



#### **INFORMATION TO USER**



#### CAUTION



RISK OF ELECTRIC SHOCK, DO NOT OPEN

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



This symbol is intended to alert the user to the presence of un-insulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



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

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# **1. FEATURES**

#### Camera

- Full HD outdoor bullet IP camera (Vandal proof)
- High quality compression in real time streaming
- 1/2.7" High Quality CMOS Image Sensor
- True Day / Night (ICR) and WDR
- Improvement of color rolling suppression
- Remote Zoom/Focus Control(One Click AF)
- 54 IR LEDs

#### **Streaming**

- Triple stream mode (such as different codec/resolution/bit rate and so on.)
- De-interlacing on DSP
- Burnt-in text supported
- Unicast/Multicast supported

#### Video/Audio

- Video compression: H.265/H.264/MPEG4 (Planned for the future release)
   MJPEG,25/30FPS@1080p(PAL/NTSC)
- Analog compression: G711(uLaw, aLaw)/PC

#### Network

- RTSP/ HTTP protocol supported
- 10/100 Base-T Ethernet

#### **Additional Features**

- Micro SD card Support (64 GB Max)
- PoE Support
- Built in Video Content Analysis
- IP66 certified
- USB thumb drive dongle (64GB Max)

Note: The Micro SD Card slot and the USB thumb drive dongle cannot be used at the same time.

# 2. PACKAGE CONTENTS

Unpack carefully and handle the equipment with care. The packaging contains:

Camera



Hex wrench driver



**Quick installation Guide** 



**Waterproof Grommet** 



Video out cable



Screws



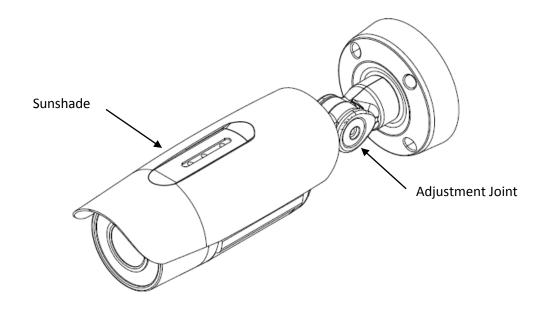
**Screw anchors** 

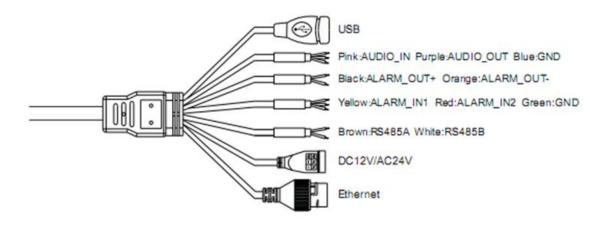




The above contents are subject to change without prior notice.

# 3. PART NAMES

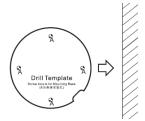




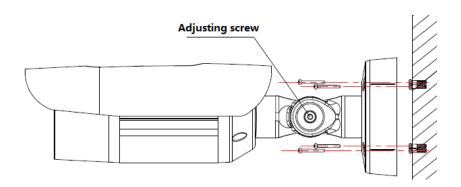


While installing the camera, do not invert the camera body in any circumstances. The camera features air vent holes on the bottom of the device, and inverting the camera position may cause water to permeate inside the device, resulting in mechanical failures.

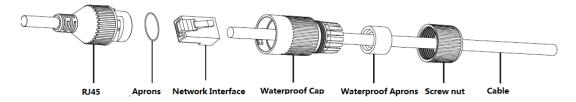
# 4.INSTALLATION



- Affix the drill template sticker to the desired install location.
- Drill holes in the positions where are marked on the sticker.
- Put the tube expansions into holes on the base of camera.



- Fix the base of camera using the provided mounting screws.
- Adjust the joint of bracket and then tighten.
- Adjust the sunshade so that it would cover the screen or IR light.

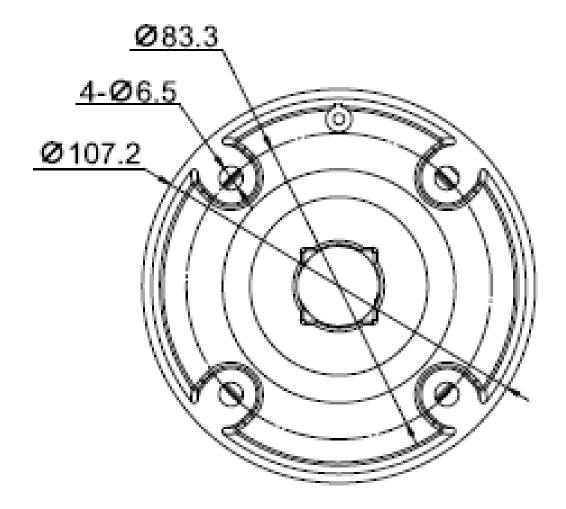


Install the waterproof connector on the RJ45 cable



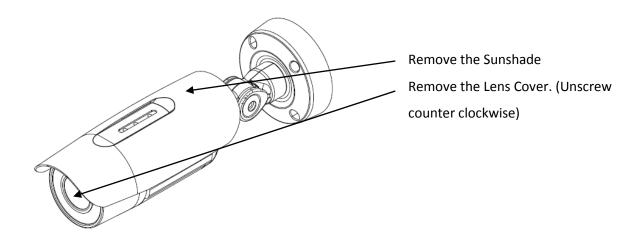
To prevent products from damaging, place the camera on stable and non-vibrating surfaces. If the stability is in doubt, consult with safety personnel for reinforcements, and then proceed with the installation.

# 3.1. Installation Template



(Unit: mm)

# 3.2. Adjusting Lens focus and Resetting the Camera



Under the Lens Cover. The Joystick allows adjustment of the Camera Lens

**TELE/WIDE**: Adjust zoom In / Out **FAR/NEAR**: Adjust Focus Far / Near

**AF**: Push down on the joystick to Auto focus

**RST**: Push to reset the camera.

**SD Card Slot**: Maximum of 64GB card support

## 3.3. Setting the Image Attribute

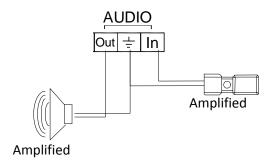
You can set the image attribute of camera through the webpage. The menu of image attributes can be seen under **Configuration > Camera Set > Image Set**. Brightness, contrast, saturation, sharpness, exposure, white balance, back light and image enhancement can be adjusted.

# 4. CABLE CONNECTIONS

#### 1 Audio input/output

The camera has a mono audio input and a mono audio output. Due to low audio output power, an amplified speaker is recommended for enhanced sound

(Do not connect a headphone or earphone directly to the camera)



#### 2 ALM IN connection

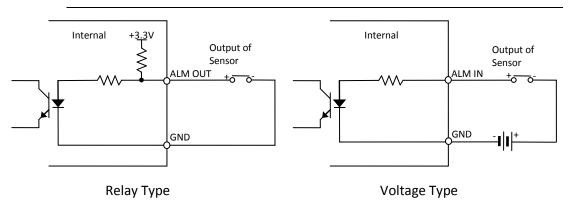
The camera provides 2 channel ALM IN. It can be connected to either a voltage type sensor or a relay type sensor as the following figures. Settings can be done through the camera's webpage.

Input voltage range: 0VDC minimum to 5VDC maximum, Max 50mA

Input voltage threshold: 1.5V



Do not exceed the maximum input voltage or relay rate.

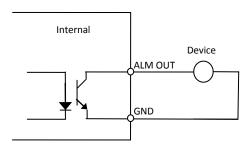


### 3 ALM OUT connection

Only the relay type is supported. Relay Rating: Max 24VDC 50mA



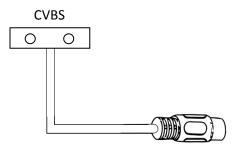
Do not exceed the maximum relay rating.



Relay Type

## 4 Video Output (Use Supported Cable Only)

The camera provides 1 video out



## **5** LAN connection

This is a RJ45 LAN connector for 10/100 Base-T. Use the provided waterproof connector. Connect an Ethernet. cable.



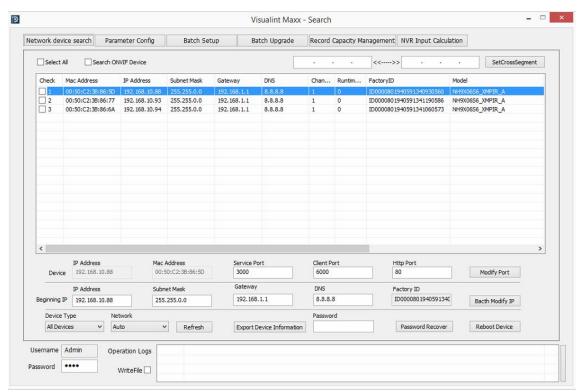
# **5.CONFIGURATION**

#### **5.1. Custom IP Environment**

Search Config Tool is provided in the dealer portal. (http://help.visualint.net)

Search Config Tool is a management tool, which automatically scans all of the network products for users to perform administrative tasks, which includes network configurations, firmware update, device reboot, and device organizations.

Web streaming and device configurations are supported through ActiveX program. When the ActiveX installation window appears, authorize and install the ActiveX.



To modify the device's default IP address for customized network area;

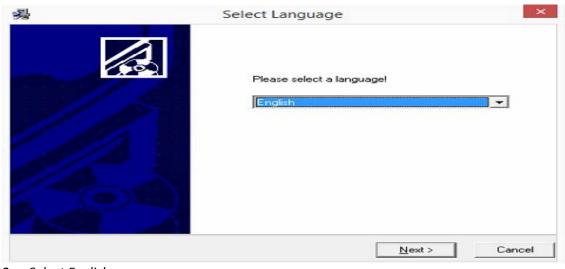
- 1. Find the device from the Search Config Tool's list and check the box next to the device.
- 2. Enter the Beginning IP Address / Subnet Mask / Gateway / DNS
- 3. Click 'Batch Modify IP' to complete the modification.

## 5.2. View video on web page

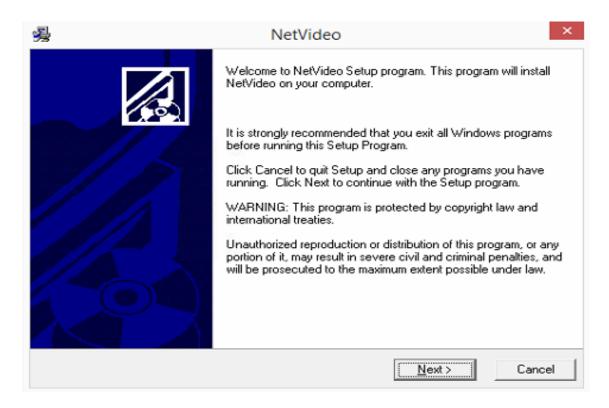
Type the proper IP address to view the live streaming images through a web browser. The default username and password is *admin / admin*. When visiting the web interface the first time an Active X plug-in will need to be installed.



1. Setup.exe installation link or pop-up window appears, depends on Microsoft® Internet Explorer version. Click Run.



2. Select English



3. Follow the instructions of the dialog boxes and complete the installation. Once the installation is complete, start the web browser again. Click the Allow for All sites button displayed in bottom of the main view frame.



## **5.3. Access through Search Configuration Tool**

Search Configuration Tool automatically searches all activated network encoders and IP cameras and shows the product name, IP address, MAC address and etc.

From the Search Configuration Tool product list, select the device by highlighting it.

- 1. Right-click the mouse and select Enter IE
- 2. The system's default web browser opens the device's address. Please make sure you are running Internet Explorer 8 or later (Microsoft Edge is not supported)



Whether directly accessing the streaming video through typing IP address on a web page or taking steps through Search Configuration Tool, the ActiveX is needed to be installed for the Microsoft® Internet Explorer to have the complete administrative privileges.

## **5.4. Export Device Information**

Perform the following procedures to Export the Device Search in .csv format:

- 1. Click the Export Device Information.
- 2. Choose the target save location.
- 3. Click 'Save'.

## **5.5. Reboot Device**

Perform the following procedures to Reboot the Device:

- 1. Find the device from the Search Configuration Tool's list and check the box next to the device.
- 2. Click the "Reboot Device" Button
- 3. Click 'OK' to confirm Reboot
- 4. Device will Reboot.

The factory default settings can be inferred as follows:

IP address: 192.168.1.3
Network mask: 255.255.0.0
Gateway: 192.168.1.1
User ID: admin
Password: admin

# **APPENDIX (A): SPECIFICATIONS**

# **Summary**

Camera Module			
	Image Sensor	1/2.8" Sony Exmor CMOS	
	Effective	2048 x 1536	
CMOS	Pixels	2040 X 1550	
	Scanning	Progressive scanning	
	system	Ţ Ţ	
	Resolution	1920 x 1080	
	Min.	Color: 0.05 Lux @ (F1.2, AGC On)	
	Illumination	B/W: 0.01 Lux @ (F1.2, AGC on); 0 Lux with IR	
ELECTRICAL	Core	Cortex A7 Architecture Processor	
	Processor	Cortex / World Cotton Cortex Cortex (Cortex Cortex	
	Operating	Embedded Linux	
	System	Embedded Emax	
	AGC Control	Auto	
Ler	าร	2.8-12mm, Motorized Lens	
Day & Night		Dual ICR	
Video			
Video Compression		H.265/H.264/MJPEG	
Bit Rate		32Kbps ~ 16Mbps	
Audio Compression		G.711/AAC/ADPCM	
Bit Rate		8K ~ 48Kbps	
Frame Rate		50Hz: 25fps (2048x1536), 50fps (1920x1080) 60Hz: 30fps (2048x1536), 60fps (1920x1080)	
		Mainstream: 3MP (2048x1536)	
Triple S	tream	Sub-stream: D1 (704x576)	
		3rd Stream: D1 (704x576)	
Max Res	olution	2048x1536	
Image S	ettings	Configurable Brightness, Saturation, Contrast, Flip Mode	
Motion Detection		Built-in	
Burnt-in Text (Digital)		Video stream overlay text	
Audio			
Input/output		AUD IN / AUD OUT	

Compression Format	G.711u Law	
Function		
ALM IN / ALM OUT	2/1 channel	
Video Analytics	Tripwire/ Perimeter/ People Counting/ Missing & Removed Object/ Crowd/ Dwell	
Network	10/100 Base-T	
Power over Ethernet	Supported	
Protocol	TCP/IP/ICMP/HTTP/HTTPS/FTP/DHCP/DNS/DDNS/RTP /RTSP/RTCP/PPPoE/NTP/UPnP/SMTP/SNMP/IGMP/80 2.1X/QoS/IPv6/Bonjour	
SD Slot	Built-in Micro SD/SDHC/SDXC Card Slot, minimum32 and max 64 GB	

# **Electrical Characteristics**

Power Supply	DC12V±10%AC 24V±10%, PoE (802.3af) (not included)
Power Consumption	4.5W (IR off), 8.5W (IR on)
Video Output	1-ch Vp-p composite output (75 Ω, BNC)
Audio Input	2-ch
Audio Output	1-ch
Circuit Protection	TVS 6000V, Lightning/Surge 2000V Protection

# **Environment Condition**

Operating Temperature	-35°C ~ 60°C, (-31°F ~ 140°F)
Operating Humidity	Up to 95% RH

# **Mechanical Condition**

Material	Aluminum Die Casting
Color	White
Dimension	337 x 82 x 107 mm
Weight (Approx.)	1.5 kg

# APPENDIX (B): POWER OVER ETHERNET

The Power over Ethernet(PoE)is designed to extract power from a conventional twisted pair Category 5 Ethernet cable, conforming to the IEEE 802.3af Power-over-Ethernet (PoE) standard. IEEE 802.3af allows for two power options for Category 5 cables.

The IEEE 802.3af-2003 standard allows up to 15.4 W power to device. However, 12.95W is the maximum available power, as some power gets lost in the cable.

PoE has advantages over conventional power in such places where AC powers cannot be reached or expensive to wire.

Note: For proper activation of 12V PoE, the Category 5 cable must be shorter than 140m and conform the PoE standard.

## **PoE compatibility**

#### With non-Power Sourcing Equipment (PSE)

When it is connected with non PSE, the power adaptor (not included) should be connected.

#### With power adaptor

Connecting both PSE and power adaptor does not do any harm to the product, but power adaptor will be the only power source for the device as it has priority over PSE. In this case, disconnecting power adaptor while it is operating will cause the device to reboot. And PoE will be the power source for the device after the reboot.

## **Power classification**

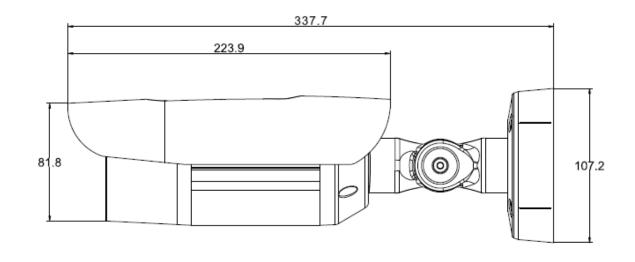
The PoE Power Class supported by the IP device is Class 0.

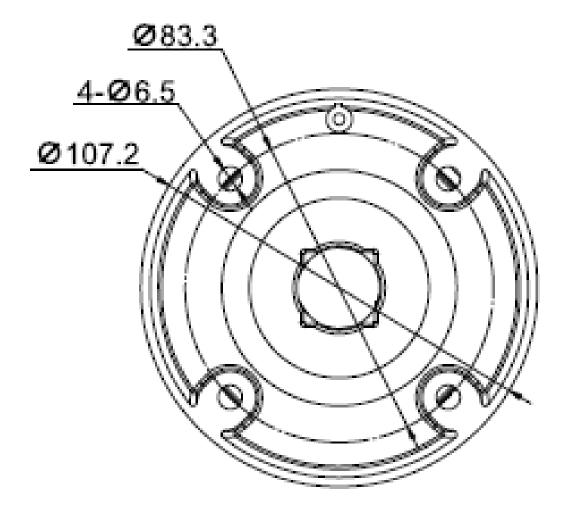
Class	Usage	Minimum Power Levels	Maximum Power Levels at
		Output at the PSE	the Powered Device
0	Default	15.4W	0.44 to 12.95W



Disconnecting PSE or PoE doesn't reboot the device as long as a power adaptor is connected.

# **APPENDIX (C): DIMENSIONS**





#### **REVISION HISTORY**

MAN#	DATE(M/D/Y)	Comments
01A.01	02/02/2016	Preliminary version