

Bi-Spectrum IP PTZ Camera User Manual

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Summary

The Bi-Spectrum IP PTZ cameras integrate two types of image sensors: a high-resolution 1080P visible light sensor with day/night autofocus capabilities and a thermal imaging (infrared) sensor. This camera adopts the latest Smart H.265 image compression technology, and the network transmission of ultra-high resolution images is smoother. Our multi-streaming technology can provide 1080p, 720p, D1, CIF and other resolutions, which can be adapted to transmit high-quality images under various bandwidth network environments.

Ultra-low light sensor, night low light color enhanced mode, 1080P picture is more realistic. Ultra-wide dynamic HDR technology, up to 120dB in high backlight environment, the face image is clearer. The thermal imaging sensor detects heat emitted by objects, making it suitable for use in nighttime, smoke, heavy fog, or total darkness. It can identify heat-emitting targets such as humans and vehicles, delivering clear lighting surveillance images under varying lighting and weather conditions.

The 30X IP PTZ Cameras are capable of making 360° rotations, speed range from 0.1~120 degrees per second, users can accurately position the camera to identify specific targets. It also has 30X optical zoom and thermal imaging at different focal lengths. Users can smoothly control and accurately position the camera to aim and monitor specific targets, with excellent monitoring capabilities making it ideal for numerous applications.

The IP PTZ Cameras provide IP66-rated protection against water and dust. It can operate normally in harsh environments and is an ideal choice for outdoor PTZ surveillance applications.

The IP PTZ cameras support SmartEvent technology, which provides programmable and scheduled alarm, counters and virtual digital inputs to provide network system integration. The IP PTZ cameras provide output functions for sending alarm information, including smartphone connections, email snapshots, and FTP snapshots.

In addition, The IP PTZ cameras can connect to VMS software. This software can enhance the performance of the network camera and provide you with a complete video management solution.

Key Features

- Supports Smart H.264 and H.265 encoding formats.
- Built-in GPU engine for Aida plug-in
- AI detection can send Email or FTP snapshot alarms
- SmartEvent for digital output
- Ultra low light & HDR at 120dB
- Day/night video quality independent scheduling
- Bit rate and frame rate on-the-fly adjustment
- Support dynamic DNS (DDNS) and network time protocol (NTP)
- Support HTTP API integration
- Support ONVIF protocol
- Support Video Management Software (VMS)

Trademarks & Acknowledgments

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This product contains H.265 (High Efficiency Video Coding, HEVC) codec technologies and is manufactured under the license from Access Advance LLC, and the HEVCAdvance symbol are trademarks of Access Advance LLC.



Covered by one or more claims of the HEVC patents listed at patentlist.accessadvance.com.

HTTP API

For non-ONVIF integration, see our HTTP API document. HTTP API is used in all our IP cameras.

Disclaimer

Please be aware that this user manual may cover a range of product specifications for various models. Characteristics and features discussed and/or illustrated in this manual may not be applicable or available to all models. We reserve the right to change product specifications, designs and equipment without notice and without incurring obligation.

Caution

- Do not drop or damage the equipment
- Do not install the equipment near fire or heat sources
- Keep the equipment from rain, moisture, smoke, or dust
- Do not cover the opening of the cabinet with cloth and/or plastic or install the unit in poorly ventilated places. Allow 10cm between this unit and its surroundings
- Do not continue to operate the unit under abnormal conditions such as smoke, odor, or loss of signal whilst power is turned on
- Do not touch the power cord with wet hands
- Do not damage the power cord or leave it under pressure
- To avoid unnecessary magnetic interference, do not operate this unit near magnets, speaker systems, etc.
- All connection cables should be grounded properly



Chapter 1 System Overview

Chapter 1-1 Summary

The Bi-Spectrum IP PTZ camera supports AI recognition for both pure thermal imaging and thermal-RGB fusion modes.

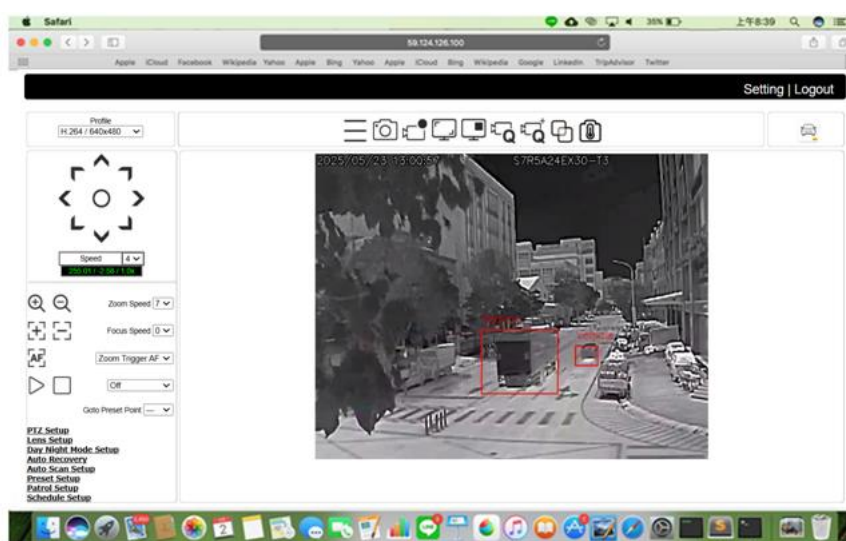
Chapter 1-2 System Requirements

The IP PTZ camera uses compression technology that provides high compression rate and superior video quality. However, video performance depends highly on CPU power and network bandwidth for video streaming. The following sections specify the system requirements for using the IP PTZ cameras.

Chapter 1-3 Software Requirements

Chapter 1-3-1 Apple Mac OS

The IP PTZ camera uses HTML5 streaming which supports Safari browser for accessing video streaming of the IP PTZ camera on Apple Mac OS without any software plug-in.



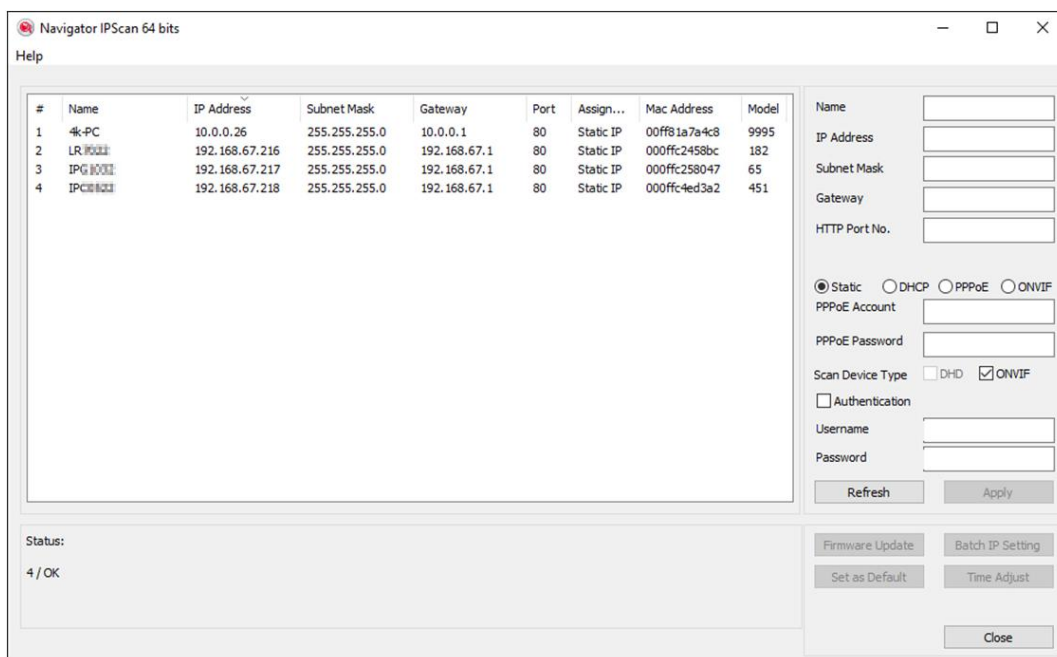
Chapter 2 Before Accessing IP PTZ Cameras

Before accessing the IP PTZ cameras, make sure that the camera's RJ-45 network connector, audio cable, and power cable are properly connected. To set the IP address, consult your network administrator. The default IP address for each IP PTZ camera is 192.168.0.200. Users can use the default IP address to verify the camera's network connection.

Chapter 2-1 Configure IP Addresses using the IPScan Utility

To configure the IP address of your cameras, download [IPScan](#) from our official website. Or, you can execute the IPScan installer from the installation CD directly. To change the IP address, subnet mask, gateway, or HTTP port of your cameras, follow the steps below:

- Run the IPScan utility
- Click Refresh. All available devices will be listed on the screen
- Select the device item from the device list
- To edit or modify IP address, subnet mask, gateway, or HTTP port, use the box
- Click Apply for the changes to take effect
- Click Refresh again to verify the changed settings



Chapter 2-2 Configure IP Addresses through HTML Connection

To change an IP address on a webpage, type the default IP address (192.168.0.200) into the browser address bar and follow the steps below:

- Due to security reason, create the username and password for the first login. To login to the IP PTZ camera, please create the username and password on the login page. Press **Confirm** to complete the setting and login simultaneously.
- Click **Setup**→**Network** to edit or modify IP address, subnet mask, gateway, or HTTP port
- Click **Submit** for the changes to take effect.

Chapter 2-3 Login

Due to security reason, create the username and password for the first login. To login to the IP PTZ camera, please create the username and password on the login page. Press **Confirm** to complete the setting and login simultaneously.

IPCAM

Username

Password

Confirm Password

Create Password

Minimum Password Strength Requirements:

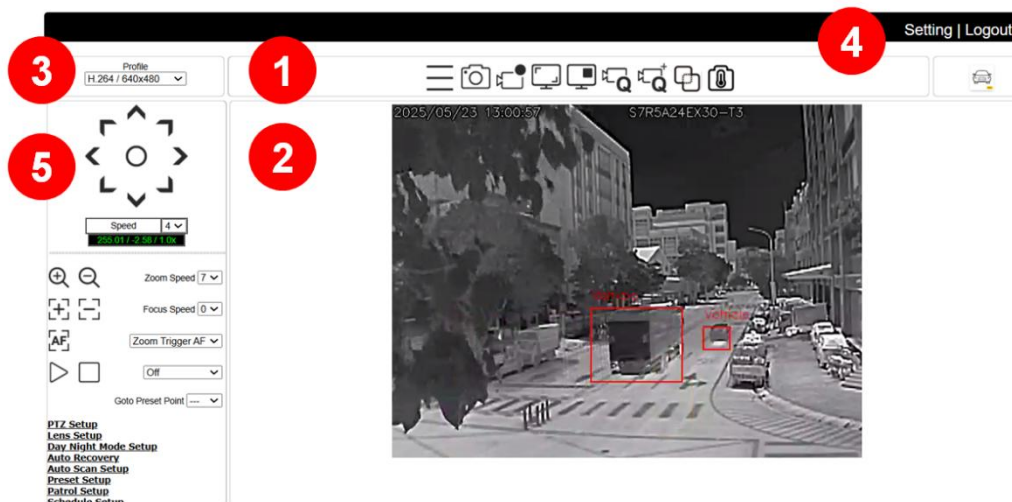
1. The password length must be 8 or more characters.
2. The password must include at least 1 number (0 ~ 9), 1 uppercase letter, 1 lowercase letter and 1 symbol(~ ? / + = , : ; . ' @ # ¥ % ^ & * () _ -).

Note: Please preserve the credential for accessing the camera properly. Forgetting the credential for accessing the camera, please perform hardware factory default.

Chapter 3 IP PTZ Camera Operations

When logged in as an administrator, two main features are available: 1) camera operations and 2) configurations.

Chapter 3-1 HTML Operations



1. **Quick buttons:** IP PTZ camera shortcuts
2. **ActiveX display screen:** Display RTSP H.264/H.265 or MJPEG streaming video
3. **Profile switching menu:** Switching from one profile to another
4. **Setup buttons:** IP PTZ camera setup menu
5. **PTZ Control Panel**

Switching Between Thermal Imaging Mode and RGB Mode

RGB Streams: The Stream #1 and Stream #2 of the camera are assigned to the RGB color mode.

Thermal Imaging Streams: The Stream #3 and Stream #4 of the camera are assigned to the thermal imaging mode.

Chapter 3-2 Quick Buttons

The quick control panel buttons are described below:

Icon	Description
	PTZ control panel
	Take a snapshot of the video
	Start recording
	Pause recording
	Enlarge the live view
	Privacy Mask
	Video quality basic
	Video quality advance
	Fusion Settings
	Thermal Settings

Chapter 3-2-1 Privacy Mask

The IP PTZ camera provides up to 16 sets of privacy masking. On **Edit Mask**, select a number from the Mask No. drop-down menu and a mask will appear in the center of the screen. You can also adjust the color, width, and length of the mask and move the IP PTZ camera to the appropriate position to hide any object. Press **Submit** and **Confirm** to save the changes.

To disable the function, select a **Mask** number to disable and click on **Disable**.

To remove a mask, select a number from the **Mask No.** drop-down menu under **Clean Mask** and click **Submit** and **Confirm** to save the changes.



Chapter 3-2-2 Quality Basic

This menu allows you to adjust brightness, contrast, contrast, hue, saturation, and sharpness both for the Day Mode and Night Mode. Individual day/night settings ensure the camera to provide optimal video quality.



- **3D Noise Reduction:** If the noise of the video is high at night, enable the 3D Noise Reduction function. Adjust the value appropriately to reduce low-light noise in the image. For applications such as license plate recognition, it is recommended to keep this function turned off.
- **Brightness:** Adjusts the overall brightness level of the image. Adjust the value appropriately to make the image clearer.
- **Contrast:** Adjust the intensity of the difference between light and dark in the image. The value can be adjusted appropriately to enhance the three-dimensional effect of the image.
- **Hue:** Adjusts the overall color tone of the image.
- **Saturation:** Controls the intensity of the image's colors.
- **Sharpness:** Enhances edge contrast. Adjust the value appropriately to make the image appear sharper and clearer.

The above parameters have been adjusted to the optimal values before the camera leaves the factory.

Chapter 3-2-3 Video Quality Advance

In this page, you have access to Exposure, Automatic Gain Control, White Balance Control, Sense Up, Shutter Speed, and IR-Cut settings allowing you to adjust camera video quality for day and night.

The camera provides two sets of video quality database for day or night mode. This is very useful settings for video quality where the shutter speed can be customized at night. The video quality settings can be applied by Day and Night Switch explained later in this chapter.

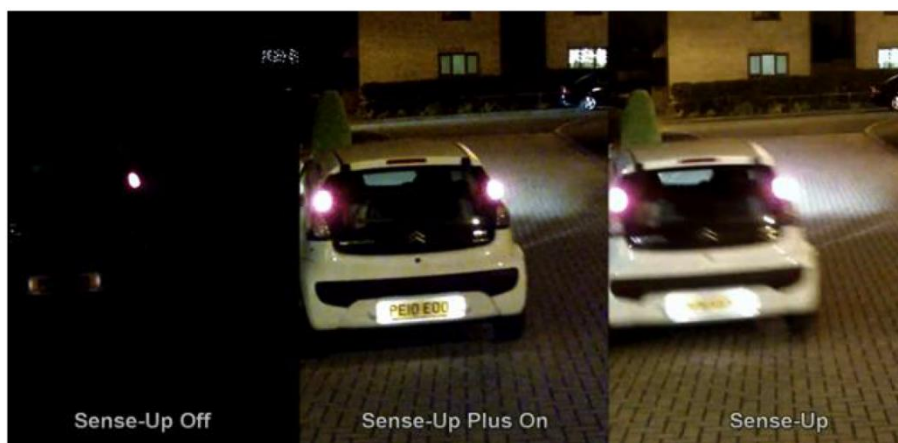


Video setting options are described as follows:

- **Backlight Compensation:** When the background lighting is too strong and causes the foreground subject to appear too dark, backlight compensation can be enabled.
- **White Balance Control:** Automatically adjusts to different color temperature environments to ensure that white appears truly white. Alternatively, manual white balance mode can be manually adjusted according to the provided parameters to maintain the image color natural.
- **Exposure Value:** Parameters that control the overall brightness of the image. Adjusts the value of exposure; the higher the value, the brighter the image.
- **Exposure Mode:** Full Auto, Shutter Priority, Iris Priority
 - **Full Auto:** The camera automatically adjusts the aperture and shutter speed according to the scene.
 - **Shutter Priority:** The iris automatically adjusts according to the scene, and the fix shutter speed are adjustable. Shutter speeds are 1/30, 1/60, 1/120, 1/160, 1/200, 1/240, 1/320, 1/400, 1/480, 1/640, 1/800, 1/1000, 1/1600, 1/2000, 1/3000, 1/4000, 1/6000, 1/8000, 1/10000, 1/20000 default value is depending on model.
 - **Iris Priority:** The shutter automatically adjusts according to the scene and the aperture value are adjustable. Fix iris position: F1.6, F2.0, F2.4, F2.8, F3.4, F4.0, F4.8, F5.6, F6.8, F8.0, F9.6, F11, F14, and Close. The default value depends on model.
- **Shutter Value Range:** Set the min and max shutter values.
- **Auto Iris Range:** Set the min and max aperture values.
- **Auto Gain Control (Sense Up+):** Set the gain value to automatically adjust the gain value in low light environment.
- **Sense Up:** Select the level of Sense Up to enhance the video.
- **Color Mode:** Switch between color/black-and-white mode.
- **IR LED (Far):** IR long-distance illuminator light source setting can be set to off, auto, fix power. If auto is selected, the appropriate illuminator light source power will automatically adjust according to the zoom ratio.
- **IR LED (Near):** IR short-distance illuminator light source setting can be set to off, auto, fix power. If auto is selected, the appropriate illuminator light source power will automatically adjust according to the zoom ratio.
- **IR Cut Filter:** Enable/disable the IR cut filter.
- **Defog:** When the surrounding area of the subject is foggy and shows low contrast, the defog mode will make the subject appear clearer.

Chapter 3-2-3-1 Sense Up+

Sense Up+ (AGC) is a low-light and high-sensitivity DSP control that enables outstanding video quality even in low-light environments. Sense Up+ technology can be used for both black-and-white and/or color video modes. To enable Sense Up+, first enable Auto Gain Control (AGC). Use Sense Up+ with 3D noise reduction (3D DNR) can reduce noise that occurs in low light environments. AGC and 3D DNR do not cause motion blur. If the picture is still too dark under the environment, turn on Sense Up (slow shutter) instead, however, it may cause motion blur in low-light conditions.



Chapter 3-2-3-2 White Balance Control (AWB)

The camera provides day and night auto tracking white balance and manual white balance settings, auto tracking white balance (the camera automatically determines the color temperature of the light source based on the image content and compensates), manual white balance (the user sets a fixed color temperature value based on the environment. The user can adjust the red gain R-Gain and blue gain B-Gain settings to achieve optimal white balance).

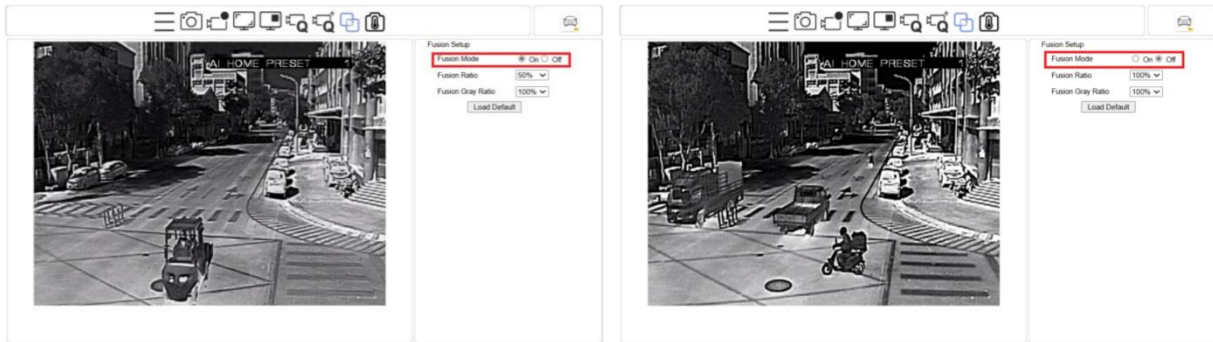
White Balance Control	Manual ▾
	R- 128 ▾
	Gain (1~255)
One Push AWC	B- 128 ▾
	Gain (1~255)

- **White Balance Control:** Auto white balance and manual white balance
- **R-Gain:** Red gain specific auto white control
- **B-Gain:** Blue gain specific auto white control
- **One Push AWC:** One time AWB setting

Chapter 3-2-4 Fusion Settings

The PTZ camera features thermal mode and a black-and-white RGB video mode with thermal fusion. When switching to the thermal imaging stream, the "Fusion Ratio" setting can be used to adjust the level of fusion. To enable pure thermal imaging mode, simply disable the "Fusion Mode".

Note: The AI is trained based on the black-and-white RGB video and pure thermal imaging modes.



Chapter 3-2-5 Thermal Settings

- **Gamma:** adjusts the contrast between dark and bright areas in the thermal imaging image.
- **Contrast:** Adjust the intensity of the difference between bright and dark in the thermal imaging image.
- **Stabilizer:** This parameter controls the adaptability of the thermal imaging scene when changes occur (e.g., camera panning or movement of high-temperature objects). This adaptability triggers recalculation of the grayscale mapping to match new scene temperatures. Increasing the stabilizer value helps reduce image flickering caused by grayscale remapping.
- **Brightness:** Adjust the brightness of the overall thermal imaging image.
- **Dynamic Digital Enhancement (DDE Strength):** Enhances details, contrast, and visibility in thermal images, especially effective in backlight, low-contrast, or hazy environments.
- **De-Noise Bypass:** Enable or disable the digital noise reduction function of thermal imaging. When this option is enabled (Bypass = On), the noise reduction process is bypassed, leaving the thermal image in its original state. **Bypass noise reduction**, do not perform any noise reduction processing (retain original picture noise). **Enable noise reduction**, let the ISP do the noise suppression.

Gamma = 0.0



Gamma = 1.0



Contrast = 0.0



Contrast = 1.0





Chapter 3-3 PTZ Control Panel

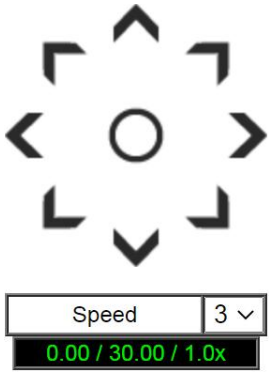
	Zoom In		Zoom Out	Zoom Speed 7	Zoom Speed
	Focus Far		Focus Near	Focus Speed 1	Focus Speed
	Auto Focus			Normal AF	Focus Mode
	Auto Pan Start	☐	Auto Pan Stop	Scan1	Auto Pan Mode
				Goto Preset Point ---	Go to preset position
PTZ Setup		PTZ Function Setup.			
Lens Setup		Lens Function Setup.			
Day Night Mode Setup		Day and Night Switch Function Setup			
Auto Recovery		If the IP PTZ camera idles for a period of time, the selected function will be activated automatically.			
Auto Scan Setup		Auto Scan Function Setup			
Preset Setup		Preset Position Setup.			
Patrol Setup		Memory Patrol Function Setup			
PTZ Schedule Setup		PTZ Schedule Function Setup			
PTZ Setup Flip Function Off Vertical Limit -5 Click To Center Off Click To Center Speed 120 Mouse PTZ Control Off		PTZ setup drop-down options Flip Function: Off, Mode 1, Mode 2 - Off : PTZ moves up to the vertical upper limit, then moves down to 90 degrees and stop. - Mode 1 : PTZ moves up to the vertical upper limit, then moves down to 90 degrees and then, it flips 180 degrees horizontally - Mode 2: PTZ moves up to the vertical upper limit, then moves down to 90 degrees and then, it flips 180 degrees horizontally and moves up vertically. Vertical limit: Set the above PTZ maximum angle limit. Click To Center: After the function is enabled, move the mouse to the ActiveX display screen and press the left mouse button. PTZ will move the current position image of the mouse to the center of the screen. Click To Center Speed: Select to set the speed at which the screen moves to the center position. Mouse PTZ Control: Enable this function and move the mouse to the ActiveX display screen and press the left mouse button. After the arrow appears on the ActiveX display screen, move the mouse up, down, left, and right. The PTZ will move as per mouse control direction. The closer the mouse is to the edge of the display screen, the faster the PTZ will move. To control the lens zoom ratio, push the mouse scroll wheel up or down.			

PTZ Setup Lens Setup Electronic Image Stabilizer Off Focus Sensitivity Low Auto Focus Search Narrow Near Focus Limit 5m Digital Zoom Off Preset Position AF Pan-Tilt Movement MF Lens Initialize Apply Pan-Tilt Correction Apply Auto Calibration Off	Lens Setup drop-down options Electronic Image Stabilizer: When enabled, this feature reduces blurring caused by camera shaking. Focus Sensitivity: Auto focus sensitivity. Auto Focus Search: Auto focus search range setting. Near Focus Limit: Set the near-end focus boundary value when focusing. Digital Zoom: Enable digital zoom after the optical zoom is exhausted. Preset Position: Set the camera to Auto-Focus (AF) or Manual-Focus (MF) when the camera performs preset operations. Pan-Tilt Movement: Set the camera to Auto-Focus (AF) or Manual-Focus (MF) when the camera performs Pan-Tilt movements. Lens Initialize: Click "Apply" to calibrate the lens focus and zoom. Pan-Tilt Correction: Performs initialization and correction of the pan tilt position. Auto Calibration: Turn on this option to automatically perform lens zoom and focus correction at 00:00 every night.
Day Night Mode Setup Light sensor current value 44 ☒ Auto, Switch Time 2 Sec. Day to Night Threshold 6 Night to Day Threshold 12 ☐ Day Mode ☐ Night Mode ☐ Schedule Day to Night Time 0 : 0 Night to Day Time 0 : 0	Day Night Mode Setup drop-down options Light sensor current value: Used to measure the current ambient light source illumination. Auto, Switch Time: Auto : Automatically switch between day (color) or night (black and white) mode according to the intensity of the light source signal. Switch Time : Select the delay time for switching between day and night modes ° Day to Night Threshold: Turn on the infrared threshold according to the measured luminance. Night to Day Threshold: Turn off the infrared threshold according to the measured luminance. Day to Night Time: Set the time to switch from day to night mode. Night to Day Time: Set the time to switch from night to day mode.
Auto Recovery Home Position Off Auto Recovery Time Off Auto Recovery Mode Off	Auto Recovery drop-down options Home Position: Specify a home position for one of the presets. Auto Recovery Time: If the IP PTZ camera idles after the chosen time period, the selected function will be activated automatically. Auto Recovery Mode: Return to home position in modes such as home position, auto scan mode, tour mode, patrol mode or auto tracking. Users are able to set an operation mode to ensure all-day monitoring. In the Recovery Mode, if the IP PTZ Camera idles for a period of time, the selected function will be activated automatically. The Recovery Mode allows constant and accurate monitoring to avoid the Dome Camera from idling or missing events.
Auto Scan Setup Auto Scan ID 1 Speed 5 Dwell Time 5 Start Position Apply End Position Apply	Auto Scan Setup drop-down options Auto Scan ID: Select a scan path (1~16) from the drop-down list. Speed: Set the scanning speed between two positions. Dwell Time: Set the time you want the camera view to stay at the start position or end position. Start Position: Set the start position of the selected scan path. End Position: Set the end position of the selected scan path.

Preset Setup Preset Point 1 Preset Title Speed 255 Dwell Time 0 Save --- Clear Preset Point Clean	Preset Setup drop-down options A total of 256 preset positions can be programmed for the IP PTZ camera. Please refer to the instructions below to configure preset positions. To set up a preset point, first move the cursor to the PTZ control panel. Then move to the desired position by using the pan, tilt and zoom buttons. Next, assign a number for the current position from the drop-down Preset Point list. Then assign a Dwell Time and Speed for the current position from the drop-down menus. Click Save for the changes to take effect. Preset Title: Support up to 28 English or numeric user-defined preset point names. If it is left blank, the default preset point name will be displayed. The name of the preset point will be displayed on the screen after the execution of the preset point position action is completed. The name of the preset point will be displayed on the display screen after the PTZ information in the OSD setting is set to on.
Patrol Setup Patrol ID 1 Start End Clean	The IP PTZ Camera Series supports up to sixteen patrol paths. To set up a patrol path, select a path number from the drop-down list. Then move the cursor to the PTZ control pane, and move the camera to a desired view (PTZ controls) as the start point of the patrol path. Click Start and move around the camera view at will to program the patrol path via PTZ controls. When you finish programming, click End or recording time stop to end the programming process. This function can be activated in return mode or automatic mode.
Schedule Setup Schedule On	PTZ Schedule Setup: Turn on or off the PTZ schedule function. Please refer to the "Schedule" setting page to set the PTZ schedule.

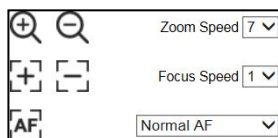
Chapter 3-3-1 Vertical and Horizontal Direction Controls

Two modes are available for moving the IP PTZ camera vertically and horizontally. The details are described below:

	8 Directional buttons control Pan-Tilt As shown in the image to the left, eight arrow buttons and speed options are provided to move around the IP PTZ camera. Select the moving speed from the drop-down menu, and press any arrow to move the IP PTZ camera. The greater the Speed number is, the quicker the IP PTZ camera will move. Below image shows the current PTZ angle and zoom ratio information. 0.00 / 30.00 / 1.0x
PTZ Setup Flip Function Off Vertical Limit -5 Click To Center Off Click To Center Speed 120 Mouse PTZ Control Off	Mouse control PTZ As shown in the image to the left, under PTZ setup, please turn on the Mouse PTZ control. Click and hold the mouse and move around the screen to control the camera according to your mouse movement. The moving speed depends on the distance between the center of the screen to the cursor: When the distance is short, the camera moves slowly; when the distance is long, the camera moves rapidly.

Chapter 3-3-2 Zoom and Auto Focus Function

The IP PTZ camera can remotely control the camera lens through the Live webpage using functions such as "zoom in", "zoom out" and "auto focus".



- Zoom Speed: Set the speed for Zoom In and Zoom Out
- Focus Speed: Set the speed for Focus Near and Focus Far
- Auto Focus: You can select between Normal AF, Interval AF, Zoom Trigger AF
- Normal AF: Automatically detects image changes and activates auto focus when image blur reaches a threshold.
- Interval AF: The focus mechanism is activated at fixed time intervals.
- Zoom Trigger AF: Automatically performs a single autofocus action when zooming in or out.

Chapter 3-3-3 Auto Patrol

The IP PTZ camera supports an Auto Patrol mode, allowing it to automatically patrol preset scenes for surveillance. Once Auto Patrol mode is enabled and a patrol type is selected, pressing the "AutoPan Start" icon will immediately start the patrol. To stop the patrol, press the "AutoPan Stop" icon



or operate the directional control (joystick or arrow keys) to stop the patrol immediately.

Auto Pan Mode: Off / Scan 1~16 / Sequence / Tour List 1~16 / Preset Patrol 1~16 / Auto Tracking.

Chapter 3-3-4 Preset Position

The IP PTZ camera can store and execute up to 256 preset positions. These preset positions can be manually recalled or automatically triggered through Auto Patrol mode, Auto Return mode, alarm events, or on scheduled.

Saving Presets: Please go to the preset point to set the operation and store it (it can only be executed at the stored preset point position).

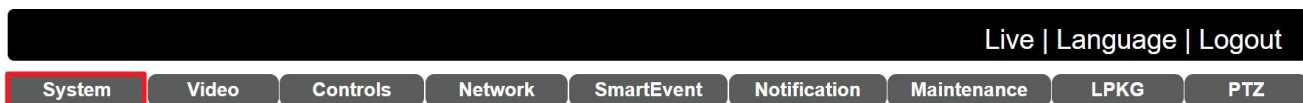
Executing Presets: Go to the Execute preset point drop-down option and select Execute.

Chapter 4 Settings

As an administrator, you can configure the IP PTZ camera via a standard HTML webpage. Click Setup at the top-right corner of the screen after you log in to the camera.



Chapter 4-1 System



Chapter 4-1-1 General

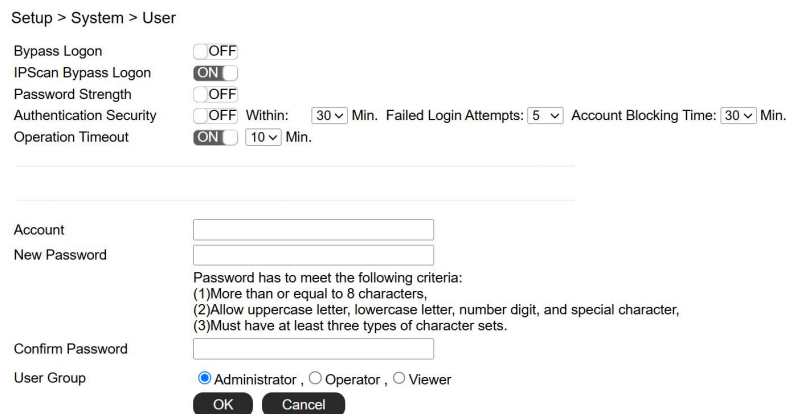
Under System Settings→General, you will see server system information, such as MAC address, firmware version, os version, system reboot time, and device name settings. To modify these options, follow the instructions below:



- **MAC Address:** The MAC address of the IP PTZ camera
- **Firmware Version:** Firmware version of the IP PTZ camera
- **CCD Version/Pan-Tilt Firmware Version:** Check if the firmware is up-to-date.
- **OS Version:** The version number of the IP PTZ camera
- **System Reboot Time:** The last time your system was rebooted.
- **Device Name:** The device name can be found using the IPscan utility, which allows you to identify the IP PTZ cameras. To change the device name, enter a new name for the IP PTZ camera and click OK.

Chapter 4-1-2 User

The IP PTZ camera supports up to 10 user accounts. Each account can be individually configured for its access rights. To add/edit a user, click Add/Edit User. To access a IP PTZ camera without authentication, switch the Bypass Logon option to On. Enable IPScan Bypass Logon to log in the IP PTZ camera through IPScan without authentication. To add a user, press Add User, and you will see the following screen:



Enter the account name, password and confirm password to add new account, and then check to assign the access rights for this account. Click OK to update the settings.

To edit account information, select user for edit and click Edit User. To delete a user, select user for delete and click Remove User. Click Submit to update the settings.

Chapter 4-1-3 Date and Time Settings

You can change the time of your camera through a HTML web page. Simply select the date and time in the drop-down menus, and click OK to apply. You may also set the holiday list in this page.

Setup > System > Date/Time

Server Time 2025/05/21 14:32:14 GMT+0800

Synchronize with NTP ☒ Every Hour ☐ Off

Time Server time.stdtime.gov.tw

Time Zone (GMT+08:00) Taipei

Time 2025 / 5 / 21 14 : 30 : 4 Synchronize with PC

Enable Holiday List ☒

Select	Name	Start Date(Month-Date Hour:Min)	End Date(Month-Date Hour:Min)
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59
☐		1 - 1 0 : 0	12 - 31 23 : 59

OK

Synchronize with an NTP server

To synchronize with an NTP server, change the Synchronize with NTP to Every Hour. The camera will synchronize its system time with a time server every hour.

Note: This function requires Internet connection.

Chapter 4-1-4 OSD Settings

OSD (on screen display) is for the use of displaying system information on the video. There are features of date and status available.

Setup > System > OSD

Date

Camera ID

Status

PTZ Info



Rollback Default Position

Camera ID

Date

Status

PTZ Info

OSD ☒ Enable ☐ Disable

Foreground Color WHITE

Background Color BLACK

Camera ID, Date, Status and PTZ info are described below:

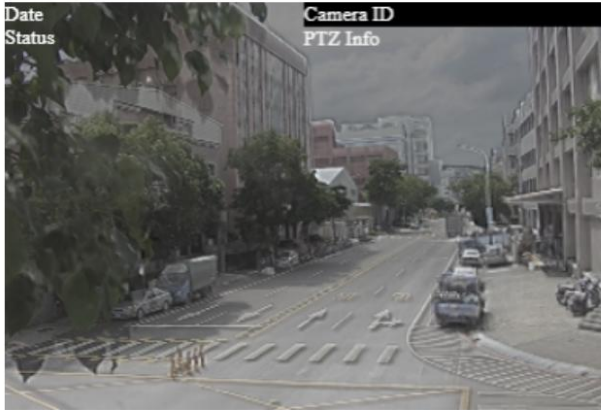
- OSD: Click to enable or disable the OSD
- Foreground Color: The color of the text
- Background Color: The background color of the text
- File Date Format: Select the date format

Video with OSD Detection Zones and Bounding Boxes
Go to Settings > System > OSD > RTSP PSD, and enable Encoder #1 (RGB) or Encoder #3 (Thermal).

Setup > System > OSD

Date
Status

Camera ID
PTZ Info



Rollback Default Position

Camera ID

Date

Status

PTZ Info

RTSP OSD

OSD

☐ Disable ☐ Encoder1 ☒ Encoder3

Chapter 4-1-5 System Log

You can view the system-generated log in this page. Click Save  icon to export the log to a text file. You can also search for log file by selecting the type keyword.

Setup > System > System Log

◀ ◁ Page 1 of 35 ▷ ▶ ⌂ Type: ALL  Displaying 1 to 5 of 859 items			
IP Address	User	Date & Time	Log Description
192.168.8.153	admin	2021/04/20 15:12:45	Set #1 Digital Output Status(0)(SYSTEM MESSAGE)
192.168.8.153	admin	2021/04/20 15:12:44	Set #0 Digital Output Status(0)(SYSTEM MESSAGE)
192.168.8.153	admin	2021/04/20 15:12:41	Set #1 Digital Output Status(1)(SYSTEM MESSAGE)
192.168.8.153	admin	2021/04/20 15:12:33	Set #0 Digital Output Status(1)(SYSTEM MESSAGE)
		2021/04/20 07:33:24	Power On(SYSTEM MESSAGE)

Chapter 4-2 Video

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System

Video

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Network

SmartEvent

Notification

Maintenance

LPKG

PTZ

Chapter 4-2-1 General

To transmit video over a low bandwidth network such as the Internet, set the bit rate close to the actual upload bandwidth. The camera encodes frames based on the bit rate setting.

The detailed settings of the camera image include: encoding mode, power frequency, number of streams and compression format, which can all be set here.

Setup > Video > General

Video Standard : ☒ 60Hz

Fixed Bitrate Mode : ☒ Enable ☐ Disable

Image Enhance Mode :

Encoder1		Encoder3	
Profile Name	H.264	Profile Name	H.264
Resolution	1920x1072	Resolution	1280x960
Output Frame Rate	30	Output Frame Rate	15
GOP (Group of Pictures)	30	GOP (Group of Pictures)	30
Stream Mode	CBR	Stream Mode	VBR
Bit Rate	4 Mbps	Bit Rate	1 Mbps
RTSP URL	rtsp://61.216.97.157:554/stream0	RTSP URL	rtsp://61.216.97.157:554/stream2

Encoder2		Encoder4	
Profile Name	H.264	Profile Name	JPEG
Resolution	1280x720	Resolution	320x240
Output Frame Rate	30	Output Frame Rate	15
GOP (Group of Pictures)	30	Image Quality	80
Stream Mode	CBR	RTSP URL	rtsp://61.216.97.157:554/stream3
Bit Rate	2 Mbps		
RTSP URL	rtsp://61.216.97.157:554/stream1		

- **Encoders:** 4 customizable encoders
- **Video Standard:** 60Hz (NTSC)
- **Image Enhance Mode:** Used in high contrast light environment, up to 120dB. Select High Dynamic Range (HDR) from the drop-down menu to enable image enhance mode.
- **Profile Name:** Video compression profile option settings. Use the drop-down menu to select JPEG / H.264 / H.265.
- **Resolution:** Video resolution setting. Use the drop-down menu to select the resolution for each stream.
 - Stream 1 (Optical): 1920x1072, 1280x720
 - Stream 2 (Optical): 1280x720, 640x360
 - Stream 3 (Thermal): 1280x960, 640x480, 320x240
 - Stream 4 (Thermal): 640x480, 320x240
- **Output Frame Rate:** Image refresh rate. Can be set via the dropdown menu.
- **GOP:** The number of I-frames to be displayed in one second. Can be set via the dropdown menu.
- **Stream Mode:** Variable bit rate, an encoding mode that reduces the use of bandwidth;
CBR: constant bit rate, an encoding mode that consumes more bandwidth
- **Bit rate:** The maximum bit rate available for your network connection
- **Transmission Speed:** Set the transmission rate according to the bandwidth. Can be configured via the dropdown menu.
- **RTSP URL:** Allow you to access the video stream via the Real Time Streaming Protocol

Chapter 4-3 Controls



Chapter 4-3-1 Global Counter

The global counters are for counting a trigger of a remote device. The global counter can be triggered by a metadata, or a virtual input. The global counters can be used for output purposes, such as LED display.

Setup > Controls > Global Counter		
Global Counter #1	State: 0	Set
Global Counter #2	State: 0	Set
Global Counter #3	State: 0	Set
Global Counter #4	State: 0	Set
Global Counter #5	State: 0	Set
Global Counter #6	State: 0	Set
Global Counter #7	State: 0	Set
Global Counter #8	State: 0	Set
Global Counter #9	State: 0	Set
Global Counter #10	State: 0	Set
Global Counter #11	State: 0	Set
Global Counter #12	State: 0	Set
Global Counter #13	State: 0	Set
Global Counter #14	State: 0	Set
Global Counter #15	State: 0	Set
Global Counter #16	State: 0	Set

Chapter 4-3-2 Virtual Input

The IP PTZ camera provides up to 16 virtual inputs. The virtual inputs are CGI commands that these can be used for other remote device to trigger.

Setup > Controls > Virtual Input	
Virtual Input #1	State: ☒ 1
Virtual Input #2	State: ☐ 0
Virtual Input #3	State: ☐ 0
Virtual Input #4	State: ☐ 0
Virtual Input #5	State: ☐ 0
Virtual Input #6	State: ☐ 0
Virtual Input #7	State: ☐ 0
Virtual Input #8	State: ☐ 0
Virtual Input #9	State: ☐ 0
Virtual Input #10	State: ☐ 0
Virtual Input #11	State: ☐ 0
Virtual Input #12	State: ☐ 0
Virtual Input #13	State: ☐ 0
Virtual Input #14	State: ☐ 0
Virtual Input #15	State: ☐ 0
Virtual Input #16	State: ☐ 0

Chapter 4-3-3 Metadata

Metadata is the HTTP response of a CGI command. The IP PTZ camera is able to receive the metadata from an IP device. The metadata is the URL response of an IP device.

Setup > Controls > Metadata

Number	1
Metadata Enable	☒
Metadata Server Name	metaservername0
Metadata Type	HTTP Multipart Response ▼
Metadata Server IP/DNS	metaserver.com
Metadata Server Port	80
Account	Account
Password	
Metadata URL	/url
Metadata Parser	parser

OK Cancel

The example below, the IP PTZ camera is able to receive the metadata of motion events, MotionDetect token of /getalarmmotion CGI command, from an IP device. The events are captured into the valuable %Trigger1% for actions. In the SmartEvent, %Trigger1% can be used for a global counter for event triggering.

To setup metadata, finish the settings below:

Metadata Enable: Enable metadata service.

Metadata Server Name: Specify the name of the metadata service.

Metadata Type: (1) HTTP multipart response, (2) HTTP response

(1) HTTP multipart response—Continuous responses

(2) HTTP response—Client-pull by a schedule

Metadata Server IP/DNS: The IP address of an integrated device.

Metadata Server Port: The port number of the integrated device.

Account: Account name of an integrated device.

Password: password of an integrated device.

Metadata URL: The URL of the an integrated device. "/" is required.

Metadata Parser: The parsing tokens for the valuables of Triggers.

Special characters

If there are special characters such as "/", "\r", "\n", and "\r\n" in the metadata, enter special characters for parsing the metadata.

%Split%

%CR% => \r

%LF% => \n

%CRLF% => \r\n

Metadata Enable	☒
Metadata Server Name	Tripwire2
Metadata Type	HTTP Multipart Response
Metadata Server IP/DNS	192.168.0.200
Metadata Server Port	80
Account	admin
Password	****
Metadata URL	/getalarmmotion
Metadata Parser	hit2=%Trigger3%,

Enter the parsing tokens in the meta parser field for triggering an event from metadata URL of a third party device.
The max length is 127 characters including spaces.

The parsing tokens of Metadata response are described below::

```
%Trigger1% => Metadata #1
%Trigger2% => Metadata #2
%Trigger3% => Metadata #3
%Trigger4% => Metadata #4
%Trigger5% => Metadata #5
%Trigger6% => Metadata #6
%Trigger7% => Metadata #7
%Trigger8% => Metadata #8
%Trigger9% => Metadata #9
%Trigger10% => Metadata #10
%Trigger11% => Metadata #11
%Trigger12% => Metadata #12
%Trigger13% => Metadata #13
%Trigger14% => Metadata #14
%Trigger15% => Metadata #15
%Trigger16% => Metadata #16

%Split%
%CR% => \r
%LF% => \n
%CRLF% => \r\n
```

OK Cancel

Chapter 4-4 Network

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Chapter 4-4-1 General

Network settings are the basic settings that connect the IP PTZ cameras to the network. The default IP address of IP PTZ cameras is 192.168.0.200. Enter this IP address into your web browser to verify the network connection between a local PC and your IP PTZ camera.

To set up a local area network, enter the IP address, subnet mask, gateway, and DNS. Click OK to update the settings.

Setup > Network > General

Network	☒ Static ☐ DHCP ☐ PPPoE
IP Address	192.168.3.57
Subnet Mask	255.255.255.0
Gateway	192.168.0.1
Primary DNS	168.95.1.1
Secondary DNS	168.95.1.1
Account	account@pppoe.com
Password	••••••••
QoS(DSCP)	0 (0~63)
2nd IP Address	☐ Enable ☒ Disable
2nd IP Address	192.168.0.200
2nd Subnet Mask	255.255.255.0
3rd IP Address	☐ Enable ☒ Disable
3rd IP Address	192.168.0.200
3rd Subnet Mask	255.255.255.0

OK

To acquire Internet access, contact your local Internet Service Provider (ISP) for a global IP address. Enter the IP address (global), subnet mask, and gateway IP provided by your ISP.

- **Primary DNS** —The IP address of the default and first DNS server
- **Secondary DNS IP Address**—The IP address of the backup and second DNS server to the default DNS
- **QoS(DSCP)** —Based on DSCP standard, set the TCP/IP packet header for packet priority.

Chapter 4-4-2 General IPv6

Please enter the relevant IPv6 information. Click "OK" to apply the settings.

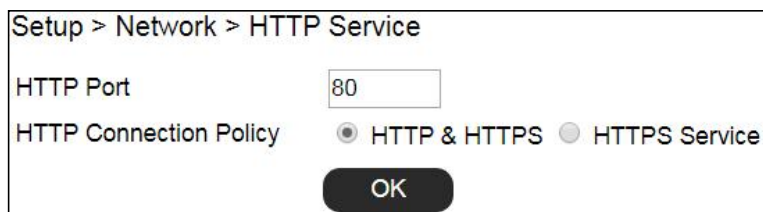
Setup > Network > General IPv6

Network	☐ On ☒ Off
IP Address	fe80::000f:fc24:9000 / 64
Default Gateway	
Primary DNS	

OK

Chapter 4-4-3 HTTP Service

HTTP (Hypertext Transfer Protocol) is used to log in to the device through a web browser. It allows image snapshots, remote control, and configuration changes. It supports HTTP API and can be used to control pan, tilt, zoom, and etc.. With correct port forwarding, videos can be sent over the Internet. Details are described in the appendix. To change the HTTP port number, consult your network administrator. Choose the streaming type you want to use (HTTP & HTTPs or HTTPs). Click OK for the changes to take effect.



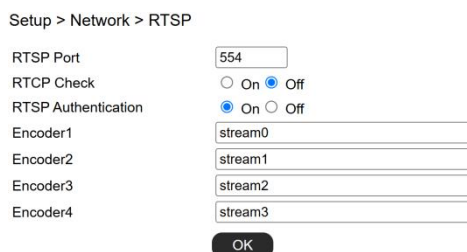
Setup > Network > HTTP Service

HTTP Port

HTTP Connection Policy ☒ HTTP & HTTPs ☐ HTTPs Service

Chapter 4-4-4 RTSP

Real time streaming.



Setup > Network > RTSP

RTSP Port

RTCP Check ☐ On ☒ Off

RTSP Authentication ☒ On ☐ Off

Encoder1

Encoder2

Encoder3

Encoder4

Settings on this page are described below:

- **RTSP Port:** Transmission port number, the default value is 554.
- **RTCP Check:** Enable/Disable.
- **RTSP Authentication:** Enabling this option will require username and password when connecting to the RTSP stream
- **Encoder:** Change encoder name.

Chapter 4-4-5 HTTPs Service

The IP PTZ camera support HTTPs (Hypertext Secure Transmission Protocol) service. HTTPs is an Internet protocol that ensures the integrity and confidentiality of data as it travels between users' computers and websites. When users visit any website, they want a secure and private online experience.

HTTPs can be regarded as the advanced security version of HTTP. The SSL protocol is added as a security certificate. Therefore, the website can prevent data thief from directly seeing the transmitted data even if they intercept the transmitted information by using the encryption on the agreement.



Setup > Network > HTTPs Service

HTTPs Service ☐ Enable ☒ Disable

There are two options to set HTTPS service:

1. The first option is to create a free self-signed certificate by filling-in the blank field below, then click **Create a certificate**.

HTTPS Service	☒ Enable ☐ Disable
HTTPS Status	Disable
Certificate Status	Not installed
Method	Create self-signed certificate
Country	US
State or province	Taiwan123
Locality	Taipei123
Organization	IPCAM12
Organization Unit	IPCAM123
Common Name	rw.example.com@@123
Validity	365
Create a certificate.	

A pop up message will display:

Organization Unit	IPCAM123
Common Name	rw.example.com@@123
Validity	365
Create a certificate.	
Create a certificate.	

Then, you will notice that **Certificate Status** has changed from **Not Installed** to **Active**

HTTPS Service	☒ Enable ☐ Disable
HTTPS Status	Disable
HTTPS Port	443
Certificate Status	Active
Method	Create self-signed certificate
Country	US
State or province	Taiwan123
Locality	Taipei123
Organization	IPCAM12
Organization Unit	IPCAM123
Common Name	www.example.com@@123
OK Remove a certificate.	

Click **OK** to activate HTTPS function. And the **HTTPS Status** will have changed from **Disable** to **Enable**.

HTTPS Service	☒ Enable ☐ Disable	→	HTTPS Service	☒ Enable ☐ Disable
HTTPS Status	Disable		HTTPS Status	Enable

This IP PTZ Camera may now be connected via HTTPS protocol with your browser.

2. The second option is to purchase an SSL certificate by selecting **Create a certificate request and install**. After purchasing the SSL certificate from a third party company, browse your computer to upload the SSL certificate. If it is successful, the **Certificate Status** will have changed from **Not Installed** to **Active**. And **HTTPS Status** will have changed from **Disable** to **Enable**.

HTTPS Service	☒ Enable ☐ Disable
HTTPS Status	Disable
Certificate Status	Waiting for a certificate.
Download File	Download
Select a certificate file	Browse... Upload
Method	Create a certificate request and install.
Country	US
State or province	Taiwan123
Locality	Taipei123
Organization	IPCAM12
Organization Unit	IPCAM123
Common Name	www.example.com@@123

Chapter 4-4-6 Multicast

The camera supports four different formats of video streaming. On this page, you can modify the settings for each individual stream. After completing the settings, click "OK" to save the changes.

Setup > Network > Multicast

Encoder1	Multicast	☐ Enable ☒ Disable
	IP Address	239.0.0.0
	Video Port	1234 (2~65534)
	TTL	5 (1~255)
Encoder2	Multicast	☐ Enable ☒ Disable
	IP Address	239.0.0.1
	Video Port	2234 (2~65534)
	TTL	5 (1~255)
Encoder3	Multicast	☐ Enable ☒ Disable
	IP Address	239.0.0.2
	Video Port	3234 (2~65534)
	TTL	5 (1~255)
Encoder4	Multicast	☐ Enable ☒ Disable
	IP Address	239.0.0.3
	Video Port	4234 (2~65534)
	TTL	5 (1~255)

Chapter 4-4-7 IP/MAC Address Filtering

The camera provides an IP/MAC address filter to help you block unauthorized IP/MAC addresses from accessing the camera. Enable the service before you enter the IP address you want to block, and press OK.

Setup > Network > IP/MAC Address Filtering

IP/MAC Address Filtering ☒ Enable ☐ Disable

Allow / Deny ☒ Allow ☐ Deny

IP Address

Prompt: <IP Address> <Enter>

MAC Address

Prompt: <MAC Address> <Enter>

OK

- **IP/MAC Address Filtering:** The switch for IP/Mac address filtering.
- **Allow / Deny:** Allow / deny to access by the IP/Mac address.
- **IP Address:** Specify the IP address for filtering.
- **MAC Address:** Specify the IP MAC for filtering.

Chapter 4-4-8 DDNS

The DDNS service allows you to automatically update the DNS server. We provides three DDNS servers to choose from (we recommend you use the first one from the drop-down menu). Click OK for the changes to take effect.

Setup > Network > DDNS

Server Name

DDNS ☐ OFF

Account

Password

Host Name

<http://61.216.97.157:3001>

WAN IP



Refresh

OK

To activate DDNS, go to www.ddnsipcam.com. If the IP PTZ camera is on Internet with a global IP address, use the last 6 digits of the MAC address as the host name with default account and the default password,. The IP PTZ camera will automatically register to www.ddnsipcam.com.

Note: The DDNS feature requires Internet connection.

Chapter 4-5 SmartEvent

Live | Language | Logout

System Video Controls Network **SmartEvent** Notification Maintenance LPKG PTZ

Chapter 4-5-1 SmartEvent

Here you can configure the detection settings for alarm, global counter, virtual input, meta data and network failure. Choose an event type for entering the event name and event condition for triggering an alarm. Click **Save the event** button for saving the event.

Setup > SmartEvent > SmartEvent

Enable Event 1 ☐

Event Name

Condition 1 Condition 2 Condition 3 Condition 4 Condition 5

Condition Name

Trigger Schedule Action

Detection Time Sec. Sleep Time Sec.

(Current number/Maximum number of Trigger Rule is 1/3)

Trigger

Enable	Trigger	Operator	Value	Duration
☐	Digital Input #1	=	1 or 0	0 Sec.

Save the event **Cancel**

Then the page you see allows you to choose the action to take when the chosen events are detected, such as sending JPEG images to an FTP server or an email account. To schedule event monitoring, choose **Schedule** when you edit an event and highlight the time periods you want the camera to detect events. Click **Save the event** button to update the settings.

Condition 1 Condition 2 Condition 3 Condition 4 Condition 5

Condition Name

Trigger **Schedule** Action

Enable Holiday List ☐

Select	Schedule	Start Time	End Time
☒	All	0 0	23 59
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0
☐	Sun	0 0	0 0

Save the event **Cancel**

Click **Action** to select the outputs for event triggering.

Setup > SmartEvent > SmartEvent

Enable Event 1 ☒

Event Name

Condition 1 Condition 2 Condition 3 Condition 4 Condition 5

Condition Name

Trigger Schedule Action

(Current number/Maximum number of Action Rule is 1/10)

FTP Service, Rule Number:0	Edit
SMTP Service, Rule Number:0	Edit
Push Service Setting, Rule Number:0	Edit
Alarm Out, Rule Number:1	Edit
HTTP POST Service, Rule Number:0	Edit
Global Counter, Rule Number:0	Edit
Virtual Input, Rule Number:0	Edit
SD Card Service, Rule Number:0	Edit
SAMBA Service, Rule Number:0	Edit

Save the event. Cancel

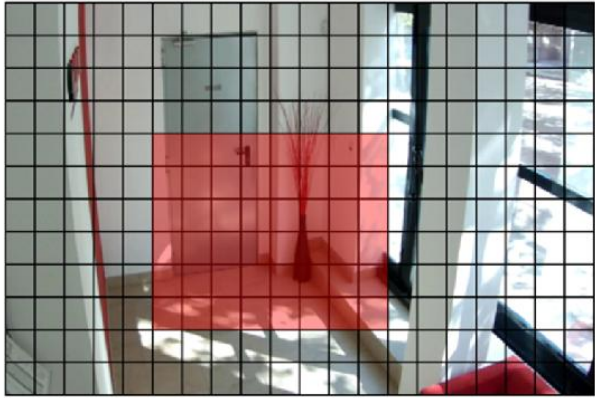
- **FTP Service:** Mail event logs to an FTP server.
- **SMTP Service:** Mail event logs to an SMTP server.
- **Push Service Setting:** When the alarm is triggered, can send push notification to specified iOS and Android.
- **Alarm Out:** Trigger the digital output of the IP PTZ camera.
- **HTTP POST Service:** Send notification snapshots to a specified website when alarm is triggered.
- **Global Counter:** To set a value between 0 and 65,535 or add value range from -99 to 99.
- **Virtual Input:** Enable or disable a specific virtual input among the 16 sets.
- **SD Card Service:** When the alarm is triggered, the screenshot is saved to the SD card.
- **Samba Service:** Set to send data of the selected encoder profile to the predefined samba server.

Note: To activate SmartEvent / Action setting, please also configure corresponding action in **Controls** setup page or **Notification** setup page.

Chapter 4-5-2 Motion Detection

The IP PTZ camera provides motion detection feature. Click on Motion Detection to determine the areas to monitor. Simply double-click or drag across the areas you want to monitor, and cancel your selection by double-click again or drag across the areas you don't want to monitor with the right mouse button. Click OK button to update the settings.

Setup > SmartEvent > Motion Detection



Motion Detection ☐ Enable ☒ Disable

Motion Sensitivity(Low:99~High:1)

OK Clean

Chapter 4-5-3 Tampering Detection

The camera can send tamper alarms when the focus or view of the camera is changed, or the lens is obstructed by paint or stain. Click Enable to activate this function and configure the settings.

Setup > SmartEvent > Tampering Detection



Tampering Detection ☐ Enable ☒ Disable

Tampering Detection Time 5 Sec.

Tampering Detection Dwell 10 Sec.

OK

- **Tampering Detection:** The switch for tampering detection
- **Tampering Detection Time:** The time for tampering detection
- **Tampering Detection Dwell:** The output time for tampering detection

Chapter 4-6 Notification

Live | Language | Logout

System Video Controls Network SmartEvent **Notification** Maintenance LPKG PTZ

Chapter 4-6-1 FTP Service

Enter the required FTP information to send alarm snapshots to an FTP server.

Setup > Notification > FTP Service

Number	FTP Server Name	FTP/DNS Server	Port
1	FTPServerName	ftp.server.com	21
2	FTP1ServerName	ftp1.server.com	21
3	FTP2ServerName	ftp2.server.com	21

Number 1

FTP Server Name FTPServerName

FTP/DNS Server ftp.server.com

FTP/DNS Server Port 21

Account admin

Password *****

Directory /alarm_jpeg/

Prefix

Postfix

OK Cancel

- **FTP Channel:** There are three FTP servers that can be configured.
- **Number:** The number of FTP service.
- **FTP Server Name:** The name of the FTP server.
- **FTP/DNS Server:** The FTP server's address.
- **FTP/DNS Server Port:** The FTP server's port number.
- **Account:** The account name to log in to the FTP server.
- **Password:** The password of the account.
- **Directory:** The file path for storing the JPEG snapshots.
- **Prefix:** The prefix of the JPEG filename.
- **Postfix:** The postfix of the JPEG filename.

Chapter 4-6-2 SMTP (Email) Service

For alarm notification with JPEG snapshots, enter the required information to enable this Email notification service.

The screenshot shows the 'Setup > Notification > SMTP Service' window. It contains the following fields and options:

- E-mail Receiver Setting:**
 - E-mail Address1: receiver@mail.com
 - E-mail Address2: (empty)
 - E-mail Address3: (empty)
 - E-mail Address4: (empty)
 - E-mail Address5: (empty)
- E-mail Sender Setting:**
 - E-mail Address: sender@mail.com
 - SMTP Server: mail.com
- SMTP Authentication:**
 - ☒ Auth Login
 - ☐ Auth SSL
 - ☐ Auth TLS
- SMTP Port:** 25
- Authentication:** ☐ OFF
- Auth Account:** sender
- Auth Password:** (masked with dots)

At the bottom are 'OK' and 'Send Mail & Status' buttons.

- Receiver E-mail Address: Address of receiving mailbox.
- Sender E-mail Address: Address of sending mailbox.
- SMTP Server: Enter the address of mail server.
- SMTP Authentication: Select authentication type
- SMTP Port: The default port number is 25 (mail server port).
- Authentication: Enable or disable mail service
- Auth Account: User name of the mail server
- Auth Password: Password of sending mailbox.

Chapter 4-6-3 HTTP POST Service

Through the POST protocol, the camera can automatically send notification snapshots to a website if an alarm is triggered.

The screenshot shows the 'Setup > Notification > HTTP POST Service' window. It contains the following fields and options:

- Number:** 1
- HTTP POST Server Name:** httpservername
- HTTP POST Server IP/DNS:** httpserver.com
- HTTP POST Server Port:** 80
- Account:** admin
- Password:** (masked with dots)
- HTTP POST URL:** /url
- HTTP POST JSON:** /json

At the bottom are 'OK' and 'Cancel' buttons.

- **HTTP POST Server Name:** The HTTP POST server
- **HTTP POST Server IP/DNS:** The IP/DNS address of the HTTP Post server
- **HTTP POST Server Port:** The port number of the HTTP Post server
- **Account:** The account
- **Password:** The password
- **HTTP POST URL :** The CGI command to send HTTP POST
- **HTTP POST JSON :** The JSON text editor

Chapter 4-6-4 SD Card Service

Ensure a SD card is properly installed to the camera before you enable the SD recording option. The camera will start recording videos when an alarm occurs.

Setup > Notification > SD Card Service

SD Recording	☐ On ☒ Off
SD Recording OSD	☐ On ☒ Off
SD Recording Continuous	☐ On ☒ Off
Recording Format	Encoder1 ▾
Pre Record Time	1 Sec.
SD Card Status	NORMAL
SD Card State	Unmount
SD Card Total Bytes	0 MBytes
SD Card Free Bytes	0 MBytes

OK Unmount Mount Format

Warning: Ensure to click **Unmount** before removing the SD card, or the system may crash.

Note: SD card model only

Chapter 4-6-5 SD Card Backup File

To download a specific clip, right-click the file you want to download and save the AVI file to a local PC.

Setup > Notification > SD Card Backup File

(Right Button->Play, Right Button->Stop)

Delete Refresh

Chapter 4-6-6 Samba Service

The streaming of the camera can be recorded as MPEG4 files to a Samba server. Continuous and pre-alarm recordings are available. To do so, provide required information for Samba service. Circular recording is available for overwriting the oldest recording files if the Samba server gets full.

Setup > Notification > SAMBA Service

SAMBA Recording	☐ On ☒ Off
SAMBA Recording OSD	☐ On ☒ Off
SAMBA Recording Continuous	☐ On ☒ Off
Recording Format	Encoder1 ▾
Pre Record Time	1 Sec.
SAMBA Server IP	192.168.0.100
SAMBA Server Account	admin
SAMBA Server Password	••••••••
SAMBA Server Directory	/Public
SAMBA Status	NORMAL
SAMBA State	SAMBA service is not connected
SAMBA Total Bytes	0 MBytes
SAMBA Free Bytes	0 MBytes

OK Disconnected Connected

- Samba Recording: Enable Samba recording service.
- Samba Recording OSD: Timestamp OSD on the MPEG4 files
- Samba Recording Continuous: Enable/disable Samba continuous recording.
- Recording Format: The resolution of the AVI files

- Pre-record Time: Pre-alarm recording based on the alarm settings
- Samba Server IP: The IP address of the Samba server
- Samba Server Account: The account of the Samba server
- Samba Server Password: The password of the Samba server
- Samba Server Directory: The target path of the recordings on the Samba server
- Samba Status: The system status of the Samba server
- Samba State: The connection status of the Samba server
- Samba Total Bytes: The storage size of the Samba server
- Samba Free Bytes: The free storage size of the Samba server

Chapter 4-7 Maintenance



In the Maintenance page, you can click Load Default to restore the camera to factory settings, or click Reboot System to restart the camera. Restoring to factory settings does not affect IP addresses.

To update the IP PTZ camera's firmware, click Browse and select an update file. Click "Submit" to start the firmware update.

To export the IP PTZ camera settings file, click "Export XML"; to apply the camera settings file, click "Browse" to the right of the Import Configuration File option, select the configuration file to apply, and then select "Upgrade".

Setup > Maintenance > Firmware Update

Please do not turn off power and wait until this web page shows up automatically. Fail to update firmware correctly due to network communication issue may damage this machine and may be required to ship back to your vendor for repair.

flashcv22s66pl.bin:Application Firmware
flashcv22s66pl-s.bin:Encrypted Application Firmware
plugincv22s66.bin:plug-in package
plugincv22s66-s.bin:plug-in package

Choose File No file chosen Submit

Upload 0%

Export Config File **Export XML**

Network Setting	☐
System Setting	☒
Controls Setting	☒
Event Setting	☒
Services Setting	☒
Video Setting	☒
PTZ Setting	☒

Import Config File Choose File No file chosen Upgrade

Reboot System **Reboot System**

Default Settings

☒ Initialize without Network Settings & System Settings
☐ Initialize All Settings **Load Default**

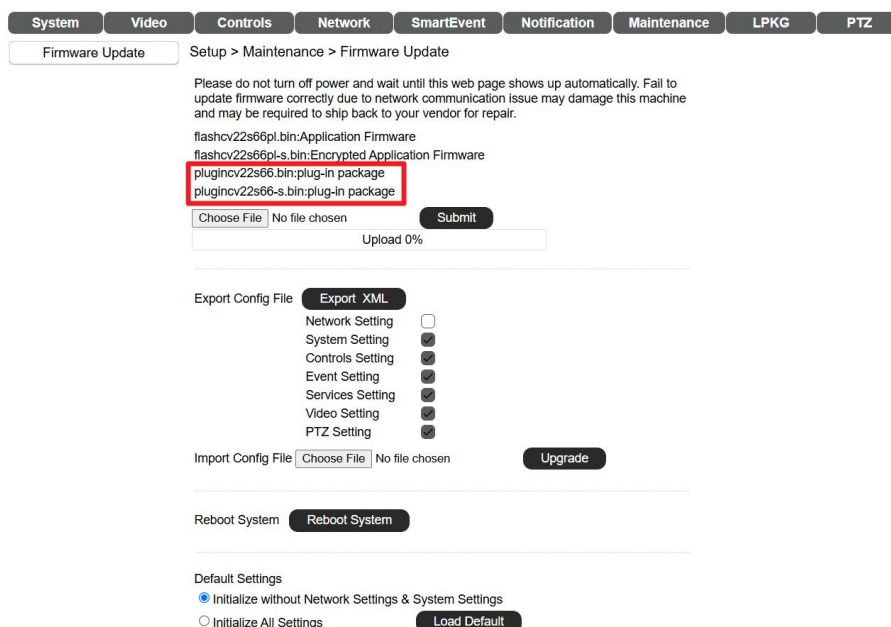
Warning: Never disconnect the power during the update. This could cause irreversible damage to your device.

Note: If you forget your password, please contact your vendor or send the device to us.

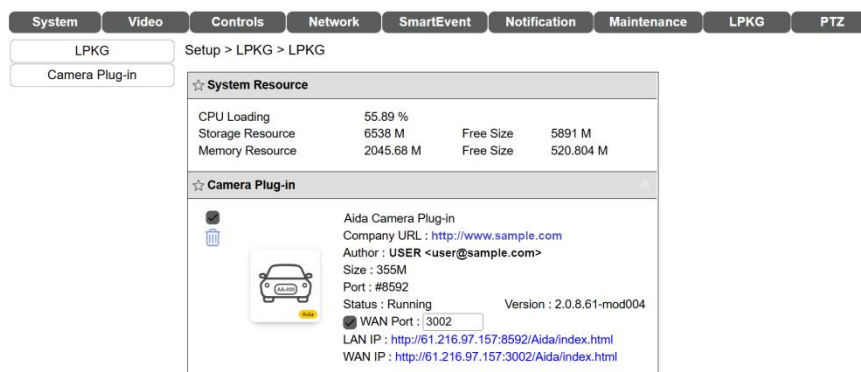
Chapter 4-8 LPKG



Please click "Maintenance -> Firmware Update". The plugin file format for this product is "plugincv22s66.bin". Click the "Browse" button to select the file, then click the "Apply" button to update the plugin.

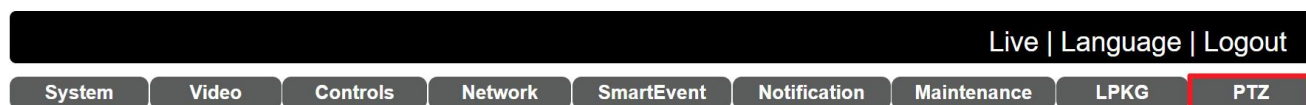


After the plugin is installed, related information of this plugin will be displayed on the plugin page as follows:



Click the App icon to launch the Aida plugin. The Aida software is on communication port 8592. Click Options.

Chapter 4-9 PTZ



Chapter 4-9-1 Tour Setup

The IP PTZ Camera supports up to sixteen tour paths; each path can include up to 32 preset positions. Users can customize the sequence of preset positions. This function can be activated in either Return Mode or Auto Mode. Path: Settings > PTZ > Tour List

Setup > > Tour Setup

Tour Path	1	Speed	120	Dwell Time	10	Apply	
1	-	9	-	17	-	25	-
2	-	10	-	18	-	26	-
3	-	11	-	19	-	27	-
4	-	12	-	20	-	28	-
5	-	13	-	21	-	29	-
6	-	14	-	22	-	30	-
7	-	15	-	23	-	31	-
8	-	16	-	24	-	32	-

- **Tour Path:** Choose a tour path to set up.
- **Speed:** Set the running speed from the preset point position to the preset point position.
- **Dwell Time:** Set the dwell time at the preset point position.

Function Description

Move the mouse to the item option, select the preset position from the drop-down list, Continue editing other item options as needed, and then click "Apply" to save the tour list settings.

Note: Please ensure that all preset positions used in the tour list have already been configured in the Preset Settings section. If not, please complete the preset position setup before using them in the tour list.

Chapter 4-9-2 Schedule

To set up PTZ scheduling, please select PTZ schedule. Select the desired schedule type (**No Schedule**, **Scan**, **SEQ**, **Tour**, **Patrol**, **Preset** and **Auto Tracking**). Click the schedule to highlight the time intervals you want the IP PTZ camera to perform the pre-determined schedule. Click **Apply** to save the settings and **Clean All** to clear the settings.

Setup > PTZ > Schedule

Schedule

	0:00	6:00	12:00	18:00
Mon				
Tue				
Wed				
Thu				
Fri				
Sat				
Sun				

☒ No Schedule ☐ Scan1 ☐ SEQ ☐ Tour1 ☐ Patrol1 ☐ Preset 1

☐ Scan2 ☐ Tour2 ☐ Patrol2 ☐ Stop

☐ Scan3 ☐ Tour3 ☐ Patrol3 ☐ Auto Tracking

☐ Scan4 ☐ Tour4 ☐ Patrol4

Apply Clean All

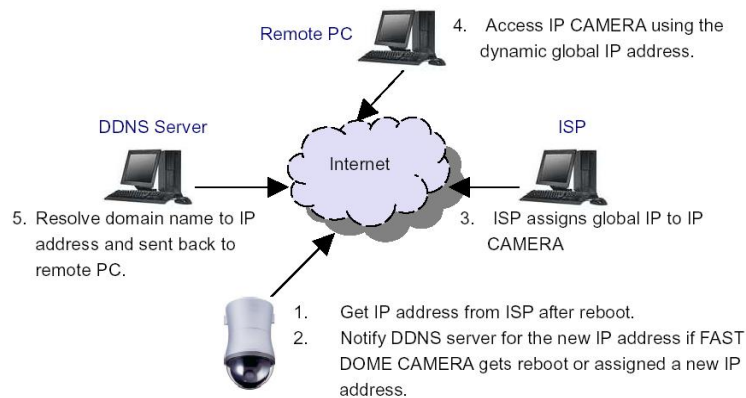
Please go to the lower right corner of the Live View page and use the "Schedule Settings" dropdown menu to enable or disable the schedule function.

Appendix

DDNS Network Settings

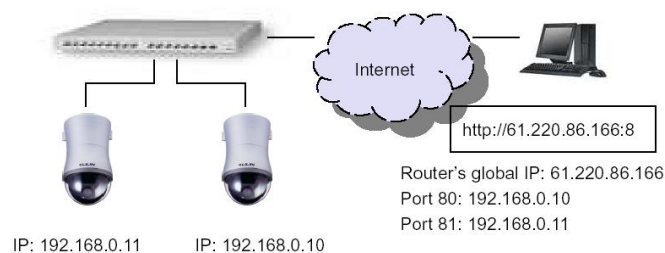
One of the advantages of adopting DDNS and PPPoE services is to save the cost of renting a global IP address. When you power on a camera with a video server and connect to the Internet with the PPPoE service, the camera asks your ISP for a dynamic global IP address. This Internet-accessible IP address will be renewed by the ISP every time you log on the Internet.

Whenever the IP is changed, the camera with the video server will notify the DDNS server of your new IP address. A remote user who intends to connect to the camera with the video server can enter the domain name in the web browser. The domain name will be translated to a new IP address to be used by the camera.



Advanced Port Forwarding Technology

Communication port forwarding technology has been widely used to share a global Internet IP to other devices on the network. The infrastructure of this technology is shown in the below figure, in which the port 80 of the IP router is forwarded to the device with an IP of 192.168.0.10, and the port 81 of the router is forwarded to the device with an IP of 192.168.0.11. When a remote PC on the Internet tries to access the port 81, the user is actually accessing 192.168.0.11, private IP given by the router.



Restore to Factory Default

To restore the IP PTZ camera to the factory default, follow the below procedures:

1. Press the "Restore to Factory Default RESET" button for 15 seconds before releasing.
2. The camera will restart.
3. Launch to IPScan Utility to search for the IP camera.
4. Access the IP camera via an Internet browser.
5. Due to security reason, create the username and password for the first login. To login to the IP camera, please create the username and password on the login page. Press Confirm to complete the setting and login simultaneously.



SD Card Compatibility

Manufacturer	Capacity	SDHC/SDSC
Sandisk	16GB	SDHC
Sandisk	8GB	SDHC
Transcend	8GB	SDHC
Transcend	4GB	SDHC
Sandisk	32GB	SDHC