



**Full HD Extreme WDR
Dome Network Camera
NDR255P**

User Manual

Version 1.2

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1. Overview

The Full HD Multiple Streams Ultra-WDR Mini Dome IP Camera is an easy setup camera with PoE supported to reduce complicate cabling without sacrificing performance. Quad Streams Compression (H.264 Baseline / Main / High Profile + MJPEG) are supported for efficient bandwidth and storage management. The H.264 encoder performance is up to 1080P 60fps. Also, the product series can supply Dual Full HD 1080P Real Time streaming. With more computing power, the IP Camera could provide more flexibility for users and system managers. The camera also supports Shutter WDR function, which can provide high quality images under extreme light contrast or light changing scenarios.

1.1 Features

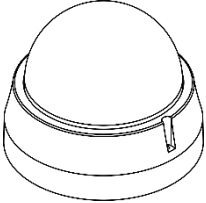
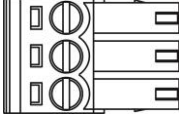
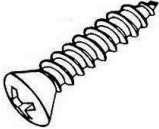

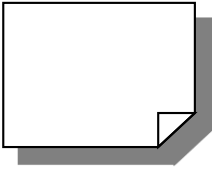

- Sony Progressive Scan CMOS Sensor
- 1.3M / 2M Resolution*
- Quad Streams Support
- Dual Streams- Full HD 1080P Real Time + Full HD 1080P Real Time
- Quad Stream Compression- H.264 Baseline / Main / High Profile + MJPEG
- Multi-language Support
- Tampering Alarm
- Ultra Dynamic Range
- Motion Detection
- Privacy Masks
- 3D / 2D Noise Reduction
- Network Failure Detection
- Day/Night (ICR)
- IR LED Module (working distance up to 25m)*
- Digital Image Stabilizer (DIS)
- BNC Analog Output*
- Weatherproof (IP66 International)*
- microSD Support
- ONVIF Support

(*) Optional

1.2 Package Contents

The package should contain the items listed below. If any item is missing or has defects, please contact the dealer for assistance.

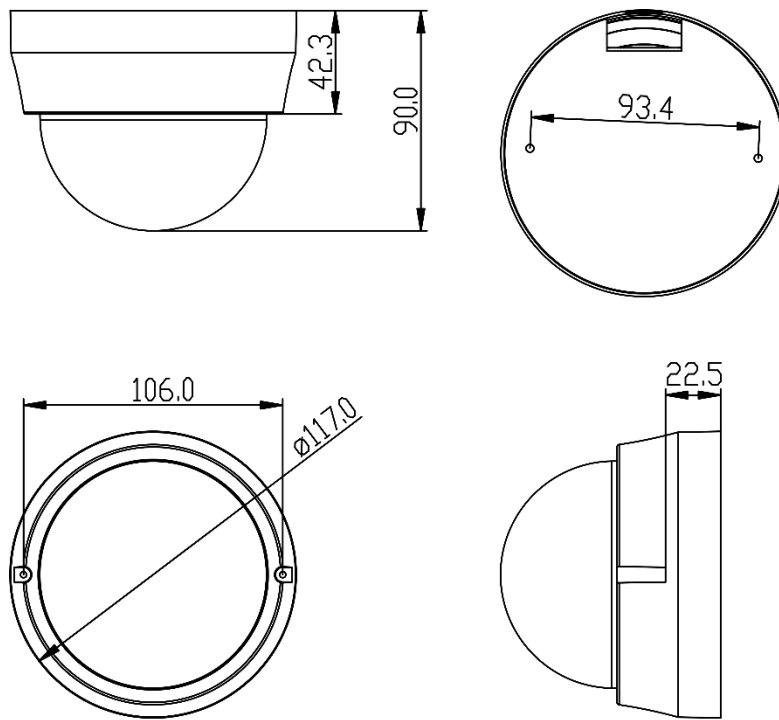
Indoor

 <p>Full HD Multi-Streams Ultra-WDR Mini Dome IP Camera</p>	 <p>Power Terminal Block</p>
 <p>Self Tapping Screws (x3)</p>	 <p>Plastic Screw Anchors (x3)</p>
 <p>Quick Guide</p>	 <p>CD (bundled software and documentation)</p>

1.3 Dimensions

The dimensions of the IP Camera are shown below.

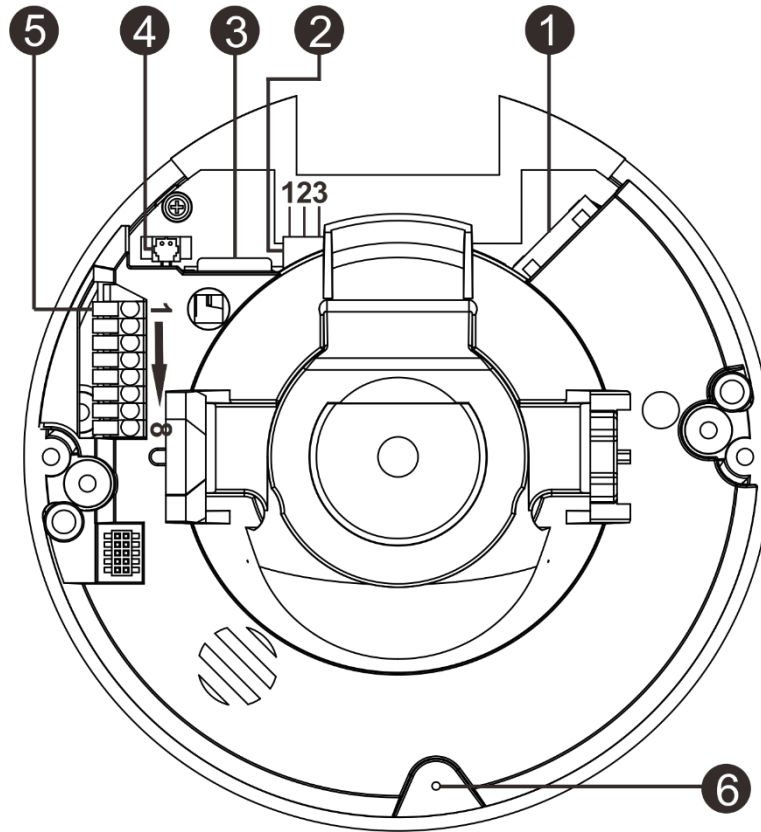
Indoor



Unit: mm

1.4 Connectors (Indoor Only)

The positions of the IP Camera's connectors are shown in the diagram below. Definition for each connector is also given as follows.



No.	Connector	Pin	Definition	Remarks
1	RJ-45	-	10/100/1000 Mbps Ethernet / PoE	
2	Power (AC 24V / DC 12V)	1	AC 24V: Power-1 DC 12V: Power	Power connection
		2	AC 24V: GND DC 12V: Reserved	
		3	AC 24V: Power-2 DC 12V: GND	
3	microSD Card Slot	-	For video recording storage	
4	Video (BNC Connector)*	-	For analog video output	
5	Alarm & Audio I/O	1	Alarm In (-)	Alarm connection
		2	Alarm In (+)	
		3	Alarm Out (-)	
		4	Alarm Out (+)	
		5	Audio Out (R)	Line Out
		6	Audio Out (L)	
		7	GND	
8	Audio In	Line In		
6	Default Button	-	Press the button for at least 20 seconds with one finger to restore the system to factory default settings.	

(*) Optional



NOTE: Insert the SD card into the microSD card slot before powering on the camera. If the camera is already powered on, reboot the camera after the SD card is inserted.

2. Camera Cabling

Please follow the instructions below to complete IP Camera connection.

2.1 Connect Power

For power connection, please refer to section [Connectors \(Indoor Only\)](#) for the Indoor models, and see section [Function Cable Definition \(Outdoor Only\)](#) for the Outdoor models. Alternatively, users can power the camera by PoE. Refer to the section below to connect the Ethernet cable for PoE connection.



NOTE: If PoE is used, make sure Power Sourcing Equipment (PSE) is in used in the network.

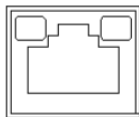
2.2 Connect Ethernet Cable

Use of Category 5 Ethernet cable is recommended for network / PoE connection. For best transmission quality, cable length shall not exceed 100 meters. Connect one end of the Ethernet cable to the RJ-45 connector of the camera / function 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 the link indicator and activity indicator LEDs. If the LEDs are unlit, please check the LAN connection.



Green Link Light indicates good network connection.
Orange Activity Light flashes for network activity indication.

2.3 Connect Alarm I/O

For Indoor models, there is an 8 pins terminal block for the Alarm I/O and the Audio I/O connections. For Outdoor models, the Alarm I/O is connected by a 4 pins terminal block. Refer to sections [Connectors \(Indoor Only\)](#) and [Function Cable Definition \(Outdoor Only\)](#) for the pin definitions.

3. 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	1. Intel® Pentium® M, 2.16 GHz or Intel® Core™2 Duo, 2.0 GHz 2. 2 GB RAM or more
Operating System	Windows VISTA / Windows XP / Windows 7
Web Browser	Microsoft Internet Explorer 6.0 or later Firefox Chrome Safari
Network Card	10Base-T (10 Mbps), 100Base-TX (100 Mbps) or 1000Base-T (1000 Mbps) operation
Viewer	ActiveX control plug-in for Microsoft IE

4. Access Camera

For initial access to the IP Camera, users can search the camera through the installer program: DeviceSearch.exe, which can be found in “DeviceSearch” folder in the supplied CD.

Accessing Device Search Software

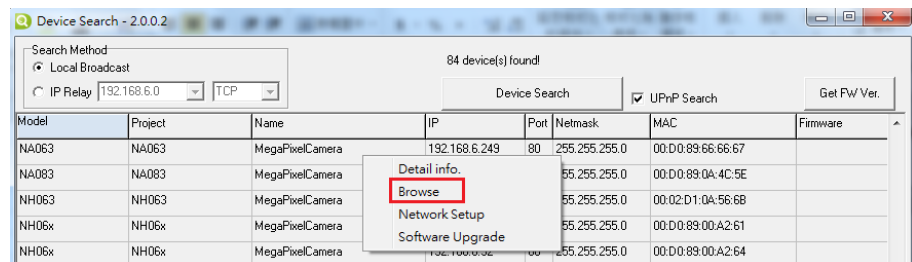
Step 1: Double click on the program Device Search.exe. After its window appears, click on the <Device Search> button on the top side.

Step 2: The security alert window will pop up. Click on <Unblock> to continue.

Device Search

Step 3: Click on <Device Search> again, and all the finding IP devices will be listed in the page. The default IP address of the camera is: **192.168.0.250**.

Step 4: Double click or right click and select <Browse> to access the camera directly via web browser.



Step 5: A login window will pop up. 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 advised that administrator’s password be altered for the security concerns. Refer to [Full HD Multiple Streams Ultra-WDR IP Camera Menu Tree](#) for further details.

Additionally, users can change the network property of the IP Camera to DHCP or Static IP directly in the device finding list. Refer to the following section for changing the network property.

Example of Changing IP Camera's Network Property

Step 1: In the finding device list, click on the camera which its network property is to be changed. On the selected item, right click and select <Network Setup>. Meanwhile, record the MAC address of the camera for future identification.

Step 2: The Network Setup page will come out. Select <DHCP>, and click <Apply> button down the page.

Step 3: A popup window will appear for confirming the setting changes, click on <OK> and wait for one minute to re-search the camera.

Step 4: Click on the <Device Search> button to re-search all the devices. Then select the camera with the correct MAC address. Double click on the camera, and the login window will come out.

Step 5: Enter username and password to access the camera.

Installing DC Viewer Software Online

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

If the web browser doesn't allow DC Viewer installation, please check the Internet security settings or ActiveX controls and plug-ins settings (refer to [Appendix C: 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 DC Viewer software is specified as follows.

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

Once the DC Viewer is successfully installed, the Home page of the IP Camera will be shown as the figure below.

Motorized Lens Models

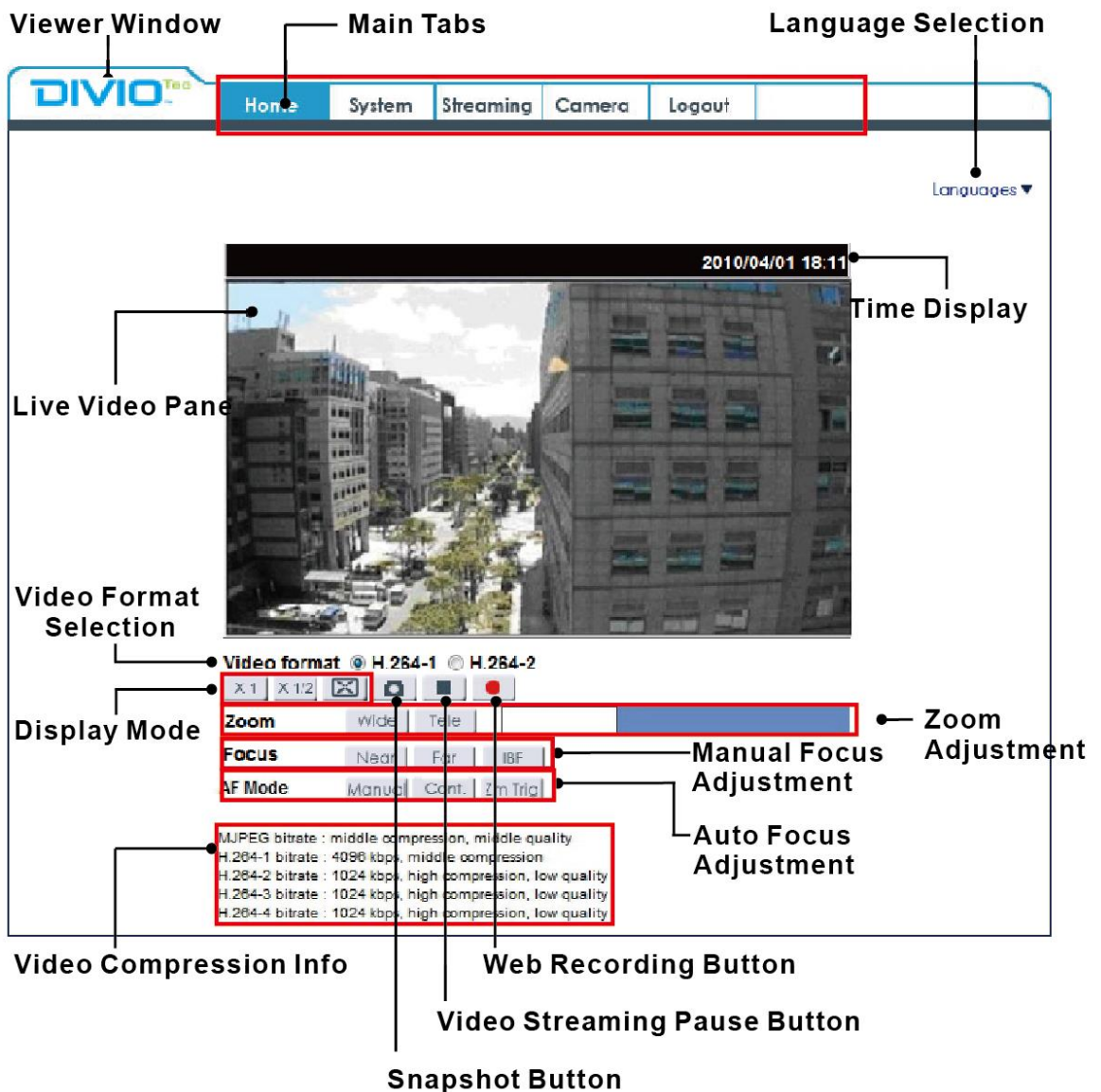


Image and Focus Adjustment

The image will be displayed on the Home page when the IP Camera is successfully accessed. Adjust the zoom and the focus as necessary to produce a clear image.

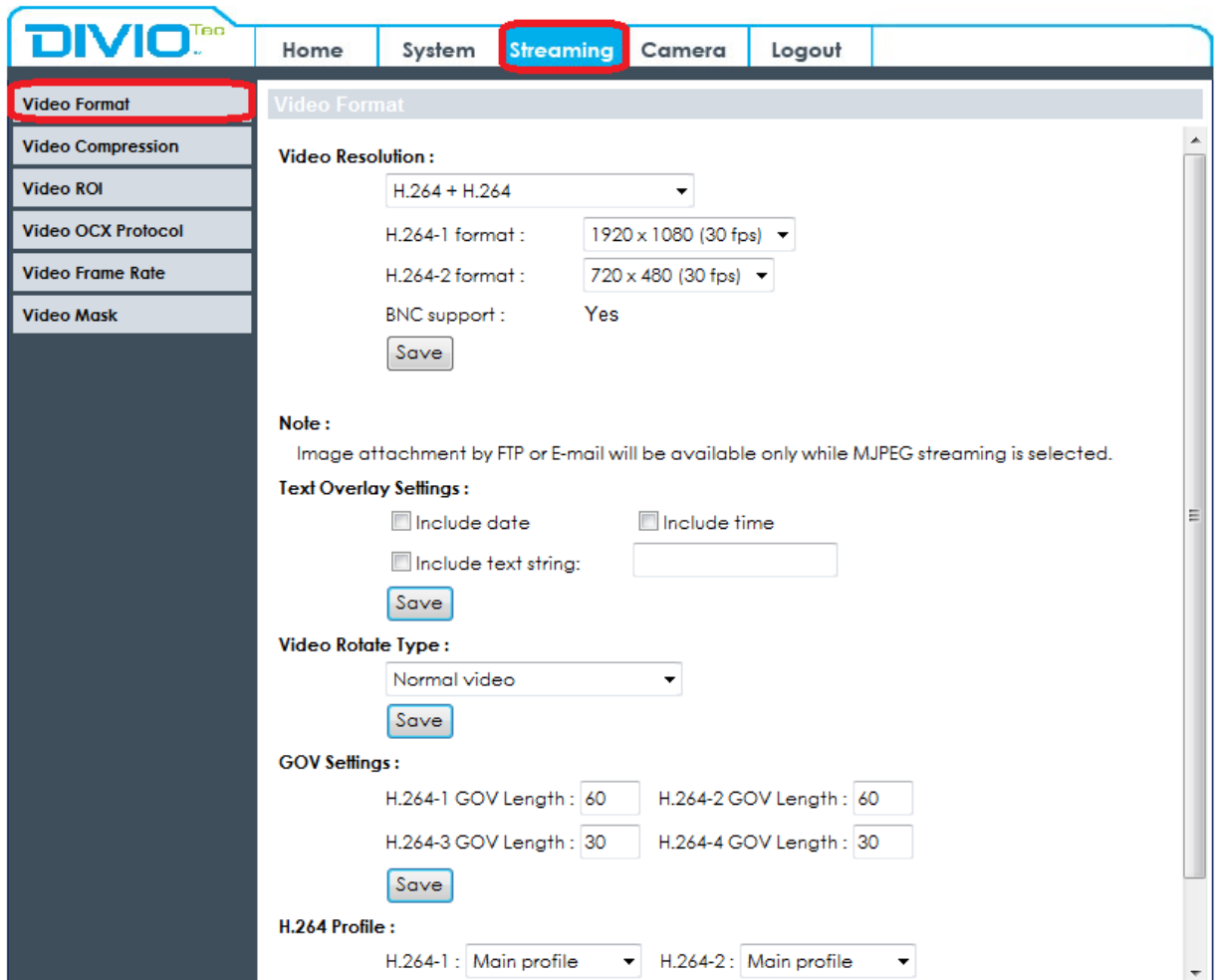


NOTE: Please refer to [Full HD Multiple Streams Ultra-WDR IP Camera Menu Tree](#) for more details about the function items on the Home page.

5. Setup Video Resolution

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

Video Format can be found under this path: **Streaming > Video Format**.



The default values of video resolution are as below.

2M	H.264- 1920 x 1080 (25/30 fps) + H.264- 720 x 480 (25/30 fps)
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For more details about the video resolution combinations, please refer to [Full HD Multiple Streams Ultra-WDR IP Camera Menu Tree](#).

6. 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 IP Camera. This 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 a configuration file to the camera, please first click on <Browse> to select the configuration file, and then click on the <Upload> button for uploading.

Appendix A: Technical Specifications

Camera : NDR255P	
Image Sensor	1/2.8" Progressive CMOS
Effective Pixels	1920(H) x 1080(V)
Minimum Illumination	Color: 0.01 Lux ; B/W: 0.001 Lux
Shutter Speed	1/1 ~ 1/100,000 sec.
Lens	
Lens Type	P-Iris Optical Zoom Auto Focus
Focal Length	3 ~ 9 mm F 1.2
Zoom Ratio	3x Optical Zoom / 16x Digital Zoom
Iris Control	P-Iris / Auto / Manual
Intelligent Back Focus	Auto / Manual
View Angle	108° (Wide) 41° (Tele)
Image Setting	
Backlight Compensation	On / Off
White Balance	Auto (ATW)/ Manual
Noise Reduction	3DNR + 2DNR : Off / 3 Level Sensitivity
Wide Dynamic Range	Multi Shutters WDR (96dB)
Exposure	Auto / Manual
Gain Control	Auto / Manual Max Gain 72 dB
Picture Adjustment	Brightness/ Sharpness/ Contrast/ Saturation/ Hue
Region of Interest (ROI)	4 zones Configurable frame rate and bitrate independent
Privacy Mask	On / Off ; 5 Zones , 5 Colors Selectable
Smart IR Light	On / Off
Day / Night Function	Auto / Day / Night / LED On / LED Off / Light sensor / Smart ICR
Smart Schedule Profile	10 Profiles / 10 Schedule 24 x 7 / Day Night Sensor
Motion Detection	On / Off / By schedule, 10 Zones, Motion Level Display, Detection Level 1-100 Sensitivity level 1-100 Sampling pixel interval 1-10

Tampering Alarm	On / Off / By Schedule
Network Failure Detection	On / Off / By Schedule
Periodical event	On / Off
Digital Image Stabilization	On / Off
Audio	
Compression	G.711 / G.726
Audio Mode	Two-way Audio: Line-in x 1 / Line-out x 1

Video	
Video Compression	H.264: Baseline / Main / High Profile , MJPEG
Multi Steaming	Quad Streams: H.264 + H.264 + H.264 + H.264/MJPEG Configurable frame rate and bitrate Regions of Interest (ROI)
Image Resolution	Full HD 1080P / SXGA / HD 720P / XGA / SVGA / D1 / VGA / CIF / QCIF
Maximum Frame Rate	H.264 / MJPEG Full HD 1080P @60 fps
Network	
Interface	RJ-45, 10/100/1000 Mbps Ethernet (Giga Ethernet)
Protocol	IPv4/v6, TCP/IP, UDP, RTP, RTSP, HTTP, HTTPS, ICMP, FTP, SMTP, DHCP, PPPoE, UPnP, IGMP, SNMP, QoS
Security	HTTPS / IP Filter/ IEEE 802.1x; 20 user account / 2 level: user/administrator
Local storage	Micro SDHC 32GB
Bit Rate	64 - 8192 k bit/s
Support Web Browser	Internet Explorer (6.0+) / Chrome / Firefox / Safari
Event Notification	HTTP / FTP / SMTP
Connectivity	ONVIF Profile S
General	
IR illuminator	Up to 25M(82ft) 850nm wavelength
IR LED	24 PCS
LED Indicator	Power / Link / ACT
Alarm in/out	Yes; 1 Input , 1 Output

TV out	Yes; BNC 1.0 Vp-p / 75 Ω, BNC
Multiple Languages	English / French / German / Italian / Korean / Simplified Chinese / Traditional Chinese / Russian / Spanish / Thai
Operating Temperature	-10°C ~ 50°C (14° ~ 122° F)
Humidity	10% ~ 90%, No Condensation
Dimension	117 x 90 mm 4.6 x 3.6 Inc.
Weight	650 g
Power Source	PoE (IEEE 802.3 af) / DC12V
Power Consumption	12W
Waterproof	IP66
Regulatory	CE / FCC / RoHS

Appendix B: Delete the Existing DC Viewer

For users who have installed the DC Viewer in the PC previously, please remove the existing DC Viewer from the PC before accessing to the IP Camera.

Deleting the DC Viewer

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 DC Viewer.

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: In the web browser, clicks on the <Tools> tab on the menu bar and select <Internet Options>.

Step 2: Click on the <Delete> button under <Browsing History> section. In the appeared window, tick the box beside the <Temporary Internet files>.

Step 3: Click on <Delete> to start deleting the files.

Appendix C: 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 camera.

ActiveX Controls and Plug-ins Settings

Step 1: Repeat **Steps 1 ~ 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)> to close the Security Setting 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 camera.