H.265 Network Cameras

User Manual

Ver. 1.0

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Revision History

Version	Description	Date
1.0	Initial release	August 2019

Disclaimer

> **ⓘ CAUTION!**
>
> The default password is used for your first login. To ensure account security, please change the password after your first login. You are recommended to set a strong password (no less than eight characters).

- To the maximum extent permitted by applicable law, the product described, with its hardware, software, firmware and documents, is provided on an "as is" basis.

- Best effort has been made to verify the integrity and correctness of the contents in this manual, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, expressed or implied. We shall not be held responsible for any technical or typographical errors in this manual. The contents of this manual are subject to change without prior notice. Update will be added to the new version of this manual.

- Use of this manual and the subsequent result shall be entirely on the user's own responsibility. In no event shall we be reliable to you for any special, consequential, incidental, or indirect damages, including, among others, damages for loss of business profits, business interruption, or loss of data or documentation in connection with the use of this product.

- Video and audio surveillance can be regulated by laws that vary from country to country. Check the law in your local region before using this product for surveillance purposes. We shall not be held responsible for any consequences resulting from illegal operations of the device.

- The illustrations in this manual are for reference only and may vary depending on the version or model. The screenshots in this manual may have been customized to meet specific requirements and user preferences. As a result, some of the examples and functions featured may differ from those displayed on your monitor.

- This manual is a guide for multiple product models and so it is not intended for any specific product.

- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Symbols

The symbols in the following table may be found in this manual. Carefully follow the instructions indicated by the symbols to avoid hazardous situations and use the product properly.

Symbol	Description
⚠ WARNING!	Contains important safety instructions and indicates situations that could cause bodily injury.
ⓘ CAUTION!	Means reader be careful and improper operations may cause damage or malfunction to product.
📝 NOTE!	Means useful or supplemental information about the use of product.

Table of Contents

Chapter 1. Overview

CAM3461HEM-5 H.265 Bullet IP Camera is capable of simultaneous video streaming in H.265, H.264 and M-JPEG format. The camera has a maximum resolution of 4MP @ 30fps in both H.265 and H.264 in High Dynamic Range (HDR) mode to ensure more image details are captured under challenging lighting conditions.
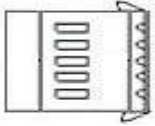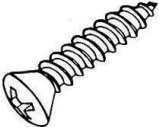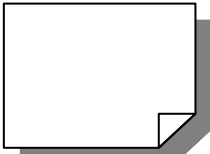
1.1 Feature

- Multiple Progressive Scan CMOS Sensor Support to 4MP Resolution
- Multi Exposure HDR
- Multi Codec Support (H.265 / H.264 / MJPEG)
- Low Latency Streaming
- Quad Streams Support
- True Day/Night Function (ICR)
- IR LED (Working Distance up to 40m)
- BNC Analog Output for Installation Support*
- 3D Motion Compensated Noise Reduction (MCTF)
  Smart Event Function- External Input / Motion Detection / Network Failure Detection / Tampering Alarm / Periodical Event / Manual Trigger / Audio Detection
- Text Overlay and Privacy Masks
- Micro SD/SDHC/SDXC Card Support
- Smart Low Bitrate Control
- Weatherproof (IP66)
  (*) Optional

1.2 Package Contents

Please check the package containing the following items listed below.

CAM3461HEM-5 H.265 Bullet IP Camera (cable included)
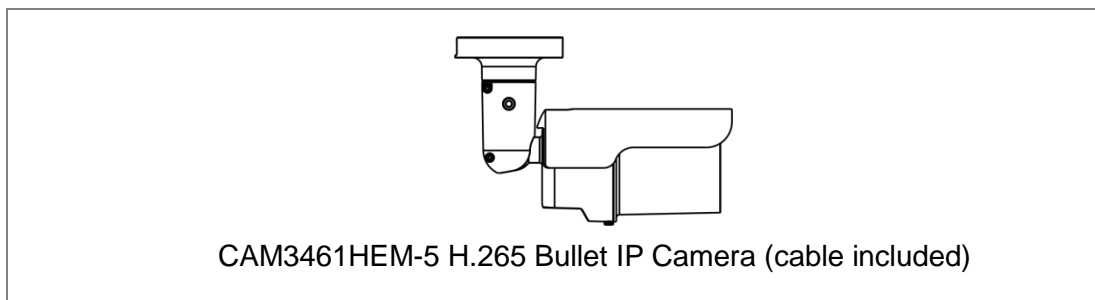
5-Pin Alarm Terminal Block	2-Pin Power Terminal Block
Plastic Screw Anchor (x5)	M5 Standard Screw (x1)
M4 Self-Tapping Screw (x5)	Quick Guide

NOTE: To use an external power supply, please contact the camera manufacturer to confirm that the power supply uses the same power specifications as the camera. The power supply must comply with the LPS requirements.

NOTE: The supplied self-tapping screws are for soft substances / materials such as wood. For other installation environments such as cement wall, users **MUST** pre-drill and use plastic anchors before fastening the supplied self-tapping screws on the wall.

NOTE: Do not replace batteries of the camera. Risk of explosion may occur if the battery is replaced by an incorrect type.

1.3 Dimensions

The dimensions of the camera are shown below.
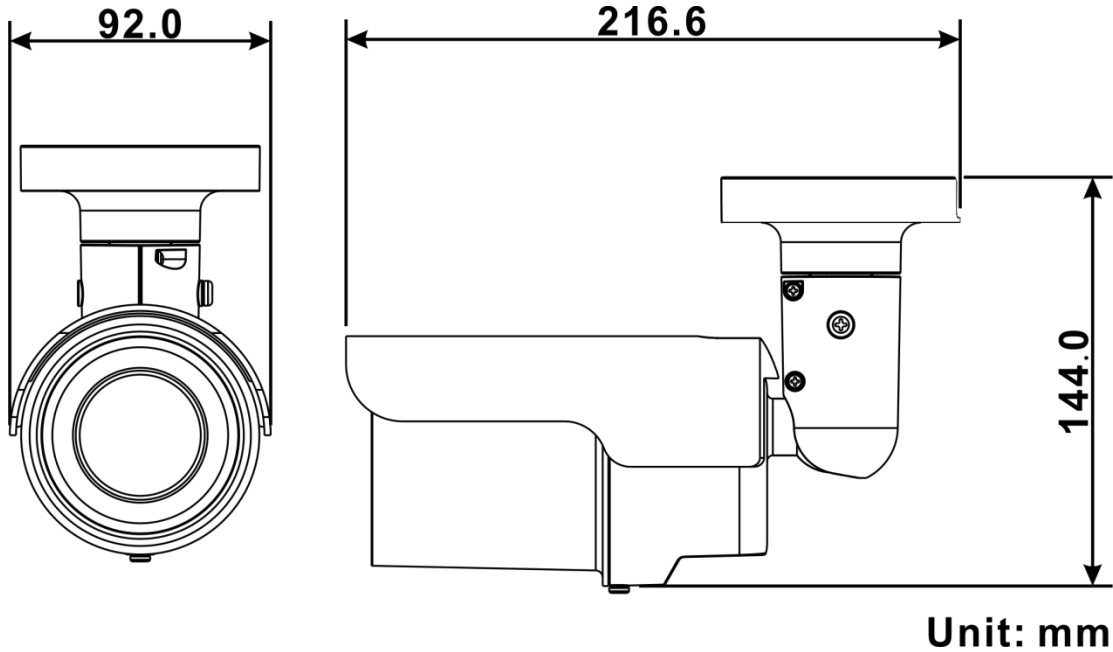
1.4 microSD Card Slot / Factory Default Button

The camera's microSD card slot and factory default button are inside the front housing. If users need to use them, the front housing must be opened. Follow the steps below to reach microSD card slot and factory default button.

Step 1:

Loosen the screw on the camera housing but do not detach it. Then separate the front housing from the camera.
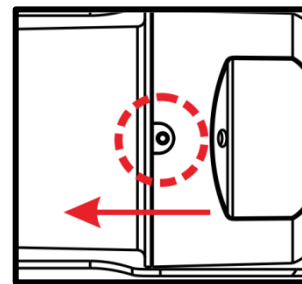
Step 2:

The positions of microSD card slot and default button are as shown below.
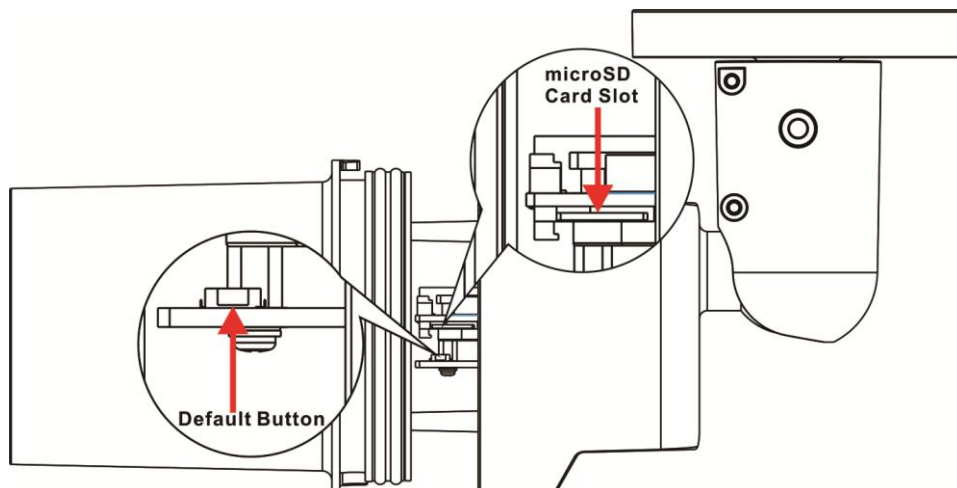
Note: It is not recommended to record with the microSD card for 24/7 continuously, as it may not be able to support long term continuous data read/write. Please contact the manufacturer of the microSD card for information regarding the reliability and life expectancy.

Step 3:

Install the front housing to the camera, and tighten the screw on the camera housing.

Chapter 2. Camera Cabling

Before users connect cables, make sure that all cables and the power adaptor are placed in dry and well-waterproofed environments, e.g. waterproof boxes. The purpose is to prevent moisture accumulation inside the camera and moisture penetration into cables, which might lead to camera breakdown. Please refer to the following sections to complete camera connection.

2.1 All-in-One Cable

The diagram below shows the All-in-One cable of the camera. Definition for each cable is also given as follows.
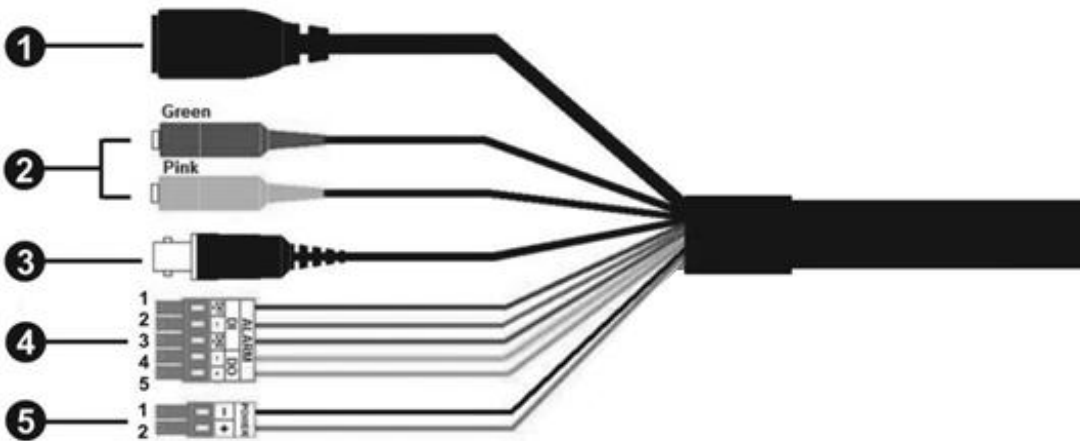
No	Cable	Pin	Definition		Remarks
1	RJ-45	-	For network and PoE connections		
2	Audio I/O	Green	Audio Out / Mic Out (Line Out)		Two-way audio transmission
		Pink	Audio In / Mic In (Line In)		
3	BNC*	-	For analog video output		
4	Alarm I/O (5-pin Terminal Block)	1	Alarm In 2+		Alarm connection
		2	Alarm In -		#Do **NOT** connect external power supply to the alarm I/O connector of the IP camera.
		3	Alarm In 1+		
		4	Alarm Out -		
		5	Alarm Out +		
5	Power (DC 12V / AC 24V) (2-pin Terminal Block)	1	DC 12V –	AC 24V 1	Power connection
		2	DC 12V +	AC 24V 2	

(*) Optional

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2.2 Connect Power

For power connection, please use an AC 24V / DC 12V adaptor and connect it to the 2-pin terminal block of the All-in-One cable and the power outlet. Alternatively, users can power the camera by PoE if a Power Sourcing Equipment (PSE) switch is available. Please refer to the section below for Ethernet cable connection.

NOTE: If PoE is used, make sure PSE is in use in the network.

2.3 Connect Ethernet Cable

To have the best transmission quality, cable length shall not exceed 100 meters. Connect one end of the Ethernet cable to the RJ-45 connector of the All-in-One cable, and plug the other end of the cable to the network switch or PC.

NOTE: In some cases, Ethernet crossover cable might be needed when connecting the camera directly to the PC.

Check the status of both power and network activity indicator LEDs. If either LED is unlit, please check the corresponding connection.
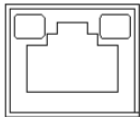
Green Power LED lights up when the camera is powered up.

Orange Network LED (1) flashes when data is being transmitted over network, (2) lights up for good network connection.

2.4 Connect Alarm I/O

For alarm I/O connection, please connect alarm devices to the 5-pin terminal block of the All-in-One cable.

NOTE: Do NOT connect external power supply to the alarm I/O connector of the IP camera.

2.5 Waterproof Cable Connectors

Follow the steps below to waterproof the connectors of the All-in-One cable.

Step 1:

Connect the required devices to the All-in-One cable and coat the joints with silicone gel. There should be no gap between the connectors and the cables. For alarm I/O connector and power connector, make sure the side with wires attached is also sealed with silicone gel.
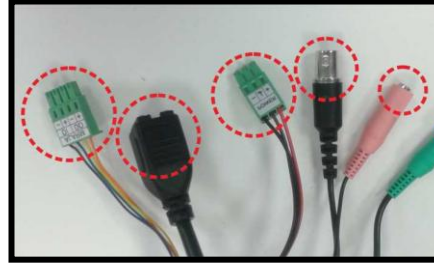
Step 2:

Seal the end of the rubber coating of the All-in-One cable as indicated in the figure on the right. Please use enough silicone gel to fill in the hose and wrap around each wires; otherwise, waterproof function cannot be guaranteed.
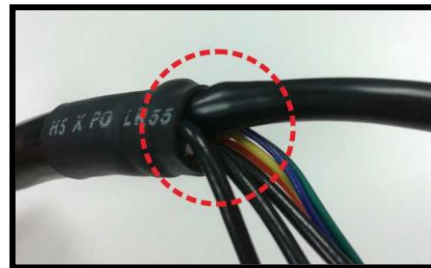
Chapter 3. Camera Installation

Please read the instructions provided in this chapter thoroughly before installing the camera.

NOTE: This camera must be installed by qualified personnel and the installation should conform to all local codes.

3.1 Ceiling / Wall Mounting

The camera can be installed directly on a wall or ceiling with the integrated adjustable Bracket Mount. Please note that the wall or ceiling must have enough strength to support the camera.

Follow the steps below to install the camera.

Step 1:
Place the camera at the installation location. On the ceiling / wall, mark the position of the two screw holes of the camera.
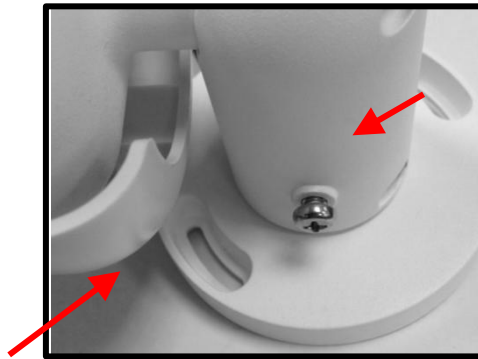
If the screw holes are blocked by the camera body, loosen the screw shown in the right figure but do not detach it. Then rotate the camera body to reach the screw holes.
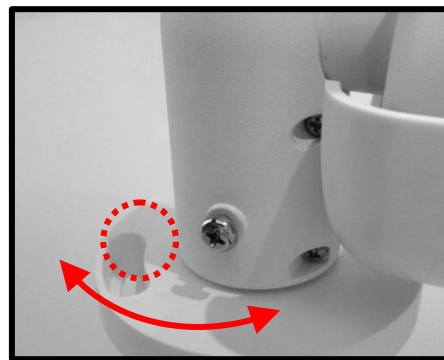
Step 2:
At the center of the two marked holes, drill a 30 mm diameter (radius as 15 mm) cable entry hole. Then drill a hole slightly smaller than the supplied plastic screw anchor on each marked screw hole.

Step 3:
Thread the All-in-One cable of the camera through the cable entry hole. Refer to

chapter Camera Cabling for cable connections.

Step 4:

Match the two screw holes of the camera with the plastic screw anchors at the installation location. Insert the plastic screw anchors into the two drilled holes, and then fasten the camera with the supplied M4x31 self-tapping screws.

Step 5:

Use a cross screwdriver to loosen the screw indicated in **Figure 1** but do not detach it. Rotate the camera and point the camera to a desired direction. Then, tighten the screw. The camera joint will be fixed.
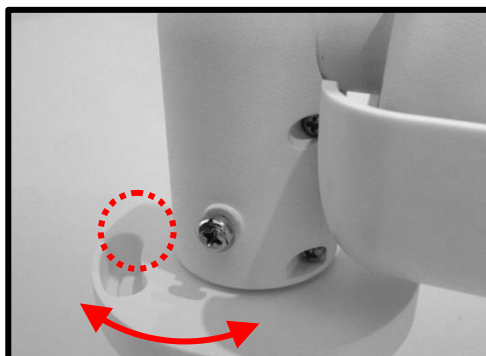
Figure 1

NOTE: If the camera joint is not tight enough for users, please fasten the supplied M5x10.5 standard screw into the hole as shown in **Figure 2**.
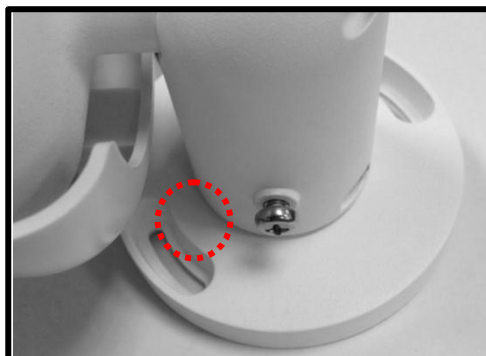
Figure 2

Chapter 4. System Requirements

To perform the IP camera via web browser, please ensure the PC is in good network connection, and meet system requirements as described below.

Items	System Requirement
Personal Computer	**Minimum :** 1. Intel® CoreTM i5-2430M @ 2.4 GHz 2. 4 GB RAM **Recommended :** 1. Intel® CoreTM i7-870 @ 2.93 GHz 2. 8 GB RAM
Operating System	Windows 7 or later operating system
Web Browser	Microsoft Internet Explorer 11.0 (recommended) Chrome Firefox Safari
Network Card	10Base-T (10 Mbps), 100Base-TX (100 Mbps) or 1000Base-T operation
Viewer	ActiveX control plug-in for Microsoft IE

NOTE: The ITE is to be connected only to PoE networks without routing to the outside plant or equivalent description.

Chapter 5. Access Camera

For initial access to the IP camera, users can search the camera through the installer program: Search Tool.exe.

Accessing the Camera by Device Search Software

Step 1: Double click on the program Device Search.exe.

Step 2: After its window appears, click on the <Device Search> button on the top. All the finding IP devices will be listed in the page.

Step 3: Find the camera in the list by its IP address and click on it. The default IP address of the camera is: 192.168.0.250.

Step 4: The default IP address of the camera may not be in the same LAN as the IP address of the PC. If so, the IP address of the camera needs to be changed. Right click on the camera and click <Network Setup>. Meanwhile, record the MAC address of the camera, for future identification.

Step 5: The <Network Setup> page will come out. Select <DHCP> and click <Apply> down the page. The camera will be assigned with a new IP address.

Step 6: Click <OK> on the Note of setting change. Wait for one minute to re-search the camera.

Step 7: Click on the <Device Search> button to re-search all the devices. Find the camera in the list by its MAC address. Then double click or right click and select <Browse> to access the camera directly via a web browser.

Step 8: A prompt window requesting for default username and password will appear. Enter the default username and password shown below to login to the camera.

Login ID	Password
Admin	1234

NOTE: ID and password are case sensitive.

NOTE: It is strongly recommended that administrator's password be altered for the security concerns. Refer to the H.265 HDR IP Camera Menu Tree for further details.

Installing DCViewer Software Online

For the initial access to the IP camera, a client program, DCViewer, will be automatically installed to the PC when connecting to the camera.

If the web browser doesn't allow DCViewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (refer to section Setup Internet Security) to continue the process.

The Information Bar (just below the URL bar) may come out and ask for permission to install the ActiveX Control for displaying video in browser. Right click on the Information Bar and select <Install ActiveX Control…> to allow the installation.

The download procedure of DCViewer software is specified as follows.

Step 1: In the DCViewer installation window, click on <Next> to start installation.

Step 2: The status bar will show the installation progress. After the installation is completed, click on <Finish> to exit the installation process.

Step 3: Click on <Finish> to close the DCViewer installation page.

Once the Viewer is successfully installed, the Home page of the IP camera will be able to correctly display as the figure below.

Zoom and Focus Adjustment

The live image will be displayed on the Home page when the camera is successfully accessed. If zoom or focus is not at the desired position, please use the function buttons on the Home page to adjust zoom and focus.

⚠️ **NOTE**: Please refer to the H.265 HDR IP Camera Menu Tree for more button function details.

Chapter 6. Setup Video Resolution

Users can setup video resolution on Video Format page of the user-friendly browser-based configuration interface.

Video Configuration can be found under: **Streaming> Video Configuration.**
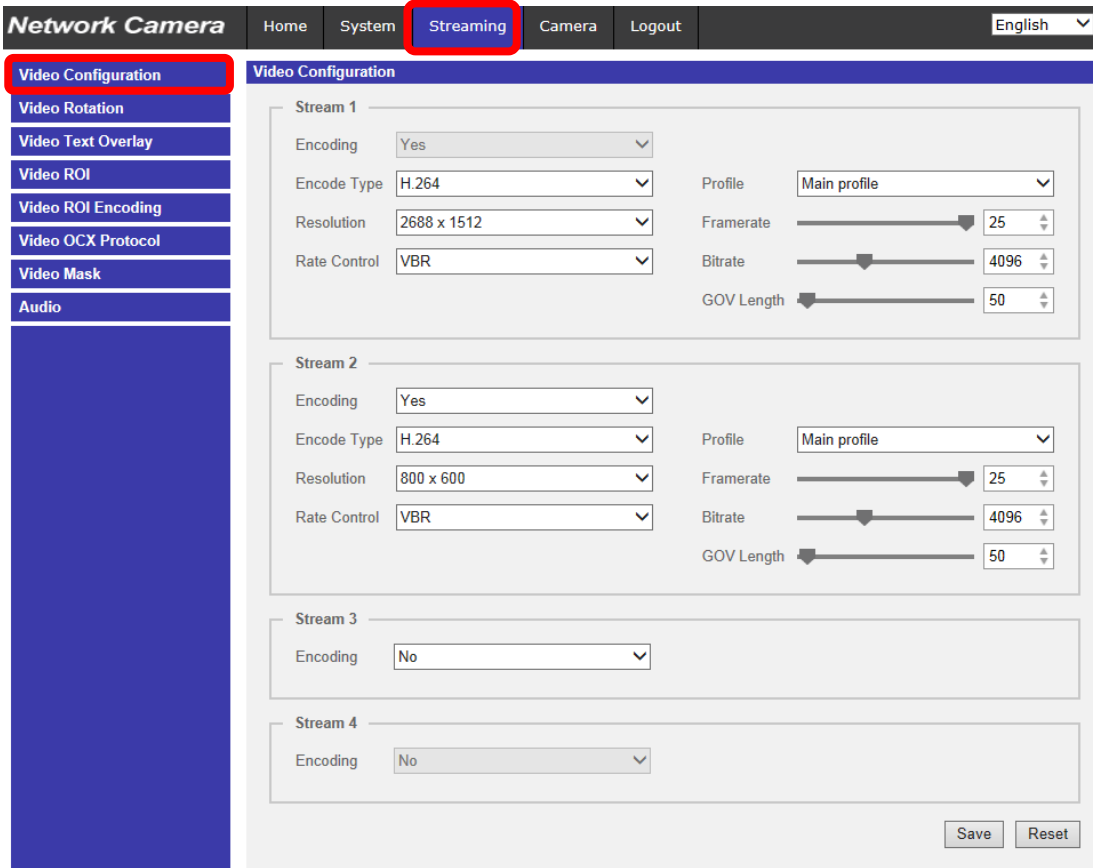
The default values of video resolution are as below.

4M	H.265/H.264- 2688 x 1512 (30/25 fps) + H.264- 800 x 600 (30/25 fps)

For more details about the combinations of video resolution, please refer to the H.265 HDR IP Camera Menu Tree.

Chapter 7. Configuration Files Export / Import

To export / import configuration files, users can access the Maintenance page on the user-friendly browser-based configuration interface.

The Maintenance setting can be found under this path: **System> Maintenance.**

Users can export configuration files to a specified location and retrieve data by uploading an existing configuration file to the camera. It is especially convenient to make multiple cameras having the same configuration.

Export

Users can save the system settings by exporting the configuration file (.bin) to a specified location for future use. Click on the <Export> button, and the popup File Download window will come out. Click on <Save> and specify a desired location for saving the configuration file.

Upload

To upload an existing configuration file to the camera, please first click on <Browse> to select the configuration file, and then click on the <Upload> button for uploading.

Chapter 8. Tech Support Information

This chapter will introduce how to delete previously-installed Viewer in the PC and how to setup the Internet security.

8.1 Delete the Existing DCViewer

This chapter will introduce how to delete previously-installed DCViewer in the PC and how to setup the Internet security.

Deleting the DCViewer

In the Windows <Start Menu>, activate <Control Panel>, and then double click on <Add or Remove Programs>. In the <Currently installed programs> list, select <DCViewer> and click on the button <Remove> to uninstall the existing DCViewer.

Deleting Temporary Internet Files

To improve browser performance, it is suggested to clean up all the files in the <Temporary Internet Files>. The procedure is as follows.

Step 1: Click on the <Tools> tab on the menu bar and select <Internet Options>.

Step 2: Click on the <Delete> button under <Browsing history> section.

Step3: In the appeared window, tick the box beside <Temporary Internet files> and click on <Delete> to start deleting the files.

8.2 Setup Internet Security

If ActiveX control installation is blocked, please either set Internet security level to default or change ActiveX controls and plug-ins settings.

Internet Security Level: Default

Step 1: Start the Internet Explorer (IE).

Step 2: Click on the <Tools> tab on the menu bar and select <Internet Options>.

Step 3: Click on the <Security> tab, and select <Internet> zone.

Step 4: Down the page, click on the <Default Level> button, and click on <OK> to confirm the setting. Close the browser window, and restart a new one later to access the IP camera.

ActiveX Controls and Plug-ins Settings

Step 1: Repeat Step 1 to Step 3 of the previous section above.

Step 2: Down the page, click on the <Custom Level> button to change ActiveX controls   and plug-ins settings. The Security Settings window will pop up.

Step 3: Under <ActiveX controls and plug-ins>, set ALL items (as listed below) to <Enable> or <Prompt>. Please note that the items vary by IE version.

ActiveX controls and plug-ins settings:

1. Binary and script behaviors.

2. Download signed ActiveX controls.

3. Download unsigned ActiveX controls.

4. Allow previously unused ActiveX controls to run without prompt.

5. Allow Scriptlets.

6. Automatic prompting for ActiveX controls.

7. Initialize and script ActiveX controls not marked as safe for scripting.

8. Run ActiveX controls and plug-ins.

9. Only allow approved domains to use ActiveX without prompt.

10. Script ActiveX controls marked safe for scripting*.

11. Display video and animation on a webpage that does not use external media player.

Step 4: Click on <OK> to accept the settings. A prompt window will appear for confirming the setting changes, click <Yes(Y)> and close the Security Settings window.

Step 5: Click on <OK> to close the Internet Options screen.

Step 6: Close the browser window, and restart a new one later to access the IP camera.