WISENET

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Never miss a thing

Hanwha Techwin

WISENET P series
Premium Multi-sensor cameras

First edition 02-2018

Hanwha Techwin

Cover wide areas with one camera

Wisenet P series multi-sensor cameras are equipped with multiple sensors, which means that it can effectively monitor wide areas with just one camera.

· Multi-directional cameras can simultaneously monitor multiple directions without any blind spots. When it is combined with a PTZ camera, it provides a detailed view of the desired image through its effective zoom-in function.
· Panoramic cameras provide a wide panoramic view within a single camera by merging 4 images from each sensors.

By installing Wisenet multi-sensor cameras, the cost of system installation and maintenance is reduced while successfully monitoring wide areas.

Multi-directional Camera

PNM-7000VD
4MP (2M x 2ea)
with selectable lens

PNM-9000VQ
Max. 20MP (5M/2M x 4ea)
with selectable lens

PNM-9080VQ
8MP (2M x 4ea)

PNM-9081VQ
20MP (5M x 4ea)

Multi-directional Camera with PTZ
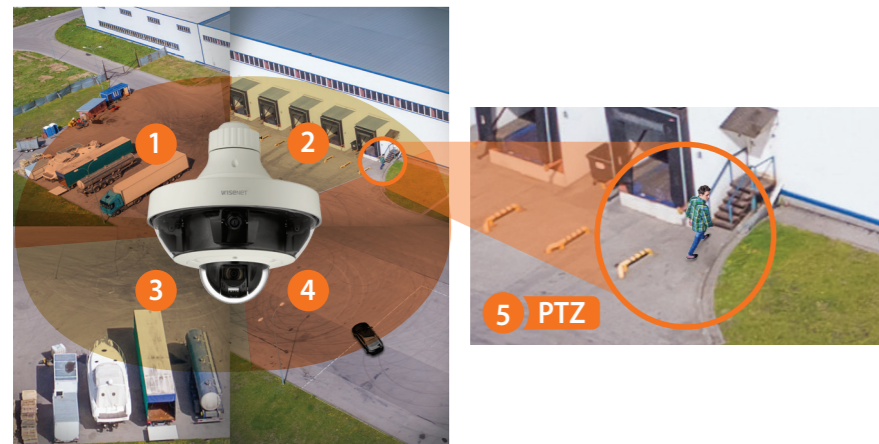
PNM-9320VQP
Max. 22MP
(2M 32x PTZ + 5M/2M x 4ea)
with selectable lens

Panoramic Camera

84°
180°

PNM-9020V
7.3MP (2M x 4ea)

PNM-9030V
20MP (5M x 4ea)

Multiple view modes

Choose from a variety of viewing options that fit your needs by using the broad line-up of Wisenet multi-sensor cameras.

Full HD Multi-directional Camera

· PNM-7000VD 4MP (2M x 2ea) with selectable lens

PNM-7000VD is able to simultaneously monitor two areas through multiple angles by installing two camera lenses in one surveillance camera, which removes the needs for multiple corners and reduces TCO (Total Cost of Ownership).

2CH Multi-directional Camera

PNM-7000VD

Full HD compatible fixed lens

According to the desired direction and viewing angle, you are able to select 2M 2.4, 2.8, 3.6 and 6mm lenses. The full HD video feature enables clear and sharp monitoring. By installing two 2.4mm lenses, monitoring up to 270 degree can be achieved, making it perfect for surveillance of large spaces such as parks, parking lots and shopping malls.

SLA-2M2400D 2.4mm Fixed lens **SLA-2M3600D** 3.6mm Fixed lens **SLA-2M6000D** 6.0mm Fixed lens
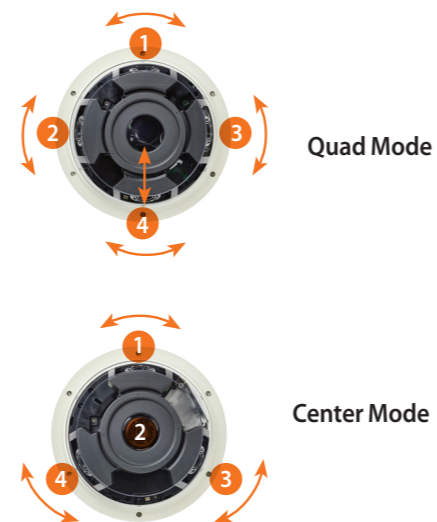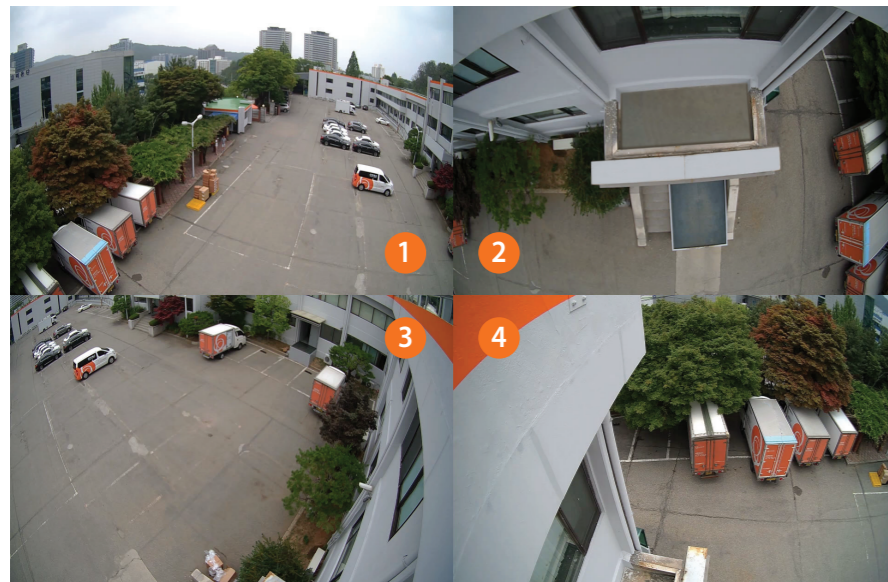
Premium Multi-directional Camera

· PNM-9081VQ 20MP (5M x 4ea)
· PNM-9080VQ 8MP (2M x 4ea)
· PNM-9000VQ Max. 20MP (5M/2M x 4ea)
  with selectable lens

Multi-directional cameras have four sensors in one camera. The four sensors in the multi-directional camera move independently on top of the tracks enabling users to monitor a complete 360˚ view simultaneously without any blind spots. In addition, one of the sensors can easily be removed and attached in the center of the camera, allowing for flexible set-up.

PNM-9081VQ   **PNM-9080VQ**

PNM-9000VQ

4CH Multi-
directional Camera

Quad Mode

Center Mode

Natural and clearer image

When using a fisheye camera, it brings low image quality and image distortion at each edge of the image. However, the Multidirectional camera with 4 sensors brings almost non image distortion and shows clearer image at each edge of the image.
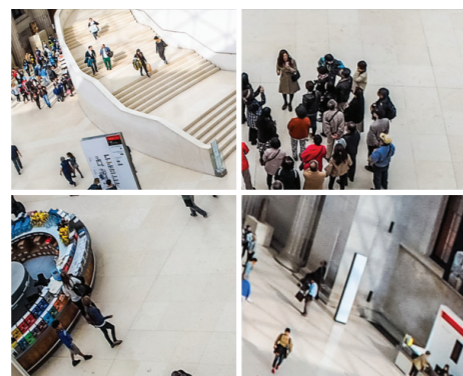
Clearer image and almost non distortion at the edges.

Low image quality and image distortion at the edges.

Fisheye Camera

Multi-directional Camera

Multi-directional Camera with PTZ

· PNM-9320VQP Max. 22MP (2M 32x PTZ + 5M/2M x 4ea)
  with selectable lens

PNM-9320VQP is a 5CH camera that combines four sensor multi-directional camera and 2MP 32x PTZ camera. The multi-directional camera can monitor a 360˚ wide area while the PTZ camera zooms in to the desired area for closer inspection.

PNM-9320VQP has a built-in 100/1000 SFP slots in its installation base which sends high resolution images to distanced locations through a network without any data damage.

Installation Base with built-in
100/1000 SFP slot

4CH Multi-
directional Camera

2M 32x PTZ Camera

PNM-9320VQP

5 PTZ - Preset mode

Preset Location

Event Detected

5 PTZ - Smart Zoom mode
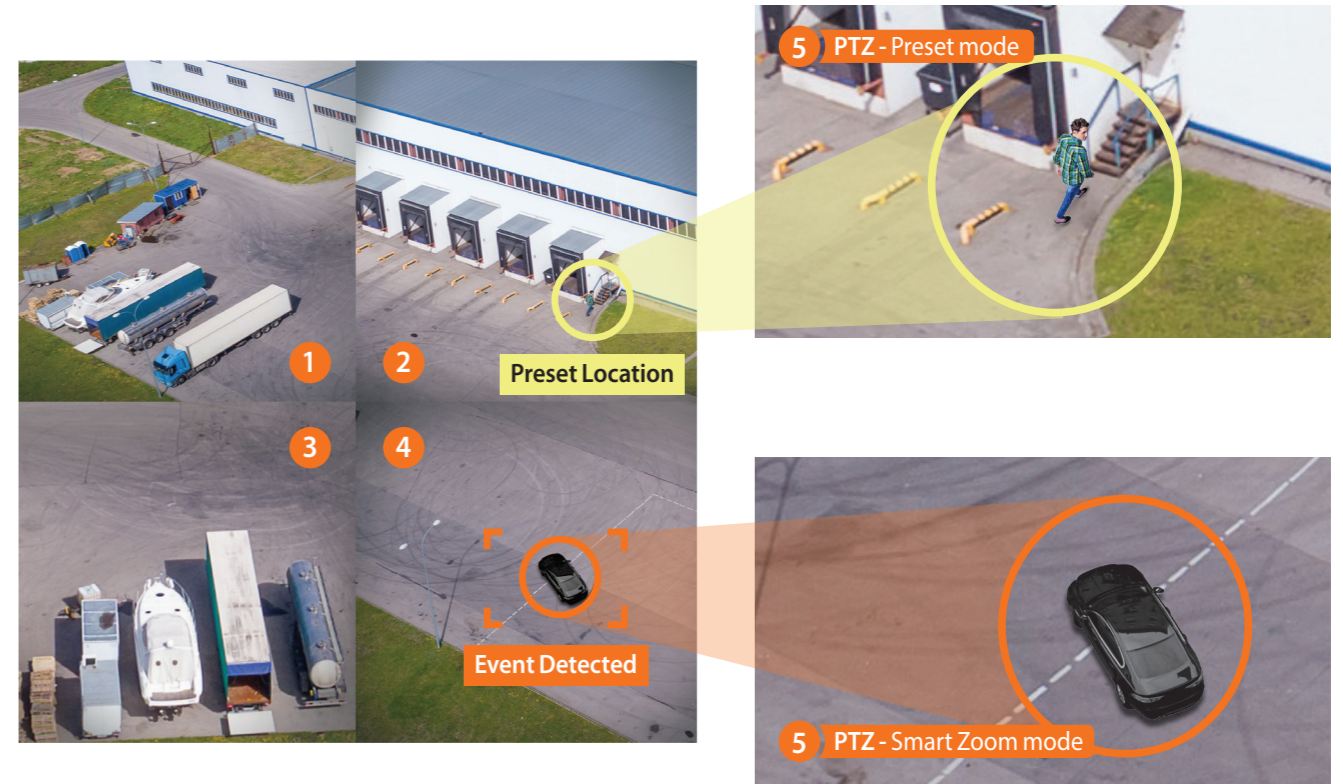
When an event is detected, the PTZ can either zoom into the event or the preset location by using the advanced handover to PTZ function.

Advanced handover to PTZ

PNM-9320VQP showcases the best of 2M 32x PTZ camera through an advanced handover function composed of preset mode and smart zoom mode. When the multi-directional camera detects an event, it automatically links to PTZ camera which carries out zoom-in and track functions.

When using preset mode, PTZ camera zooms in to the position that the users preset, while smart zoom mode automatically zooms into the area where event is detected. Create your own monitoring scenario that fit your needs by using the two modes of advanced handover to PTZ function.

Panoramic Camera

· PNM-9020V 7.3MP (2M x 4ea)
· PNM-9030V 20MP (5M x 4ea)

Panoramic cameras provide a wide panoramic view within a single camera instead of installing 4 cameras. It offers a seamless single image by merging 4 images from each sensors.

20MP
Panoramic Camera

7.3MP
Panoramic Camera

PNM-9030V

PNM-9020V

Single Panorama image (PNM-9020V)

PNM-9020V is a single channel camera that provides 7.3MP of panoramic image with 180˚ horizontal and 84˚ vertical field of view. The camera provides a single piece of high resolution panoramic view by stitching 4 images to monitor a wide range of area.

84°

180°

Single Panorama + Original + Crop images (PNM-9030V)

PNM-9030V can simultaneously stream a total of 7CH : a single panoramic 20MP image merged from the 4 original images, 4 of the original 5MP images from each sensor, and 2 of the 2MP crop images.

52°

220°

180˚ and 220˚ view mode for Panorama images (PNM-9030V)

The panoramic image of PNM-9030V support both 180 ˚ and 220 ˚ view modes.

· The 180 ˚ mode provides 180˚ horizontal and 70˚ vertical field of view, which maximizes the effectiveness with its vast vertical viewing angle.

· The 220 ˚ mode provides 220˚ horizontal and 52˚ vertical field of view, which can help users to monitor areas that need wider viewing angle such as corners of the building.

180 ˚   220 ˚
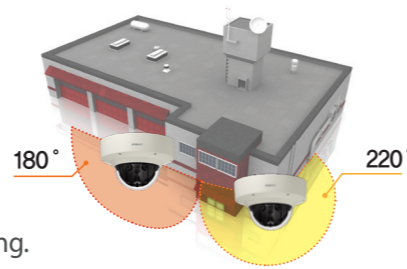
Selectable and changeable multiple lens (PNM-7000VD/9000VQ/9320VQP only)

Choose a wide variety of lenses from 2MP 2.4~12.0mm to 5M 7.0mm for each sensors in PNM-7000VD / 9000VQ / 9320VQP. Due to the wide variety of lens selection, users can create the most optimal field of view for their desired monitoring areas.

■ **PNM-7000VD**   ■ **PNM-9000VQ**   ■ **PNM-9320VQP**

1/2.8"
2MP Lens

| 2.4mm fixed | 2.8mm fixed | 3.6mm fixed | 6.0mm fixed | 12mm fixed |

1/1.8"
5MP Lens

| 3.7mm fixed | 4.6mm fixed | 7.0mm fixed |

※The applicable lens differs for each camera.

Optimized for indoor and outdoor environments

Wisenet P series panoramic and multi-directional cameras are suitable to monitor even the smallest details in a wide area. They are ideal for applications such as warehouse, shopping mall entrances, train stations, parking lots, and more supporting IP66, IK10.

· **Warehouse**   · **City Surveillence**   · **Parking lot**   · **Square**   · **Crossroads**
· **Mall entrance**   · **Airport**   · **Stadium**   · **Distribution center**   · **Train station**

Improve bandwidth by up to 99% using WiseStream Ⅱ

When Hanwha Techwin's original video compression technology WiseStream Ⅱ is combined with H.265 compression, the bitrate data is reduced by up to 99% compared to current H.264 technology. The costs of configuring and maintaining the system are also greatly reduced, while still maintaining the same pixels and high quality.

Low movemnet	Medium movement

High Compression Low Compression
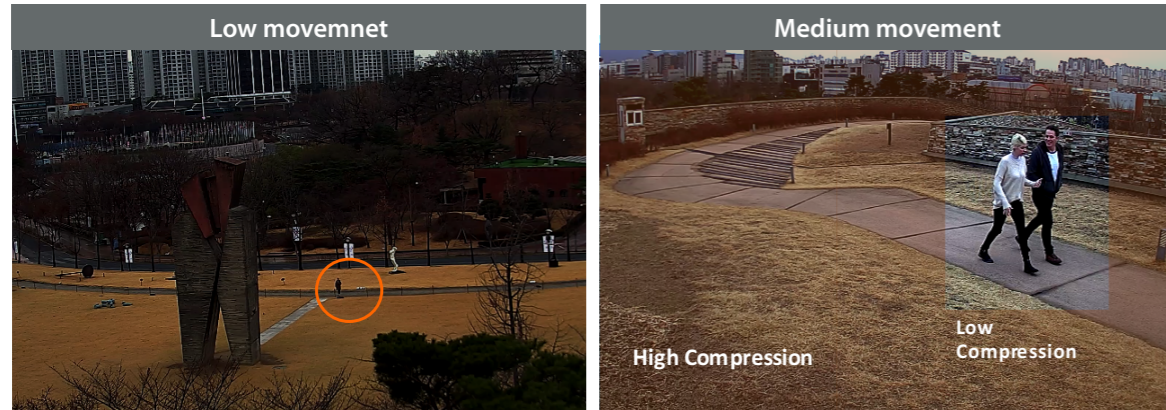
WiseStream Ⅱ OFF : 7160kbps
WiseStream Ⅱ ON : 74kbps

WiseStream Ⅱ OFF : 7260kbps
WiseStream Ⅱ ON : 1817kbps

Hallway view for monitoring vertical shaped areas

In a vertical shaped environment, such as corridors, hallways, tunnels, or aisles, traditional horizontal shaped videos focus on unnecessary edges of the area causing bandwidth and storage waste. The Hallway view, 3 : 4 and 9 : 16 aspect ratio image is created : a vertically oriented video that maximizes image quality in narrow locations.

Conventional	Hallway View

True WDR performance

Even with backlight, Wisenet's cutting-edge WDR technology addresses a limitation found in conventional WDR cameras while producing clear and vivid images. WDR improves the accuracy of an image by resolving the difference in brightness.

Conventional	Wisenet WDR 150dB actual footage

※ 150dB is available in 2MP cameras and 120dB is available in 5MP cameras.

A comprehensive range of intelligent video analytics

Wisenet P series multi-sensor cameras support a variety of exclusive video and audio analytics, providing enhanced monitoring solutions and market intelligence.

Tampering   Loitering   Directional detection   Fog & Dust detection   Virtual line

Appear Disappear   Enter / Exit   Face detection   Motion detection

※ Supported video analytics may vary depending on the product.

Accessory configuration

PNM-9020V

SBP-201HM
Hanging Mount

PNM-7000VD

SBP-300HM6
Hanging Mount

PNM-9000VQ   PNM-9030V

SBP-276HM
Hanging Mount

PNM-9320VQP

PNM-9081VQ/
9080VQ

Indoor

SBP-317HM
Hanging Mount

SBP-300WM1
Wall Mount

SBP-300WM
Wall Mount
(Swan-neck)

SBP-300LM
Parapet Mount

SBP-300CM
Ceiling Mount

SBP-390WM1
Wall Mount

SBP-300NB
Installation Box

SBP-300B
Wall Mount Base

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

PNM-9081VQ/
9080VQ

Outdoor

SBP-329HM
Hanging Mount

SBP-300WM
Wall Mount
(Swan-neck)

SBP-300LM
Parapet Mount

SBP-300CM
Ceiling Mount

SBP-390WM1
Wall Mount

SBP-300NB
Installation Box

SBP-300B
Wall Mount Base

SBP-300PM
Pole Mount

SBP-300KM
Corner Mount

Product Comparison

	PNM-7000VD	SLA-2M6000D	SLA-2M3600D	SLA-2M2800D	SLA-2M2400D
Resolution	4MP (2M x 2ea)	2MP	2MP	2MP	2MP
Imaging Device	-	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	-	-	-	-
Resolution / Frame Rate	2ea x 2M / 60fps	-	-	-	-
Streaming Capacity	Multiple (Up to 10 Profiles)	-	-	-	-
Max. User Access	20 (Unicast)	-	-	-	-
Min. Illumination	-	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.055Lux
Video Output	CVBS 1.0Vpp	-	-	-	-
Lens	-	6.0mm fixed (F2.0)	3.6mm fixed (F2.0)	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)
Angular Field of View	-	H : 50.4° / V:28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°
Focus Control	-	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-	-
Pan / Tilt / Rotate	-	±176° / 0˚~ 65˚ / ±90°	±176° / 0˚~ 54˚ / ±90°	±176° / 0˚~ 50˚ / ±90°	±176° / 0˚~ 30˚ / ±90°
Day & Night	Electrical	Electrical	Electrical	Electrical	Electrical
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D filter)	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-
Video & Audio Analytics	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Face detection	-	-	-	-
Protocol	ONVIF profile S, SUNAPI	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio	-	-	-	-	-
Edge Storage	SD/SDHC/SDXC, Local PC	-	-	-	-
Environment Protection	IP66, IK10	-	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-	-	-	-
Power	Max.12.95W (PoE)	-	-	-	-
Dimensions (WxHxD) / Weight	Ø161.0 x 73.0mm (Ø6.34" x 2.87") 840g (1.85 lb)	Ø35.5 x 27.9mm (1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (1.4" x 1.1") 27g (0.06 lb)	Ø35.5 x 27.9mm (1.4" x 1.1") 27g (0.06 lb)
Additional Features	Multi-directional camera, Defog, WiseStream II Hallway View	Lens module for PNM-7000VD	Lens module for PNM-7000VD	Lens module for PNM-7000VD	Lens module for PNM-7000VD

	PNM-9081VQ	PNM-9080VQ	PNM-9030V	PNM-9020V
Resolution	20MP (5M x 4ea)	8MP (2M x 4ea)	20M (5M x 4ea)	7.3MP (2M x 4ea)
Imaging Device	1/1.8" 6M CMOS x 4	1/2.8" 2.38M CMOS x 4	20M (5M x 4ea)	7.3M (2M x 4)
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	5M / 30fps	2M / 60fps	15.5M / 30fps (H.265, H.264)	7.3M / 30fps (H.265, H.264)
Streaming Capacity	Multiple (Up to 40 Profiles)	Multiple (Up to 40 Profiles)	Multiple (Up to 5 or 3 profiles for each CH)	Multiple (Up to 3 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	15 (Unicast)	15 (Unicast)
Min. Illumination	Color : 0.07Lux B/W : 0.007Lux	Color : 0.015Lux B/W : 0.0015Lux	Color : 0.15lux B/W : 0.01lux	Color : 0.3Lux B/W : 0.03Lux
Video Output	CVBS 1.0Vpp (selectable CVBS per channel)	CVBS 1.0Vpp (selectable CVBS per channel)	Micro USB type B	-
Lens	3.6 ~ 9.4mm (2.6x) motorized V/F (F1.2)	2.8 ~ 12mm (4.3x) motorized V/F F1.4(Wide) / F3.6(Tele)	4.0mm fixed (F2.0)	3.6mm fixed (F2.0)
Angular Field of View	H : 102.5°(Wide) ~ 38.7°(Tele) / V : 74.2°(Wide) ~ 29.0°(Tele) / D : 135.5°(Wide) ~ 48.6°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	[Total 4 Sensor] 180° mode - H : 180° / V : 70° 220° mode - H : 220° / V : 52°	[Total 4 Sensor] H : 180° / V : 84°
Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Fixed	-
IR Viewable Length	-	-	-	-
Pan / Tilt / Rotate	Quad mode : ±30° / 10° ~ 41° / ±90°, Center mode : ±60° / 10° ~ 41°, 10° ~ 90° (CH2/Center) / ±90°	Quad mode : ±30° / 10° ~ 41° / ±90°, Center mode : ±60° / 10° ~ 41°, 10° ~ 90° (CH2/Center) / ±90°	0° ~ 355°/ 0° ~ 60° / -	0° ~ 355°/ 0° ~ 60° / -
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (150dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	-	-
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Heatmap, Sound classification	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection, Digital Auto tracking, Heatmap
Protocol	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI	ONVIF Profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio	-	-	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, Local PC	SD/SDHC/SDXC, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F) * Start up above -35℃ (-31°F)
Power	Max. 28.8W (12V DC) Max. 33.6W (HPoE)	Max. 21.6W (12V DC) Max. 25.5W (PoE+)	Max 21.0W (12V DC) Max 25.5W (PoE+)	Max. 21.0W - Heater on (12V DC) Max. 25.5W - Heater on (PoE+)
Dimensions (WxHxD) / Weight	Ø314 x 152mm (Ø12.36" x 5.98") 4.89kg (10.78 lb)	Ø314 x 152mm (Ø12.36" x 5.98") 4.83kg (10.65 lb)	Ø253 x 165mm (9.96" x 6.5") 3.2Kg (7.1lb)	Ø199.0 x 143.5mm (Ø7.83" x 5.65") 2.03Kg (4.48 lb)
Additional Features	Multi-directional camera, Hallway View, P-Iris, Defog, WiseStream II	Multi-directional camera, Hallway View, P-Iris, Defog, WiseStream II	Handover, Multi-sensor camera, Defog, WiseStream II	Handover, Multi-sensor camera, Defog, WiseStream

	PNM-9000VQ	SLA-5M7000Q	SLA-5M4600Q	SLA-5M3700Q	SLA-2M6000Q	SLA-2M3600Q	SLA-2M2800Q	SLA-2M2400Q
Resolution	Max. 20MP (2M/5M x 4ea)	5MP	5MP	5MP	2MP	2MP	2MP	2MP
Imaging Device	-	1/1.8" 5M CMOS	1/1.8" 5M CMOS	1/1.8" 5M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	-	-	-	-	-	-	-
Resolution / Frame Rate	5M / 30fps, 2M / 60fps	-	-	-	-	-	-	-
Streaming Capacity	Multiple (Up to 10 Profiles)	-	-	-	-	-	-	-
Max. User Access	20 (Unicast)	-	-	-	-	-	-	-
Min. Illumination	-	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux
Video Output	CVBS 1.0 Vpp	-	-	-	-	-	-	-
Lens	-	7.0mm fixed (F1.6)	4.6mm fixed (F1.6)	3.7mm fixed (F1.6)	6.0mm fixed (F2.0)	3.6mm fixed (F2.0)	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4°, V : 71.2°, D : 161.6°
Focus Control	-	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-	-	-	-	-
Pan / Tilt / Rotate	-	±90° / 40°~ 89° / ±180°	±90° / 50°~ 80° / ±180°	±90° / 59°~ 66° / ±180°	±90° / 30°~ 89° / ±180°	±90° / 37°~ 89° / ±180°	±90° / 40°~ 89° / ±180°	±90° / 62° / ±180°
Day & Night	Electrical	Electrical	Electrical	Electrical	Electrical	Electrical	Electrical	Electrical
Backlight Compensation	WDR 150dB(2MP), 120dB(5MP)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	-	-	-	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-	-	-	-
Video & Audio Analytics	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Face detection, Defocus detection	-	-	-	-	-	-	-
Protocol	ONVIF Profile S, SUNAPI	-	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-	-	-
Audio	-	-	-	-	-	-	-	-
Edge Storage	SD/SDHC/SDXC, Local PC	-	-	-	-	-	-	-
Environment Protection	IP66, IK10	-	-	-	-	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-	-	-	-	-	-	-
Power	25.5W (PoE+)	-	-	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø253x130mm (Ø9.96" x 5.11") 3.0 kg (6.7 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)
Additional Features	Multi-directional camera, Defog, WiseStream II Hallway View	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ

	PNM-9320VQP	SLA-5M7000P	SLA-5M4600P	SLA-5M3700P
Resolution	Max. 22MP (2MP 32x PTZ + 2M/5M x 4ea)	5MP	5MP	5MP
Imaging Device	1/2.8" 2.4M CMOS (PTZ)	1 / 1.8" 5M CMOS	1 / 1.8" 5M CMOS	1 / 1.8" 5M CMOS
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Frame Rate	5M / 30fps, 2M / 60fps	-	-	-
Streaming Capacity	Multiple (Up to 10 Profiles)	-	-	-
Max. User Access	20 (Unicast)	-	-	-
Min. Illumination	Color : 0.05Lux, BW : 0.005Lux (PTZ)	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux
Video Output	CVBS 1.0 Vpp (Multi)	-	-	-
Lens	4.44 ~ 142.6mm (Optical 32x) F1.6 (Wide) / F4.4 (Tele) (PTZ)	7.0mm fixed (F1.6)	4.6mm fixed (F1.6)	3.7mm fixed (F1.6)
Angular Field of View	H : 61.8°(Wide)~2.19°(Tele) / V : 36.2°(Wide)~1.24°(Tele) (PTZ)	H : 50.7˚ / V : 37.8˚ / D : 63.8˚	H : 77.9˚ / V : 57.9˚ / D : 98.7˚	H : 97.5˚ / V : 71.9˚ / D : 126.2˚
Focus Control	Auto / Manual / One shot AF (PTZ)	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-
Pan / Tilt / Rotate	360° Endless / 190°(-5°~185°) (PTZ)	±90˚ / +12˚~ +93˚ / ±180˚	±90˚ / +21˚~ +85˚ / ±180˚	±90˚ / +36˚~ +73˚ / ±180˚
Day & Night	Electrical (Multi), True ICR (PTZ)	Electrical	Electrical	Electrical
Backlight Compensation	WDR 150dB (2MP), 120dB (5MP)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	-	-	-
Digital Image Stabilization	Support (Built in gyro sensor - PTZ)	-	-	-
Video & Audio Analytics	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Face detection, Defocus detection (Multi)	-	-	-
Protocol	ONVIF Profile S, SUNAPI	-	-	-
Alarm I/O	1 / 2	-	-	-
Audio	-	-	-	-
Edge Storage	SD/SDHC/SDXC, Local PC	-	-	-
Environment Protection	IP66, IK10	-	-	-
Operating Temperature	-35°C ~ +55°C (-31°F ~ +131°F)	-	-	-
Power	Max. 65W (HPoE)	-	-	-
Dimensions (WxHxD) / Weight	Ø 367.8 x 381.5mm (Ø 144.49" x 150.20") 7.05 kg (16.1 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08 lb)
Additional Features	Multi-directional camera with PTZ, Defog, WiseStream II Hallway View, Auto tracking	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP

	SLA-2M6000P	SLA-2M3600P	SLA-2M2800P	SLA-2M2400P	SLA-2M1200P
Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1 / 2.8" 2M CMOS	1 / 2.8" 2M CMOS	1 / 2.8" 2M CMOS	1 / 2.8" 2M CMOS	1 / 2.8" 2M CMOS
Video Compression	-	-	-	-	-
Resolution / Frame Rate	-	-	-	-	-
Streaming Capacity	-	-	-	-	-
Max. User Access	-	-	-	-	-
Min. Illumination	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux	Color : 0.055Lux, B/W : 0.055Lux
Video Output	-	-	-	-	-
Lens	6.0mm fixed (F2.0)	3.6mm fixed (F2.0)	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)	12mm fixed (F2.0)
Angular Field of View	H : 50.4˚ / V : 28.8˚ / D : 58.1˚	H : 94.8˚ / V : 49.3˚ / D : 114.3˚	H : 107.4˚ / V : 62.2˚ / D : 122.0˚	H : 135.4˚ / V : 71.2˚ / D : 161.6˚	H : 26.3˚ / V : 14.9˚ / D : 30.0˚
Focus Control	Fixed	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-	-
Pan / Tilt / Rotate	±90˚ / +10˚~ +95˚ / ±180˚	±90˚ / +22˚~ +84˚ / ±180˚	±90˚ / +26˚~ +80˚ / ±180˚	±90˚ / +52˚~ +56˚ / ±180˚	±90˚ / +10˚~ +97˚ / ±180˚
Day & Night	Electrical	Electrical	Electrical	Electrical	Electrical
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	-	-	-	-	-
Digital Image Stabilization	-	-	-	-	-
Video & Audio Analytics	-	-	-	-	-
Protocol	-	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio	-	-	-	-	-
Edge Storage	-	-	-	-	-
Environment Protection	-	-	-	-	-
Operating Temperature	-	-	-	-	-
Power	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 30g (0.07 lb)	Ø35.5 x 35.9 mm (Ø 1.39" x 1.41") 30g (0.07 lb)
Additional Features	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP	Lens module for PNM-9320VQP

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