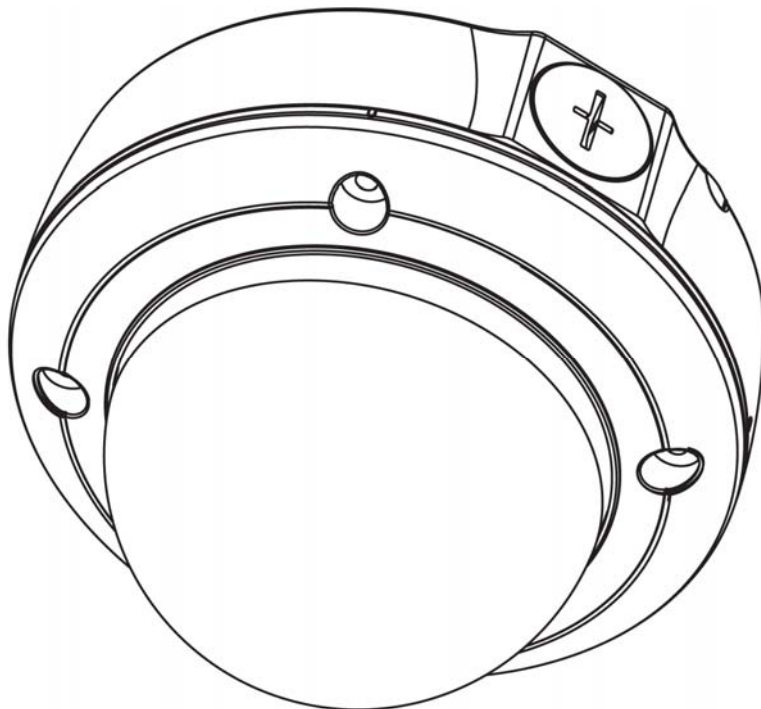


3MP VCA VP DOME NETWORK CAMERA





Please read this manual thoroughly before use, and keep it handy for future reference.

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECT THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL</p>		

EXPLANATION OF GRAPHICAL SYMBOLS



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two 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.

FCC INFORMATION: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the 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.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CE COMPLIANCE STATEMENT

WARNING

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CAUTION

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.
DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. 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 are provided for your safety, If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used. Use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. 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.
15. **CAUTION – THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING IN- STRUCTIONS UNLESS YOU QRE QUALIFIED TO DO SO.**
16. **Use satisfy clause 2.5 of IEC60950-1/UL60950-1 or Certified/Listed Class 2 power source only.**
17. ITE is to be connected only to PoE networks without routing to the outside plant.



Contents

1 Introduction	6
1.1 Components	6
1.2 Key Features	7
2 Installation	8
2.1 Overview	8
2.2 Connection	10
2.3 Resetting to the factory default settings	11
A Appendix	12
A.1 Product Specification	12

1 Introduction

The network camera supports the network service for a sensor image with progressive scan, which can be monitored on a real-time screen regardless of distances and locations. By using its dedicated program, many users are able to have an access to the network camera at once or a single user can monitor various network cameras at the same time. It also enables users to play, store and retrieve a monitoring image by using a PC. All the settings and real-time monitoring screens are also provided through an access to the web.

The network camera is fully featured for security surveillance and remote monitoring needs. It is based on the DSP compression chip, and makes it available on the network as real-time, full frame rate Motion JPEG and H.264 video streams.

The alarm input and alarm output can be used to connect various third party devices, such as, door sensors and alarm bells.

1.1 Components

This system comes with the following components;

Dome Camera	1
Installation Guide/CD	1
Template Sheet	1
Accessory Kit	1

Note 1. Check your package to make sure that you received the complete system, including all components listed above.

Note 2. Adapter for DC 12V is not supplied.

1.2 Key Features

- **Brilliant video quality**

The network camera offers the highly efficient H.264 video compression, which drastically reduces bandwidth and storage requirements without compromising image quality. Motion JPEG is also supported for increased flexibility.

- **Wide Dynamic Range**

The network camera provides digital WDR (Wide Dynamic Range) that improves video exposure quality in scenes with high contrast between bright and dark areas in the video, for example a shady area and a sunny area in the same scene.

- **Dual or Triple Streams**

The network camera can deliver dual or triple video streams simultaneously at full frame rate in all resolutions up to 3MP (2048 x 1536p) using H.264 and Motion JPEG. This means that several video streams can be configured with different compression formats, resolutions and frame rates for different needs.

- **Intelligent video capabilities**

The network camera includes intelligent capabilities such as enhanced video motion detection. The network cameras external inputs and outputs can be connected to devices such as sensors and relays, enabling the system to react to alarms and activate lights or open/close doors.

- **Improved Security**

The network camera logs all user access, and lists currently connected users. Also, its full frame rate video can be provided over HTTPS.

- **PoE (Power over Ethernet)**

This network camera can be powered through PoE (IEEE802.3af), which simplifies installation since only one cable is needed for carrying power, as well as video controls.

- **ONVIF Certificate**

This is a global interface standard that makes it easier for end users, integrators, consultants, and manufacturers to take advantage of the possibilities offered by network video technology. ONVIF enables interoperability between different vendor products, increased flexibility, reduced cost, and future-proof systems.

- **Micro-SD Recording support**

The Network Camera also supports a micro-SD memory slot for local recording with removable storage of type SDHC and SDXC.

- **Audio support**

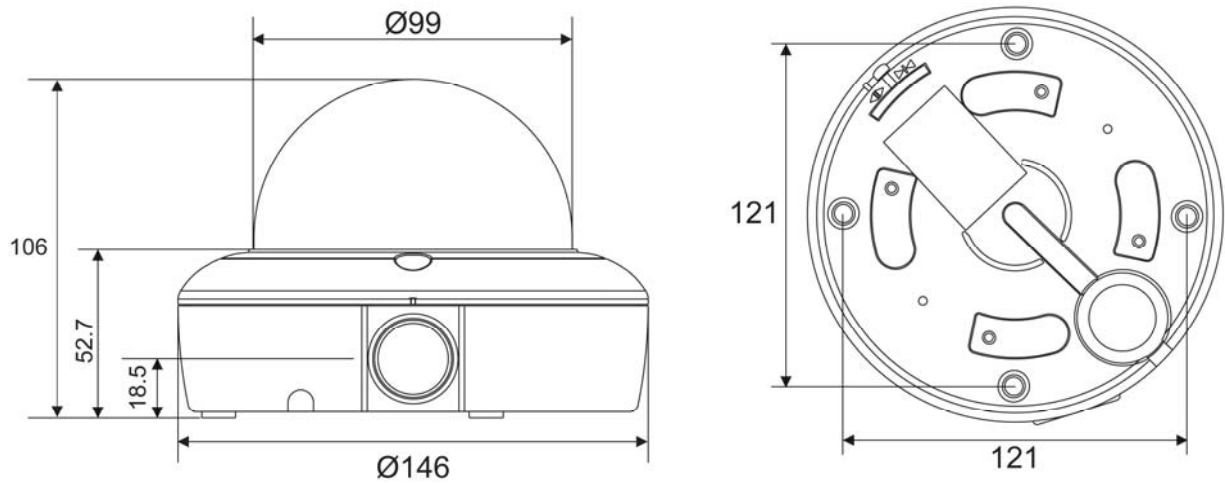
The Network Camera also supports two-way audio.

2 Installation

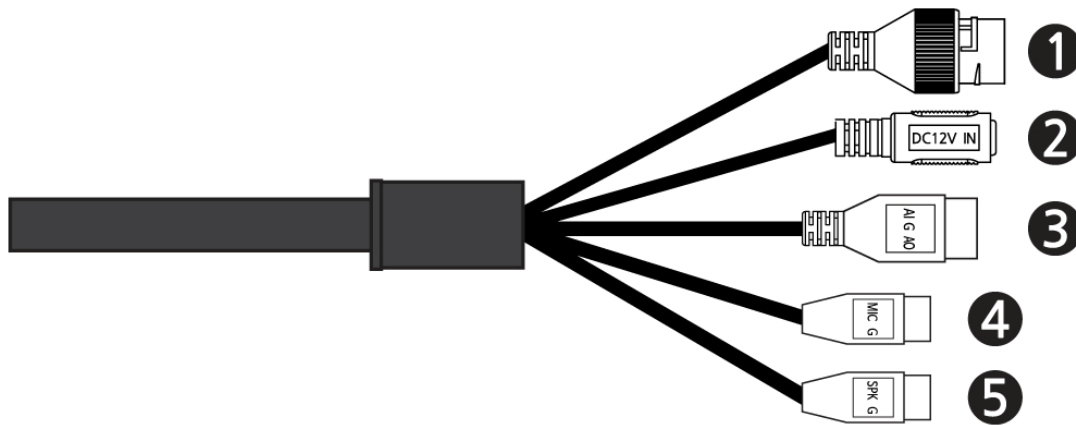
For the operation of the Network Camera, it is necessary to connect a network cable for data transmission, power connection from supplied power adapter. Depending on operation methods, it is possible to connect an alarm cable additionally. For its fixation on different locations, please consult with an installer.

2.1 Overview

- Dimension



• Extension Cable

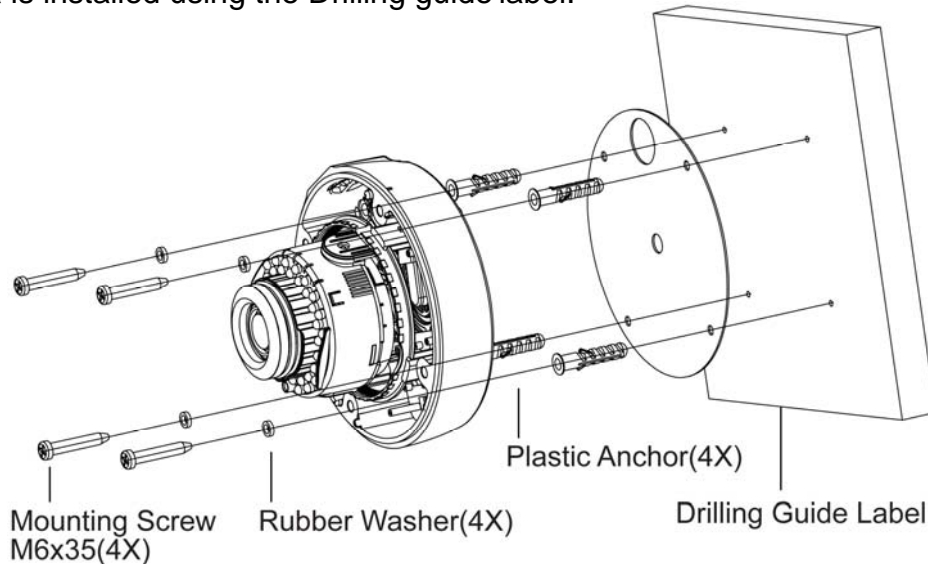


NO	Item	Description
1	RJ-45	Ethernet, RJ-45 port compatible with 10/100Mbps PoE Modular Jack
2	DC Jack	Main Power, DC Jack, DC12V
3	AI: Alarm In	Alarm input and output, 3pin terminal
	G: GND	
	AO: Alarm Out	
4	MIC: Audio In	Audio line input, 2pin terminal
	G: GND	
5	SPK: Audio Out	Audio line output, 2pin terminal
	G: GND	

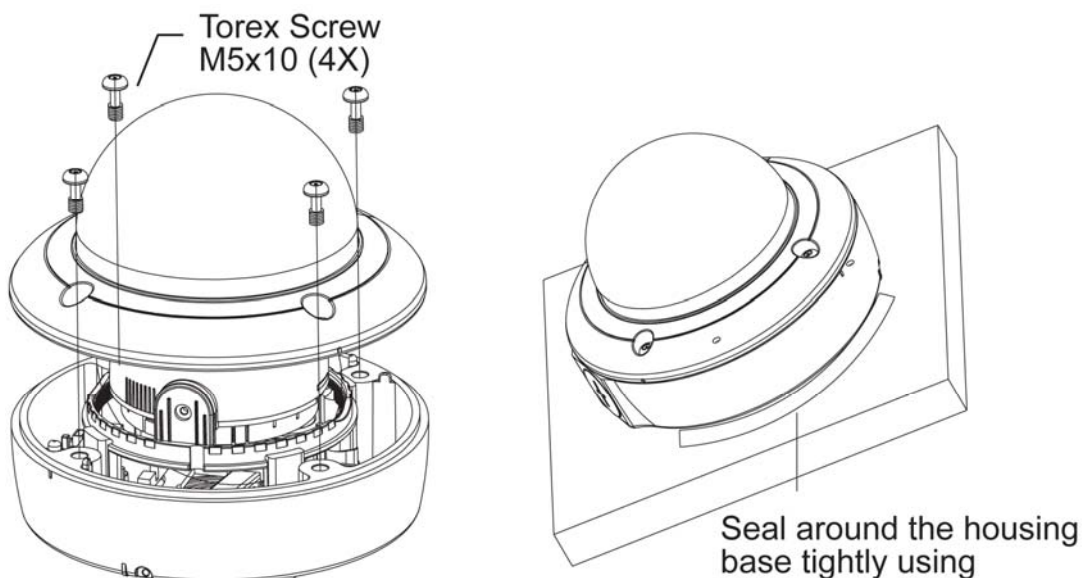
• Installing Camera

Carefully remove the contents from the box, and verify that nothing was damaged in shipment.

1. Make mounting holes and cable hole in the place (ceiling or wall) to which this dome camera is installed using the Drilling guide label.



2. To remove dome cover, turn the dome body counter clockwise until locations reach end travel and pull off. Push the liner on the sides where the patterns are put in the teeth of a comb and pull it out.

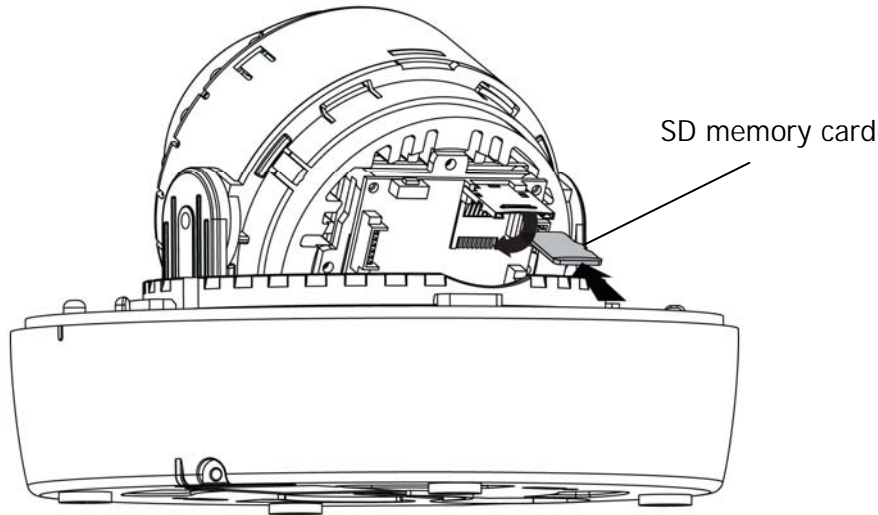


3. Attach the housing to the ceiling using suitable fasteners, M6x35 tapping screws supplied only use if they are suitable. Turn the housing to right direction about 16 degrees to lock in place.
4. The assembly of the dome body and liner is in reverse order of disassembly. Finally, lock dome body with locking screw(M3x5) from the accessory Kit.

2.2 Connection

- **Micro SD memory card insertion**

Remove the bubble of the camera to insert the SD memory card.



- **Connecting to the RJ-45**

Connect a standard RJ-45 cable to the network port of the network camera. Generally a cross-over cable is used for directly connection to PC, while a direct cable is used for connection to a hub. You can also use a router featuring PoE (Power over Ethernet) to supply power to the camera.

- **Connecting Alarms**

AI(Alarm In): You can use external devices to signal the network camera to react on events. Mechanical or electrical switches can be wired to the AI (Alarm In) and G (Ground) connectors.

G(Ground): Connect the ground side of the alarm input and/or alarm output to the G (Ground) connector.

AO(Alarm Out): The network camera can activate external devices such as buzzers or lights. Connect the device to the AO (Alarm Out) and G (Ground) connectors.

- **Connecting the Power**

Connect the power of 12 VDC 450mA for the network camera. Connect the positive (+) pole to the '+' position and the negative (-) pole to the '-' position for the DC power.

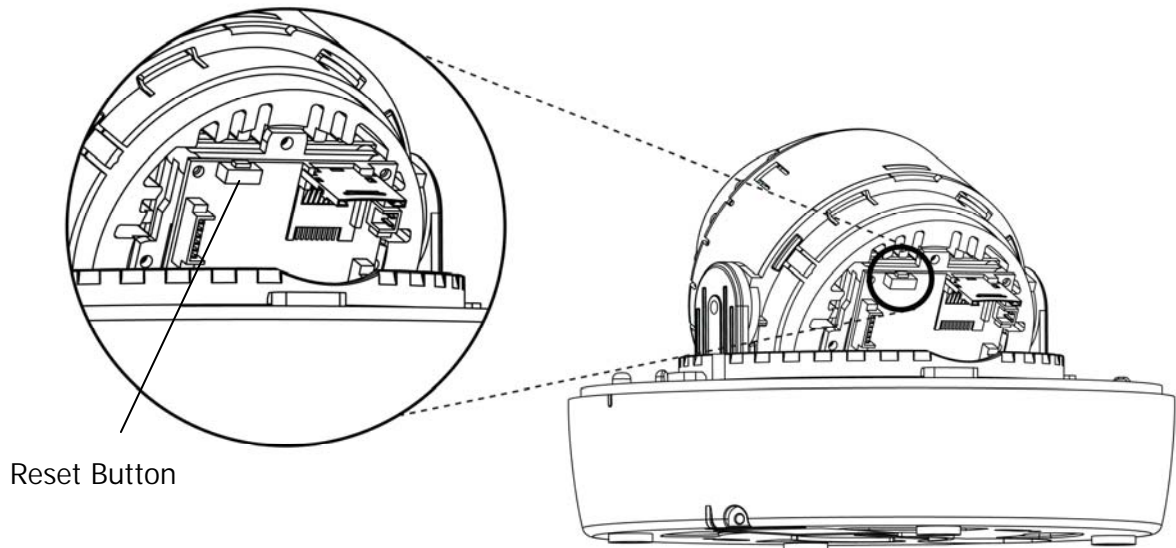
- Be careful not to reverse the polarity when connecting the power cable.
- A router featuring PoE (Power over Ethernet) can also be used to supply power to the camera.
- For the power specifications, refer to the Appendix, Product Specification.
- If PoE and 12 VDC are both applied, the camera will be supplied with power from PoE.

- **Connecting Audio**

Connect Speaker to Audio line output and external Mic to Audio input line.

2.3 Resetting to the factory default settings

To reset the network camera to the original factory settings, go to the Setup > System > Maintenance web page (described in “System > Maintenance” of User’s Manual) or use the **Reset** button on the network camera, as described below.



• Using the Reset button:

Follow the instructions below to reset the network camera to the factory default settings using the Reset button.

1. Switch off the network camera by disconnecting the power adapter.
2. Press and hold the Reset button while reconnecting the power.
3. Keep the Reset button pressed during about 2 seconds or more.
4. Release the Reset button.
5. The network camera resets to factory defaults and restarts after completing the factory reset.

CAUTION: When performing a Factory Reset, you will lose any settings that have been saved. (Default IP 192.168.30.220)

A Appendix

A.1 Product Specification

3MP VCA VP DOME NETWORK CAMERA

Model		Network Camera	
Image	Lens	Motorized Varifocal 2.8mm ~ 12.0mm, F1.4, DC IRIS	
	Angle of View	97°(H) ~ 37°(H)	
	Image Sensor	Type	1/2.8" Sony Exmor CMOS
		Pixels	2065(H) x 1565(V)
	Min. Illumination	Color: 0.1 Lux @ F1.4 B/W: 0 Lux @ F1.4	
	Scanning Mode	Progressive Scan	
	Wide Dynamic Range	D-WDR (72dB)	
	Day and Night Mode	True D/N (Auto, Day, Night)	
	Noise Reduction	2DNR, 3DNR	
	Digital Zoom	Yes (ROI)	
	Exposure Control	Auto	
	Auto White Balance Control	Auto, Incandescent, Fluorescent, Outdoor, Manual	
	Back Light Compensation	Yes	
	Image Effect	Flip, Mirror, Aisle, Defog, HLC, S-LDC	
	Flicker Free Mode	50Hz, 60Hz	
	Shutter Speed	Auto(1/10,000 ~ 1 sec), Manual	
	IR Illuminator	Quality	36 IR LEDs
		Angle	76°
Distance		up to 35m	
Motorized Lens Control	Smart Focus, Manual		
Video/ Audio	Video Compression	H.264 (Baseline, Main, High Profile), MJPEG	
	Bitrate Control	CVBR, VBR	
	Video Resolution	2048x1536, 1920x1080, 1280x1024, 1280x720/960, 1024x768, 704x480/576, 640x360/480, 320x240	
	Video Frame Rate	Max. 25fps/30fps	
	Video Streaming	25/30fps (Triple Stream : H.264 x 2, MJPEG x 1)	
	Composite Out	-	
	Audio Compression	G.711	
	Audio Streaming	2 Way	
System	Video Contents Analysis	Tampering, Line Detector, Field Detector	
	Motion Detection Area	16 Programmable Area (Include Area 8, Exclude Area 8)	
	Privacy Mask	8 Programmable Zone	
	FTP Uploading	MJPEG	
	Event Notification	E-mail, FTP, Notification Server, XML Notification, Audio Alert, AIHM	
	Audio Alert	User-Defined 3 Audio files	
	Login Authority	Administrator, Operator, Guest	
	Event Buffering	FTP	Pre : 30sec, Post : 30sec
		SD Record	Pre : 10sec, Post : 60sec
	Manual Trigger	4 Programmable Trigger	
	Security	Multi User Authority, IP Filtering, HTTPS, SSL	
	Network Time Sync	NTP Server, Synchronize Computer, Manual	
	Software Reset	Restart, Reset, Factory Default	
	Hardware Factory Reset	Yes	
	Auto Recovery	Backup, Restore	
Remote Upgrade	Web Browsing(IE, Chrome, Safari, Firefox), SmartManager		
SD Recording Mode	Event, Continuous		

Network	Protocols	TCP/IP, UDP, IPv4/IPv6, HTTP, HTTPS, QoS, FTP, UPnP, RTP, RTSP, RTCP, DHCP, ARP, Zeroconf, Bonjour
	Client Software	Web, SmartManager, Client S/W, Mobile S/W
	Max. User Connection	Live : 10 Users, Playback : 3 Users
	API Support	Open API, ONVIF Compliance
	Mobile Support	Android, i-OS
External In/Out	Video Composite Out	-
	Audio	1 Input, 1 Output (Terminal Block)
	Alarm	1 Input, 1 Output (Terminal Block)
	Ethernet	RJ-45 (10/100Base-T)
	μ -SD Card	SDHC, SDXC
	RS485	-
ETC	OSD-Remote Control	-
	Operating Humidity	0 ~ 90% RH (Non-condensing)
	Operating Temperature	-20°C ~ +50°C
	Power Supply	PoE (IEEE802.3af compliant, Class0), 12VDC
	Power Consumption	120mA (5.7W) @ PoE 450mA (5.4W) @ 12VDC
	Dimensions	146mm(ϕ) x 106mm(H)
	Net Weight	Approx. 850g
Ingress Protection	IP66	

> Specifications are subject to change without notice.



3MP VCA VP DOME NETWORK CAMERA



50304017A