



# **VIM-4300** Installation Guide

# **INFORMATION TO USER**



![](_page_1_Picture_2.jpeg)

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

This symbol is intended to alert the user the presence of important operating and maintenance (servicing) instructions within the guide manual.

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REVISION HISTORY

# **1. FEATURES**

#### Camera

- Full HD outdoor dome 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)
- 32 IR LEDs

#### Streaming

- Triple streaming 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)
- Audio compression: G.711(μLaw, aLaw)/PCM
- Analog video out
- Video motion detection supported
- Built in Microphone

#### 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
- Two Alarm Inputs
- One Alarm Output
- IP66 certified

# **2. PACKAGE CONTENTS**

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

#### Camera

![](_page_4_Picture_5.jpeg)

Video out cable

![](_page_4_Picture_7.jpeg)

### Installation template

![](_page_4_Picture_9.jpeg)

### Hex wrench driver

![](_page_4_Picture_11.jpeg)

Quick installation guide

![](_page_4_Picture_13.jpeg)

Screws and anchors

![](_page_4_Picture_15.jpeg)

### Waterproof Grommet

![](_page_4_Picture_17.jpeg)

![](_page_4_Picture_18.jpeg)

The above contents are subject to change without prior notice.

![](_page_5_Picture_2.jpeg)

![](_page_5_Picture_3.jpeg)

Pic 3.0 Dome camera internal interface

- 1. DC12V and AC24V
- 2. Ground Pole
- 3. Signal Cable (see sticker on the camera for details)
- 4. Debugging interface, for manufacture staff only.
- 5. Ethernet
- 6. Motorized lens control with One-button focus
- 7. Reset
- 8. Built in Mic (4300 Only)
- 9. Debugging interface, for manufacture staff only.
- 10. Analog Video-Out
- 11. MicroSD card slot (64 GB Max)

# **4. INSTALLATION**

![](_page_6_Figure_3.jpeg)

![](_page_6_Picture_4.jpeg)

![](_page_6_Picture_5.jpeg)

**1)** Place the installation template (paper) that is included in the package on the desired installation surface.

**2)** Drill three holes in correct positions based on the template paper, and insert anchor blocks into the holes.

**3)** Place the camera body to the installation surface and match three alignment holes with three anchor blocks. Then tighten the surface anchor studs.

**4)** Connect all the required cables to the camera. If the camera may be exposed to water, install the waterproof grommet to help prevent damage.

![](_page_6_Picture_10.jpeg)

**5)** Adjust the lens position. Detailed information can be found in **4.2. Setting the Lens Position**.

6) Place the dome cover on the main body of the camera. Dome cover has three alignment holes that match camera body's alignment holes.

7) Once properly placed, insert screws into the three holes of the body and tighten them up.

![](_page_6_Picture_14.jpeg)

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. Use waterproof silicone to seal all connections and surfaces.

## 4.1. Installation Template

![](_page_7_Figure_3.jpeg)

![](_page_7_Picture_4.jpeg)

Installation template image's size scale in this installation guide is not 1:1. The correct-size template design paper can be found inside the package separately.

## 4.2. Setting the Lens Position

Instruction below describes how to set the lens positions and manually adjust zoom and focus.

1) Remove the dome cover.

2) Set the lens position by rotating the camera gimbal; to pan, rotate the reinforced lower body of the gimbal; to tilt, vertically adjust the camera gimbal.

![](_page_8_Picture_6.jpeg)

A. To adjust lens position, rotate the camera gimbal

![](_page_8_Picture_8.jpeg)

B. To pan, rotate the lower body of the camera gimbal

![](_page_8_Picture_10.jpeg)

C. Tilt the lens by vertically adjusting the camera gimbal

![](_page_8_Picture_12.jpeg)

Refrain from continuously rotating the camera gimbal with excessive force to a single direction as it is attached with the IR-LED cable inside the dome.

The camera image's brightness, contrast, saturation and sharpness are adjustable through the image settings. (Configuration > Camera Set > Image Set).

# **5. 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)

![](_page_9_Figure_6.jpeg)

### 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

![](_page_9_Figure_10.jpeg)

### **3** ALM OUT connection

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

![](_page_10_Picture_4.jpeg)

Do not exceed the maximum relay rating.

![](_page_10_Figure_6.jpeg)

![](_page_10_Figure_7.jpeg)

### (4) Video Output (Use Supported Cable Only)

The camera provides 1 video out

![](_page_10_Figure_10.jpeg)

### **(5)** LAN connection

This is a RJ45 LAN connector for 10/100 Base-T Ethernet. Connect a LAN cable.

![](_page_10_Figure_13.jpeg)

When the device is connected, the orange LED blinks while green LED stays on.

# **6. CONFIGURATION**

## **6.1. 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.

twork dev	ice search Para	meter Config	Batch Se	tup B	atch Upgrade	Record	Capacity Ma	nagement NVR Input Calcu	lation	
Select	All Search ON	WIF Device				(a)		<<>> · · ·	- SetCrossSegm	ient
Check	Mac Address	IP Address	Subnet Mask	Gateway	DNS	Chan	Runtim	FactoryID	Model	
	00:50:C2:38:86:5D	192.168.10.88	255.255.0.0	192, 168, 1, 1	8.8.8.8	1	0	ID0000801940591340930560	NH9X06S6_XMPIR_A	
2	00:50:C2:38:86:77	192.168.10.93	255.255.0.0	192.168.1.1	8.8.8.8	1	0	ID0000801940591341190586	NH9X06S6_XMPIR_A	
3	00:50:C2:3B:86:6A	192.168.10.94	255.255.0.0	192.168.1.1	8.8.8.8	1	0	ID0000801940591341060573	NH9X06S6_XMPIR_A	
<							1			>
	IP Address	Mac	Address	Service P	ort	Client P	ort	Http Port		
Devic	e 192.168.10.88	00:	50:C2:38:86:5D	3000		6000		80	Modify Port	
	IP Address	Sub	net Mask	Gateway	'	DNS		Factory ID		
Beginning	IP 192.168.10.88	25	5.255.0.0	192.168	8.1.1	8.8.8.	3	ID000080194059134	0 Bacth Modify IP	
Device	Type Ne	twork	1.50			Passwor	d	20 00		
All Dev	rices 🗸 Au	ito	✓ Refresh	Export	Device Information			Password Recover	Reboot Device	
sername	Admin One	unation Long								_

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.

## 6.2. 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 plugin will need to be installed.

![](_page_12_Picture_4.jpeg)

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

臱	Sel	ect Language		×
		Please select a lan	guagel	-
			Next >	Cancel

2. Select English

![](_page_13_Picture_2.jpeg)

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.

### 6.3. 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)

![](_page_13_Picture_10.jpeg)

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<sup>®</sup> Internet Explorer to have the complete administrative privileges.

## 6.4. 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'.

## 6.5. 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			
CMOS	Effective Pixels	2048 x 1536			
	Scanning system	Progressive scanning			
	Resolution	1920 x 1080			
	Min. Illumination	Color: 0.05 Lux @ (F1.2, AGC On) B/W: 0.01 Lux @ (F1.2, AGC on); 0 Lux with IR			
ELECTRICAL	Core Processor	Cortex A7 Architecture Processor			
	Operating System	Embedded Linux			
	AGC Control	Auto			
	Lens	2.8-12mm, Motorized Lens			
Da	y & Night	Dual ICR			
Video					
Video	Compression	H.265/H.264/MJPEG			
I	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)			
Triple Stream		Mainstream: 3MP (2048x1536) Sub-stream: D1 (704x576) 3rd Stream: D1 (704x576)			
Max	Resolution	2048x1536			
Image Settings		Configurable Brightness, Saturation, Contrast, Flip Mode			
Motion Detection		Built-in			
Burnt-i	n Text (Digital)	Video stream overlay text			
Output		Analog video output for installation only			
Audio					
Input/output		AUD IN / AUD OUT			
Compr	ession Format	G.711u Law			
Function					
ALM I	N / ALM OUT	2/1 channel			
Vide	o Analytics	Tripwire/ Perimeter/ People Counting/ Missing & Removed Object/ Dwell			
Ν	letwork	10/100 Base-T			
Power	over Ethernet	Supported			

Protocol	TCP/IP/ICMP/HTTP/HTTPS/FTP/DHCP/DNS/DDNS/R TP/RTSP/RTCP/PPPoE/NTP/UPnP/SMTP/SNMP/IGM P/802.1X/QoS/IPv6/Bonjour
SD Slot	Built-in Micro SD/SDHC/SDXC Card Slot, up to 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	Housing: 150 (Ø) x 122(H) mm Dome: 101(Ø) 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 Output at the PSE	Maximum Power Levels at the Powered Device
0	Default	15.4W	0.44 to 12.95W

![](_page_17_Picture_15.jpeg)

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

# **APPENDIX (C): DIMENSIONS**

![](_page_18_Picture_3.jpeg)

![](_page_18_Figure_4.jpeg)

![](_page_18_Figure_5.jpeg)

Unit : mm

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