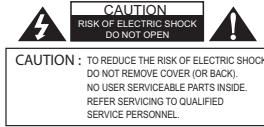




ENG Rev : 1.0



The lightning flash with arrowhead symbol, within an equilateral triangle is intended to alert the user to the presence of uninsulated "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.

Regulatory Notice

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.
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 in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause interference, in which case the user will be required to correct the interference at his 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 fire hazards:
- Handling of the unit : Be careful not to spill water or other liquids on the unit.
 - Operating and storage location : Avoid viewing a very bright object (such as light fittings) during an extended period.
 - Avoid operating or storing the unit in the following locations.
 - Extremely hot or cold places (operating temperature: -10 °C ~ 50 °C, however, we recommend that the unit be used within a temperature range of 0 °C ~ 45 °C)
 - Damp or dust place , places exposed to rain and places subject to strong vibration
 - Close to generators of powerful electromagnetic radiation such as radio or TV transmitters.
 - Handling of the Unit
 - Remove dust or dirt on the surface of the CMOS sensor with a blower.
 - Avoid the use of volatile solvents such as thinners, alcohol, benzene and insecticides. They may damage the surface finish and/or impair the operation of the camera.

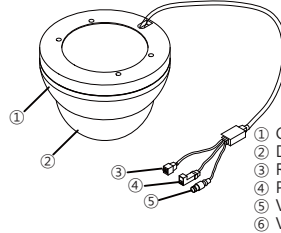
Feature

- 1/3" 2.1Megapixel CMOS Sensor
- PoC(Power over Coax), CoC(Cable over Coax) Camera
- DoubleReach / HD-SDI Selectable
- Full HD resolution : 1080p 30/25fps/720p 30/25fps
- High performance under low light environment (B/W: 0.0005 Lux, Color : 0.2Lux@50IRE, F1.6, 3100K, DSS OFF)
- Indoor/Outdoor/Indoor-Anti Blur/Outdoor-Anti Blur supports.
- 48 IR LEDs (BL-IR48 Series), 18 IR LEDs (BL-IR18 Series)
- Double Reach Max 400m, HD-SDI Max 180m supports.
- Back light compensation function (WDR/BLC/ACE/HLC)
- Digital Noise Reduction (DNR)
- Privacy supports (Privacy)
- Removing fog (Defog)
- OSD control and F/W upgrade supports

※ What is DoubleReach™?
DoubleReach technology converts Full-HD video to the level indistinguishable from the original video. D1080 series camera can output either DoubleReach video or HD-SDI video, and in case of DoubleReach, video can be transmitted up to 400m via 5C-HF8T coaxial cable.(※Note special mode)

Product description

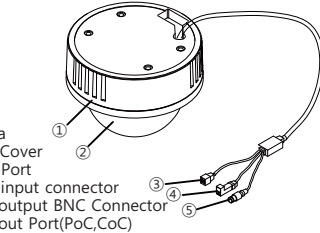
- D1080D/D1080D-IR/D1080D-AF/D1080D-IR-AF



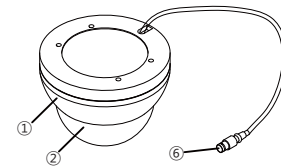
- 1 Camera
- 2 Dome Cover
- 3 RS485 Port
- 4 Power input connector
- 5 Video output BNC Connector
- 6 Video out Port(PoC,CoC)

Product description

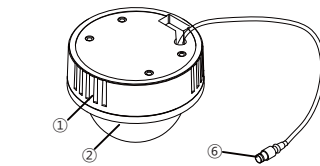
- D1080VD/D1080VD-IR/D1080VD-AF/D1080VD-IR-AF



- D1080PD/D1080PD-IR/D1080PD-AF/D1080PD-IR-AF

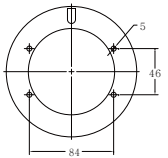
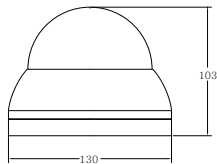


- D1080PVD/D1080PVD-IR/D1080PVD-AF/D1080PVD-IR-AF

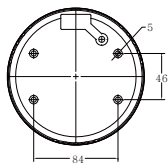
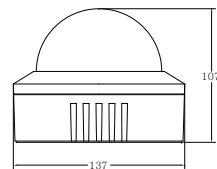


Dimensions(mm)

- D1080D/PD Series



- D1080VD/PVD Series



Camera installation

- Manual Focus Lens

- How to set up Manual Focus Lens
 1. Connect remote to the camera.
 2. Click on SET button located in center of remote.
 3. Select "FOCUS ADJ." menu to enter ADJUST FOCUSING mode.
 4. Adjust angle and focus using Zoom and Focus lever.
 - (※ Note Focus gauge)
 5. Click on "SET" button to end ADJUST FOCUSING mode.



※ What is Focus Gauge?
When the user is manually adjusting the focus, the camera shows graphical bar to have the user look at the focus visually. When the yellow and green bar meets together, that's where the camera is focused.

- Auto Focus Lens

- How to set up Auto Focus
 1. Connect remote to the camera.
 2. Click on SET button located in center of remote.
 3. Select "LENS" -> "MANUAL" menu to enter ADJUST FOCUSING mode
 4. Adjust angle and focus using Upper(Tele), Down(Wide) (※ Note Focus gauge)
 5. Click on "SET" button to be out of MANUAL mode.
 6. To make focus in detail, please select CORRECT AF(Full can mode) QUICK AF(MIN scan mode) to trigger AUTO FOCUSING function.



- ※ There's some case causing malfunction of AUTO FOCUS.
 1. Object moving during AUTO FOCUS
 2. Strong light in front of camera or nearby camera
 3. Low Contrast
 4. Dust on the lens
 5. Please try to make a focus either in Manual mode or with object of high Contrast.

Specification

Specifications are subject to be changed without notice.

Model		
Sensor Type		1/3" 2.1Megapixel CMOS
ToTal Pixels		1920(H) x 1080(V) = 2.1M pixels
Scanning System		Progressive Scan
Min Illumination	B/W	0.0005Lux@50IRE, F1.6, 3100K, DSS(OFF), AGC(10)
	Color	0.2Lux@50IRE, F1.6, 3100K, DSS(OFF), AGC(10)
	Lens	DC Iris, 2.8mm~11mm, F1.6, IR Corrective Mega Pixel Lens
Lens	Type	DC Auto Iris, Manual
	Output	1(BNC 1.0 Vp-p, 75Ω)
Video Output	Resolution	1080p 30fps / 25fps, 720p 25fps / 30fps
	Video Format	HD-SDI(SMPTE 292M compatible) or DoubleReach™ Selectable
	Distance	HD-SDI : Max. 180m of RG6, 140m RG59 DoubleReach™ : Max.400m of RG6
Video Control	Control Method	DVR, CMS(Control Center),Remocon(5Push Buttons)
	Filter	True Day & Night
	AGC	1 ~ 10 steps
	Mirror	Horizontal / Vertical
	WDR	OFF, 0 ~ 4 setup
	BLC	OFF, LOW, MIDDLE, HIGH
	ACE	OFF, ON
	DNR	OFF, LOW, MIDDLE, HIGH
	DSS	AUTO, OFF, x2 ~ x10

Special Mode

- DoubleReach & HD-SDI

- DoubleReach or HD-SDI output mode can be selected without entering camera OSD menu.
 1. DoubleReach Mode
 - Enter camera power with DOWN button of remote pressed.
 2. HD-SDI Mode
 - Enter camera power with UP button of remote pressed.

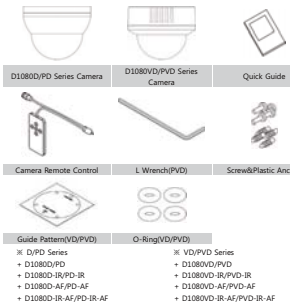
- Easy Auto Focus(AF Model Only)

- Auto Focus can be triggered without entering camera OSD menu.
 1. Connect remote and press UP button 3 times, Down button 1 time to trigger Auto Focus

- OSD control function of camera

- It is possible to change camera setup value located in remote site.
 1. In case that WEBGATE DVR is connected with camera in RS485 connection
 2. In case of CoC communication connected

Accessories

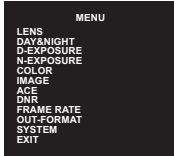


Specifications are subject to be changed without notice.

Model		
Video Control	White Balance	AUTO, PRESET, MANUAL
	Defog	OFF, AUTO, MANUA
	Electric Shutter	INDOOR, OUTDOOR, INDOOR-ANTI BLUR, OUTDOOR-ANTI BLUR, MANUAL(12 steps), ANTI-FLICKER
	Digital Zoom	0 ~ 16 steps
	Lens Shading	OFF, ON
	HLC	0 ~ 10 steps
Control Interface	Privacy	OFF/ON (15 Zones)
	Smart IR	OFF, ON
	CoC	Upgrade Firmware / OSD Control
Environments	OSD Control / 5Push Buttons	CVBS(NTSC/PAL Auto change)
	Operation Temp/Humidity	-10 °C ~ 50 °C / 0%RH ~ 80%RH
Certifications		KC, FCC, CE, RoHS, Hdctv

Due to firmware update and continuous quality improvement, camera menu could be updated without notice in advance.

1 MAIN MENU

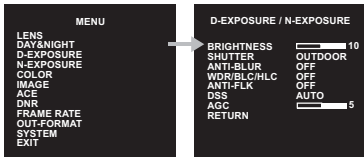


User can adjust all camera menu using camera's menu buttons
Camera's menu is composed of main menu and sub menu
If a main menu is selected, it displays related sub menu

※ What is DoubleReach™ ?

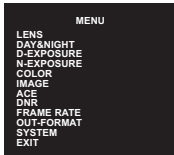
DoubleReach technology converts Full-HD video to the level indistinguishable from the original video. D1080 series camera can output either DoubleReach video or HD-SDI video, and in case of DoubleReach, video can be transmitted up to 400m via 5C-HFBT coaxial cable.

4 D-EXPOSURE / N-EXPOSURE



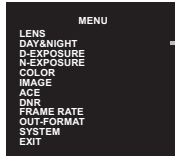
- ◆ BRIGHTNESS : Adjusts the brightness level.
 - ▶ 0(dark) ~ 20(bright) steps
- ◆ SHUTTER : INDOOR, INDOOR-ANTI BLUR, OUTDOOR, OUTDOOR-ANTI BLUR, MANUAL
- ◆ ANTI-BLUR : Set the ANTI-BLUR level at OUTDOOR mode.
 - ▶ LOW, MIDDLE, HIGH
- ◆ WDR / BLC / HLC / OFF
 - ▶ WDR : 3D WDR shows better video image both for bright and dark area.
 - ▶ BLC : BLC shows clearer video image for brightly saturated object.
 - ▶ HLC : It corrects overall exposure by masking over-exposed spot than standard value.
- ◆ ANTI-FLICKER : Set the Flickerless mode.
 - ▶ OFF / ON (Removes screen flickering)
- ◆ DSS : Set DSS(Digital Slow Shutter) mode.
 - ▶ AUTO, OFF, x2 ~ x10
- ◆ AGC : Set AGC(Auto Gain Control) level.
 - ▶ 1 ~ 10 Steps

7 ACE / DNR / FRAMERATE / OUT-FORMAT



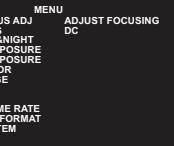
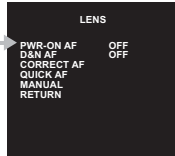
- ◆ ACE : ACE(Adaptive Contrast Enhancement) increases the brightness level of dark area to enhance the video quality.
 - ▶ OFF / ON
- ◆ DNR : DNR(Digital Noise Reduction) reduces the video noise at dark environment.
 - ▶ LOW / MIDDLE / HIGH
- ◆ FRAMERATE : Set power frequency.
 - ▶ 25Hz(PAL), 30Hz(NTSC) video output.
- ◆ OUT-FORMAT : User can select either DoubleReach video format or HD-SDI video format.
 - ▶ DoubleReach / HD-SDI

2 LENS



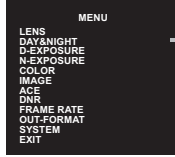
(AF Lens)

- ◆ PWR-ON AF : After power on, camera starts Auto-Focus function automatically.
 - ▶ OFF / ON
 - ◆ D&N AF : After Day ↔ Night optical filter change, camera adjusts focus minutely.
 - ▶ OFF / ON
 - ◆ CORRECT AF : This mode scans full range of lens and adjust focus.
 - ▶ After clicking menu, it automatically starts Auto-Focus adjustment.
 - ◆ QUICK AF : This mode scans minimum range of lens and adjust focus.
 - ▶ After clicking menu, it automatically starts Auto-Focus adjustment.
 - ◆ MANUAL : User can adjust focus and angle-of-view manually.
 - ▶ "Up" button : TELE, "Down" button : WIDE, "Left" button : NEAR, "Right" button : FAR
- ◆ FOCUS ADJ : User can use this mode when adjusting focus of MANUAL Lens.



(MANUAL Lens)

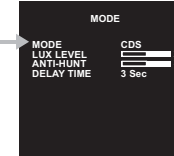
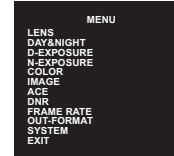
5 COLOR



- ◆ AWB : User can select a White Balance mode.
 - ▶ AUTO / ONE PUSH / MANUAL
 - ▷ AUTO : This mode automatically adjust white balance.
 - ▷ ONE PUSH : This mode adjusts white balance during ONE PUSH button is pressed.
 - ▷ MANUAL : User can adjust white balance manually. User can control "RED GAIN" and "BLUE GAIN".
- ◆ RED GAIN : Controls RED value at MANUAL mode (0 ~ 20)
- ◆ BLUE GAIN : Controls BLUE value at MANUAL mode (0 ~ 20)
- ◆ CHROMA : Adjusts Chroma value (0 ~ 20)

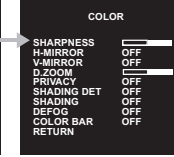
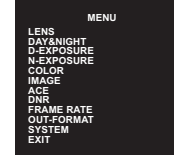


3 DAY&NIGHT



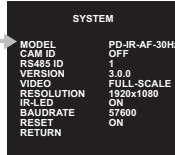
- ◆ DAY&NIGHT : Set Day&Night function.
 - ▶ AUTO / DAY / NIGHT
- ◆ MODE
 - ▶ CDS / AUTO
- ◆ LUX LEVEL : Set ambient brightness level to change Day ↔ Night mode. Lower value means lower brightness condition.
 - ▶ 0 ~ 100 / LOW, MIDDLE, HIGH
- ◆ ANTI-HUNT : Adjust hysteric interval of Day-to-Night level and Night-to-Day level.
 - ▶ 0 ~ 100 / LOW, MIDDLE, HIGH
- ◆ DELAY TIME
 - ▶ 3 Sec, 5 Sec, 10 Sec, 30 Sec

6 IMAGE



- ◆ Sharpness : Adjust video sharpness (0 ~ 10)
- ◆ H-MIRROR / V-MIRROR : Execute Horizontal/Vertical mirroring of video image.
- ◆ DZOOM : Magnify video up to 16 times (1 ~ 16)
- ◆ PRIVACY : Specific zones can be masked not to shown on video image (OFF / ON)
 - ▷ ZONE NO : Total 15 masking areas are available.
 - ▷ ZONE OP : Decide whether to use or not of selected masking.
 - ▷ X,Y-POS : Set the horizontal/vertical position of masking.
 - ▷ X,Y-SIZE : Set the size of masking.
 - ▷ COLOR : Select the color of masking (0 ~ 13)
 - ▷ TRANS : Select the transparency level of masking (0 ~ 4)
- ◆ SHADING : Adjust light and shade caused from unbalance between center of lens and neighboring light.(OFF / ON)
- ◆ DEFOG : Compensates foggy video image by fog or yellow dust.
- ◆ COLOR BAR : it outputs COLOR BAR pattern.

8 SYSTEM



- ◆ MODEL : Shows camera model name.
- ◆ CAM ID : Camera name can be entered maximum 8 characters.
- ◆ RS485 ID : Set a ID for RS485 communication.
- ◆ VERSION : Shows firmware version.
- ◆ VIDEO : Supports either Full-Scale(BT 709) or Comp-Scale(BT 601).
- ◆ RESOLUTION : Selects a resolution of video output (1080p/720p).
- ◆ IR-LED : Controls IR-LED operation.
 - ▶ SMART-IR : It controls exposure automatically to get more fine video.
- ◆ BAUDRATE : Set communication speed (9600bps, 57600bps)
- ◆ RESET : Initialize all setting values to factory default.

SPECIAL MODE

- ◆ Eazy Auto Focus (AF Model Only)
 - ▶ Without entering camera menu, user can execute Auto-Focus function,
 - ▷ With remote controller, push "Up" button 3 times then push "Down" button 1 time to start Auto-Focus function.
- ◆ DoubleReach
 - ▶ Enter camera power with DOWN button of remote pressed.
- ◆ HD-SDI
 - ▶ Enter camera power with UP button of remote pressed.

WEBGATE HD-CCTV solution provider

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