

## IR-12MIPS08/6MIPS08/3MIPS08/2MIPH08



Version: V1.4

**Doc. No.:** 107082601



## **Safety information**



# CAUTION RISK OF ELECTRIC SHOCK.



CAUTION:

TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



This symbol indicates that dangerous voltage consisting a risk of electric shock is present within this unit. Megapixels



This exclamation point symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

#### WARNING

- To prevent damage that may result in fire or electric shock hazard, do not expose this appliance to rain or moisture.
- To prevent injury, this apparatus must be securely attached to the floor / wall in accordance with the installation instructions.

#### WARNING

- 1. Be sure to use only the standard adapter that is specified in the specification sheet using any other adapter could cause fire, electric shock, or damage to the product.
- 2. Incorrectly connecting the power supply or replacing battery may cause explosion, fire, electric shock, or damage to the product.
- 3. Do not connect multiple cameras to a single adapter. Exceeding the capacity may cause the abnormal heat generation or fire.
- 4. Securely plug the power cord into the power receptacle, insecure connection may cause fire.
- 5. When installing the camera, fasten it securely and firmly. The fall of camera may cause personal injury.
- 6. Do not place conductive objects (e.g. screwdrivers, coins, metal parts, etc.) or containers

- filled with water on top of the camera. Doing so may cause personal injury due to fire, electric shock, or falling objects.
- 7. If any unusual smells or smoke come from the unit, stop using the product. In such case, immediately disconnect the power source and contact the service center. Continued use in such a condition may cause fire or electric shock.
- 8. If this product fails to operate normally, contact the nearest service center and never disassemble or modify this product in any way. (I-View is not liable for problems caused by unauthorized modifications or attempted repair.)
- When cleaning, do not spray water directly onto parts of the product. Doing so may cause fire or electric shock.

#### **CAUTION**

- ➤ Do not drop objects on the product or apply strong shock to it. Keep away from a location subject to excessive vibration or magnetic interference.
- ➤ Do not install in a location subject to high temperature (over 50°C), low temperature (below -10°C), or high humidity. Doing so may cause fire or electric shock.
- ➤ If you want to relocate the already installed product, be sure to turn off the power and then move or reinstall it.
- ➤ Remove the power plug from the outlet when then there is a lightning. Neglecting to do so may cause fire or damage to the product.
- ➤ Keep out of direct sunlight and heat radiation sources. It may cause fire.
- ➤ Install it in a place with good ventilation.
- ➤ Avoid aiming the camera directly towards extremely bright objects such as sun, as this may damage the CCD image sensor.
- ➤ Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
- The Mains plug is used as a disconnect device and shall stay readily operable at any time.
- ➤ Do not expose the camera to radioactivity. Radioactivity exposure may damage the CCD.

#### IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- ➤ Keep these instructions.
- ➤ Heed all warnings.
- > Follow all instructions.
- ➤ Do not use this apparatus near water.
- Clean only with dry cloth.
- ➤ Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
- > Do not install near any heat sources such as radiators, heat registers, or other apparatus (Including amplifiers) that produce heat.
- ➤ Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
- ➤ Only use attachments/accessories specified by the manufacturer.
- ➤ Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
- ➤ Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
- Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.

#### SAFETY INFORMATION

#### FCC STATEMENT

This device complies with part 15 of the FCC Rules. Operation is subject to the following conditions:

- 1. This device may not cause harmful interference, and
- 2. This device must accept any interference received including interference that may cause undesired operation.

#### **CAUTION**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

This marking on the product, accessories or literature indicates that the product and its electronic accessories should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.



#### **About This Guide**

#### Conventions used in this guide

To make sure that you perform certain tasks properly, take note of the following symbols to use throughout this manual.



**WARNING:** Information to prevent injury to yourself when trying to complete a task.



**CAUTION:** Information to prevent damage to the components when trying to complete a task.



**IMPORTANT:** Information that you must follow to complete a task.



**NOTE:** Tips and additional information to aid in completing a task.

#### Trademark

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Microsoft, Windows 95, 98, ME, Windows 2000, XP, Vista, 7 and 8 are registered trademarks of Microsoft Corporation. All other trademarks are the property of their respective holders.

## **Customer Support**

If technical problems arise with the use of our products in which you and your vendor cannot resolve, please try the following: If you have an Internet connection, visit the I-View website http://www.i-view.com.tw (Taiwan) for any software or product updates, or email to support@i-view.com.tw (Taiwan) or Tel: 886-3-510-3001 Fax: 886-3-510-3002 (Taiwan). We are dedicated to providing the highest quality support. E-mailing our tech support will give you the chance to document each of the above items in a very clear and concise manner and will give our support team a chance to document any problems and respond with thoroughly researched answers.

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## **Chapter 1. Introduction**

## 1-1. Highlights of your new Network IP Camera

Congratulates on purchasing this high-resolution 12/5/3/2 Mega pixels network IP Camera! This IP Camera provides 12/5/3/2-Mega pixels high-resolution video quality, with its advanced megapixel lens; you can view remote images in more detail than conventional close-circuit cameras.

Other highlights of this network IP Camera include:

- ➤Onvif compliant.
- >H.265 compression saves bandwidth and storage size.
- ▶Built in 2.8~12/7~22mm Motorized and 5~50mm Vari-focus Lens.
- Smart IR to adjust the IR LED light across the entire area to get well image
- ➤ Quick Zoom® to simple the Zoom and Focus adjustment remotely.
- ➤ Virtual ePTZ for efficiency surveillance.
- ➤On-camera motion detection and privacy mask.
- ➤ Pixel Counter for Image Clarity Measurement.
- ▶Built-in 4/(8 pieces) VCSEL IR Illuminators, effective up to 50/(100) meters...
- Removable IR-cut filter for Day & Night function.
- Smart IR to adjust the IR LED light across the entire area to get well image
- ➤ Mounting Bracket with Cable Management for Protected Installation.
- Free bundle 64-Channel NVR and CMS software.
- Auto storage video on SD card when Network or NVR failed.
- ➤ Wide operation temperature (-40°C~ 60°C) rage.
- ➤ Vandal-proof IK10-rated, IP 66 Weather-proof rated Housing.
- ➤ Video and interval snapshot schedule recording on SD card or FTP server
- ➤ ROI (Region of Interest) encoding is used to enhance the images quality for remote access when the bandwidth is not enough.
- > Ultra Low Compress Rate (ULCR) technology: LESS storage space, SAME video quality.

## 1-2. Product Specification

## IR-12MIPS08 Series

#### System

Platform: High performance DSP; 1024MB Flash; 2048MB DDR III RAM and Linux

Embedded O.S.

#### **Image Device**

1/1.7" 12MP Sony progressive scan CMOS sensor

#### **Video Setting**

Compression: Video: 0.1M ~ 20M bits/sec (CBR/VBR configurable) H.265/H.264

HP/MP/BP, M-JPEG; Audio: G.711 μ-low/a-low Codec

**Resolution: Main Streaming:** 12M (4000x3000), 8M(3840×2160).

**Sub streaming:** 1280x720, 800x600, 704x576, 704x480, 640x480, 352x240,

320x240, 320x176

Frame Rate: 20fps @12MP; 30 fps for all resolution @ H.265/H.264/M-JPEG Mode; Frame

rate can be adjustable by user.

**Streaming:** Multi-Stream H.265/H.264 Base/Main/High Profile and Motion JPEG video

streaming

**Control:** Brightness, Contrast, Saturation, Sharpness, Exposure, Motion detection, Mirror,

Corridor mode, Shutter, Privacy mask, Flicker less, 3D Noise reduction, Defog, IRIS, AES,

AWB, AGC, BLC, WDR, ROI, Audio gain, Alarm in/out. Video recording by scheduling,

Network and NVR failed. Interval Snapshot schedule recording, CPU usage display.

Color: 0.0 5ux 1/F1.2 **B/W:** 0.01 Lux.; OLux (IR LED on).

WDR: 100dB True WDR

#### **Audio Setting**

 $\mu$ -Low/ a-Low G711 audio encoding and decoding;

2-way audio; External Microphone input; Speaker output.

2Vp-p audio input and audio output with  $600\Omega$  impedance.

#### Network

Protocol: HTTP, HTTPS, TCP, IPv4, IPv6, PPPoE, UDP, SMTP V1/V2, FTP, SSH, QoS,

DHCP, DDNS, NTP, DNS, SNMP, RTSP, CGI, Onvif, Bonjour, 802.1x, UPnP, STARTTLS,

Multicast, RTMP.

Interface: 10BASE-T/100 BASE-TX.

**Compatible:** Onvif compliant

## **Security**

Password Protection, User access log; IP address filtering, and Mac number filtering,

Multi-level user access with password protection.

#### I/O Port

Standard: Audio in x1; Audio out x1; DC power in, RJ-45.

**Option:** Alarm out; Sensor in x1; Video out, Reset, SD Card.

#### **Surge Protector**

Power: 2KV @ 1.2/50μS Common mode.

Signal: 6KV@ 102/700µS Differential mode.

#### Lens & IR Illuminators

Vari Focal lens: f= 3.6mm~11mm/ F1.4 Auto IRIS. Angle of View: H: 106 °~ 32 °

**Motorized lens:** f= 3.6mm~11mm/ F1.4 Auto IRIS. **Angle of View:** H: 106 °~ 32 °

**IR Cut:** Built on removable IR-cut filter for day & night function.

**IR Illuminators**: 4 pieces VCSEL IR Illuminators effective up to 30 meters

#### Storage

Micro SD slot for SD/SDHC card storage; Support Prerecording and Post recording; Alarm trigger, Motion trigger, Network failed and NVR stop recording start recording on SD card/FTP Server. Backup/Restore to device configuration file to FTP/SMTP sever

#### Management

**Time management:** Manual Time Setting; Time Server, NTP support, DST offset and Real Time Clock

**Event management:** Events triggered by Motion detection or sensor with configured schedule.

**Event notification:** Event notification via Pop up video, send snapshot via email and trigger alarm output.

**Update:** On line Firmware updates.

#### Browse

I.E. 7.0 above; Safari Browser. Firefox and Chrome V3.0 above with plug in.

#### Housing

Aluminum housing with IP 66 Waterproof & IK10 Vandal resistant and 3-Axis bracket design.

#### Dimension/Weight

Ø 105 mm x 122 mm x 310 mm / 1.1Kg (Including bracket).

#### **Operation**

Power: Maximum 3 W & Max. 9W(IR LED On); PoE IEEE 802.3af Class 3; DV12V

**Temperature:** Temperature -40°C  $\sim$  60°C; Humidity 20%  $\sim$  80% RH.

#### Certificated

CE, FCC, RoHS, IP66, IK10

## **DM-6MIPS04 Series**

#### System

Platform: High performance DSP; 1024MB Flash; 2048MB DDR III RAM and Linux

Embedded O.S.

#### **Image Device**

1/1.8" 6.41MP Sony Starlight progressive scan CMOS sensor

#### **Video Setting**

Compression: Video: 0.1M ~ 12M bits/sec (CBR/VBR/LBR configurable) H.265/H.264

HP/MP/BP, M-JPEG; Audio: G.711  $\mu$ -low/a-low Codec

**Resolution: Streaming 1:** 1920x1080, 1280x1024, 1280x960, 1280x720.

**Streaming 2:** 1280x720, 800x600, 704x576, 704x480, 640x480, 352x240,

320x240, 320x176.

**Streaming 3:** 352x240, 320x240., 320x176

Frame Rate: 30 fps for all resolution @ H.265/H.264/M-JPEG Mode; Frame rate can be

adjustable by user.

**Streaming:** Multi-Stream H.265/H.264 Base/Main/High Profile and Motion JPEG video streaming

Control: Brightness, Contrast, Saturation, Sharpness, Exposure, Motion detection, Mirror,

Corridor mode, Shutter, Privacy mask, Flicker less, 3D Noise reduction, Defog, IRIS, AES,

AWB, AGC, BLC, WDR, ROI, Audio gain, Alarm in/out. Video recording by scheduling,

Network and NVR failed. Interval Snapshot schedule recording, CPU usage display.

Color: 0.0 1ux 1/F1.2; B/W: 0.001 Lux.; 0Lux (IR LED on).

WDR: 120dB True WDR

#### **Audio Setting**

 $\mu$ -Low/ a-Low G711 audio encoding and decoding;

2-way audio; External Microphone input; Speaker output.

2Vp-p audio input and audio output with  $600\Omega$  impedance.

#### Network

**Protocol:** HTTP, HTTPS, TCP, IPv4, IPv6, PPPoE, UDP, SMTP V1/V2, FTP, SSH, QoS, DHCP, DDNS, NTP, DNS, SNMP, RTSP, CGI, Onvif, Bonjour, 802.1x, UPnP, STARTTLS, Multicast. RTMP.

Interface: 10BASE-T/100 BASE-TX.

**Compatible:** Onvif compliant

#### Security

Password Protection, User access log; IP address filtering, and Mac number filtering,

Multi-level user access with password protection.

#### I/O Port

Standard: Audio in x1; Audio out x1; DC power in, RJ-45.

**Option:** Alarm out; Sensor in x1; Video out, Reset, SD Card.

#### **Surge Protector**

Power: 2KV @ 1.2/50µS Common mode.

Signal: 6KV@ 102/700uS Differential mode.

#### **Lens & IR Illuminators**

**Vari -Focal Lens:** f=3.6-11 mm / F1.4-F2.4 (H: 110.3°~45.6°; V: 55.5°~24.1°)

**Motorized Lens:** f=3.6-11 mm / F1.4-F2.4 (H: 110.3°~45.6°; V: 55.5°~24.1°)

**IR Cut:** Built on removable IR-cut filter for day & night function.

IR Illuminators: 4 pieces VCSEL IR Illuminators effective up to 30 meters

#### Storage

Micro SD slot for SD/SDHC card storage; Support Prerecording and Post recording; Alarm trigger, Motion trigger, Network failed and NVR stop recording start recording on SD card/FTP Server. Backup/Restore to device configuration file to FTP/SMTP sever

#### Management

**Time management:** Manual Time Setting; Time Server, NTP support, DST offset and Real Time Clock

**Event management:** Events triggered by Motion detection or sensor with configured schedule.

**Event notification:** Event notification via Pop up video, send snapshot via email and trigger alarm output.

**Update:** On line Firmware updates.

#### Browse

I.E. 7.0 above; Safari Browser. Firefox and Chrome V3.0 above with plug in.

#### Housing

Aluminum housing with IP 66 Waterproof & IK10 Vandal resistant and 3-Axis bracket design.

## **Dimension/Weight**

Ø 105 mm x 122 mm x 310 mm / 1.1Kg (Including bracket).

#### **Operation**

Power: Maximum 3 W & Max. 9W(IR LED On); PoE IEEE 802.3af Class 3; DV12V

**Temperature:** Temperature -40°C  $\sim$  60°C; Humidity 20%  $\sim$  80% RH.

#### Certificated

CE, FCC, RoHS, IP66, IK10

## **IR-3MIPS08 Series**

#### System

Platform: High performance SoC CPU; Linux Embedded O.S.

## **Image Device**

1/2.8" 3 M pixels (2048x 1536 pixels) SONY progressive CMOS sensor. .

#### **Video Setting**

Compression: Video: 0.1M ~ 12M bits/sec (CBR/VBR/LBR configurable) H.265MP/H.264

HP/MP/BP, M-JPEG; **Audio:** G.711  $\mu$  -low/a-low Codec

**Resolution: Main Streaming:** 2048×1536, 1920×1080, 1280×720.

**Sub streaming:** 704x480, 704x576, 640x480, 350×288, 320\*240

**Frame Rate:** 3-Mega: 30 fps; 1080p: 30 fps @ H.265/H.264/M-JPEG Mode; Frame rate can be adjustable by user.

**Streaming:** Multi-Stream H.265MP/H.264 Base/Main/High Profile and Motion JPEG video streaming

Control: Brightness, Contrast, Saturation, Sharpness, Exposure, Motion detection, Mirror,

Corridor mode, Shutter, Privacy mask, Flicker less, 3D Noise reduction, Defog, IRIS, AES,

AWB, AGC, BLC, WDR, ROI, Audio gain, Alarm in/out. Video recording by scheduling,

Network and NVR failed. Interval, Snapshot schedule recording, CPU usage display.

**Color:** 0.01 Lux 1/F1.2 **B/W:** 0 Lux. (IR LED on).

**WDR:** More than 120dB True WDR.

#### **Audio Setting**

 $\mu$ -Low/ a-Low G711 audio encoding and decoding;

2-way audio; External Microphone input; Speaker output.

2Vp-p audio input and audio output with  $600\Omega$  impedance.

#### Network

Protocol: HTTP, HTTPS, TCP/ IP, IPv4, IPv6, PPPoE, UDP, SMTP, FTP, QoS, DHCP, DDNS, NTP, DNS, SNMP V1,SNMP V2, Bonjour, Multicast, RTSP, RTP/RTCP, Bonjour, CSMA/CA, UPnP, IGMP, 802.1X, SSH, STARTLS.

#### Compatible: Onvif compliant

#### Security

Password Protection, User access log; IP address filtering, Mac number filtering, Multi-level user access with password protection.

#### I/O Port

Standard: Audio in x1; Audio out x1; DC power in, RJ-45.

**Option:** Alarm out; Sensor in x1; Video out, SD Card, smart LED, Temper alarm.

#### **Surge Protector**

Power: 2KV @ 1.2/50µS Common mode.

Signal: 6KV@ 102/700µS Differential mode.

#### Lens & IR Illuminators

Lens:  $f=6\sim50 \text{ mm/} \text{ F}1.2\sim\text{F}2.3 \text{ (IR-3MIPS08-F0650 & IR-3MIPS08-F0650-F)};$ 

f=3.3~10.5mm/ F1.2~F2.8 (**IR-3MIPS08-F0311** & **IR-3MIPS08-F0311-F**)

f= 4mm; 6mm, 8mm/ F1.8 (Optional) (IR-3MIPS08-F04/06/08).

#### Motorized Lens:

f=3.3~10.5mm/ F1.2~F2.8 (**IR-3MIPS08-M0311** & **IR-3MIPS08-M0311-F**)

f=9~22mm/F1.2~F2.8 (IR-3MIPS08-M0922 & IR-3MIPS08-M0922-F)

**IR** Cut: Built on removable IR-cut filter for day & night function.

**IR Illuminators**: 4 pieces VCSELIR LED Illuminators.

8 pieces VCSELIR LED Illuminators.(With Smart LED function)

**IR** Cut: Built on removable IR-cut filter for day & night function.

#### Storage

Micro SD slot for SD/SDHC card storage; Support Prerecording and Post recording; Network failed start recording on SD card, SD card failed indicator.

Backup/Restore to device configuration file to FTP/SMTP server.

## Management

**Time management:** Manual Time Setting; Time Server, NTP support, DST offset and Real Time Clock.

**Event management:** Events triggered by Motion detection or sensor with configured

schedule.

**Event notification:** Event notification using Alarm output triggered.

**Update:** On line Firmware update.

#### Browse

I.E. 7.0 above; Safari Browser. Firefox and Chrome V3.0 above with plug in.

#### Housing

Waterproof IP66 housing with anti-cut cable and 3-Axis bracket.

#### Dimension/Weight

Ø 105 mm x 122 mm x 310 mm / 1.1Kg (Including bracket).

#### **Operation**

Power: Maximum 3 W & Max. 9W(IR LED On); PoE IEEE 802.3af Class 3; DV12V

**Temperature:** Temperature -40°C  $\sim$  60°C; Humidity 20%  $\sim$  80% RH.

## **IR-2MIPH08 Series**

#### System

Platform: High performance SoC CPU; Linux Embedded O.S.

#### **Image Device**

1/2.8" 2 M pixels (1920x 1080 pixels) SONY progressive CMOS sensor. .

#### Video Setting

Compression: Video: 0.1M ~ 12M bits/sec (CBR/VBR/LBR configurable) H.265MP/H.264

HP/MP/BP, M-JPEG; **Audio:** G.711  $\mu$  -low/a-low Codec

**Resolution: Main Streaming:** 1920×1080, 1280×720.

**Sub streaming:** 704x480, 704x576, 640x480, 350×288, 320\*240

Frame Rate: 1080p: 30 fps @ H.265/H.264/M-JPEG Mode; Frame rate can be adjustable by

user.

Streaming: Multi-Stream H.265MP/H.264 Base/Main/High Profile and Motion JPEG video

#### streaming

Control: Brightness, Contrast, Saturation, Sharpness, Exposure, Motion detection, Mirror,

Corridor mode, Shutter, Privacy mask, Flicker less, 3D Noise reduction, Defog, IRIS, AES,

AWB, AGC, BLC, WDR, ROI, Audio gain, Alarm in/out. Video recording by scheduling,

Network and NVR failed. Interval, Snapshot schedule recording, CPU usage display.

**Color:** 0.01 Lux 1/F1.2 **B/W:** 0 Lux. (IR LED on).

WDR: More than 120dB True WDR.

#### **Audio Setting**

 $\mu$ -Low/ a-Low G711 audio encoding and decoding;

2-way audio; External Microphone input; Speaker output.

2Vp-p audio input and audio output with  $600\Omega$  impedance.

#### Network

Protocol: HTTP, HTTPS, TCP/ IP, IPv4, IPv6, PPPoE, UDP, SMTP, FTP, QoS, DHCP,

DDNS, NTP, DNS, SNMP V1, SNMP V2, Bonjour, Multicast, RTSP, RTP/RTCP, Bonjour,

CSMA/CA, UPnP, IGMP, 802.1X, SSH, STARTLS.

**Compatible:** Onvif compliant

#### Security

Password Protection, User access log; IP address filtering, Mac number filtering, Multi-level user access with password protection.

#### I/O Port

Standard: Audio in x1; Audio out x1; DC power in, RJ-45.

**Option:** Alarm out; Sensor in x1; Video out, SD Card, smart LED, Temper alarm.

#### **Surge Protector**

**Power:** 2KV @ 1.2/50μS Common mode.

Signal: 6KV@ 102/700µS Differential mode.

#### **Lens & IR Illuminators**

Lens:  $f=6\sim50 \text{ mm/} \text{F}1.2\sim\text{F}2.3$  (IR-2MIPH08-F0650 & IR-2MIPH08-F0650-F);

 $f=3\sim10.5$ mm/ F1.2 $\sim$ F2.8 (IR-2MIPH08-F0311& IR-2MIPH08-F0311-F)

f= 4mm; 6mm, 8mm/ F1.8 (Optional) (IR-3MIPS08-F04/06/08).

#### **Motorized Lens:**

f=3~10.5mm/ F1.2~F2.8 (**IR-2MIPH08-M0311 Ex & IR-2MIPH08-M0311-F**)

f=7~22mm/ F1.2~F2.8 (**IR-2MIPH08-M0722** & **IR-2MIPH08-M0722-F**)

**IR Cut:** Built on removable IR-cut filter for day & night function.

**IR Illuminators**: 4 pieces VCSELIR LED Illuminators.

8 pieces VCSELIR LED Illuminators.(With Smart LED function)

**IR** Cut: Built on removable IR-cut filter for day & night function.

#### **Storage**

Micro SD slot for SD/SDHC card storage; Support Prerecording and Post recording; Network failed start recording on SD card, SD card failed indicator.

Backup/Restore to device configuration file to FTP/SMTP server.

## Management

**Time management:** Manual Time Setting; Time Server, NTP support DST offset and Real Time Clock..

**Event management:** Events triggered by Motion detection or sensor with configured schedule.

**Event notification:** Event notification using Alarm output triggered.

**Update:** On line Firmware update.

#### **Browse**

I.E. 7.0 above; Safari Browser. Firefox and Chrome V3.0 above with plug in.

#### Housing

Waterproof IP66 housing with anti-cut cable and 3-Axis bracket.

#### Dimension/Weight

Ø 105 mm x 122 mm x 310 mm / 1.1Kg (Including bracket).

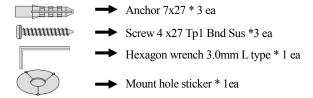
#### **Operation**

Power: Maximum 3 W & Max. 9W(IR LED On); PoE IEEE 802.3af Class 3; DV12V

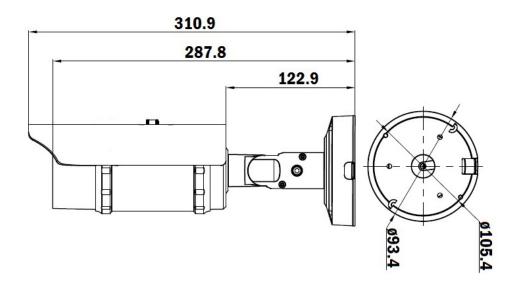
**Temperature:** Temperature -40°C  $\sim$  60°C; Humidity 20%  $\sim$  80% RH.

## 1-3. Packaging Contents

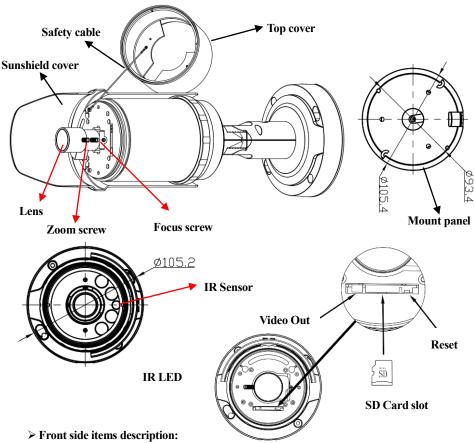
- Please check the contents of your new Network IP Camera when you unpack the package. If any item is missing, please contact your dealer of purchase for help. The package includes the following items: Network IP Camera x 1ea
- Bundle NVR & CMS software CD x 1ea
- User manual x 1ea
- Mount panel x 1 ea
- Accessory package x 1 set



## **♦Product Dimension**



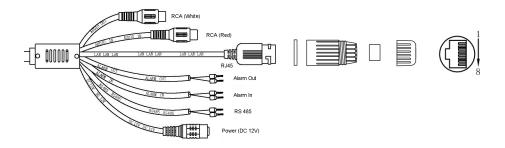
## 1-4. Product Parts Description



- 1. Sunshield cover: It protects the camera from the direct sunlight.
- **2. IR LED:** These infrared LED's are controlled by the illumination sensor.
- 3. Illumination Sensor: Detects incoming light to control the IRLED.
- **4. Video out:** Composite video output for adjust the focus and zoom of Lens. (Option)
- **5. SD card slot:** Micro SD card slot allow plugging up to 64 G or higher SD card. (Option)
- **6. Reset:** Setup the IP camera become to default.
- 7. Mount panel: Mount the camera and wall/ceiling

## Cables: (Item 4 and 5 for Full function model only)

- 1. Audio in: Plug microphone into RCA audio in port (Red color).
- **2.** Audio out: Plug speaker into RCA audio out. (White color).
- **3. RJ-45 Female connector (Waterproof):** Plug to RJ-45 connector (Male) to extent the transmission distance via UTP cable; then connect to POE Hub.
- **4. Alarm in/Out cable: A**larm in for sensor input (Red/Black wire) and Alarm out (Orange/ Purple wire) for relay trigger.
- **5. RS-485 cable:** Connect RS-485 Pan/Tilt motor.
- **6.** Power cable: Connect to DC12V power adapter when use none POE Hub.



## **Chapter 2. Camera Installation**

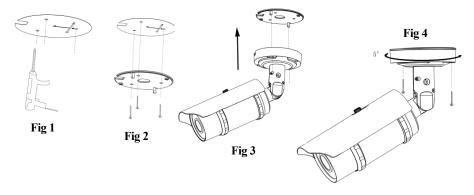
## 2-1. Wall Mount installation

#### **♦ Wall Mount installation**

#### ➤ Fix the camera

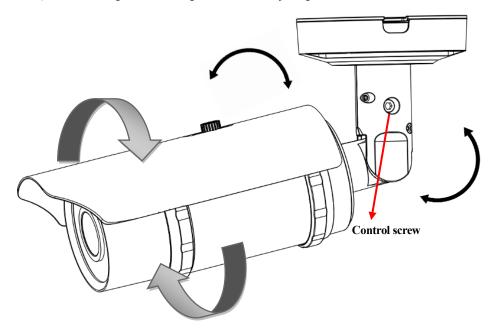
This camera is waterproof and in compliance with the IP66 spec, but the jack connected to the external cable is not. You are recommended to install this product below the edge of eaves to prevent the cable from being externally exposed.

- 1) Paste the mount hole sticker on the position that you want to install. (Fig 1)
- 2) Use the mount hole sticker to make a hole of 30mm in diameter for passing cable, and drill another three holes on the wall to fix bracket mount. (Fig 2)
- 3) Insert the anchors to fix the screws with the Mount panel. (Fig 3)
- 4) Fix camera with Mount panel, then adjust 5 degree of Anti-clock. (Fig 4)

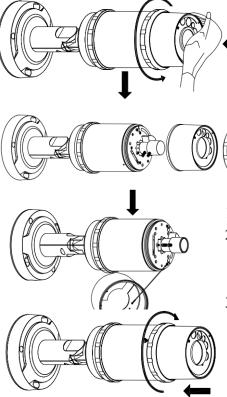


## Adjust camera angle from bracket mount (Please refer the photo as below)

- 1) Use the Hexagon wrench to loosen the bolt and to rotate the bracket to suitable position.
- 2) Adjust horizontal, vertical or rotate camera body angle of the camera.
- 3) Use the Hexagon wrench to tighten a bolt after adjusting the camera.



#### > How to open the top cover and adjust the Lens (No need for Motorized Lens Model)



- 1. Remove the sunshield.
- Push the front cover and move the ring with anti-clockwise direction to move the front cover.

Remove the ring and front cover

- 1. Unlock the Zoom or Focus levers.
- Adjust the lever counterclockwise for (NEAR & TELE) and clockwise for (WIDE & FAR) position.
- 3. Lock the Zoom or Focus levers.
  - 1. Align the front cover and with tri-angle symbol, and then move the ring with clockwise direction to fix to front cover.
  - 2. Replace the sunshield

## Chapter 3. Running IP Camera by Witness Pro NVR software

## 3-1. Network Deployment

## **General Connection (without PoE)**



- Connect RJ45 Ethernet cable to a switch. Use a Category 5 Cross Cable when your network camera is directly connected to PC.
- 2. Connect the power cable from the Network Camera to a power outlet.
- 3. If you have external devices such as sensors and alarms, make the connection from the general I/O terminal block

#### Power over Ethernet (PoE)



The Network Camera is PoE-compliant, allowing transmission of power and data via a single Ethernet cable. Follow the above illustration to connect the Network Camera to a PoE-enabled switch via Ethernet cable.

#### 3-2. Install Witness Pro NVR software

You can use your new Network IP Camera by its web user interface v There is a NVR software CD comes with IP camera which allow you run 32/64 channels IP cameras on a PC. Please follow the steps below to complete the installation of Witness Pro NVR software.

- While into Windows, and insert the I-View DVR software CD into a CD/DVD drive.
- Select the NVR64 or NVR32 software



Fig. 1-3-1.1 Installation Menu

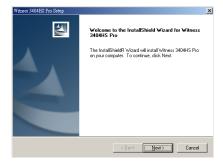
**Step 3.** Select the installation language and press the "**OK**" button to continue.

Fig. 1-3-1.2 Choose a setup language



Step 4. Press the "Next" button to start the installation process..





Step 5. Click the "Browse" button to install into a different directory, otherwise click on the "Next" button to install the software into the proposed director.

Fig. 1-3-1.5 Installation



**Step 6.** Select "No, I will restart my computer later" and press on the "Finish" button to exit.

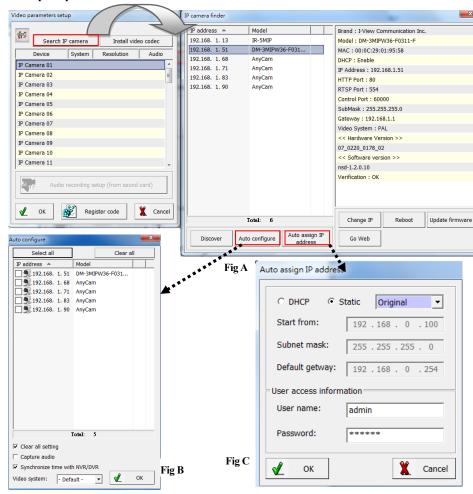


Fig. 1-3-1.9 Restart the computer

## 3-3. Setting IP camera for Witness Pro NVR software

When you first time run the Witness Pro NVR program and there is no IP camera setting on the system, so the NVR will pop up the "ezSetup" program for the IP cameras configuration. This setup window may differ greatly depending on your NVR model.

#### 1. Setup the parameters of IP cameras



Search IP camera: Click this icon will auto search IP cameras of I-View brand. You can refer to the Fig A diagram. Move the Mouse and click to the IP camera which you want to selected and double click that the detail information will show the right site; you can do the change the setting

for this IP camera individually.

➤ Install video codec: Install the video codec of this IP camera when you connect IP camera at first time, if the IP camera cannot show the video on the screen.

The detail setting of Fig A diagram description as below:

- ♦ **Discover:** Click "**Discover**" icon to research the IP address of system.
- ♦ Auto configure section- Click this icon to configure the selected IP cameras to NVR's channel automatically. Please refer the diagram shown as above Fig B.
  - Clear all setting: Check this icon and all previous channels setting will be clean.
  - Capture audio: You can record sound by microphone from audio input port of IP camera.
  - **Synchronization with the NVR time:** Check to synchronize the time of IP camera with NVR when run the NVR program.
  - Video system: Select the video system of IP camera to match your country.

**Auto assign IP address** section- Click this icon to assign the IP address to all IP cameras automatically. You can use the Static or DHCP IP address mode. There are two setting modes for the Static IP address; one is "Original" the other is "User define". Please refer the diagram shown as above **Fig C.** 

**Original-** The IP address which want to change to static IP address will same as the searched IP address.

**User define-** The user can assign the segment of IP address for IP camera. Please make sure the process as below before do this process:

- a. There is no conflict between the define IP address and the other device of the same LAN.
- b. The Username/Password of all IP cameras are the same.

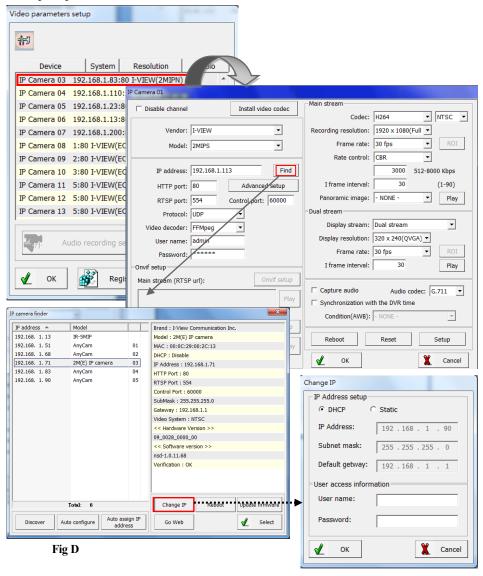


- Change IP: Click "Change IP" icon to setup the DHCP or Static IP address for individual IP cameras. After modification, click "OK" icon to confirm the setting.
- \$\displaysup \text{Update firmware}\$: Click "Update firmware" icon to update the newest IP camera firmware;

  you can check and download the newest firmware version from our website:

  www.i-view.com.tw.
- ♦ Reboot: Click "Reboot" icon to restart this IP camera.
- ♦ Go Web: Click "Go Web" icon to enable the I.E. Browser to check/setup the detail parameters.

#### 2. Setup the parameters of Individual IP camera



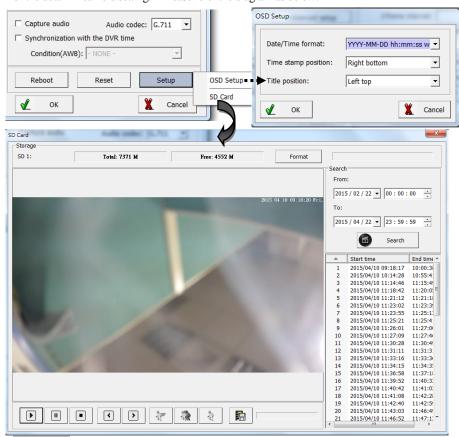
This section will allow you setup the parameters for individual IP camera for I-View's and the other brand.

**Disable channel:** This will disable the selected channel when enable this function.

- > Install video codec: Install the video codec of this IP camera when you connect IP camera at first time, if the IP camera cannot display the video on the screen.
- ➤ Vendor & Model: Select the correct brand and model for the connected IP camera. You also can select "Onvif" if your IP camera support Onvif compliant and not on the list. You can check the used camera support Onvif compliant from: <a href="http://www.onvif.org">http://www.onvif.org</a>. Click "Onvif setup "icon to setup the parameters or entry RTSP command code directly which you want to run on the Hybrid DVR or NVR.
- ➤ Compress: Select the suitable codec for video recording and transmission.
- **Recording resolution:** Select the resolution for video recording and display.
- > Frame rate: Select the frame rate for video recording and display.
- ➤ Rate Control: You can choice video quality or bit rate from this tab. Good video quality or large bit rate request bigger storage capability.
- ➤ IP address: Entry the correct IP address for the connected IP camera. If you do not know the IP camera's IP address, you can click "Find" icon to find out the currently connected IP cameras
- ➤ User name & Password: The user name and password must be matched the setting of IP camera which you want to connect.
- > Find: Click this icon to find out all the currently connected IP cameras on the list. Click the IP camera and find out the information of each IP camera. Please refer the diagram shown as above Fig D. Click the IP address and "Select" icon, the network information of this IP camera will be added for this channel. The Fig D diagram please refers to "1. Setup the parameters of All IP cameras (For I-View's IP camera only)" Section
- ➤ Advance setup: Click this icon will enable the detail parameters setting of IP camera. You need to load the Active X if this NVR is activated this process at first time.
  - The difference IP camera brand has its own "Find" and "Advance setup" setup diagram and setting process. For the detail information, please refer to the IP camera operation menu.
- > HTTP port & RTSP port: The both port number must be matched the setting of IP camera which you want to connect.
- ➤ Display streaming: You can select the "Dual streaming" or "None" mode; If you select the "Dual streaming" mode, the live display video will show lower resolution for split video and higher resolution (same as recording resolution) for pop-up to single video on the screen. This

Dual streaming mode allows display multi video and save a huge CPU loading.

- ➤ Condition (AWB): Choice the parameters to suit for the camera install location.
- **Reboot:** Click this icon will reboot the IP camera.
- > Setup: Click this icon for detail setting of IP camera (refer to I-View's IP camera; maybe there are some difference setting diagram when used difference models); you may not need to I.E. Browser for the detail IP camera setting. Please refer the diagram as below:

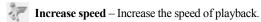


**OSD setup:** Click this icon to configure the Time stamp format, Time stamp position and Camera Title position.

**SD setup:** Click this icon to setup the SD card configures and description as below:

 a. Format: Click this icon will format the SD card. You need to stop the recording video clip from I.E. Browser before you do this process.

- b. [in] :Click this icon to save the video clips from SD card to HDD of your PC.
- c. Search: Click this icon and the search time period from SD card. The video clips information will list on the table list. You can playback the video clips of SD card without download them. The icon function description as below:



**Decrease speed** – Decrease the speed of playback..

Normal speed – Adjust the playback speed to normal.

Play – Play video.

Pause – Pause video.

Stop – Stop video.

Previous frame – Jump to the previous frame of video clip.

Next frame – Jump to the next frame of video clip.

## Chapter 4. Accessing the Network Camera via I.E. Browser

You can use your new Network IP Camera by its web user interface via I.E. web browser.

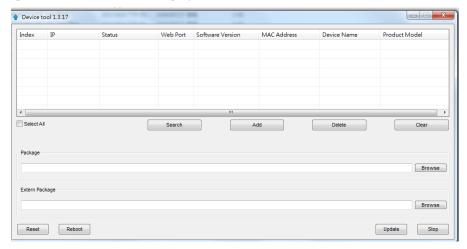
The requirements for viewing IP camera are as below:

- ➤ OS: Microsoft Windows 2000/XP/Vista/7/8.
- ➤ Browser: IE7 or above.
- Cell phone: 3GPP player.
- > Chrome V4.0 or above with plug in.

You must know the IP address of IP Camera before you can connect to it. The IP Camera will use DHCP server on your local network to obtain an IP address automatically by default. So, you can check your DHCP server's IP address lease table to find the IP address of IP Camera or also can use the utility program 'IPSerch.exe' to find the IP address of IP Camera, which is come with the CD-ROM.

Please follow up the processes as below to find out the IP address of IP camera by IPSearch utility.

Step 1. Click "IP Search Tool.exe "program will show the window as below.



- **Step 2.** Press "**Search** "button to search for all IP Cameras on your local network.
- **Step 3.** If you need to change IP address, double click the Mouse on the selected IP Camera and then change the IP address and Gateway IP, then click the "**OK**" button to save the setting.
- Step 4. If you no longer need to use this utility, click "Exit" button to close it.



.The default User name / Password is " admin / 123456 " and IP address is 192.168.0.123.



Make sure all IP Cameras are powered on and connect to local network first.



If you have several network connections, please disable connections that are not connected to IP camera, otherwise the IP Search Tool.exe program may fail to search IP camera.

## 4-1. Install ActiveX Plug-in on I.E. Browser

You can connect to the IP camera by Internet Explorer or other web browsers for remote viewing by entering IP address in address bar. When you connect to IP Camera, the use login screen will appear when you get connected. Please entry the user name / password to login.



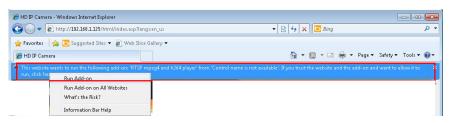
The default User name / Password is "admin / 123456" and IP address is 192.168.0.123



If you connect to IP Camera first time, you'll see the following message; this message prompts you that you need to install ActiveX plug-in before you can see the video from IP Camera.

#### **♦ IE 8 and earlier version:**

Right click the indication bar and click: "Install This Add-on for All Users on This Computer..." to install ActiveX plug-in.

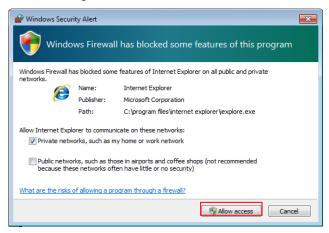


#### ♦ IE 9 version:

Click 'Install' button located at the bottom of I.E. to install ActiveX plug-in. If you're prompted that the Windows Firewall has blocked some features of this program'

Click "Allow access" button to enable the IP Camera function properly.

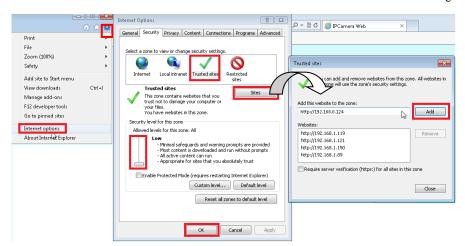
When you're installing Internet Explorer plug-in, you may also be prompted the diagram. Please click "Yes" to allow changes.



#### ♦ IE 10 version:

Click 'Install' button located at the bottom of I.E. to install ActiveX plug-in. You need to do the process as below:

Click "Internet options" section, then choice "Security" tab >> "Trusted sites" and change the bar to "Low". Click "Sites" to add the trusted site for this IP camera. Please refer to the diagram.



### 4-2. Using RTSP Players

To view the video streaming media using RTSP players, you can use one of the following players that support RTSP streaming such as Quick Time Player, Real Player, VLC media player

- 1. Launch the RTSP player.
- 2. Choose File > Open URL. A URL dialog box will pop up.
- 3. The address format is rtsp://<ip address>:<rtsp port>/<RTSP streaming access name for stream1 or stream2 or streaming 3>. For example:



The RTSP command code as below: Main streaming: RTSP://IP Address:554/media/live/1/1

Sub streaming: RTSP://IP Address:554/media/live/1/2; Third streaming: rtsp://IP

Address:Port/media/live/1/3

4. The live video will be displayed in your player.

### 4-3. The Function Description of Live Window

After ActiveX plug-in is installed, you should be able to see the live video from IP camera as below.

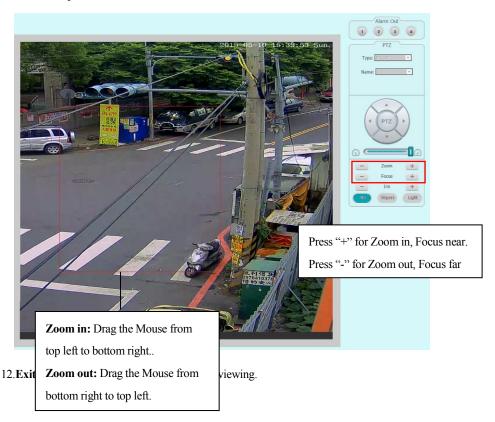
1 2 3 4 5 6 7 8 9 10 11

| View | American | Power Hook: | Marin | Power Hook: | Marin | Power | Power

This section introduces the function buttons of live window. You can test the IP camera function from your Brower. The button functions are as below:

- 1. Listen: Click this icon to listen the audio from IP camera when Microphone had installed.
- 2. **Information:** it will show the information of IP camera such as resolution, bit rate and frame rate.
- 3. Talk: Click this icon to talk to IP camera when Speaker with audio Amplifier had installed.
- 4. **Photo:** Click this icon to take a photo from IP camera. The default path is C:\WebData\snapshot.
- 5. **Rec.:** Click this icon to start recording the video clips from IP camera; click again will stop recording. The default path is C:\WebData\record.
- 6. Screen: Display video of IP camera on the screen.
- 7. **Screen:** Choice the video streaming on the screen.
- 8. View: Click this icon to display the video of IP camera.
- 9. Play Mode: Click this icon to choice the display speed or video quality will be priority first.
- 10.**Setup:** Click this icon to setup the parameters of IP camera.
- 11. Pan/Tilt/Zoom button: Move the Pan/Tilt/Zoom position of IP Speed dome camera, this function just effect for the IP PTZ camera and Motorized Lens only and the detail description of IP PTZ camera that you can refer to the Operation of FDMO-2MIP-20X/30X IR PTZ camera. As for the Motorized Lens, the description functions as below.

## **Function description:**



## 4-4. The Network setup Function Description

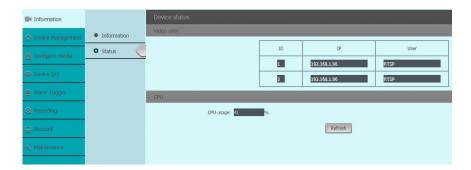
Click "Setup" icon to start setup the parameters of IP camera. You can configure basic IP camera settings like data transfer protocol and data storage folder...etc.

#### > Information:

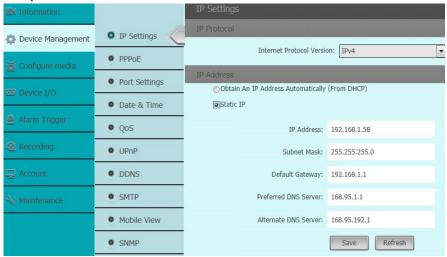
**Information:** Click this button to check the current Mac number, Firmware version, model, and also allow you entry the camera name on the "Device name:" tab. Click **Save** to change the setting.



Status: Click this button to check the current login user name and CPU usage of PC.



➤ Device Management: Click this button to setup the parameters of IP camera and the detail description as below:



• IP Setting: Click this button to modify the current Internet protocol with IPv4 or IPv6, IP address, enable/disable DHCP and DNS IP address.

**Get IP address automatically:** Select this option to obtain an available dynamic IP address assigned by the DHCP server each time the camera is connected to the LAN.

**Use fixed IP address:** Select this option to manually assign a static IP address to the Network Camera.

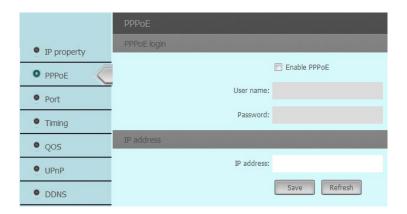
- You can make use of Search IP tools on the software CD to easily set up the Network Camera on LAN. Please refer to Quick user guide for details.
- Enter the Static IP, Subnet mask, Default router, and Primary DNS provided by your ISP Subnet
  mask: This is used to determine if the destination is in the same subnet The default value is
  "255.255.255.0".
- Configure the NIC settings, including the IPv4 (IPv6) Address, IPv4(IPv6) Subnet Mask and IPv4(IPv6) Default Gateway.
- 4. Click **Save** to change the setting.

**Preferred DNS:** The primary domain name server that translates hostnames into IP addresses **Alternate DNS:** Secondary domain name server that backups the Primary DNS



- 1. If the DHCP server is available, you can check to automatically obtain an IP address and other network settings from that server.
- 2. The valid value range of Maximum Transmission Unit (MTU) is 500 ~ 9676.
- 3. The Multicast sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address.
- 4. <u>Before utilizing this function</u>, you have to enable the Multicast function of your router and configure the gateway of the network.
- 5. If the DNS server settings are required for some applications (e.g., sending email), you should properly configure the Preferred DNS Server and Alternate DNS server.
- 6. The router must support the route advertisement function if you select Route Advertisement as the IPv6 mode.
- PPPoE: If you have no router but only a modem, you can use Point-to-Point Protocol over Ethernet (PPPoE) function. Click this button to enable the PPPoE function, Select this option to configure your Network Camera to make it accessible from anywhere as long as there is an Internet connection

Note that to utilize this feature, it requires an account provided by your ISP.

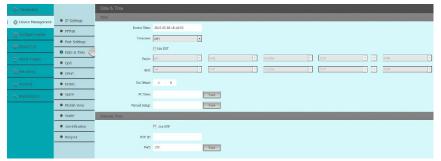


Follow the steps below to acquire your Network Camera's public IP address.

- 1. Set up the Network Camera on the LAN.
- 2. Go to Home > Configuration > Application > Server Settings to add a new email or FTP server.
- 3. Go to Configuration > Application > Media Settings. Select System log so that you will receive the system log in TXT file format which contains the Network Camera's public IP address in your email or on the FTP server.
- 4. Select PPPoE and enter the user name and password provided by your ISP.
- 5. Click **Save** to enable the setting and then the Network Camera will reboot.
- 6. Disconnect the power to the Network Camera; remove it from the LAN environment.
- ◆ Port Settings: If there is a router and you want to access the speed dome through Wide Area Network (WAN), you need to forward the 3 ports for the IP Camera. Click this button to modify the HTTP (Default is 80), RTSP (Default is 554) or Control Port number (Default is 60000), Http streaming port (Default is 8080) and SSH (Default is 72) and click Save to change the setting.



❖ Date & Time: Click this button to setup the time of IP camera. The detail process description as below:



**Time Zone setup:** Configuring Time Synchronization Manually. When the IP Camera is taken to another time zone, you can use the Time Zone function to adjust the time. The time will be adjusted according to the original time and the time difference between the two time zones.

From the Time Zone drop-down menu to select the Time Zone in which the speed dome locates.

**Use DST:** If there is the habit of adjusting clocks forward in your country in certain time period of a year, you can turn this function on. The time will be adjusted automatically when the Daylight Saving Time (DST; Summer time) comes. Configuring DST process as below steps:

- (1) Check to enable the DST function
- (2) Set the date of the DST period then click to save the settings.

Manual setup: Configuring Time Synchronization Manually.

- (1) Check the Manual Time checkbox.
- (2) Click to set the system time from the pop-up calendar and then click to save the settings.

You can also click the **Save** icon with computer time checkbox to synchronize the time of the IP Camera with the time of your computer.

**PC Time**: Select this item and IP camera will synchronize the Date/ Time with your computer's (or NVR) time as its time. Click the **Save** icon for save the setting.

NTP Server: You can follow the instructions in this section to configure the time which can be displayed on the video. There is Time Zone, Time Synchronization, Daylight Saving Time (DST) functions for setting the time. Time Synchronization consists of auto mode by Network Time Protocol (NTP) server and manual mode. Configuring Time Synchronization by NTP Server

- (1) Check the checkbox to enable the Use NTP function.
- (2) Entry IP address of NTP server and port of NTP server, 123 by default.

If the IP Camera is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the IP Camera is set in a customized network, NTP software can be used to establish a NTP server for time synchronization.

❖ QoS: Click this button to adjust the QoS (Quality of Service) volume and it can help solve the network delay and network congestion by configuring the priority of data sending the audio and video and control command. The valid DSCP value ranges from 0 to 63. The DSCP value is bigger, the priority is higher. Click Save to change the setting.



Make sure that you enable the QoS function of your network device (such as a router) and it will ask for a reboot for the settings to take effect.



The following are the main benefits of a QoS-aware network.

- ✓ The ability to prioritize traffic and guarantee a certain level of performance to the data flow.
- ✓ The ability to control the amount of bandwidth each application may use, and thus provide high reliability and stability on the network

#### **Requirements for QoS**

To utilize QoS in a network environment, the following requirements must be met:

- All network switches and routers in the network must include support for QoS.
- The network video devices used in the network must be OoS-enabled.
- ♦ **UPnP:** Click this button to enable the UPnP (Universal Plug and Play) function.

UPnPTM is a networking architecture that provides compatibility among networking equipment, software and other hardware devices. The UPnP protocol allows devices to connect seamlessly and to simplify the implementation of networks in the house and corporate environments. With the function enabled, you don't need to configure the port mapping for each port, and the camera is connected to the Wide Area Network via the router.

- 1. Check "Enable UPnPTM icon from settings interface.
- 2. Click **Edit** icon to select the Protocol and then entry the Internal/External Port.

- 3. Click **Add** icon to increase this port. Repeat the 1-3 to add another port.
- 4. Click **Save** icon to save the setting.

You can edit the Friendly Name of the IP Camera. This name can be detected by corresponding device, such as a router.



Enable UPnP presentation: Select this option to enable UPnP presentation for your Network Camera so that whenever a Network Camera is presented to the LAN, shortcuts of connected Network Cameras will be listed in My Network Places You can click the shortcut to link to the web browser Currently, UPnP is supported by Windows XP or later.

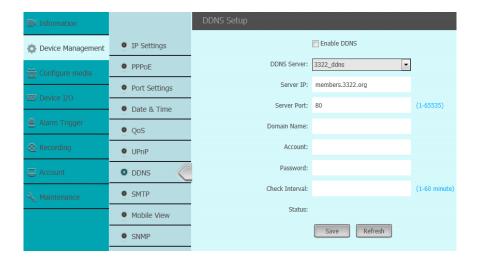
Note: That to utilize this feature, please make sure the UPnP component is installed on your computer.

**Enable UPnP port forwarding:** To access the Network Camera from the Internet, select this option to allow the Network Camera to open ports on the router automatically so that video streams can be sent out from a LAN. To utilize of this feature, make sure that your router supports UPnP and it is activated

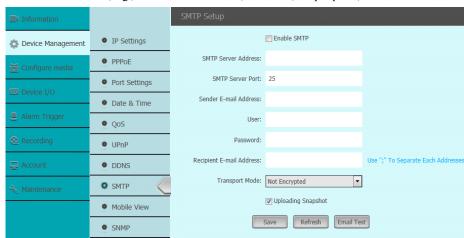
♦ DDNS: Click this button to setup the DDNS function, there are three default DDNS server for the user choice. If your IP Camera is set to use PPPoE as its default network connection, you can use the Dynamic DNS (DDNS) for network access.

Before you start, please registration on the DDNS server is required before configuring the DDNS settings of the IP Camera. Please do the process to setup the DDNS.

- (1) Enter the DDNS Settings interface:
- (2) In the Domain text field, enter the domain name obtained from the DDNS website.
- (3) Enter the Port, User Name, Password registered on the DDNS website and the check interval period (0 = none recheck) of DDNS server. Click "Save" icon to save the settings.



♦ SMTP: The system can be configured to send an Email notification to all designated receivers if an alarm event is detected, e.g., motion detection event, video loss, tamper-proof, etc.



Before you start, please configure the DNS Server settings before using the Email function.

- 1. Enter the Email settings interface:
- 2. Configure the following settings:

**Sender:** The name of the email sender.

**Sender's Address:** The email address of the sender.

**SMTP Server address:** The SMTP Server IP address or host name (e.g.,smtp.263xmail.com). **SMTP Port:** The SMTP port. The default TCP/IP port for SMTP is 25.

**Transport Mode:** Enable SSL function; please check the SSL if it is required by the SMTP server. **Receiver email address:** Entry the receiver email address and then, click to **Save** icon to save the settings. You can check the "Upload snapshot" icon to attached a photo with the email.

❖ Mobile Phone Viewer: Click this button to enable IP camera for the mobile or Table PC remote viewing, this function can suit for the Android, iPhone Mobile phone and i-Pad Table PC. Entry the UID number or scan QR code into your mobile App, then you can remote viewing /Recording the IP camera video and also can control the PTZ IP camera.



SNMP Setting: Click this button to enable SNMP (Simple Network Management Protocol) setting. This section explains how to use the SNMP on the network camera. The Simple Network Management Protocol is an application layer protocol that facilitates the exchange of management information between network devices It helps network administrators to remotely manage network devices and find, solve network problems with ease.

The SNMP consists of the following three key components:

- Manager: Network-management station (NMS), a server which executes applications that monitor and control managed devices.
- 2. Agent: A network-management software module on amanaged device which transfers the status

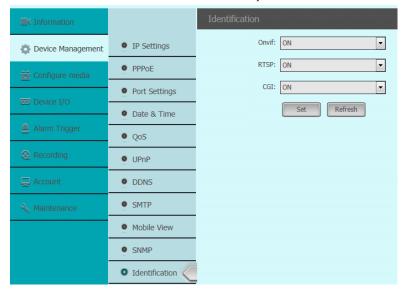
- of managed devices to the NMS.
- Managed device: A network node on a managed network. For example: routers, switches, bridges, hubs, computer hosts, printers, IP telephones, network cameras, web server, and database.

Before configuring SNMP settings on this page, please enable your NMS first.

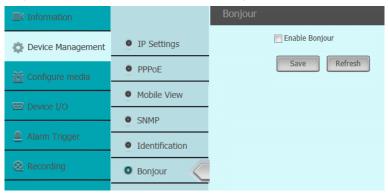
This section allows you to setup the SNMP V1 & V2. Select this option and enter the names of Read/Write community and Read Only community according to your NMS settings You also can setup the trap for the SNMP.



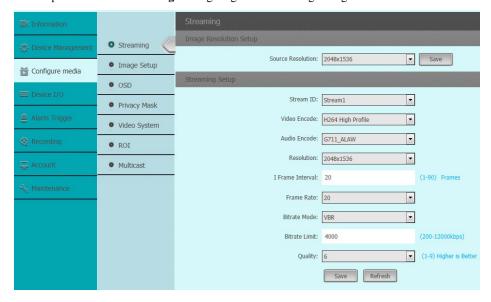
❖ Identification: Click this button to enable/disable the protocol of ONVIF/RTSP/CGI.



♦ Bonjour: Click this button to enable/disable the Bonjour function.



➤ Media Configuration: Click this button to setup the media parameters of IP camera and the detail description as below: Streaming: Configuring Video streaming settings as below:



- Source Resolution: Select video main streaming resolution from the drop menu.
- Streaming ID: Streaming 1 means is the "Main Streaming" that for the recording purpose.

  The streaming 2 means is the "Sub streaming" that is for the remote viewing from Internet when bandwidth is not enough or split video display to reduce the system loading.
- Video Encode: The Video Encoding standard can be set to H.264 or MJPEG You can set the profile level to High Profile. Main Profile or Basic Profile for H.264 encode.
- Audio Encode: There are G7.11 u Law /a Low compression. G.711ulaw selectable.
- Resolution: Choice the video streaming resolution for display and recording.
- I-Frame interval: It is the least compressible but doesn't require other video frames to decode.
   Less number of I-Frame intervals will get less size of video streaming, but the video quality will be worse when image change rate is high.
- Frame rate: The frame rate is to describe the frequency at which the video stream is updated and it is measured by frames per second (fps). A higher frame rate is advantageous when there is movement in the video stream, as it maintains image quality throughout.
- VBR (Variable Bit Rate): VBR files vary the amount of output data per time segment. It allows a

higher bitrates (and therefore more storage space) to be allocated to the more complex segments of media files while less space is allocated to less complex segments.

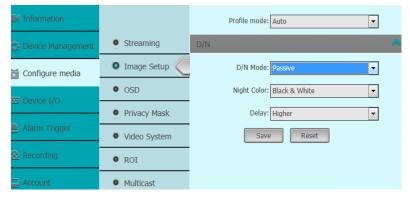
- CBR (Constant Bit Rate): The rate at which a codec's output data is constant. CBR would not be
  the optimal choice for storage as it would not allocate enough data for complex sections (resulting
  in degraded quality) while wasting data on simple sections.
- Bit Rate mode: Set the max. Bitrate to 200~12000 Kbps. The higher value corresponds to the higher video quality, but the higher bandwidth (file size) is required.
- Quality: hen bitrate type is selected as Variable, 9 levels of video quality are selectable. The
  higher will get better video quality, but the higher file size.
- Save: Click Save icon to save the setting parameters.
- Tmage setup: Click this button to setup the image parameters. Setup set the image quality of the IP Camera, including brightness, contrast, saturation, sharpness, etc. The detail deception as below:

#### **♦** Profile mode:

**Auto:** The video will auto switch to "**Day Mode**" or "**Night Mode**" base on the "**D/N Mode**" setting.

**Day profile:** Enable this mode, the video will show the "**Day profile**" setting always.

Night profile: Enable this mode, the video will show the "Nigh profile" setting always.



#### ◆ D/N mode:

**Passive:** Select this to enable the Network Camera to automatically switch to B/W image and removes the IR Cut filter by judging the level of ambient light with IR sensor.

**Active:** Select this to enable the Network Camera to automatically switch to B/W image and removes the IR Cut filter by judging the level of ambient light with image sensor.

**Day mode:** In day mode, the Network Camera switches on the IR cut filter at all times to block infrared light from reaching the sensor so that the colors will not be distorted

**Night mode:** In night mode, the Network Camera switches off the IR cut filter at all times.

**Schedule mode:** The Network Camera switches between day mode and night mode based on a specified schedule. Enter the start and end time for day mode. Note that the time format is [hh:mm] and is expressed in 24-hour clock time.



❖ Basic setup: Adjust the video parameters such as Brightness, Saturation, Sharpness and mirror function. If you turn the Mirror function on, the image will be flipped. It is like the image in the mirror. The flip direction can be set to off, horizontal and vertical mirror position.

**Noise reduction:** The noise reduction function processes the noise between two frames besides processing the noise in one frame. The noise will be much less and the video will be clearer Choice the volume of noise reduction level high will show less noise but the image become fuzzy.

**Mirror:** To adjust the image position without changing the camera location.

### **♦** Advance d setup

**Exposure:** Provides auto and fixed mode, the max value of shutter needs to be adjusted manually. Allow be used in underexposure condition. It lengthens the shutter time to ensure full exposure.

Gain: Provides auto and fixed mode, the value of gain needs to be adjusted manually.

White balance: There are some scene modes to difference environments, such as Auto, Cloudy, Sunny, Tungsten and Fluorescent mode.

**WDR:** Allow to enable /disable WDR function.

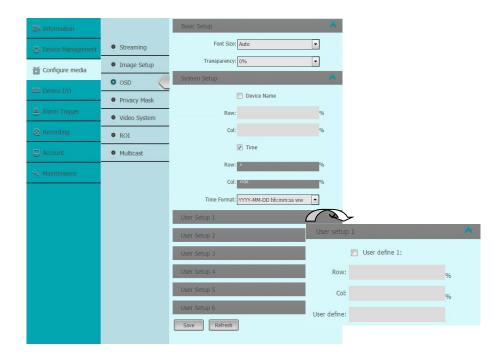
**Flickless:** Set the Video Standard to 50Hz(PAL) or 60Hz(NTSC) according to the video system in your country, Wrong frequency will show the scrolling lines on the video.

IRIS: Provides auto and fixed mode, the value of iris speed needs to be adjusted manually.

**Sensitivity:** Choice "**Higher**" mode turn into the B/W at high Illumination. Click **Save** icon to save the setting.

- ➤ OSD: Allow to paste text (Device name) and time stamp on the video.
  - **♦ Basic setup:** You can choice the font size and transparency for the text (Device name) and time stamp which you want to show on the video of IP camera.
  - ❖ System setup: Allow enable/disable the "Device name" and "Time stamp" to paste on video; and you also can setup the display position. The left/top is original position of X/Y axis.

    Allow user to define the time format and paste text position. The "Device name" default is disable and you need to check this icon to show the camera name on the Image.



Privacy Mask: Privacy mask enables you to cover certain areas on the live video to prevent certain spots in the surveillance area from being live viewed and recorded. Enable Privacy mask function, click and drop the left button of Mouse for setup up the mask.

Allow setup several mask areas, but the total areas cannot exceed 5% of image.



❖ **Video system:** Choice the video system for the TV out (Composite signal).

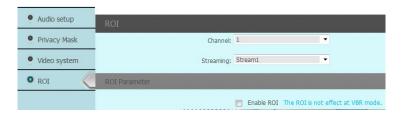
The maximum frame rate will be 30 fps when choice the NTSC mode and 25fps at the PAL mode.



♦ ROI: ROI (Region of Interest) encoding is used to enhance the quality of images which are specified in advance. These ROI areas image will first priority to send out for internet transmission when bandwidth is not enough.



The ROI mode is not effect when enable the VBR mode.

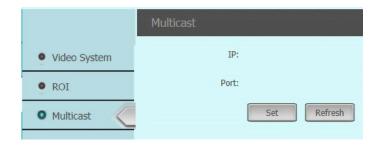


Multicast: Multicast settings for streams: Click the items to display the detailed configuration information. Select the Always multicast option to enable multicast for streams.

The unicast video transmission delivers a stream through point-to-point transmission; multicast, on the other hand, sends a stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address Therefore, enabling multicast can effectively save Internet bandwidth. The ports can be changed to values between 1025 and 65535. The multicast RTP port must be an even number and the multicast RTCP port number is the multicast RTP port number plus one, and thus is always odd.



If the multicast RTP video ports are incorrectly assigned, the following warning message will be displayed.



- Device I/O: Click this button to setup the audio in, RS-485 and Alarm I/O.
  - ❖ Audio setup: Click this button to setup the audio recording, it supports the gain from 1-100, the value is bigger and audio volume is higher. There are 2 audio codec (G7.11 u-Low and a-Low modes).

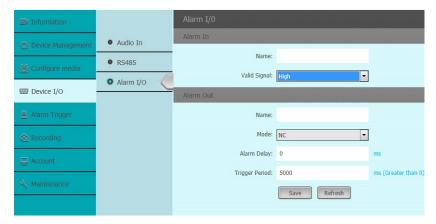


♦ PTZ: Setup the PTZ parameters such as Baud rate, protocol and ID address. (Option).



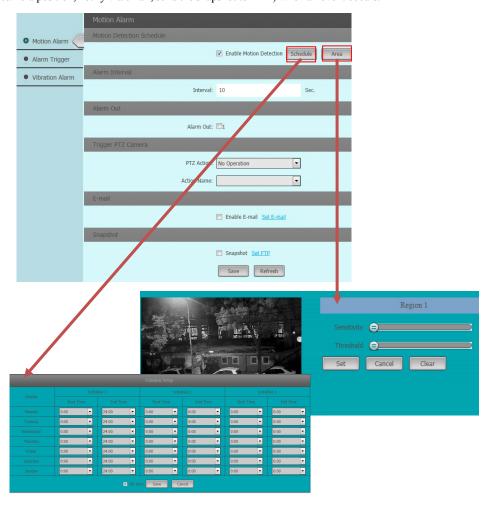
## **♦** Alarm I/O:

Alarm input: Setup the name of alarm input and define the level (High / Low) of trigger single. Alarm output: Setup the name of alarm output; define the mode (NC or NO) and trigger period. (0 ms: Continue trigger)

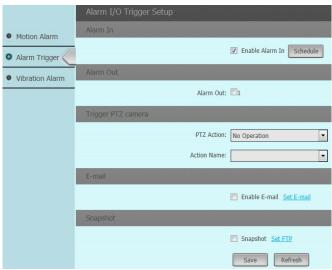


- ➤ Alarm Trigger: You can setup the image motion trigger and sensor alarm trigger from this section.

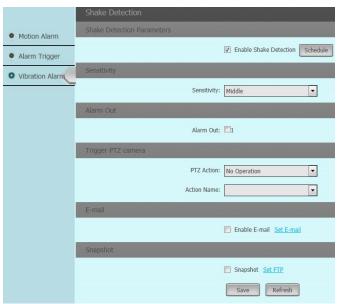
  The detail process show as below:
  - ❖ Motion alarm: Enable Motion detection function and you can setup the trigger schedule and detection area. You can select the region area number then adjust the "Sensitivity" and "Threshold" level for individual region, and click and drag the left button of Mouse to setup the detection area. You can specify the notify method (Such as Trigger alarm output, move PTZ camera position, notify via email, send the snapshot to FTP) when an event occurs.



♦ Alarm trigger: The alarm trigger almost same as Motion alarm, please refer the description of Motion alarm section.
Alarm trigger: The alarm trigger almost same as Motion alarm, please refer the description of Motion alarm section.



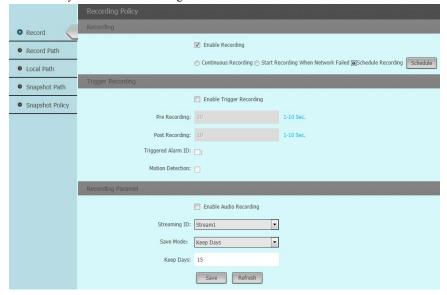
Vibration Alarm: The vibration Alarm almost same as Motion alarm, please refer the description of Motion alarm section.



Recording: Click this button to setup the type of triggered recording, storage media and schedule recording. You can setup the Pre recording & Post recording period with the video and picture format



♦ Recording: Enable the" Schedule" recording and you can select "Continue recording ". "Start recording when network failed" and "Schedule recording "mode. As for the "Start recording when network failed" that will save the video clips on the SD card, please add the SD card when you enable this recording mode.



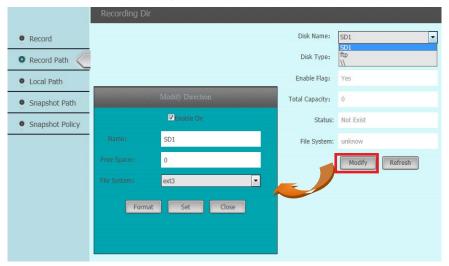
- "Triggered recording": Setup Pre/Post recording period and maximum period is 10 seconds.
- "Recording parameters":

Streaming ID: Select the video streaming which we want to recording. Save mode: There are two modes "Over write when full "and "Keep days".

- ✓ **Pre-recording:** The time you set to start recording before the scheduled time or the event. For example, if an alarm triggers recording at 10:00, and the pre-record time is set as 5 seconds, the IP Camera starts to record at 9:59:55.
- ✓ **Post-record:** The time you set to stop recording after the scheduled time or the event. For

- example, if an alarm triggered recording ends at 11:00, and the post-record time is set as 5 seconds, the IP Camera records until 11:00:05.
- ✓ **Overwrite:** If you enable his function and the HDD is full, the new record files overwrite the oldest record files automatically.
- ✓ **Keep days:** If you enable his function and the HDD is full, the new record files will be stop save into the HDD when the storage days over your setup volume of Keep days.
- Make sure the size of storage media allow to save video clips which setup volume of "Keep days" mode.
- ♦ Record path: Select the recording media via FTP server or SD card.

To configure record settings, please make sure that you have the network storage device within the network or the SD card inserted in your IP camera.



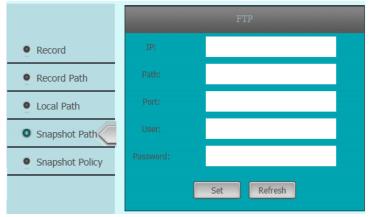
- "FTP server": Setup the recording path via FTP server mode. The detail information of FTP server, maybe need to ask the MSI people.
- "SD Card": Setup the recording path on SD Card.
- You need to format the SD card from the IP camera before you used.

• Local path: Setup the saving path of video clips and snapshot on the PC which connect this IP camera.

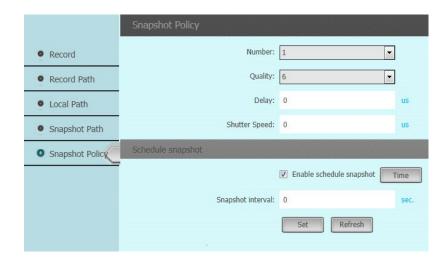


♦ Snapshot path: Select the snapshot media via FTP server or SD card.

To configure record settings, please make sure that you have the network storage device within the network or the SD card inserted in your IP camera.



Snapshot Policy: This application special for some application which need to regulator to snapshot photo at a interval period. This main application such as the time-lapse photography for building construction or plant growth observation. To configure record settings, please make sure that you have the network storage device within the network or the SD card inserted in your IP camera.



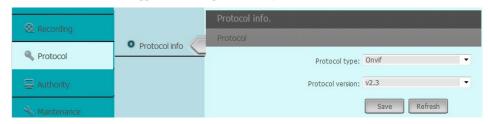
- **Account:** Setup and add the new authorized users from this section.
  - ❖ Group: Define the privilege of Group user, there are three levels Group: Administer, Operator and Media user.



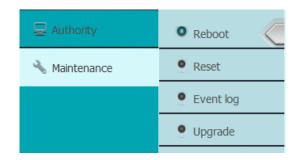
❖ User: Click this button to create a new user or delete/ modify available user. There are three user accounts, Media user, Operator and Administer.



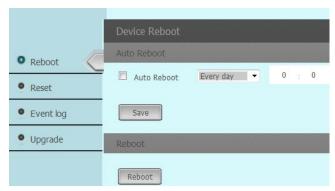
**Protocol:** The IP camera support the Onvif protocol and you will find out the version.



➤ Maintenance: Click this button to update the firmware, restore the default setting and check the view log ...etc. Please refer the detail process as below:



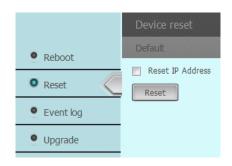
- **Reboot:** There are 2 choices to reboot the IP Camera; one is menu, the other by schedule setting.
  - Click the "**Reboot**" icon and the IP camera will reboot, this process will take 1-2 minutes.
  - Enable the "Auto reboot" icon, you can setup the reboot schedule to reboot the IP camera at a specific time. The schedule can be every day or one day per week. As this process that will keep on the IP camera at the optimum status.



Reset: You can choice reset the IP address or all parameters become to the default setting.

Click the "Reset IP address" icon just let the IP address only become to default only, the reset parameters will keep the used setting.

Click the "Reset" icon the IP camera setting become to default.





Clicking Reset icon will restores all the parameters to default settings including the IP address and user information. Please use this button with caution.

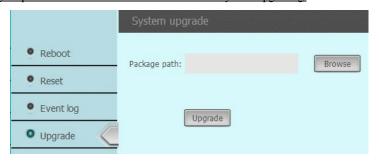
❖ Even Log: Click this icon to search the even log, you can entry the specific period and event then click "Search" icon. The even log detail information will display on the window.



❖ System upgrade: Click this button to upgrade IP camera's firmware. Click 'Browse' button to select a firmware image file on your computer first, then click 'Update' button. The IP camera will auto reboot after update the Firmware. You can choice reset the parameters become to the default setting or not when you update the Firmware.



The upgrading process will take 1 to 3 minutes. Please don't disconnect power of the IP Camera during the process. The IP Camera reboots automatically after upgrading.



# **Chapter 5. Troubleshooting**

Before you send this IP Camera back to your dealer when you found this IP Camera is not working properly, please checks the table as below to save your time.

Problem description	Possible solution(s)
Can't connect to IP Camera	♦ Check the IP address and port number is correct or not
	♦ Make sure the entry User name/Password is correct.
	♦ Make sure the port number is opened from the NVR and Router.
	♦ Make sure the network cable is correctly connected to your local
	area network. (The green LED will be flash).
	♦ Make sure the IP camera and NVR at the same LAN segment.
	♦ Make sure the Switch Hub is workable.
	♦ Check the LAN cable and Ethernet port of NVR are workable.
	♦ Check IP camera is powered.
	♦ Check the IP address and port number setting is matched with IP
	camera.
	♦ NVR had been installed the correct video codec.
No IP Camera found	♦ Make sure the network cable is correctly connected to your local
	area network. (The green LED will be flash).
	♦ Make sure camera power is on.
	♦ Make sure the Switch Hub is workable.
	♦ Check the LAN cable and Ethernet port of NVR are workable.
	♦ Check network routing cable(s).
	♦ Check cable distances do not exceed operating distance.
No image	♦ If the place where IP camera is installed is too dark, try to add
	some lights when possible.
	♦ Check if there's anything covering the lens.
	♦ NVR had been installed the correct video codec.