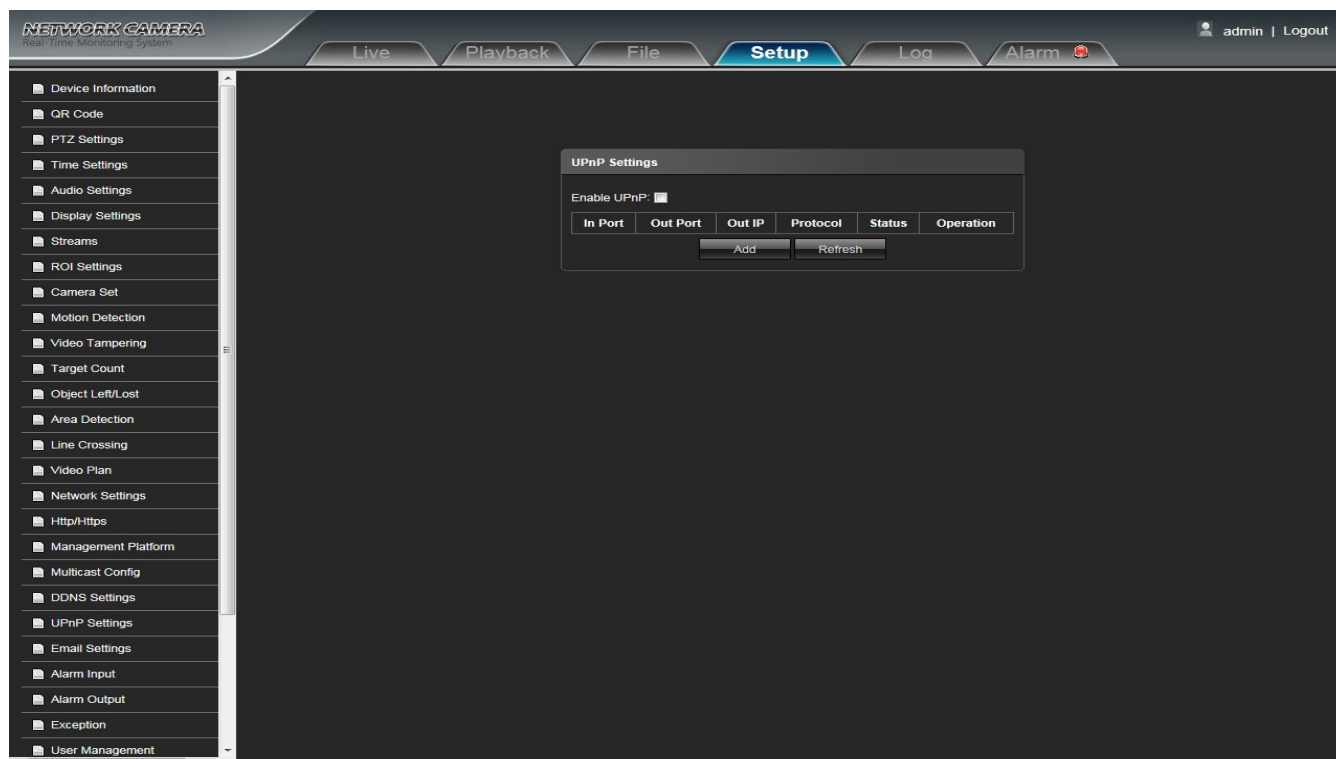


Figure 3-35

- **Enable UPnP:** you can choose whether to turn on the UPnP function. When enabled, the device can port mapping through the router.
- **Add: optional** TCP/UDP protocol, set internal and external port.

## Email Settings

Network High Speed Dome "Email Settings" interface as shown in the follow figure.

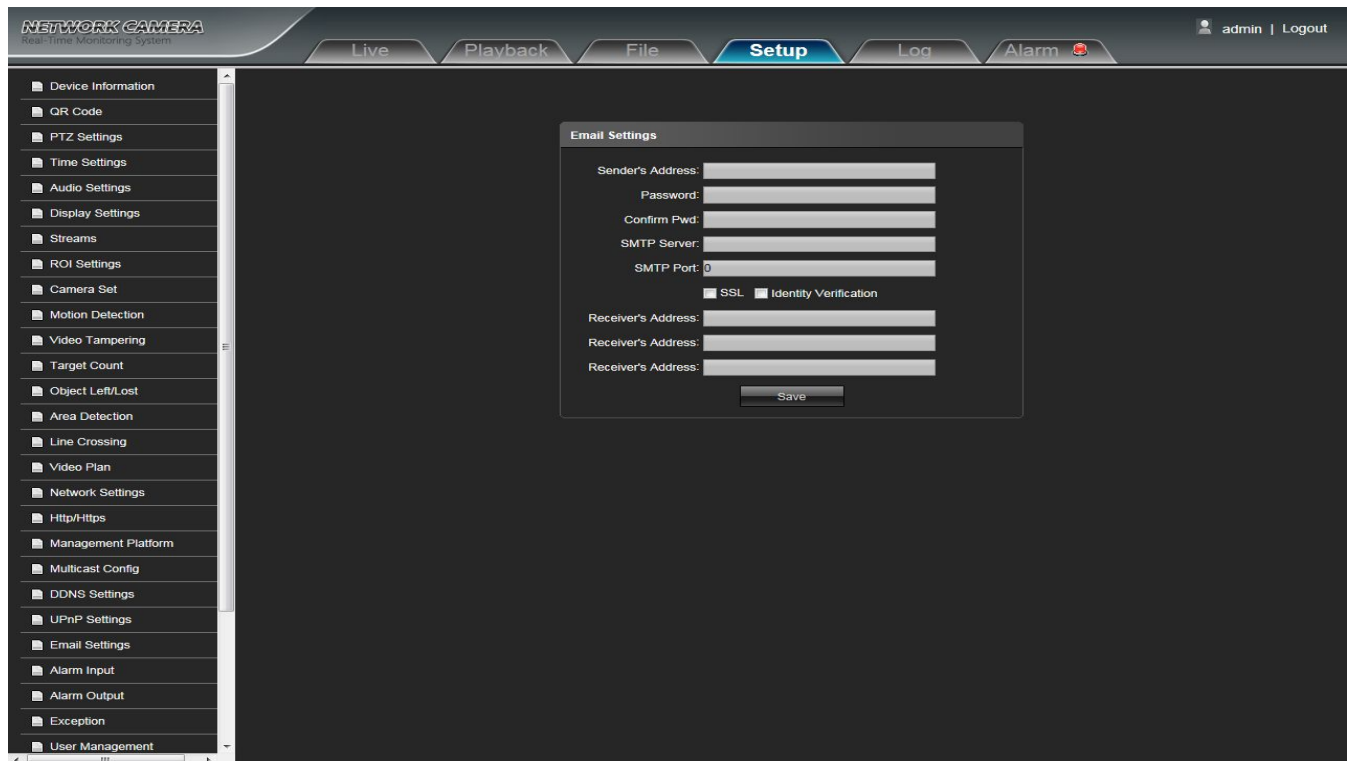


Figure 3-36

- **Sender's Address:** Input the address of the outbox
  - **Password:** Input the the password of the outbox
  - **Confirm pwd:** Input the password again to confirm it
  - **SMTP Server:** Input the smtp server address of the outbox
  - **SMTP Port:** Input the smtp server port of the outbox
  - **SSL/Identity verification:** Tick  **SSL** and  **Identity verification** to send the email correctly and safely
  - **Receiver's Address:** Input the address of the inbox, fill in the address of receiving email, and can fill in 3 address of receiving email
- After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Alarm Input

Network High Speed Dome "Alarm Input" setting interface as shown in the follow figure.

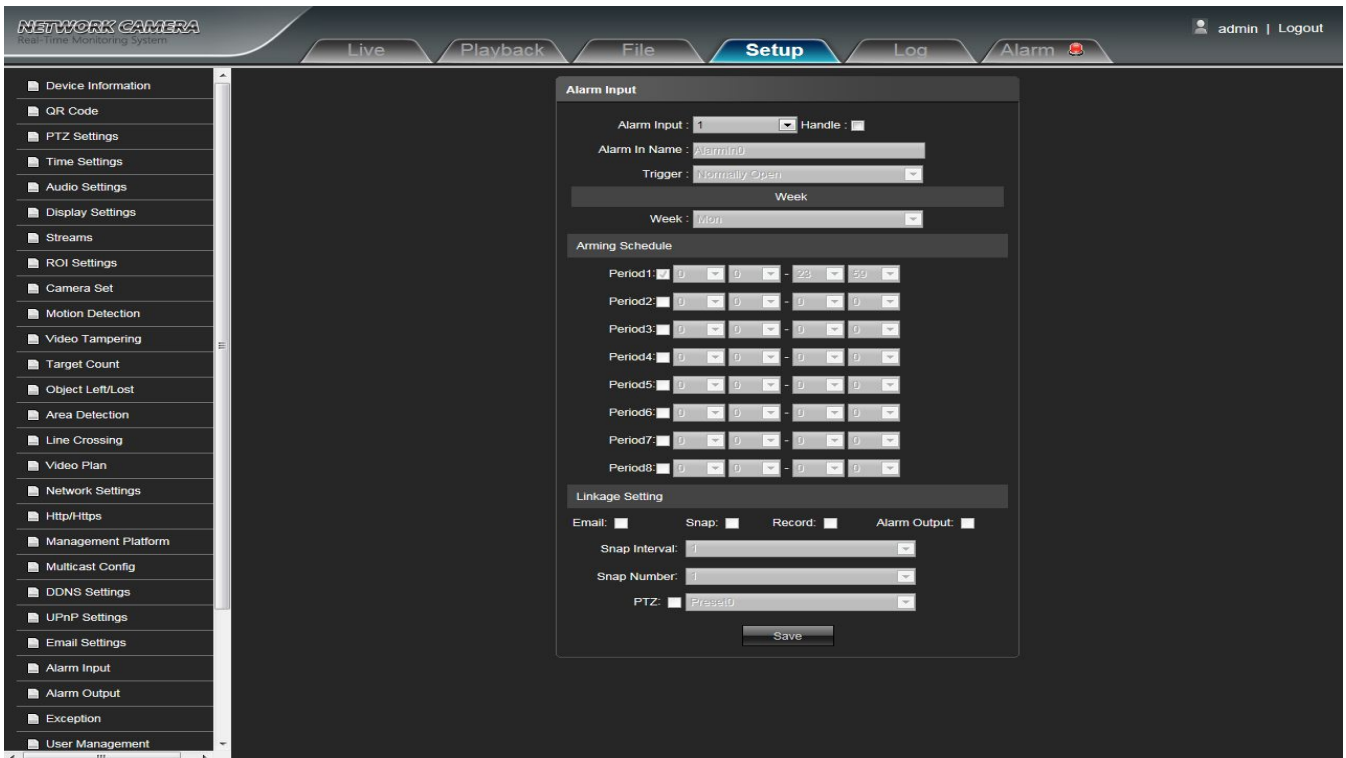


Figure 3-37

- **Alarm Input:** Select the alarm input number, Then click **Handle** :  can implement follow parameters settings
- **Alarm In Name:** Input alarm input name
- **Trigger:** Select the alarm statue: Normal Open/ Normal Close
- **Alarm Schedule:** Alarm schedule can be set from Monday to Sunday
- **Email:** Click Email, then it will send Email to appointed mailbox when alarm triggered
- **Snap:** Click Snap. Once alarm triggers that it will linkage camera to snapshot picture and store it in the TF card
- **Record:** Click Record. Once alarm triggers that it will linkage camera to record video and restore it in the TF card
- **Alarm Output:** There is a warner connect the alarm output port, alarm triggered the embedded relay switch to make alarm output.
- **Snap Number:** Set the snapshot image count for every time
- **Snap Interval:** Set the snapshot interval time
- **PTZ:** Enable or disable PTZ function
- **Preset:** When alarm input triggers alarm, it will linkage the presets

After all parameters setting completed, click "Save" and then it comes into effect immediately.

## Alarm Output

Network High Speed Dome“Alarm Output” setting interface as shown in the follow figure.

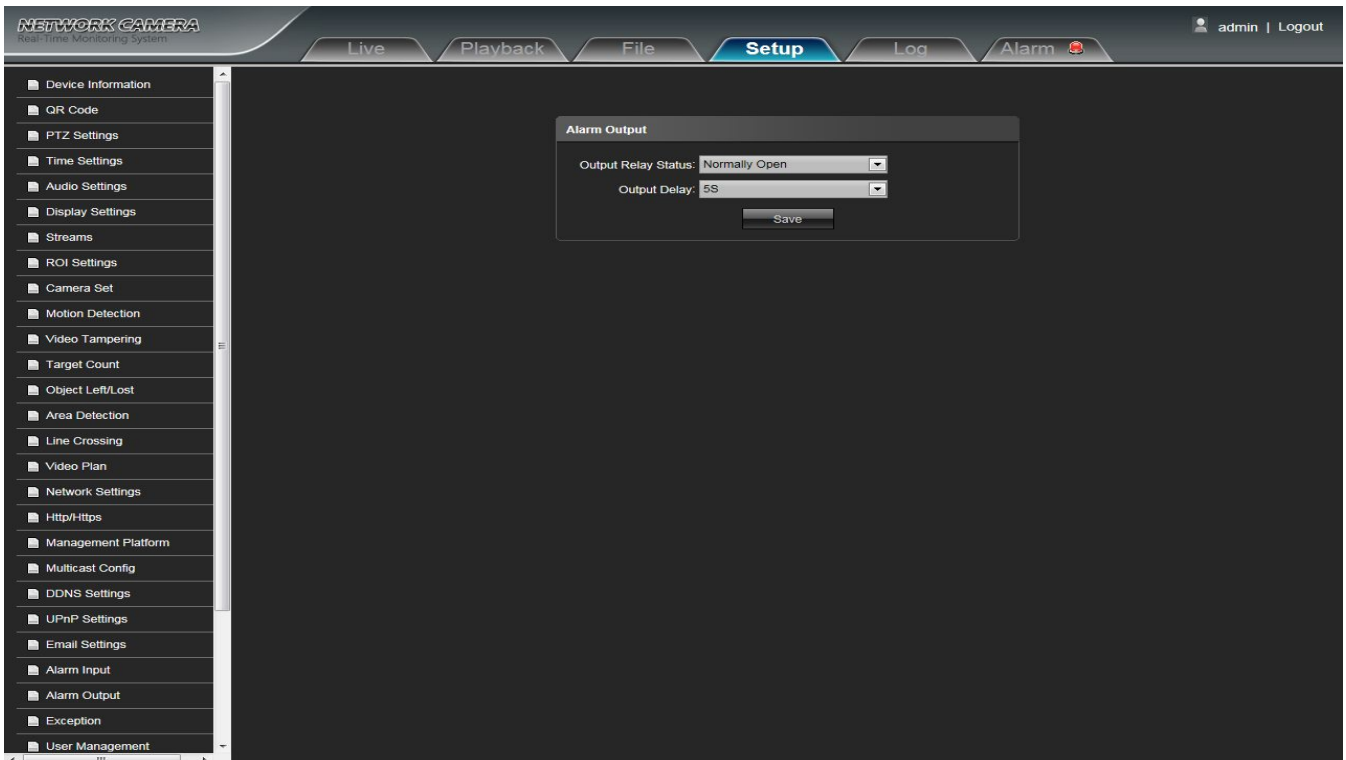


Figure 3-38

- **Output Relay Status:** Normally Open/ Normally Close selectable
  - **Output Delay:** Select the alarm output time( Alarm delay output when alarm triggered)
- After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Exception

Network High Speed Dome“Exception” interface as shown in the follow figure.

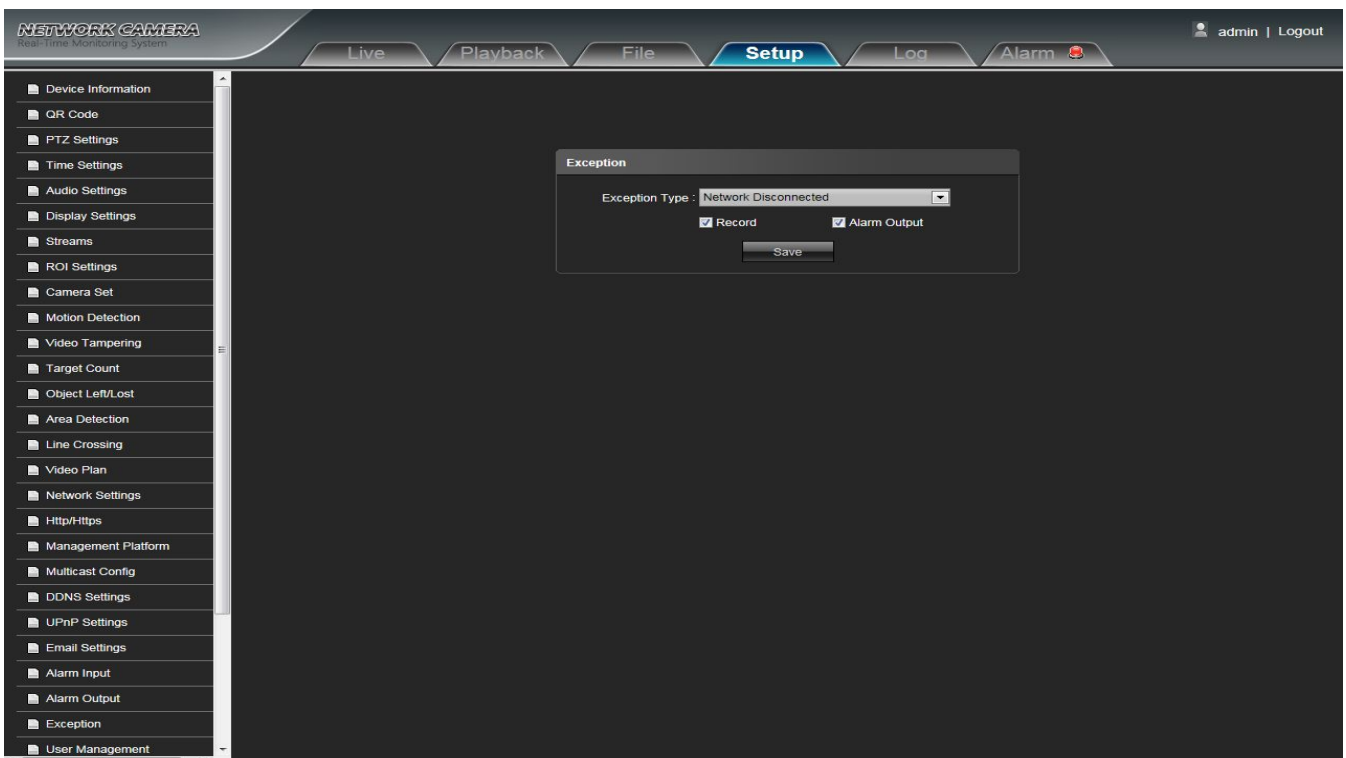


Figure 3-39

- **Exception Type:** Network broken/ IP address conflict/ Illegal access three exception types selectable
- **Record:** Click Record, it will do video record as any exception type triggered the alarm output
- **Alarm Output:** Click Alarm Out, it will linkage other alarm devices as any exception type triggered

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## User Management

Network High Speed Dome “User Management” setting interface as below, admin is the administrator (default), default indicates general users, boot and login with permissions authorized to default users (default).

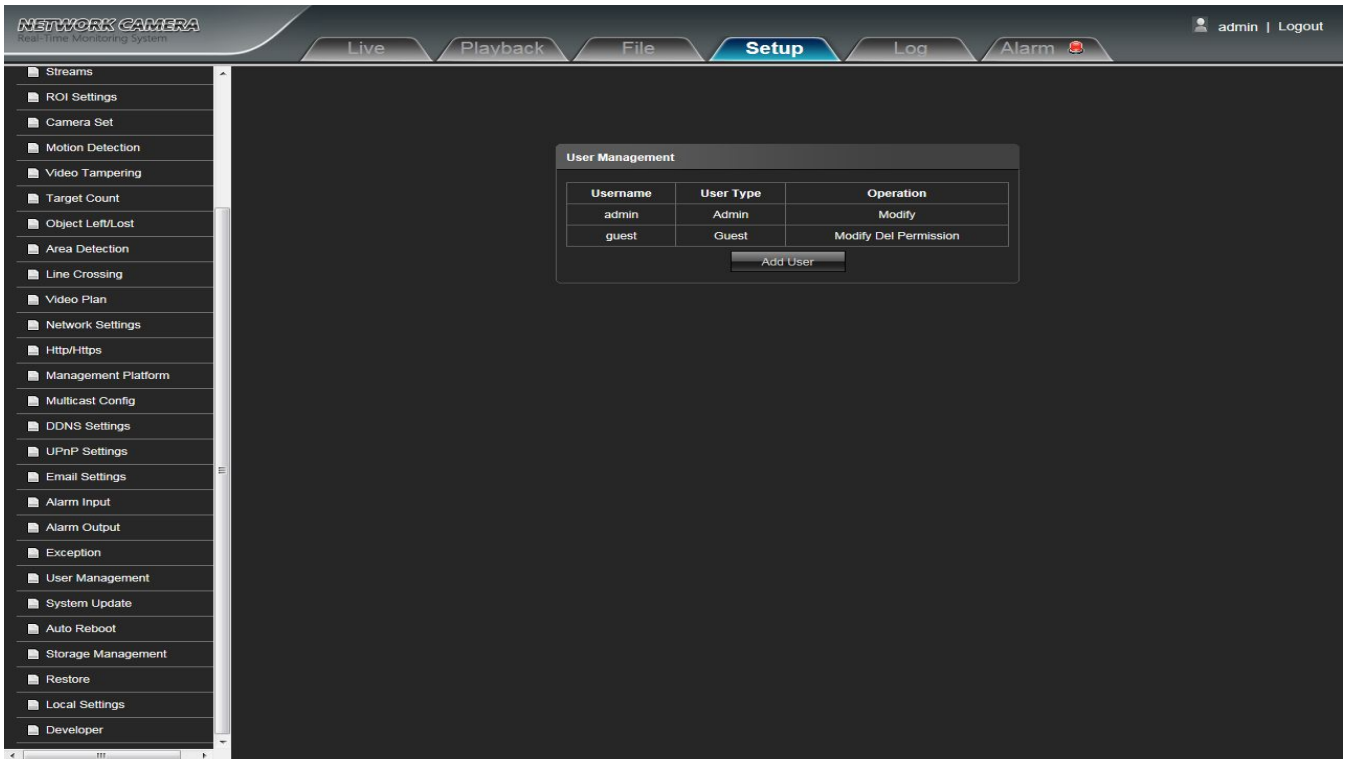


Figure 3-40

- **Modify:** The admin user can modify the login password, the default guest user can modify user type. While the new added user can modify user name, login password and user type. Otherwise, the new added user can select None/Guest/Operator three types, and set the different permission assignment in the Right Permission setting
- **Del:** Delete the new user
- **Permission:** permission assignment for the default guest user and new user
- **Add User:** Add a new user

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## System Update

Network High Speed Dome“System Update” setting interface as shown in the follow figure.

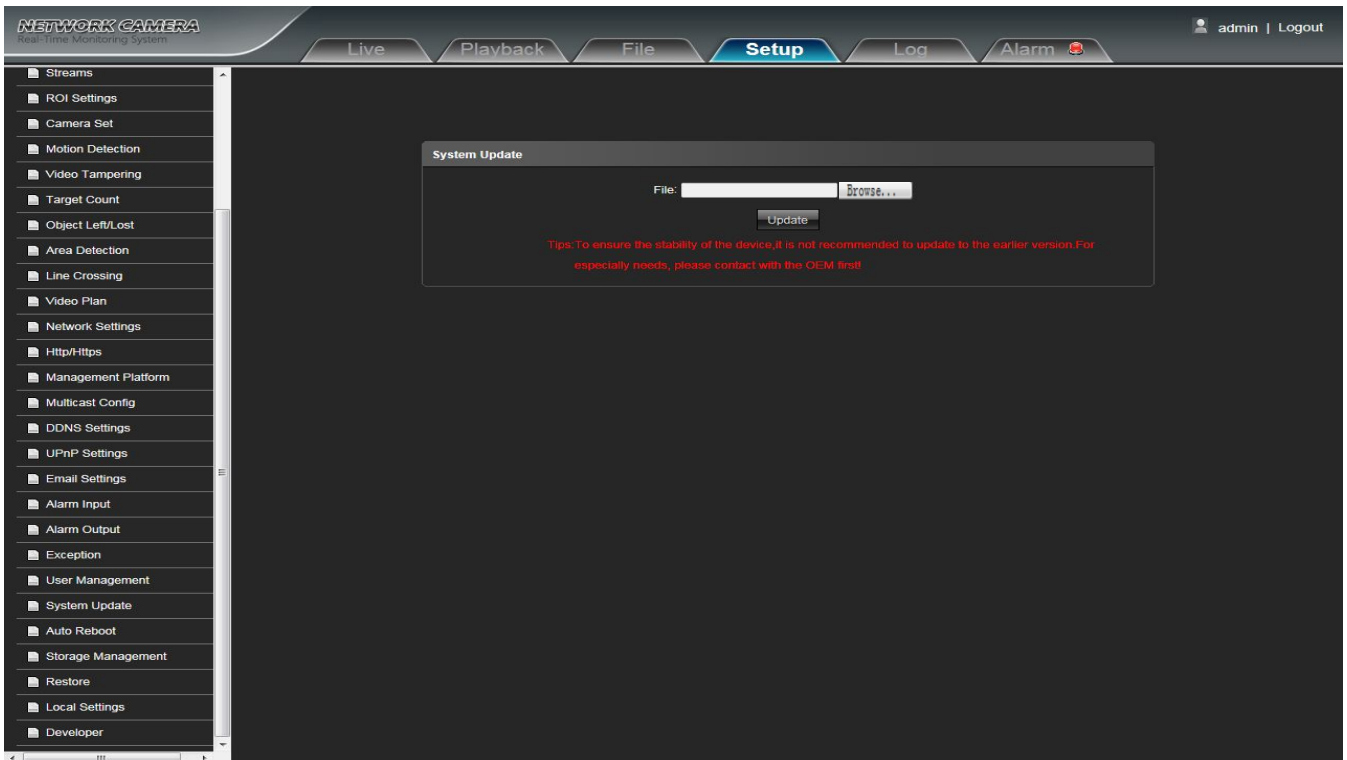


Figure 3-41

- **File:** Click Browse to find and select the upgrade kit, then click Update.



Non-technician should not try to operate system upgrade, do not turn off the power during upgrade process.

## Auto Reboot

Network High Speed Dome“Auto Reboot” setting interface as shown in the follow figure.

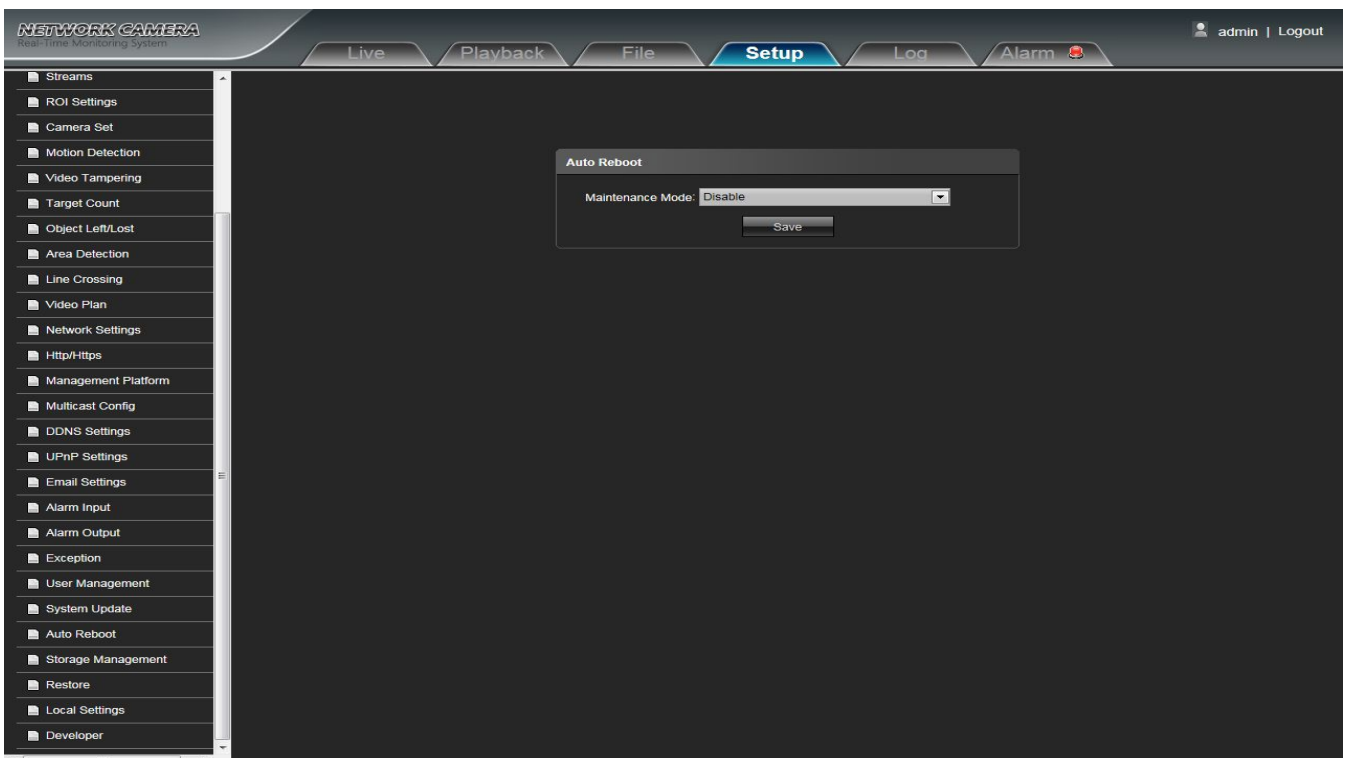


Figure 3-42



- **Maintenance Mode:** Default Disable, and there are Every Day/ Every Week/ Once three modes optional, then IPC will reboot as appointed mode

## Storage Management

Network High Speed Dome “Storage Management” setting interface as below, you can check current TF card capacity/ spare capacity/ status, and do TF card formatting. (Note: Turn off the power supply when insert or take out the TF card )

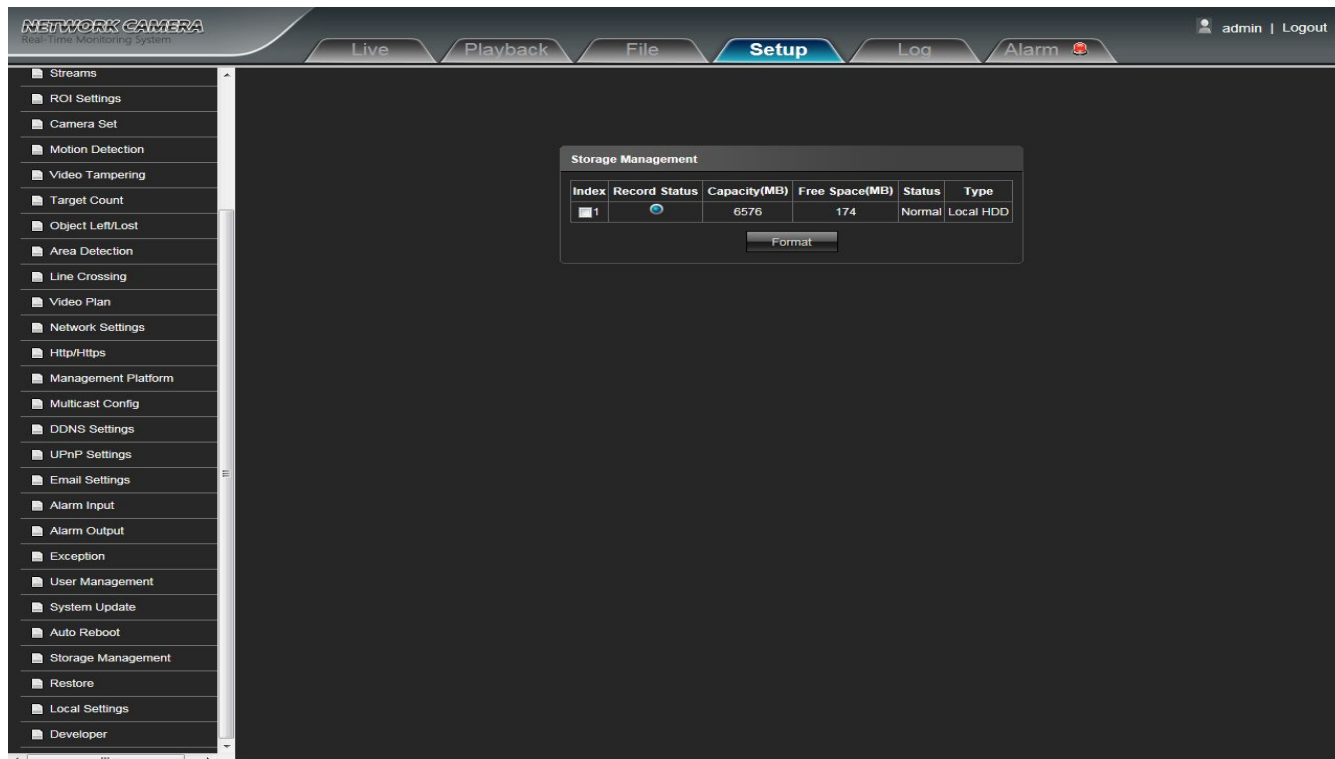


Figure 3-43

## Restore

Network High Speed Dome “Restore” setting interface as shown in the follow figure.

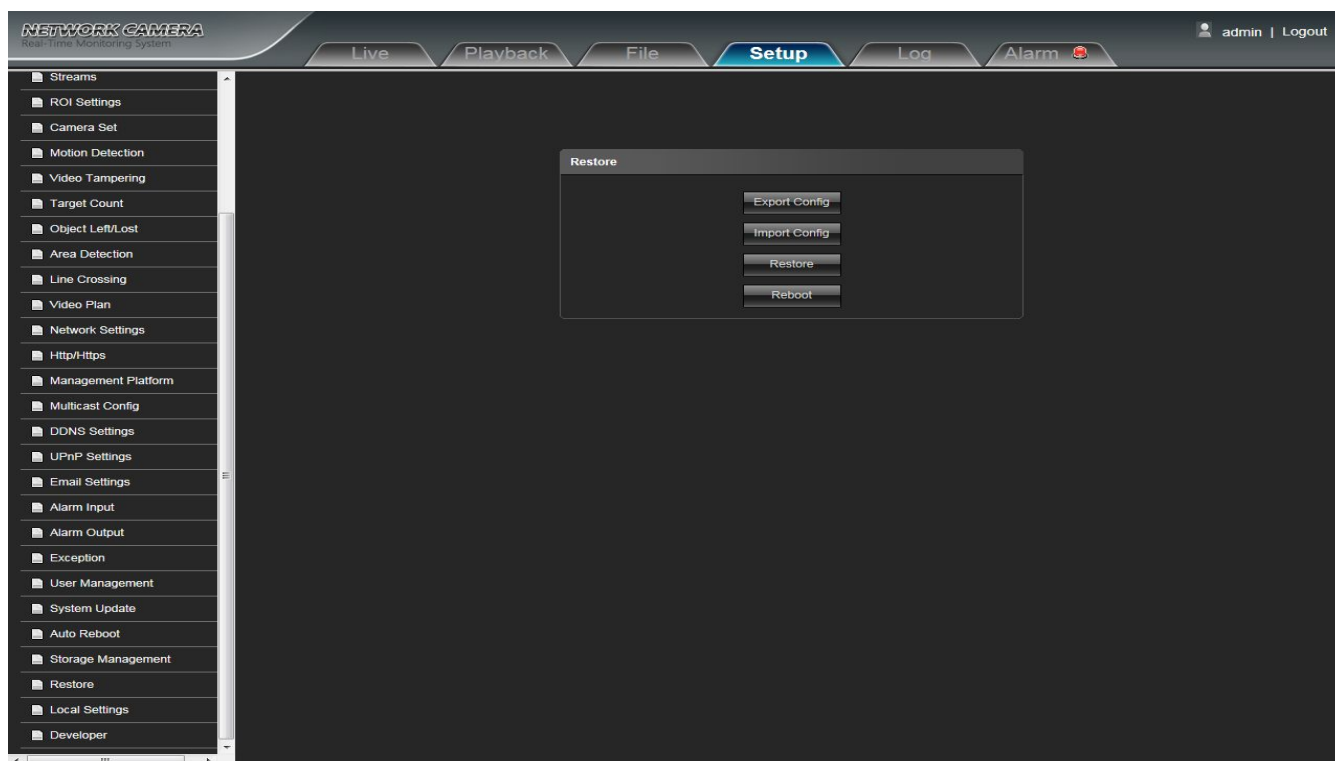


Figure 3-44

- **Export Config:** Export all configurations to PC or USB
- **Import Config:** Import selected configuration to the system
- **Restore:** Restore to factory setting
- **Reboot:** Reboot the devices

## Local Setting

Network High Speed Dome“Local Setting” interface as shown in the follow figure.



Figure 3-45

- **Window Mode:** Set the preview window mode(Full/ 4:3/ 16:9/Original Image optional)
- **Preview Capture:** Select the preview capture file storage path
- **Playback Capture:** Select and modify the video record capture file storage path
- **File Capture:** Select and modify the file management capture file storage path
- **Back Up:** Select and modify video record backup file storage path
- **Preview Video:** Select and modify the preview interface video record file storage path
- **Live View Mode:** Realtime/ Smoothway two types selectable, the value of them can be adjustable

After all parameters setting completed, click “Save” and then it comes into effect immediately.

## Developer

Network High Speed Dome“Developer” interface as shown in the follow figure.

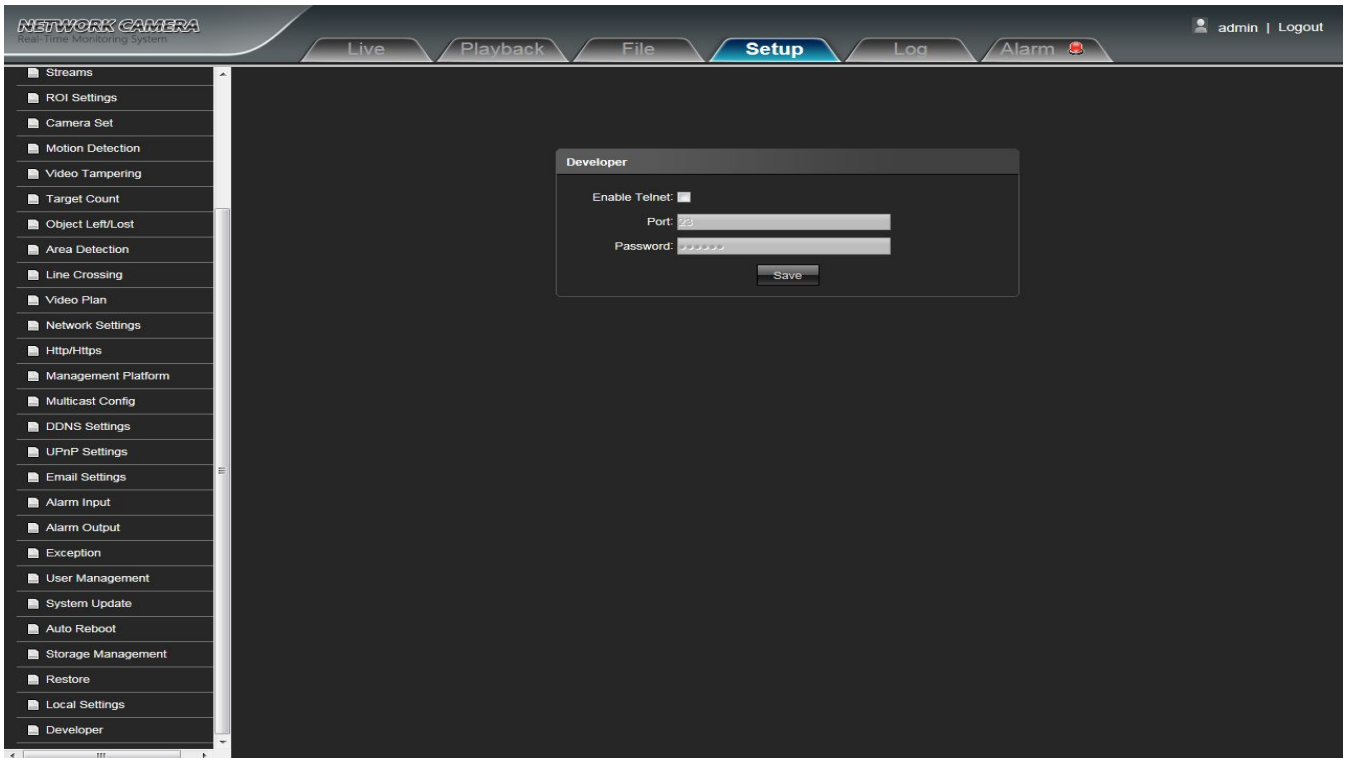


Figure 3-46

## Log

Network High Speed Dome“Log” setting interface as shown in the follow figure.

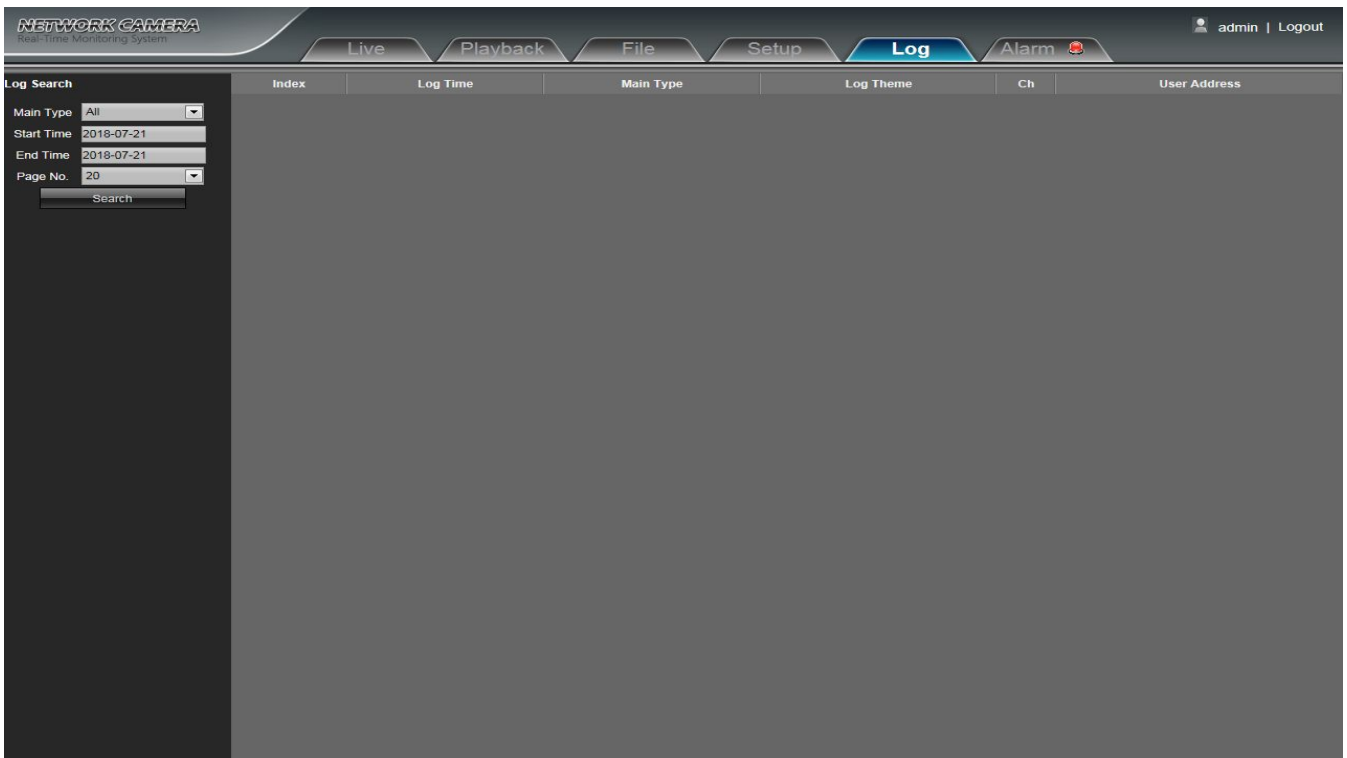


Figure 3-47

- **Main Type:** Select the log type to check. There are All/ Alarm/ Exception Settings/ Operation / Setup optional, or click All to check all types of them
- **Start Time:** Set the start time
- **End Time:** Set the end time
- **Page No.:** Set the log numbers on each page
- **Search:** Search the corresponding logs

---

## Alarm

---

Network High Speed Dome“Alarm” setting interface as shown in the follow figure.

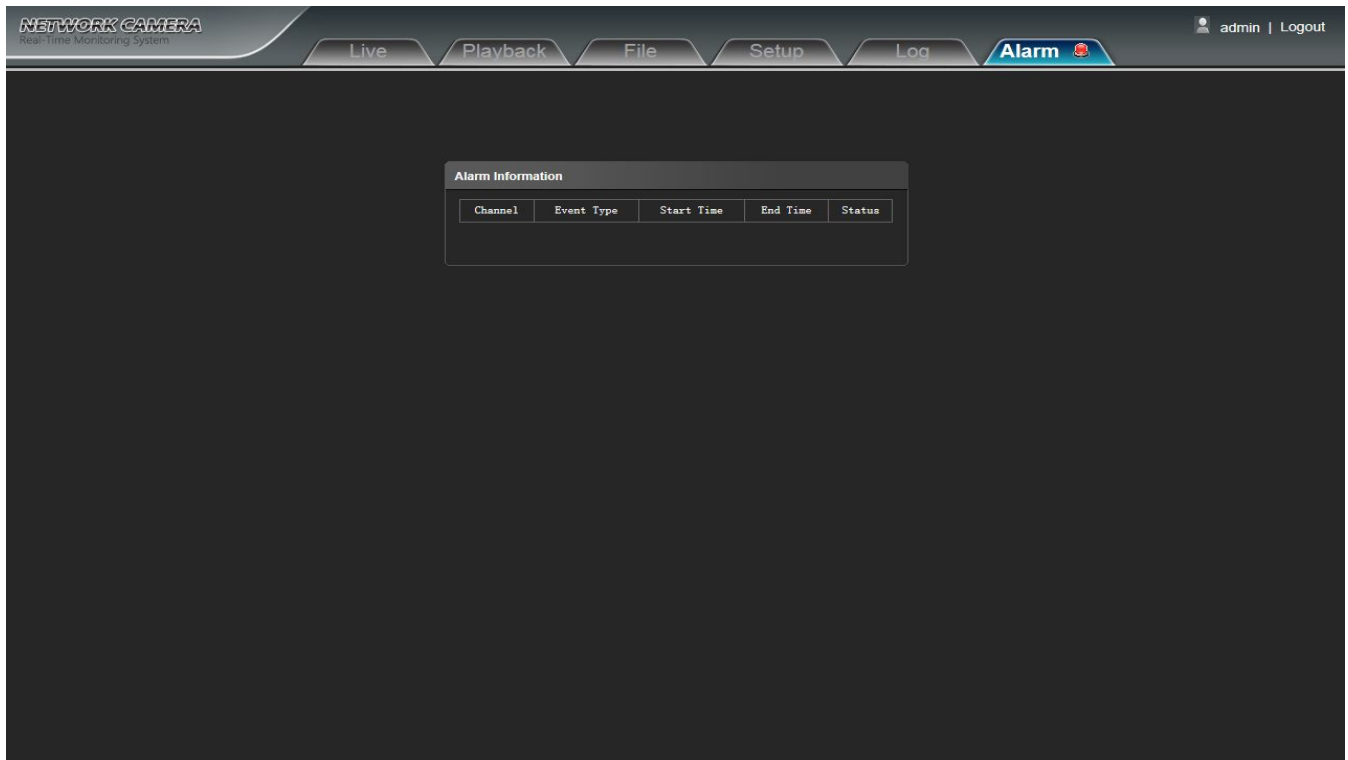


Figure 3-48

## 4 Appendix

### SPECIFICATIONS

Image Sensor	1/2.8" CMOS
Min. Illumination	LED on:0Lux Color:0.02Lux(F1.6 AGC ON) B/W:0.002Lux(F1.6 AGC ON)
Effective Pixels	2MP
Resolution	More than 1000TVL
Optical Zoom	23X
Digital Zoom	1X-16X
Focus length	f=4.7~108.1mm
Angle Field of view	55.8° (Wide) / 3.2° (Tele)
Zoom Speed	3S(Wide-Tele)
Focus mode	Auto/ Manual/One push
S/N ratio	>50dB
Image adjust	Support brightness, contrast, saturation, Hue can be adjusted through web
White balance	Auto WB/Indoor/Outdoor
Image mode	Standard/gorgeous/natural
Iris control	Auto/ Manual
Electronic Shutter	1/5~1/10,000s
Auto slow shutter	On/Off
Gain control	Low/Mid/High
BLC	Off/WDR/HLC/BLC
Dark compensation	On/Off
HLC	On/Off
WDR	Off, Low/Mid/High
Day/Night	Auto/Color/ Black White
Mirror	Normal/ Horizontal Mirror/Vertical Mirror/180° rotation
DNR	Off/Low/Mid/High
Defog	On/Off
Anti Shake	On/Off
<b>AUDIO/VIDEO COMPRESSION</b>	
Video Compression	H.264/MJPEG/H.265
H.264 Encoding Type	Base Line / Main Profile / High Profile
Frame Rate	1~30fps adjustable
Main Stream	1080P(1920*1080),960P(1280*960),720P(1280*720),D1(720*576),VGA(640*480),Q720P(640*360),CIF(352*288)
Sub Stream	D1(720*576),VGA(640*480),Q720P(640*360),CIF(352*288)
Third Stream	1080P(1920*1080),960P(1280*960),720P(1280*720),D1(720*576),VGA(640*480),Q720P(640*360),CIF(352*288)
Output Format	PAL/NTSC adjustable
Max.Resolution	1920X1080
Video Bit Rate	Constant bit rate, Variable bit rate(16kbps-8000kbps)
Stream Type	Complex stream/ Video stream
Audio Compression	G.711u
Audio Bit Rate	64Kbps
Audio Control	Input volume(0-100), Output volume(0-100)
ROI	4 regions(1-6)
<b>FUNCTION</b>	

Pan Range	360° endless
Tilt Range	0°~ 90°
Manual Control	0.1°~180°/s
Preset Speed	200°/s
Preset Accuracy	0.1°
Preset	256
Cruise	8 groups
Linear Scan	8 groups
Pattern Scan	4 groups
Continuous Scan	Support
Proportion Zoom	Auto
PTZ watch	None/ Preset/ Cruise/ Track/ Linear scan(1~15min)
Auto Flip	Mechanical Flip
Power Off Memory	Support
3D Positioning	Support
Magnification / Coordinate display	Support
IR Irradiation Angle	Automatically adjusted, depending on the zoom ratio
IR Distance	120m
Smart IR	IR irradiation brightness and angle can be adjusted depending on the zoom ratio
<b>NETWORK</b>	
Network Protocol	IPv4,TCP,UDP,HTTP,HTTPS,SMTP,FTP,NTP,DNS,DDNS,DHCP,ARP,UPnP,RTSP,RTP,RTCP,IGMP,PPPoE,ICMP,SNMP
Access Protocol	ONVIF GB/T28181
Browser	Support IE above
Video Preview Meanwhile	Max 4CH
User Permission	User Add / Delete / Modify, Administrator/ Operator/ Ordinary users
Safe Mode	Authorized user name and password
Motion Detection	Multi-zone, Multi-level sensitivity optional
Tampering Alarm	1 zone can configuration
Privacy Mask	8 zones
Intelligent analysis	Target Count,Object Left/Lost,Area Detection,Line Crossing
Event Linkage	Snapshot, TF card record, FTP upload or Send email, Alarm output linkage, Preset linkage
Multicast Function	Enable/Disable Multicast
ANR	Support, match with NVR
Device Exception	Support network disconnected, IP conflict, illegal access alarm
OSD	Title, time and date overlay, OSD color/size adjustable
DST	Support
System Upgrade	Support online remote upgrade
<b>INTERFACE</b>	
Network Interface	RJ45 10M/100M Network Adaptive
Analog video output	1.0Vp-p complex video output 75 Ω
Audio	1CH Input/output, Monitoring or Bidirectional talk
Alarm Input	2CH input
Alarm Output	1CH output, support alarm linkage
Reset Button	Support
RS485	Half-duplex,support Pelco-P and Pelco-D

TF Card	Support Max 128G, Support NFR
<b>GENERAL</b>	
Protection Level	IP66
Operation Temperature	Outdoor: -30°C~60°C
Operation Humidity	0%~90% RH (No condensation)
Dimensions(mm)	380 (H) x 216 (D) mm
Weight/PCS(g)	About 7Kg
Power Supply	DC24V/1.5A (±10%)
Power Consumption (Max.)	36W

\*Note: without notification to make changes in product design and/or specifications.

## Network Interface of Network High Speed Dome

The default network ports of Network High Speed Dome are:

TCP	80	Web port
	5050	Communication port, audio/video data transmission port, talkback data transmission port
UDP	5050	Audio/video data transmission port
Multi-cast port	28080 [Main stream] 28081 [Sub stream]	
Onvif port	80	
Rtsp port	554	
RTSP port	8002	
Search port	10000	
Telnet port	23	
Onvif search port	3702	
Video stream port	5051	
Playback, upgrade, search port	5052	
Mobile visit port	5053	
Https protocol port	443	

## Default Network Parameters

Default network parameters

<p>Cabled Network:  IP Address: 192.168.1.188  Data Port: 5050  Subnet mask: 255.255.255.0  Web port: 80  Gateway: 192.168.1.1  DHCP: OFF</p>
---

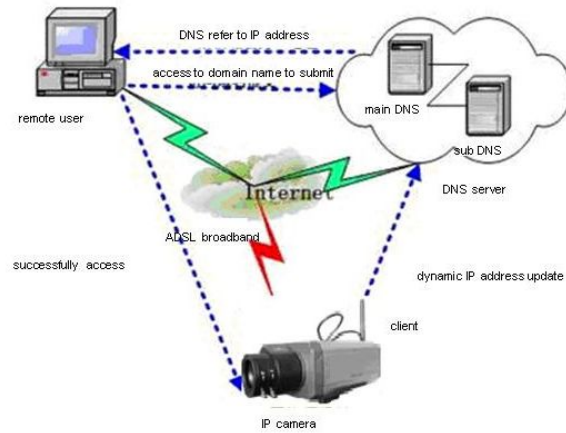


## Network High Speed Dome DDNS

### DDNS description

DDNS( Dynamic Domain Name System) means that DDNS is implemented through a dynamic domain resolution server. It requires a PC with fixed IP address on the Internet, on which the dynamic domain resolution server runs. All internet users can view the Network High Speed Dome via a fixed IP address.

### Network High Speed Dome DDNS analytical process



## Visit Network High Speed Dome under different network environments

Users visit the Network High Speed Dome through LAN/ WAN. The following directions will tell you how to operate the Network High Speed Dome through LAN/ WAN.

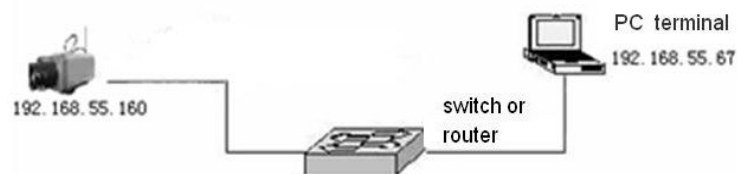
### LAN

There two ways to connect Network High Speed Dome: Static IP/ Dynamic IP

#### Static IP

Static IP means the webmaster distribute a LAN inner IP address to the Network High Speed Dome. Keep your PC IP address same as the camera IP address and to implement access.

Network topological graph as follows::



Network setting reference:

The screenshot shows the 'Network Settings' page with the following fields and values:

- IPv4:  Static IP  DHCP
- IP Address: 192.168.1.188
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.1.1
- DNS 1: 8.8.8.8
- DNS 2: 8.8.4.4
- MAC: 007E:CD:48:6F:B5
- RTSP Port: 554
- RTSP Validation:  HTTP-Base64  HTTP-Digest
- RTMP Port: 1935
- Enable PPPoE:
- Username: [empty]
- Password: [empty]
- Confirm Pwd: [empty]
- PPPoE IP: [empty]

A 'Save' button is located at the bottom center.

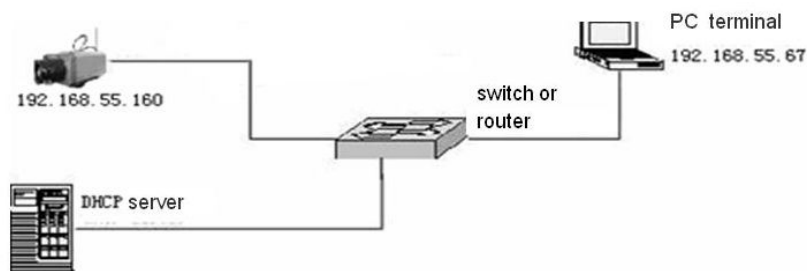
**Setting procedure:**

1. Log in Network High Speed Dome via the IE browser (the default IP is 192.168.1.188)
2. Switch to the page “ Network Setting” interface, fill the device IP address the network administrator distributed in the IP address(eg.192.168.1.50)
3. Fill in subnet mask, the default is 255.255.255.0
4. Fill in gateway address, the default is 192.168.1.1

After input all parameters, click “Save”, then the device restart, Input the device IP address at the IE browser to visit the camera.

**Dynamic IP**

Dynamic IP means that Network High Speed Dome obtains IP address from DHCP server. See below picture for the network topology:



Please refer to below picture for the network settings:

The screenshot shows the 'Network Settings' page with the following fields and values:

- IPv4:  Static IP  DHCP
- IP Address: 192.168.1.188
- Subnet Mask: 255.255.255.0
- Gateway: 192.168.1.1
- DNS 1: 8.8.8.8
- DNS 2: 8.8.4.4
- MAC: 007E:CD:48:6F:B5
- RTSP Port: 554
- RTSP Validation:  HTTP-Base64  HTTP-Digest
- RTMP Port: 1935
- Enable PPPoE:
- Username: [empty]
- Password: [empty]
- Confirm Pwd: [empty]
- PPPoE IP: [empty]

A 'Save' button is located at the bottom center.

Log in Network High Speed Dome via IE browser. Then turn to “ Network Setting” interface, click DHCP”

After setting all the parameters, click save and restart to make the parameters valid.

**Internet**

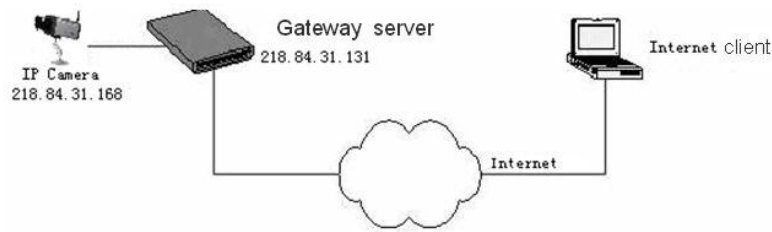
There are three ways to connect Network High Speed Dome to the Internet.

1. Fixed IP mode
2. ADSL broadband and router share online mode( Dynamic get the IP address mode)
3. PPPOE dial-up access

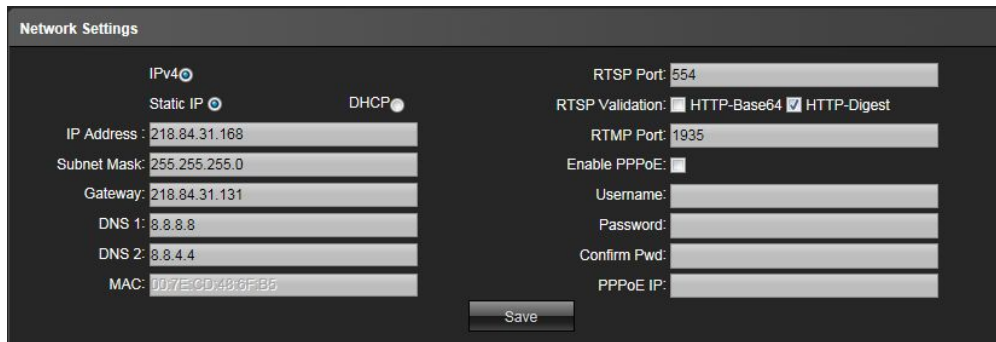
After Network High Speed Dome is connected to Internet, remote Internet users can visit it directly via domain name or IP address.

Fixed IP mode

See below picture for the network topology:



Please refer to below picture for the network settings:



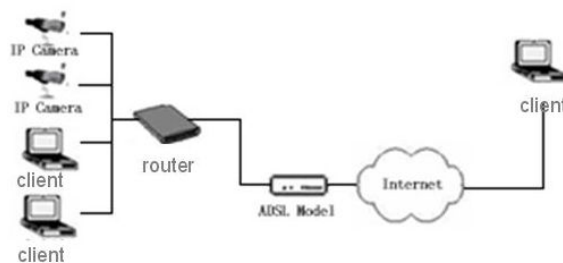
**Setting steps:**

1. Log in Network High Speed Dome via crossover cable direct connection.(For details, please refer to “Hardware Installation”)
2. Switch to the page network settings, fill in the device IP address requested from network service provider in to Basic Parameters, such as 218.84.31.168
3. enter correct subnet mask. Such as 255.255.255.0
4. enter correct gateway address. Such as 218.84.31.131

After setup completes, click Save and restart the device, then connect it to public network so that all Internet users can visit the Network High Speed Dome remotely via entering <http://218.84.31.168> to IE browser

Broadband and router sharing Internet access mode (dynamic obtainment of extranet IP address mode) like ADSL and so on.

If you select router dial-up to connect internet, see below picture for the network topology:



Users can set up DDNS domain name service at the same time. Fill the user name and password which were applied in the DDNS server into the DDNS setting item, implement port mapping from the router. The router determines and points to the Network High Speed Dome that need to be visited according to different ports, long-distance Internet user can visit the Network High Speed Dome on the network via domain name directly.

Please refer to below picture for the network settings:

### DDNS Settings

Enable DDNS:

DDNS Type: No-IP

Status: On

Server Address: dynupdate.no-ip.com

Port: 80

Username: video

Password: ●●●●

Confirm Pwd: ●●●●

Domain: video.no-ip.net

#### DDNS setting procedure:

1. Login DDNS server ( Such as http://www.no-ip.com), register accounts and password.
2. Click DDNS ( It is selectable when server provider is blank)
3. Select DDNS server provider, such as no-ip
4. Input the DDNS login username
5. Input the DDNS registered password
6. Input the domain name applied on the DDNS server, such as video.no-ip.net
7. Input the DDNS address, such as dynupdate.no-ip.com
8. Input the DDNS port, default is 80.( Suggested users keep it)

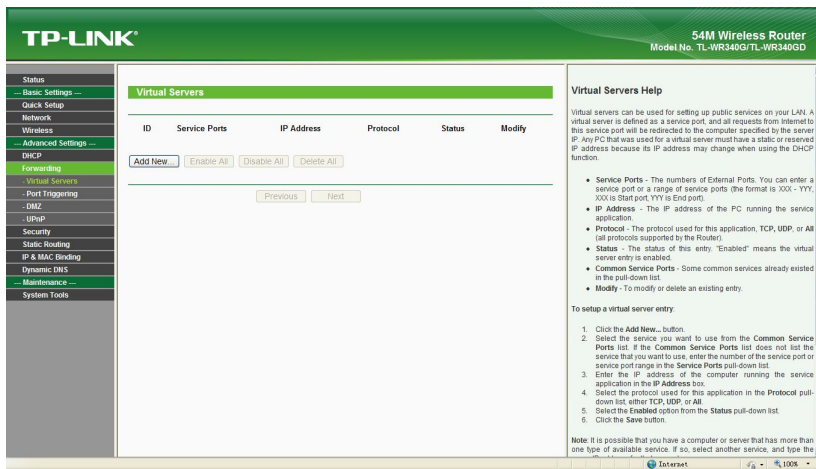
After all parameters setting completed, click “Save”and devices comes into effect.

#### Port mapping setting procedure

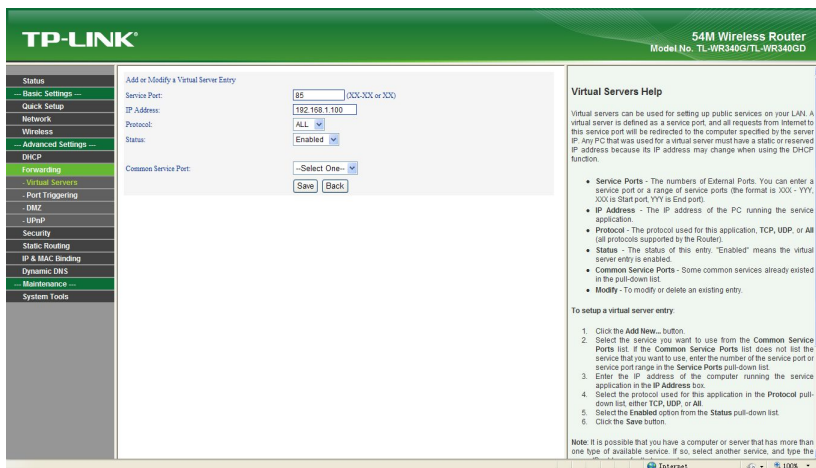
TP-LINK TL-WR340G illustration:

1. Ask network administrator for the IP address of the router (i.e. LAN gateway address), login user name and password, then log in the router. The main interface is as follow:

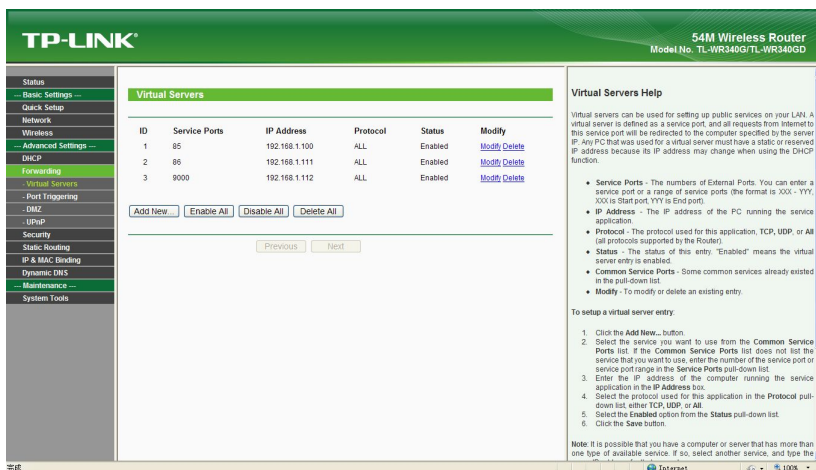
2. Open “Forwarding”, select “Virtual Servers” as below picture shows:



3. Select "Add New Items", enter the IP address of the Network High Speed Dome (e.g. 192.168.1.100), port (e.g. 85), status (valid) and other information, click save, see below picture:



4. After save successfully, below screen appears:



5. If DDNS is successfully set in "Network Settings" of Network High Speed Dome, direct visit to the Network High Speed Dome can be realized via entering <http://test.mvddns.net:85> into IE browser.

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## Frequently asked questions

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1.No video image displayed in IE browser.

**Possible reason:** ActiveX not installed

**Solution:** ActiveX must be installed when visiting Network High Speed Dome for the first time via Internet Explorer.

**How to install:** Visit IP camera, file download dialog will pop up automatically, select Run or Save to download. After download finishes, installation interface will pop up, click install, the installation of ActiveX will start automatically, "Finish" dialog box will pop up to remind the completion of installation process.

2.Fail to visit Network High Speed Dome via IE after upgrade.

**Solution:** Delete the caching of Browser:

Open IE→click Tool→select "Internet Options"→click delete files button in "Internet temporary files"→ select "delete all offline contents"→click OK and re-log in Network High Speed Dome.

3.The images do not flow.

**Possible reason 1:** The frame rate of Network High Speed Dome is too low.

**Solution:** Increase the video frame rate

**Possible reason 2:** Too many users are viewing the images.

**Solution:** Block some clients or reduce the video frame rate.

**Possible reason 3:** The bandwidth is low.

**Solution:** Reduce video frame rate or video compression bit rate.

4.Fail to visit Network High Speed Dome via IE browser.

**Possible Reason 1:** Network is disconnected.

**Solution:** Connect your PC to network, checking whether it works properly or not. Check whether there is cable failure or network failure caused by PC virus, until PCs can be connected with the command of Ping.

**Possible reason 2:** IP Address has been occupied by other devices

**Solution:** Stop the connection between Network High Speed Dome and Network, hook up Network High Speed Dome to PC separately, reset IP address according to the proper operations recommended.

**Possible reason 3:** IP addresses are in different subnets.

**Solution:** Check IP address, subnet masking address of the DVS and the settings of Gateway.

**Possible reason 4:** Physical address of network conflict with Network High Speed Dome

**Solution:** Modify the physical address of Network High Speed Dome.

**Possible Reason 5:** Web port has been modified

**Solution:** Contact Network Administrator to obtain related information.

5.The color of images is abnormal (green or other colors).

Sometimes Network High Speed Dome images cannot display properly for the difference between Graphics Cards, the images appears to be green or other colors, then you should run the programme Config.exe (or run C:\windows\system32\Config.exe)to set the following parameters of display buffer: auto-detection, used display card memory or system memory, then reopen IE and connect Network High Speed Dome.

6.There is no sound while monitoring.

Possible Reason 1: No audio input connection

Solution: Check audio connection of the host

Possible Reason 2: The audio option of Network High Speed Dome is off

Solution: Check audio parameter settings to see if you have opened the audio.

7.Search NVS software cannot find device.

Possible reason: Search NVS software adopts multicast protocol to perform searching. But the firewall forbids multicast data packet.

Solution: Disable the firewall.

8. Image processing doesn't work properly.

Possible Reason 1: System issue, DirectX function is disabled, which will cause slow display of images and abnormal color.

Possible Reason 2: Hardware issue, graphics card doesn't support image acceleration and hardware zooming functions. (For hardware issue, the only solution is to replace graphics card)

Solution: Install DirectX image drive, then Start→Run→input "Dxdiag" order.



Enable DirectDraw speedup, Direct3D speedup, AGP veins speedup in DirectX function. If they cannot be enabled, that means DirectX installation fails or hardware not supportive.

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