HARDWARE INSTALLATION GUIDE

VD101SMi   1.3 Megapixel(720P) Indoor Dome IP Camera
VD101SMi-IR   1.3 Megapixel(720P) Indoor Night Vision Dome IP Camera

VD101SM3i   3.0 Megapixel(1080P) Indoor Dome IP Camera
**VD101SM3i-IR**   3.0 Megapixel(1080P) Indoor Night Vision Dome IP Camera

Version 1. 0. 2
Released on 1ˢᵗ of Sept., 2011

VISION Vision Hitech Co., Ltd.

PRECAUTIONS

By selecting this product, you have decided to use a professional device that guarantees highest quality and reliability. We would like to thank you very much for your confidence and kindly ask you to read the following instructions carefully before installation and operation in order to take full advantage of all quality features regarding this product.

⚡	**CAUTION** RISK OF ELECTRIC SHOCK DO NOT OPEN	⚠
	CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE THE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.	
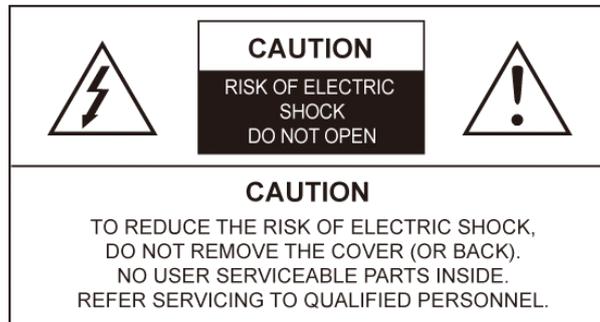
The lighting flash with an arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of non-insulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

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 appliance.

INFORMATION

This equipment has been tested and found to comply with 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 its own expense.

WARNING

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

CAUTION – To prevent electric shock and risk of the fire hazards

-Do NOT use power source other than that specified.
-Do NOT expose this appliance to rain or moisture.

Trademarks

All names used in this manual for hardware and software are probably registered trademarks of respective companies.

This installation should be made by a qualified service person and should conform to all local codes.

Table of content

Hardware Installation Guide

1. Precautions

- Please read the manual carefully before the installation in order to set up the camera correctly and to obtain the best picture quality.

- Please keep the manual in good condition for your future reference and service application.

- Installation and services should be only carried out by an authorized personnel according to local safety regulations.

- If any liquid or solid matter gets into the housing, immediately disconnect the camera from power supply and have it checked by your authorized dealer before reusing.

- Avoid installing the camera at extremely hot or cold places.

- If you are not a certified person, never try to dismantle the camera. To avoid electric shock, never remove the screws or covers. There are no parts inside that need maintenance by the user. All maintenance should be carried out by qualified personnel.

- Avoid installing the camera at a place of high humidity.

- Avoid installing the camera at the place exposed to gas or oil.

- Keep the top glass of the lens always clean in order to obtain the best picture quality all the time. Be careful not to be stained by fingerprint.

- Don't face the camera directly toward sunlight or sunlight reflecting area. CCD may go defective at this condition.

- Please give a special attention to keep the unit from dangerous drop or external shock during the process of transportation or handling.

- Never try to touch the camera in wet hand. It may cause an electric shock.

- Do not expose the camera to radioactivity. It causes a serious damage on the CCD.

2. Limitation of liability

This publication is provided "AS IS" without warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for any particular purpose, or non-infringement of the third party's right. This publication could include technical inaccuracies or typographical errors. Changes are added to the information herein, at any time, for the improvements of this publication and/or the corresponding product(s).

3. Disclaimer of warranty

In no event shall seller be liable to any party or any person, except for replacement or reasonable maintenance of the product, for the cases, including but not limited to below:

(1) Any damage and loss, including without limitation, direct or indirect, special,   consequential or exemplary, arising out of or relating to the product;

(2) Personal injury or any damage caused by inappropriate use or negligent operation of the user;

(3) Unauthorized disassemble, repair or modification of the product by the user;

(4) Inconvenience or any loss arising when images are not displayed, due to any reason or cause including any failure or problem of the product;

(5) Any problem, consequential inconvenience, or loss or damage, arising out of the system combined by the devices of third party.

(6) Any claim or action for damages, brought by any person or organization being photogenic subject, due to violation of privacy with the result of that surveillance-camera's picture, including saved data, for some reason, becomes public or is used for the purpose other than surveillance.

4. Package Contents

IP Camera
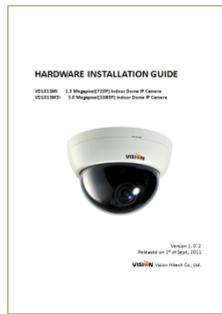
Hardware Installation Guide
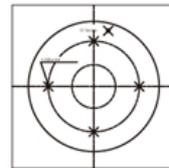
Drilling template x 1

Tapping screws x 2


Plastic anchor x 2

Power Adaptor (Option)

CD
- Hardware Installation Guide (PDF)
- IP Camera Manual (PDF)
- NVR Pro Manual
- NVR Lite (16Ch) Program
- IPScan Utility Program (IP Installer)

[Option]
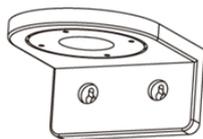
Wall Mount Bracket

Tapping screws x 2
(Ø4 x 20L)

Tapping screws x 2
(Ø4 x 10L)

Tapping screws x 2
(Ø4 x 8L)

Screw cover x 2

5. Cable Connection

| Power Connector (DC12V) |
| Network Connector |
| Analog Video Out |
| Sensor In |
| Audio-in (Option) |
| Audio-out (Option) |
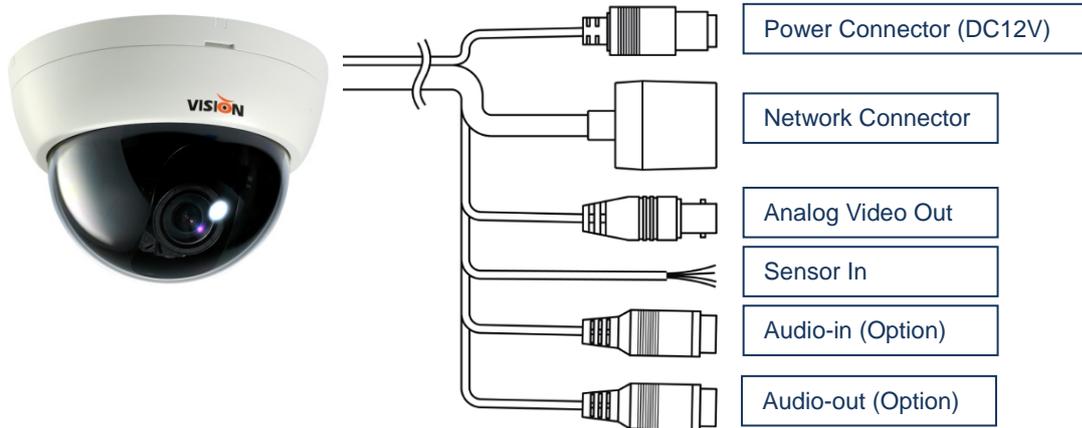
This IP camera uses 12VDC for power source. Please make sure to use a UL/CE approved and 12VDC regulated power supply for input power.
NOTE : *PoE is not available for VD101SMi and VD101SM3i.*
*Do not connect PoE device into this product.*

6. Installation

### 6-1 Opening the dome ass'y
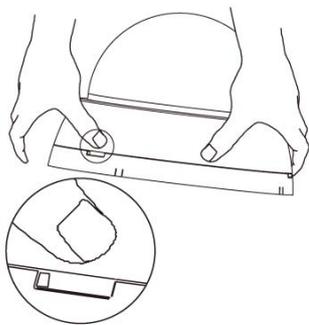
OR
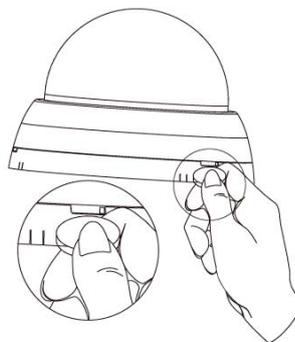
① Push the upper part of rectangular holes
   of the camera set by fingers and then
   the inner locking is separated.

① Or Insert a coin into the rectangular
   holes and twist it to remove the dome
   ass'y.
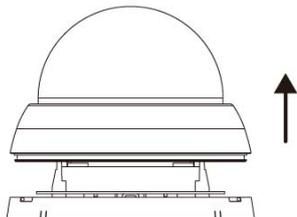
② After unlocking, separate the dome a'ssay from the camera set.

6-2 Varifocal Lens adjustment

Zoom Knob
Focus Knob
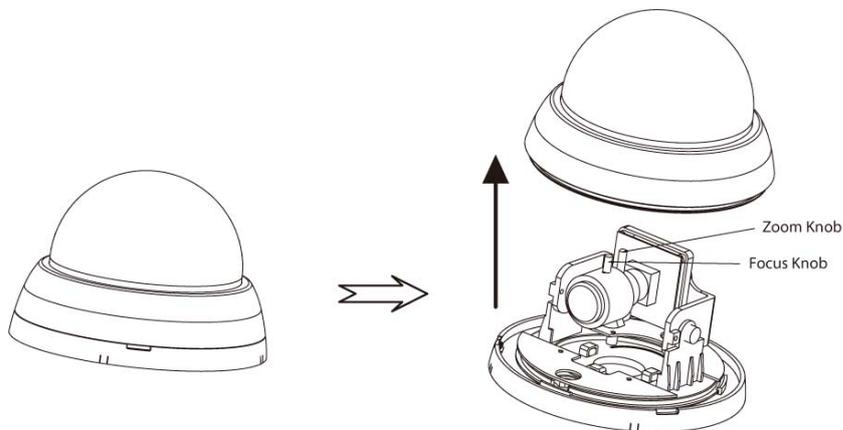
① Open dome curvature and cover as shown in 7-1.
② Unfasten Tilt Locking Lever by turning counterclockwise and adjust Camera Set to wanted location. And then, fasten Tilt Locking Lever tightly by turning clockwise.
③ Adjust focus by using Tele-Wide & Near-Far Knob.
④ Zoom (Tele-Wide)
   • Unlock the zoom lever by turning counterclockwise.
   • Move the lever to adjust the zoom.
   • Lock the lever by turning clockwise.
⑤ Focus (Near-Far)
   • Unlock the focus lever by turning counterclockwise.
   • Move the lever to adjust the focus.
   • Lock the lever by turning clockwise.

6-3 Tool-free 3-Axis mounting mechanism

Tilt 90°
Rotation 180°
Pan 360°

Perfect 3-axis
▪ Panning axis up to 360° degree
▪ Tilting axis up to 90° degree
▪ Rotation axis up to 180° degree
a. Panning 360°
   Pan Camera Set by turning post which is a camera set holder.
b. Tilting 90°
   Tilt Camera Set by turning Tilt Locking Lever.

c. Rotation 180°
   Rotate Camera set by grasping and turning the serration in the front of the camera set.
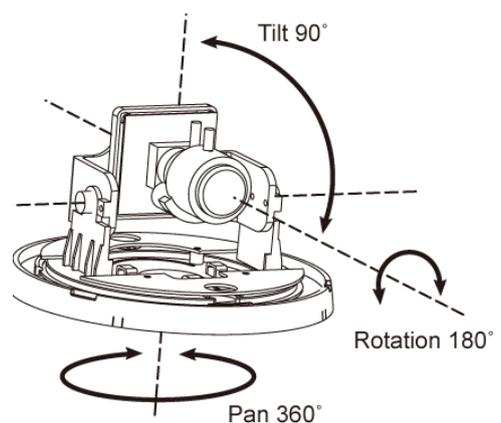
6-4. Installation overview

(1) Ceiling mount
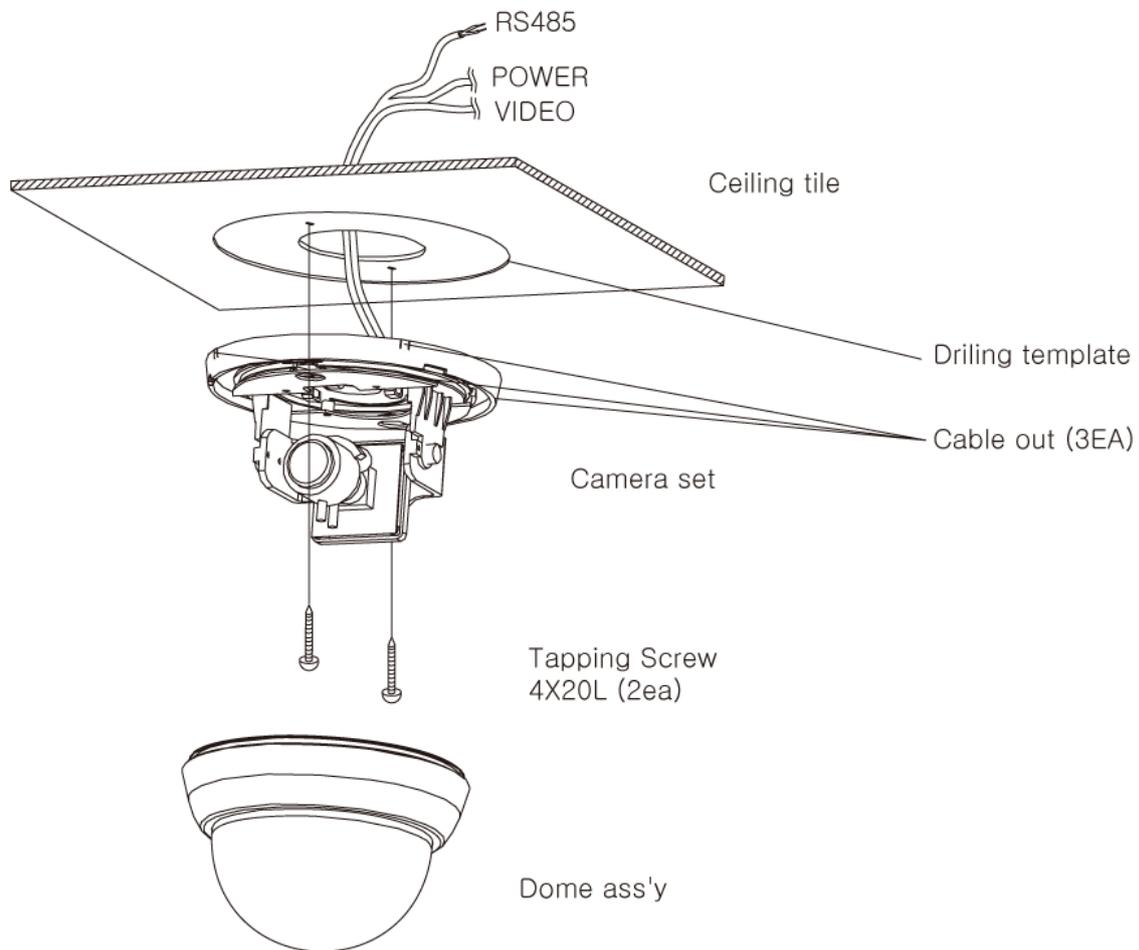
① Drill holes on the ceiling after doing paste a drilling template to wanted spot.

② Fix Plastic Anchors in the holes.

③ Fix the Dome Base on the ceiling by using Tapping Screws supplied.

④ After fixing the location of the Camera Set, push the Dome Ass'y(Dome Curvature and Cover) to the Dome Base.

(2) Wall or Slope mount

Cable out (3EA)

Camera set

Dome ass'y

Tapping Screw
4X20L (2ea)

Plastic Anchor
Ø6X30L-2ea

RS485
POWER
VIDEO
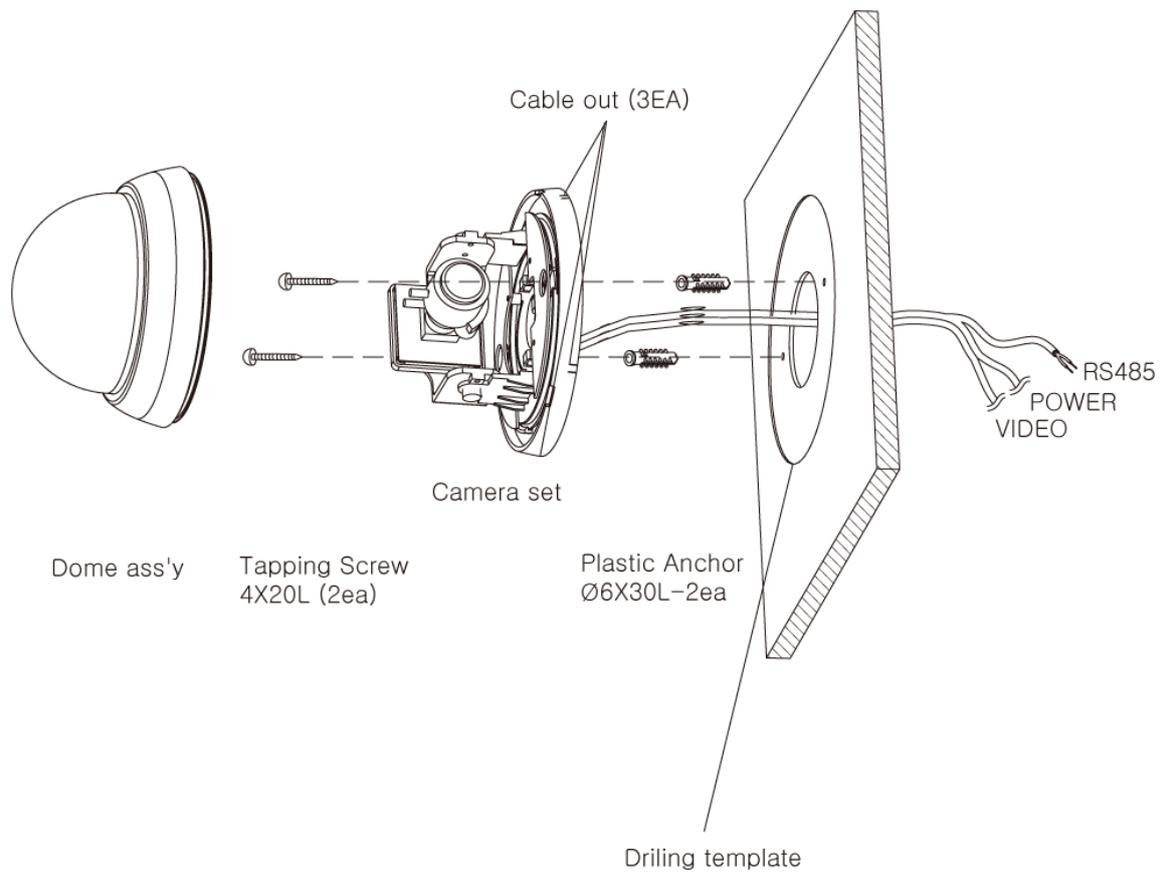
Driling template

① Drill holes on the wall or slope after doing paste a drilling template to wanted spot.
② Fix Plastic Anchors in the holes.
③ Fix the Dome Base on the wall or slope by using Tapping Screws supplied.
④ After fixing the location of the Camera Set, push the Dome Ass'y (Dome Curvature and Cover) to the Dome Base.

(3) Wall mount bracket (optional)

Tapping Screw
4X20L (2ea)

RS485
POWER
VIDEO

Camera set

Tapping Screw
4X20L (2ea)

Dome ass'y
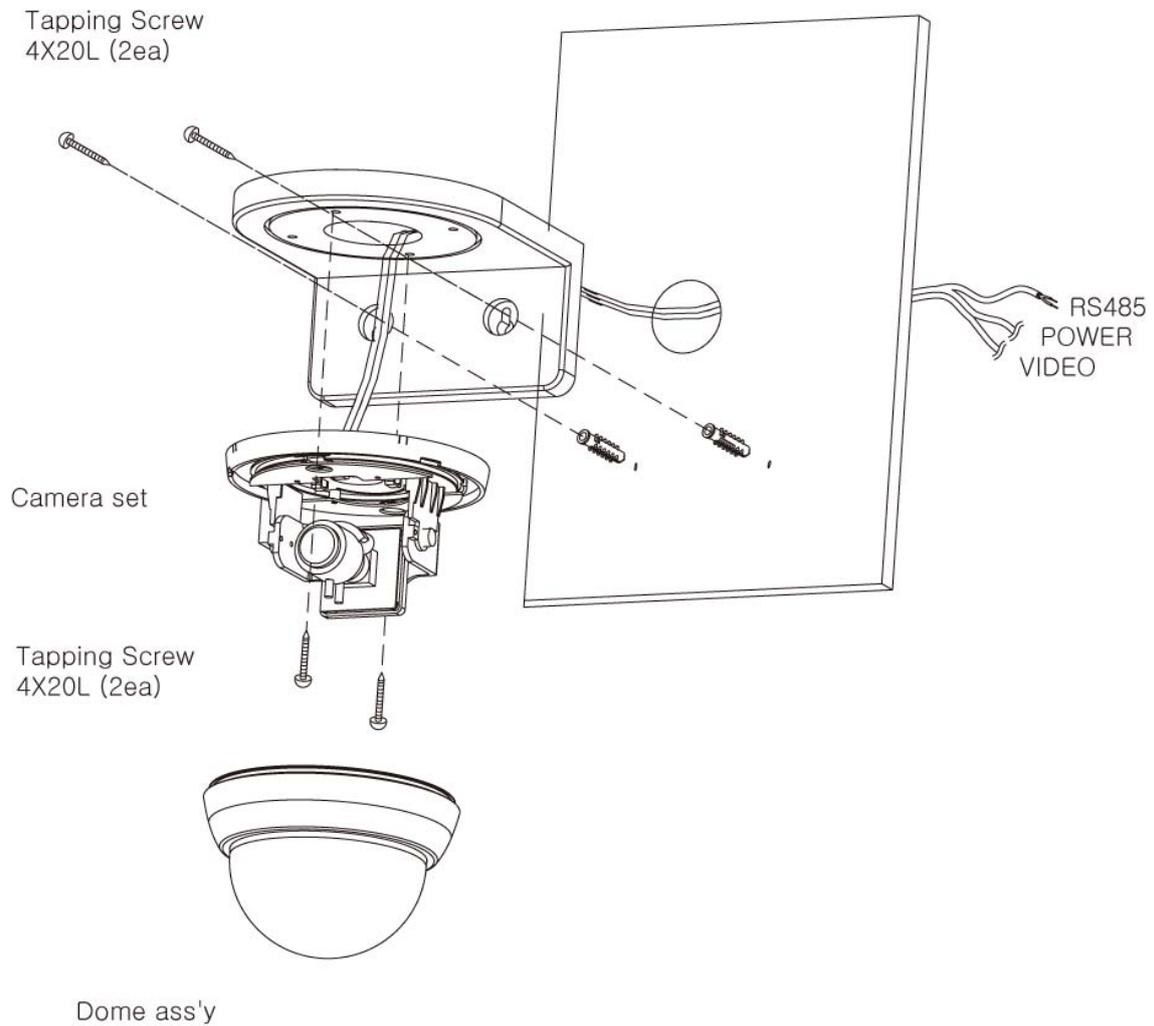
① Drill the holes on the wall.

② Insert the plastic anchor bolts into the holes.

③ Fix the wall mount bracket to the wall by fastening the tapping screws.

④ Fix the camera set with the supplied tapping screws.

7. Dimension (mm)
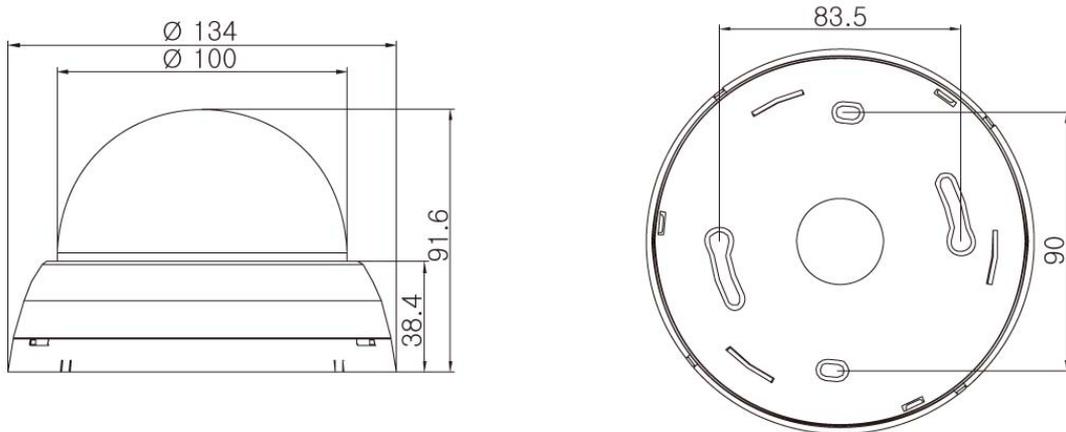
8. Specification

8.1. VD101SMi

Classification		Specification	
		VD101SMi	VD101SMi-IR
General	CPU	32-bit ARM9 RISC CPU up to 533MHz, 32KB I/D-Cache, MMU	
	Video Buffer	16Mbyte Video Frame Buffer	
	Flash	16 Mbyte Flash Memory	
	SDRAM	256Mbyte	
Image Pickup	Image sensor	1.3 Megapixel 1/3" SONY progressive scan CMOS image sensor	
	Total Pixels	1384(H) x 1076(V) 1.49 Megapixel	
	Effective Pixels	1329(H) x 1049(V) 1.39 Megapixel	
	S/N Ratio	More than 50dB	
	Min. Illumination & IR Distance	0.5 Lux with DSSX2 (F1.2, 30IRE, AGC On)	0Lux (IR On) 30M (Built-in IR LED's)
	Lens	3.7mm Megapixel Board Lens	
Video	Video compression	H.264 baseline profile, Motion JPEG	
	Resolutions	Up to 720p (1280 X 720)	
	Frame rate	H.264 Up to 30fps at HD(720p)	
		MJPEG Up to 15fps at VGA (Simultaneous dual stream)	
		MJPEG single stream up to 30 fps at HD(720P)	
	Video streaming	Support multi stream with H.264, MJPEG	
		Adjustable frame rate	
		VBR/CBR in H.264	
	Pan/Tilt/Zoom	Digital PTZ	
	Image setting	Day & Night	
		Auto White Balance	
		Auto Exposure	
		Privacy Mask	
		Effect - Color, Sharpness, Mirror/V-Flip, etc.	
	Output	BNC x1, 1.0Vp-p, 75 ohm Composite Video, NTSC/PAL	
Network	Security	Password protection	

		User access log
		HTTPS encryption
	Supported protocol	HTTP, HTTPS, FTP, SMTP, UPnP, DNS, DynDNS, NTP
		RTSP, RTP, TCP, UDP, ICMP, DHCP
System integration	Intelligent video	Motion detection up to 1280x720 with 32x24 blocks
	Alarm trigger	Motion detection
		External input/Normal Open/Close Type
	Alarm events	File upload via ftp, e-mail
		Notification via email, FTP and TCP
	Video buffer	16MB pre-alarm and post-alarm
	Recording	Save to Micro SD card with event mode and continuous mode
	Firmware upgrade	Remote upgrade via network
	API	CGI Interface document
		ActiveX Interface(ocx(dll) + document)
etc	RESET Button	1 x Factory Reset Button
Physical	Power Source	DC 12V/1.5A	
	Power Consumption	Max. 5.5W	Max. 7.2W with IR On
	Net Weight	520g Appr.(Camera Only)	
	LED's	Power, Network Connection	
	Dimension	134(Ø) x91.7(H)	
Environment	Operating Temperature	-25 degree~50 degree Celsius (-13F~122F)
	Storage Temperature	-25 degree~60 degree Celsius (-13F~140F)
Software	Included Software	NVR Lite (16 Channel), IP Installer (Windows Only)
Package	Package Contents	Network Camera, User Manual, External Power Adaptor(option), Software CD

8.2. VD101SM3i

Classification		Specification	
		VD101SM3i	VD101SM3i-IR
General	CPU	32-bit ARM9 RISC CPU up to 533MHz, 32KB I/D-Cache, MMU	
	Video Buffer	16Mbyte Video Frame Buffer	
	Flash	16 Mbyte Flash Memory	
	SDRAM	256Mbyte	
Image Pickup	Image sensor	3.0 Megapixel 1/2.8" SONY progressive scan CMOS image sensor	
	Total Pixels	2144(H) x 1588(V) 3.4 Megapixel	
	Effective Pixels	2144(H) x 1561(V) 3.27 Megapixel	
	S/N Ratio	More than 52dB	
	Min. Illumination & IR Distance	1 Lux with DSSX2 (F1.2, 30IRE, AGC On)	0Lux (IR On) 30M (Built-in IR LED's)
	Day & Night	ICR	
	Lens	3.7mm Megapixel Board Lens	
Video	Video compression	H.264 baseline profile, Motion JPEG	
	Resolutions	Up to 1920 x 1080	
	Frame rate	H.264 Up to 15fps with 1920x1080	
		MJPEG up to 15 fps with VGA (Simultaneous stream with H.264)	
		MJPEG Up to 30fps with 720P resolution (Single MJPEG stream)	

	Video streaming	Support multi stream with H.264, MJPEG	
		Adjustable frame rate	
		VBR/CBR in H.264	
	Pan/Tilt/Zoom	Digital PTZ	
	Image setting	Day & Night	
		ATR (WDR)	
		Auto White Balance	
		Auto Exposure	
		Privacy Mask	
		Effect - Color, Sharpness, Mirror/V-Flip, etc.	
	Output	BNC x1, 1.0Vp-p, 75 ohm Composite Video, NTSC/PAL	
Audio (Option)	Audio streaming	Two-way, full duplex	
	Audio compression	G.711	
	Sample Rate	8KHZ	
	Data Rate	64Kbps	
	Audio input	Microphone input /1 x Line-In (Mono)	
	Audio output	Line output/ 1 x Line-Out (Mono)	
Network	Security	Password protection	
		User access log	
		HTTPS encryption	
	Supported protocol	HTTP, HTTPS, FTP, SMTP, UPnP, DNS, DynDNS, NTP	
		RTSP, RTP, TCP, UDP, ICMP, DHCP	
System integration	Intelligent video	Motion detection up to 1920x1080 with 32x24 blocks	
	Alarm trigger	Motion detection	
		External input/Normal Open/Close Type	
	Alarm events	File upload via ftp, e-mail	
		Notification via email, FTP and TCP	
		External output activation/Normal Open/Close Type	
	Video buffer	16MB pre-alarm and post-alarm	
	Recording	Save to Micro-SD card with event mode and continuous mode	
	Firmware upgrade	Remote upgrade via network	
	API	CGI Interface document	
		ActiveX Interface(ocx(dll) + document)	
etc	RESET Button	1 x Factory Reset Button	
Physical	Power Source	DC 12V/1.5A	
	Power Consumption	Max. 5.5W	Max. 7.2W with IR On
	Net Weight	520g Appr.(Camera Only)	
	LED's	Power, Network Connection	
	Dimension	134(Ø) x91.7(H)	
Environment	Operating Temperature	-25 degree~50 degree Celsius(-13F~122F)	
	Storage Temperature	-25 degree~60 degree Celsius(-13F~140F)	
Software	Included Software	NVR Lite (16 Channel), IP Installer (Windows only)	
Package	Package Contents	Network Camera, User Manual, External Power Adaptor(option), Software CD	

■ *Specifications are subject to change without prior notice to enhance performance and stability*