



## Product line-up

1<sup>st</sup> Quarter 2019



# Hanwha

Hanwha is ranked as the 8th largest corporation in South Korea based on asset size, and is a Fortune 500 company. With 70 affiliates and 325 global networks, Hanwha's global businesses span the manufacturing and construction; finance, and service and leisure industries. With its 25 years of technological knowledge and expertise in optical and image processing, Hanwha Techwin is leading the CCTV and video surveillance market.





- 1977 Established the company
- 1991 Initiation of video surveillance business
- 1993 Development of nation's first iris lens for CCTV
- 2008 Release of world's first 37x PTZ camera
- 2010 Samsung Techwin acquires Samsung's video surveillance business
- 2012 Release of world's first 37x zoom interworking IR PTZ camera
- 2013 Release of Wisenet3 camera
- 2015 Hanwha group acquires Samsung Techwin and Hanwha Techwin is established
- 2016 Development of WISENET5 ISP Chip (SoC)
- 2017 Release of Wisenet X camera

# WISeNET

**WISeNET** is the signature brand of Hanwha Techwin's security business. It embodies the spirit of building a safe, secure, and connected world.

## Core value



### Complete

- Seamless Security
- Dependable Quality
- Comprehensive Solutions



### Assured

- Partner-assured
- Buyer-assured
- User-assured



### Value-added

- Added Usability
- Added Flexibility
- Added Possibility

Based on world class optical image processing technology, Wisenet provides high-resolution cameras, recording devices and enterprise management software. For a complete security solution including intelligent video analytics, Hanwha offers a full lineup of video surveillance solutions.



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# WISENET X series

Defining the new standard of excellence

## The Most Powerful Chipset Wisenet 5

Wisenet X series is supercharged by the most powerful chipset ever incorporated into a full camera range.

The Wisenet 5 chip uses an all-new architecture that enables faster processing. That means you get the best video performance just when you need it.



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True WDR performance (150dB)  
Improve bandwidth by up to 99% using WiseStream II  
Digital image stabilization with Built-in Gyro sensor  
Clearer and colored image even in low light environments  
Enhanced video / audio analytics



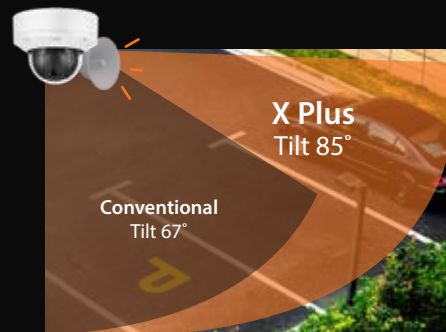
# WISeNET X PLUS

## Easy Installation with Modular Structure

The X Plus cameras feature a modular design that makes installation and maintenance simpler than ever. With extended tilt range, DIS & shock detection with gyro sensors, motorized PTRZ, and optional skin covers, you will soon discover why X Plus is one of the most versatile camera lines on the market.



Magnetic modular design



Extended tilt range and audio playback on event

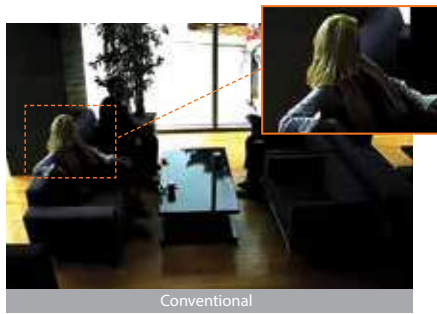


Optional accessories for various applications

# WISENET X series

## True WDR performance(150dB)

Conventional WDR captures images by taking 2 frames taken at different exposures, whereas Wisenet X series cameras utilize 4 frame capture at different exposure levels to create a combined image. With the development of cutting-edge WDR technology, Wisenet X series cameras address a limitation found in conventional WDR cameras while producing clear and vivid images.



Conventional



Wisenet X series

\*150dB WDR only available in 2MP X series

## extraLUX provides clear and colored images, even in low-light environments

Wisenet X series achieves optimal performance in low-light conditions by producing crystal-clear and true-color images without IR LEDs, regardless of the environment or time of day. The extraLUX series (XNO-6085R, XND/XNV-6085(V)) feature outstanding F0.94 lens with the 1/2" CMOS sensor, capturing vivid color images even in low-light environments.



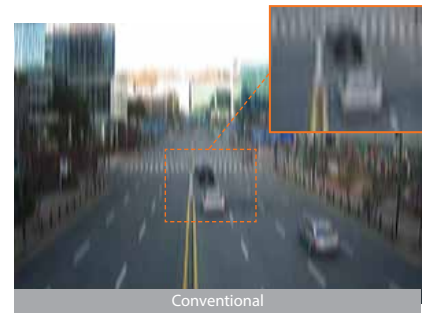
Conventional



extraLUX(XNV-6085)

## Digital Image Stabilization(DIS) with built-in Gyro sensor

Advances in Wisenet image stabilization technology allows the reduction of motion blur caused by wind or vibration. A gyroscopic sensor plus DIS technology is specifically added to the Wisenet X series cameras for more accurate stabilization.



Conventional



Wisenet X series

## Improve bandwidth by using WiseStream II

Using WiseStream II, Hanwha Techwin's original video compression technology, the Wisenet X series reduces data by up to 99% compared to current H.264 technology, when combined with H.265 compression. System costs are also greatly reduced without comprising image quality.



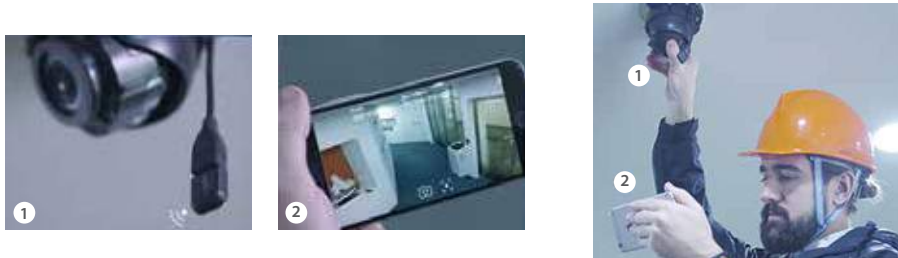
WiseStream II OFF : 7160kbps **WiseStream II ON : 74kbps**



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

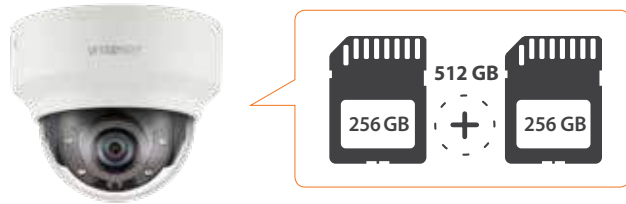
## More convenient installation with USB

Using the USB port, the installer can easily connect Wisenet X series cameras and mobile devices through Wi-Fi. Viewing and adjusting camera angles can be done immediately after installation by using a smartphone. No additional devices are required, saving both time and money.



## Dual SD slots

Dual SD slots allow up to 512 GB to be saved automatically to the camera, keeping data safe in the event of an unstable network. Obviously this allows to record more video footage than single SD slot.



## Handover to PTZ

The handover feature allows a PTZ camera\* to receive an alarm(motion detection) from Wisenet X series camera operating on the same IP video surveillance system. Once the notification is received, the PTZ camera will zoom into the assigned camera pre-set location.

※PNP-9200RH / XNP-6370RH



## Fog detection

Wisenet X series delivers outstanding image quality in foggy weather with Fog detection. Any change in an image is automatically detected with the defog function to provide a clear image.



## Enhanced Video / Audio Analytics

Wisenet X series support a variety of exclusive Video and Audio Analytics, providing enhanced monitoring solutions and market intelligence.

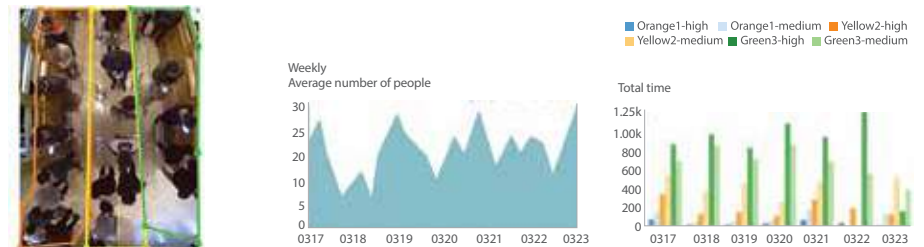
## Loitering detection

This feature detects when an object remains in a designated area longer than the time threshold set by the user.



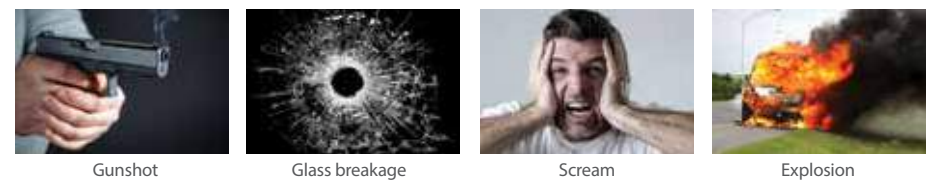
## Queue management

This feature provides statistical analysis and measurement for average dwell time and number of people in a queue. This insight is critical for businesses to manage their operations more efficiently, while providing the insight necessary to manage campaigns, displays and promotions throughout retail locations.



## Sound classification

Wisenet X series cameras help users respond immediately in dangerous situations, by classifying sounds such as gunshot, glass breakage, scream and explosion.







**XNB-8000**



**XNO-8080R**



**XNO-8020R/8030R/8040R**



**XND-8081VZ/8081FZ**



**XND-8081RV/8081RF**



**XND-8080RV**

Resolution	5MP	5MP	5MP	5MP	5MP	5MP
Imaging Device	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	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	5M / 30fps	5M / 30fps	5M / 30fps	5M / 30fps	5M / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.07Lux B/W : 0.007Lux	Color : 0.07Lux B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.07 Lux B/W : 0.007 Lux	Color : 0.07 Lux B/W : 0Lux (IR LED on)	Color : 0.07Lux B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	-	3.7 ~ 9.4mm (2.5x) motorized V/F (F1.2)	3.7mm fixed (F1.6) (XNO-8020R) 4.6mm fixed (F1.6) (XNO-8030R) 7.0mm fixed (F1.6) (XNO-8040R)	3.6~9.4mm (2.6x) motorized V/F (F1.2)	3.9~9.4mm (2.4x) motorized V/F (F1.3)	3.9 ~ 9.4mm (2.4x) motorized V/F (F1.3)
Angular Field of View	-	H : 100.2°(Wide) ~ 38.7°(Tele) / V : 72.7°(Wide) ~ 29.0°(Tele) / D : 132.0°(Wide) ~ 48.6°(Tele)	H : 97.5° / V : 71.9° / D : 126.2° (XNO-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XNO-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XNO-8040R)	H : 102.5°(Wide) ~ 38.7°(Tele) / V : 74.2°(Wide) ~ 29.0°(Tele) / D : 135.5°(Wide) ~ 48.6°(Tele)	H : 92.1°(Wide) ~ 38.7°(Tele) / V : 67.2°(Wide) ~ 29.0°(Tele) / D : 119.9°(Wide) ~ 48.6°(Tele)	H : 92.1°(Wide) ~ 38.7°(Tele) / V : 67.2°(Wide) ~ 29.0°(Tele) / D : 119.9°(Wide) ~ 48.6°(Tele)
Focus Control	Simple focus / Manual	Simple focus (motorized V/F) / Manual	-	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
IR Viewable Length	-	50m (164.04ft)	30m (98.43ft)	-	70m (229.66ft)	30m (98.43ft)
Pan / Tilt / Rotate	-	-	-	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True(ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support (Built in Gyro sensor)	Support	Support	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1.	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	-	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP52, IK10 (XND-8081VZ) IP52, Plenum rate (XND-8081VZF)	IP52, Plenum rate (XND-8081RF) IP52, IK10 (XND-8081RV)	IK08
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 8.5W (24V AC) Max. 7.5W (12V DC) Max. 8.5W (PoE)	Max. 14.5W (24V AC) Max. 12.5W (12V DC) Max. 12.95W (PoE)	Max. 9.3W (12V DC) Max. 10.3W (PoE)	Max. 8.5W (12V DC) Max. 10W (PoE)	TBD (12V DC) TBD (PoE)	Max. 9W (12V DC) Max. 10W (PoE)
Dimensions (WxHxD) / Weight	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 lb)	Ø91.0 x 368.6mm (Ø3.58" x 14.51") (Without Sunshield) 2.18Kg (4.81 lb)	Ø70.0 x 296.0mm (Ø2.76" x 11.65") (Without Sunshield) 1.22Kg (2.69 lb)	Ø 160 x 125mm (6.30" x 4.92") 1.45 kg (3.2lb) (XND-8081VZ) Ø 205 x 155mm (8.07" x 6.10") 1.85 kg (4.08lb) (XND-8081FZ)	Ø 160 x 125mm (6.30" x 4.92") 1.45 kg (3.2lb) (XND-8081RV) Ø 205 x 155mm (8.07" x 6.10") 1.85 kg (4.08lb) (XND-8081RF)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 732g (1.61 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Motorized Pan / Tilt / Rotate, Modular design, Anti dust	Modular design, Anti dust	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic



**XND-8020R/8030R/8040R**



**XND-8020F**



**XNV-8081R**



**XNV-8080R**



**XNV-8080RS**

Resolution	5MP	5MP	5MP	5MP	5MP	5MP
Imaging Device	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/1.8" 6M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	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	5M / 30fps	5M / 30fps	5M / 30fps	5M / 30fps	5M / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0.16Lux	Color : 0.07 Lux B/W : 0.007 Lux	Color : 0.07Lux B/W : 0Lux (IR LED on)	Color : 0.07Lux B/W : 0Lux (IR LED on)	Color : 0.07Lux B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp, Micro USB type B	Micro USB type B	Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	3.7mm fixed (F1.6) (XND-8020R) 4.6mm fixed (F1.6) (XND-8030R) 7.0mm fixed (F1.6) (XND-8040R)	3.7mm fixed (F1.6)	3.6 ~ 9.4mm (2.6x) motorized V/F (F1.2)	3.9 ~ 9.4mm (2.4x) motorized V/F (F1.3)	3.9 ~ 9.4mm (2.4x) motorized V/F (F1.3)	3.9 ~ 9.4mm (2.4x) motorized V/F (F1.3)
Angular Field of View	H : 97.5° / V : 71.9° / D : 126.2° (XND-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XND-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XND-8040R)	H : 97.5° / V : 71.9° / D : 126.2°	H : 102.5° (Wide) ~ 38.7° (Tele) / V : 74.2° (Wide) ~ 29.0° (Tele) / D : 135.5° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) / V : 67.2° (Wide) ~ 29.0° (Tele) / D : 119.9° (Wide) ~ 48.6° (Tele)
Focus Control	-	Fixed	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
IR Viewable Length	30m (98.43ft)	-	-	70m (229.66ft)	50m (164.04ft)	50m (164.04ft)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	Auto (Electrical)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	-	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Bi-Directional	Uni-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IK08	-	IP67, IP66, IP66K9K, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10+
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Power	Max. 8W (12V DC) Max. 9W (PoE)	Max. 4.7W (PoE)	Max. 11W (24V AC) Max. 9.5W (12V DC) Max. 1.1W (PoE)	TBD (24V DC) TBD (12V AC)	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	Max. 11.5W (12V DC), Max. 12.95W (PoE), Max. 14W (24V AC)
Dimensions (WxHxD) / Weight	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84 lb)	Ø98.9 x 129.1mm (Ø3.89" x 5.08") 275g (0.61 lb)	Ø180 x 125mm (7.09" x 4.92") 1.75 kg (3.86lb)	Ø180 x 125mm (7.09" x 4.92") 1.75 kg (3.86lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 1.01Kg (2.23 lb)	Ø162 X 120.5mm (Ø6.38" x 4.74") 2.68kg (5.91lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Built-in mic	Motorized Pan / Tilt / Rotate, Modular design	Modular design	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, SUS316L



**XNV-8020R/8030R/8040R**



**XNF-8010R/RV/RVM/RW**



**XNZ-6320**



**XNB-6005**



**XNB-6000**



**XNB-H6461H**

Resolution	5MP	6MP	2MP	2MP	2MP	2MP
Imaging Device	1/1.8" 6M CMOS	1/1.8" 6M CMOS	1/2.8" 2.4M CMOS	1/2" 2.17M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	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	2048 x 2048 / 30fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0Lux (IR LED on)	Color : 0.05Lux B/W : 0.005Lux	Color : 0.006Lux B/W : 0.0006Lux	Color : 0.01Lux B/W : 0.001Lux	0.06Lux
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, DIP connector type	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	3.7mm fixed (F1.6) (XNV-8020R) 4.6mm fixed (F1.6) (XNV-8030R) 7.0mm fixed (F1.6) (XNV-8040R)	1.6mm fixed (F1.6)	4.44 ~ 142.6mm (Optical 32x) (F1.6)	-	-	4.6mm Pinhole (F2.5)
Angular Field of View	H : 97.5° / V : 71.9° / D : 126.2° (XNV-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XNV-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XNV-8040R)	H : 192° / V : 192° / D : 192°	H : 61.8°(Wide) ~ 2.19°(Tele) / V : 36.2°(Wide) ~ 1.24°(Tele)	-	-	H : 73° / V : 39° / D : 85°
Focus Control	-	Simple focus / Manual	Auto / Manual / One shot AF	Simple focus / Manual	Simple focus / Manual	Fixed
IR Viewable Length	30m (98.43ft)	15m (49.21ft)	-	-	-	-
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	-	-	-	-	-
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	Electrical
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	-	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Face detection, Digital auto tracking, Heatmap, People counting, Queue management
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 2	1 / 1	1 / 1	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP67, IP66, IK10	IP66, IK10 (XNF-8010RV/8010RVM)	-	-	-	-
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R) -40°C ~ +55°C (-40°F ~ +131°F) (XNF-8010RV/8010RVM)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 8W (12V DC) Max. 9W (PoE)	Max. 11W (12V DC), Max. 12W (PoE)(XNF-8010R) Max. 12W (12V DC), Max. 12.95W (PoE) (XNF-8010RV, XNF-8010RVM)	Max 6.7W (12V DC) Max 7W (PoE)	Max. 9W (24V AC) Max. 8W (12V DC) Max. 8.5W (PoE)	Max. 8W (24V AC) Max. 6.5W (12V DC) Max. 7.5W (PoE)	Max. 6.5W (12V DC) Max. 6W (PoE)
Dimensions (WxHxD) / Weight	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36 lb)	Ø146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61 lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73 lb) (XNF-8010RV) 790g (1.74 lb) (XNF-8010RVM)	96 x 76 x 143.5mm (3.78" x 2.99" x 5.65") 578g (1.274 lb)	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 lb)	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 lb)	131.1 x 28 x 86mm (5.16" x 1.10" x 3.39") 245g (0.54 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	M12 Connector (XNF-8010RVM), Built-in mic, On board dewarping, Handover, WiseStream II, Heatmap, People counting, XNF-8010RW (white color)	WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Defog, SFP Slot	extraLUX, Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics



**XNB-H6241A**



**XNB-6001**



**SLA-T4680**



**SLA-T4680V**



**SLA-T2480**



**SLA-T2480V**



**SLA-T1080F**



**SLA-T4680D/T4680DW/T4680DS**

	<b>XNB-H6241A</b>	<b>XNB-6001</b>	<b>SLA-T4680</b>	<b>SLA-T4680V</b>	<b>SLA-T2480</b>	<b>SLA-T2480V</b>	<b>SLA-T1080F</b>	<b>SLA-T4680D/T4680DW/T4680DS</b>
Resolution	2MP	2MP	2MP	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	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	-	-	-	-	-	-
Resolution / Frame Rate	2M / 60fps	2M / 60fps	-	-	-	-	-	-
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	-	-	-	-	-	-
Max. User Access	20 (Unicast)	20 (Unicast)	-	-	-	-	-	-
Min. Illumination	Color : 0.45Lux B/W : 0.45Lux	-	0.06Lux	0.06Lux	0.45Lux	0.45Lux	0.03Lux	0.06Lux
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	-	-	-	-	-	-
Lens	2.4mm Fixed focal	-	4.6mm Pinhole (F2.5)	4.6mm Pinhole (F2.5)	2.4mm fixed (F2.0)	2.4mm fixed (F2.0)	1.6mm fixed (F1.6)	4.6mm Pinhole (F2.5)
Angular Field of View	H : 138° / V : 73° / D : 168°	-	H : 73° / V : 39° / D : 85°	H : 73° / V : 39° / D : 85°	H : 138° / V : 73° / D : 168°	H : 138° / V : 73° / D : 168°	H : 187° / V : 113.9°	H : 73° / V : 39° / D : 85°
Focus Control	-	-	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-	-	-	-	-
Pan / Tilt / Rotate	-	-	-	-	-	-	-	-
Day & Night	Auto (Electrical) / Color / B/W	-	Electrical	Electrical	Electrical	Electrical	Electrical	Electrical
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	-	-	-	-	-	-
Digital Image Stabilization	Off / On	Support	-	-	-	-	-	-
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog & Dust detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Digital auto tracking, People counting, Heatmap, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Digital auto tracking, Heatmap, People counting, Queue management	-	-	-	-	-	-
Protocol	TTCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP,RTSP, NTP, HTTP, HTTPS, SSL, DHCP, PPPoE, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour	ONVIF profile S/G, SUNAPI	-	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	-	-	-	-	-	-
Audio	Bi-Directional	Bi-Directional	-	-	-	-	-	-
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	-	-	-	-	-	-
Environment Protection	-	-	-	-	-	-	-	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 6.5W (12V DC) Max. 6W (PoE)	Max. 6.5W (12V DC) Max. 6W (PoE)	-	-	-	-	-	-
Dimensions (WxHxD) / Weight	131.1 x 28 x 86mm (5.16" x 1.10" x 3.39") 245g (0.54 lb)	131.1 x 28 x 86mm (5.16" x 1.10" x 3.39") 245g (0.54 lb)	Ø24 x 42mm (Ø0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68 lb)	30 x 20.2 x 45mm (1.18" x 0.80" x 1.77") (Lens) 8m (314.96") (Cable) 321g (0.71 lb)	Ø24 x 49.8mm (Ø0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70 lb)	30 x 27.9 x 45mm (1.18" x 1.10" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72 lb)	Ø68.9 x 35mm (Ø2.71" x 1.38") (Lens) 8m (314.96") (Cable) 321g (0.71 lb)	Ø24 x 42mm (Ø0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	Handover, WiseStream II, Advanced video analytics	Lens module for XNB-6001	Lens module for XNB-6001	Lens module for XNB-6001	Lens module for XNB-6001	Lens module for XNB-6001	Lens module for XNB-6001 (Black color) SLA-T4680DW (White color) SLA-T4680DS (Silver color)



**XNO-6120R**



**XNO-6085R**



**XNO-6080R**



**XNO-L6080R**



**XNO-6010R/6020R**

	<b>XNO-6120R</b>	<b>XNO-6085R</b>	<b>XNO-6080R</b>	<b>XNO-L6080R</b>	<b>XNO-6010R/6020R</b>
Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2M CMOS	1/2" 2.17M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 5 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.03Lux B/W : 0Lux (IR LED on)	Color : 0.004Lux B/W : 0Lux (IR LED on)	Color : 0.015Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0Lux (IR LED on)	Color : 0.055Lux (XNO-6010R), 0.015Lux (XNO-6020R) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	5.2 ~ 62.4mm (Optical 12x) F1.6(Wide) / F3.0(Tele)	4.1 ~ 16.4mm (Optical 4x) motorized V/F F0.94(Wide) / F2.4(Tele)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	2.4mm fixed (F2.0) (XNO-6010R) 4mm fixed (F1.4) (XNO-6020R)
Angular Field of View	H : 54.58°(Wide) ~ 5.30°(Tele) / V : 32.19°(Wide) ~ 3.00°(Tele) / D : 61.40°(Wide) ~ 6.06°(Tele)	H : 100°(Wide) ~ 26.2°(Tele) / V : 54°(Wide) ~ 14.8°(Tele) / D : 116°(Wide) ~ 30.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 109.0°(Wide) ~ 33.2°(Tele) / V : 57.4°(Wide) ~ 18.7°(Tele) / D : 132.0°(Wide) ~ 38.0°(Tele)	H : 139.0° / V : 73.0° / D : 167.0° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)
Focus Control	Auto / Manual / One shot AF	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	-
IR Viewable Length	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)	30m (98.43ft)	20m (65.61ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)
Pan / Tilt / Rotate	-	-	-	-	-
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (120dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support (Built in Gyro sensor)	Support	Support	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Defocus detection, Motion detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management
Protocol	ONVIF profile S/G, SUNAPI	ONVIF Profile S&G, SUNAPI	ONVIF profile S/G, 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	Bi-Directional	-	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP66, IK10	IP67, IP66, NEMA 4X, IK10
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Power	Max. 14.5W (24V AC) Max. 12.5W (12V DC) Max. 12.95W (PoE)	Max. 14.5W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	Max. 15W (24V AC) Max. 12W (12V DC) Max. 12.95W (PoE)	Max. 11W (PoE)	Max. 8.8W (12V DC) Max. 9.7W (PoE)
Dimensions (WxHxD) / Weight	Ø91.0 x 368.6mm (Ø3.58" x 14.51") 2.18Kg (4.81 lb)	Ø91.0 x 388.6mm (Ø3.58" x 15.30") 2.35Kg (5.18 lb)	Ø91.0 x 368.6mm (Ø3.58" x 14.51") (Without Sunshield) 2.18Kg (4.81 lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") (Without Sunshield) 1.30Kg (2.86 lb)	Ø70 x 301.5mm (Ø2.76" x 11.87") (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") (XNO-6020R) (Without sunshield) 1.22Kg (2.69 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	extraLUX, Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	WiseStream II, Handover, Lens distortion correction, Defog, Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View



**XND-6085V**



**XND-6081V**



**XND-6081F**



**XND-6081VZ/6081FZ**



**XND-6081RV/6081RF**

	<b>XND-6085V</b>	<b>XND-6081V</b>	<b>XND-6081F</b>	<b>XND-6081VZ/6081FZ</b>	<b>XND-6081RV/6081RF</b>
Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2" 2.17M 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	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.004Lux B/W : 0.0004Lux	Color : 0.015Lux B/W : 0.0015Lux	Color : 0.015Lux B/W : 0.0015Lux	Color : 0.015 lux B/W : 0.0015 Lux	Color : 0.015 Lux B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	4.1 ~ 16.4mm (Optical 4x) F0.94(Wide) / F2.4(Tele)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8~12mm(4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)
Angular Field of View	H : 100°(Wide) ~ 26.2°(Tele) / V : 54°(Wide) ~ 14.8°(Tele) / D : 116°(Wide) ~ 30.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)
Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
IR Viewable Length	-	-	-	-	70m (229.66ft)
Pan / Tilt / Rotate	±175° / ±73° / ±175° PTRZ Remote Adjustment	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	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, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Shock detection	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IK08	IP52, IK10	IP52, Plenum rate	IP52, IK10 (XND-6081VZ) IP52, Plenum rate (XND-6081FZ)	IP52, Plenum rate
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 8.6W (12V DC) Max. 10.2W (PoE)	TBD (12V DC) TBD (PoE)	TBD (12V DC) TBD (PoE)	Max. 8.5W (12V DC) Max. 10W (PoE)	TBD (12V DC) TBD (PoE)
Dimensions (WxHxD) / Weight	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.25 kg (2.76 lb)	Ø 160 x 125mm (6.30" x 4.92") 1.45kg (3.2lb)	Ø 205 x 155mm(8.07" x 6.10") 1.85 kg (4.08lb)	Ø 160 x 125mm (6.30" x 4.92") 1.45kg (3.2lb) (XND-6081VZ) Ø 205 x 155mm(8.07" x 6.10") 1.85 kg (4.08lb) (XND-6081FZ)	Ø 160 x 125mm (6.30" x 4.92") 1.45kg (3.2lb) (XND-6081RV) Ø 205 x 155mm(8.07" x 6.10") 1.85 kg (4.08lb) (XND-6081RF)
Additional Features	extraLUX, Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, PTRZ Remote Adjustment Built-in mic	Modular design, Anti dust	Modular design, Anti dust	Motorized Pan / Tilt / Rotate, Modular design, Anti dust	Modular design, Anti dust



**XND-6080V**



**XND-6080RV**



**XND-L6080RV**



**XND-L6080V**



**XND-6020R**

	<b>XND-6080V</b>	<b>XND-6080RV</b>	<b>XND-L6080RV</b>	<b>XND-L6080V</b>	<b>XND-6020R</b>
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	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 5 Profiles)	Multiple (Up to 5 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.015Lux B/W : 0.0015Lux	Color : 0.015Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0.01Lux	Color : 0.015Lux B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	4mm fixed (F1.4)
Angular Field of View	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 109.0°(Wide) ~ 33.2°(Tele) / V : 57.4°(Wide) ~ 18.7°(Tele) / D : 132.0°(Wide) ~ 38.0°(Tele)	H : 109.0°(Wide) ~ 33.2°(Tele) / V : 57.4°(Wide) ~ 18.7°(Tele) / D : 132.0°(Wide) ~ 38.0°(Tele)	H : 88.6° / V : 47.5° / D : 104.8°
Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	-
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft)	-	30m (98.43ft)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (120dB)	WDR (120dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support	Support	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Defocus detection, Motion detection	Tampering, Defocus detection, Motion detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	-	-	1 / 1
Audio	Bi-Directional	Bi-Directional	-	-	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IK08	IK08	IK08	IK08	IK08
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 6W (12V DC) Max. 6.5W (PoE)	Max. 9W (12V DC) Max. 10W (PoE)	Max. 8W (PoE)	Max. 6W (PoE)	Max. 8W (12V DC) Max. 9W (PoE)
Dimensions (WxHxD) / Weight	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 714g (1.57lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 724g (1.60lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 690g (1.52lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 675g (1.49lb)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	WiseStream II, Lens distortion correction, Defog, Hallway View	WiseStream II, Lens distortion correction, Defog, Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic



**XND-6011F**



**XND-6010**



**XNV-6120/6120R**



**XNV-6120RS**



**XNV-6085**

	<b>XND-6011F</b>	<b>XND-6010</b>	<b>XNV-6120/6120R</b>	<b>XNV-6120RS</b>	<b>XNV-6085</b>
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" 2.17M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.0055Lux	Color : 0.03Lux, B/W : 0.003Lux (XNV-6120) Color : 0.03Lux, B/W : 0Lux (IR LED on) (XNV-6120R)	Color : 0.03Lux B/W : 0Lux (IR LED on)	Color : 0.004Lux B/W : 0.0004Lux
Video Output	Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)	5.2 ~ 62.4mm (Optical 12x) F1.6(Wide) / F3.0(Tele)	5.2 ~ 62.4mm (Optical 12x) F1.6(Wide) / F3.0(Tele)	4.1 ~ 16.4mm (Optical 4x) F0.94(Wide) / F2.4(Tele)
Angular Field of View	H : 112° / V : 62° / D : 130°	H : 139.0° / V : 73.0° / D : 167.0°	H : 54.58°(Wide) ~ 5.30°(Tele) / V : 32.19°(Wide) ~ 3.00°(Tele) / D : 61.40°(Wide) ~ 6.06°(Tele)	H : 54.58°(Wide) ~ 5.30°(Tele) / V : 32.19°(Wide) ~ 3.00°(Tele) / D : 61.40°(Wide) ~ 6.06°(Tele)	H : 100°(Wide) ~ 26.2°(Tele) / V : 54°(Wide) ~ 14.8°(Tele) / D : 116°(Wide) ~ 30.0°(Tele)
Focus Control	Fixed	-	Auto / Manual / One shot AF	Auto / Manual / One shot AF	Simple focus (motorized V/F) / Manual
IR Viewable Length	-	-	70m (229.66ft) (XNV-6120R)	70m (229.66ft)	-
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	±175° / ±73° / ±175° PTRZ Remote Adjustment
Day & Night	Auto (Electrical)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR(150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support (Built in Gyro sensor)	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, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Shock detection
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	-	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Uni-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	-	IK08	IP67, IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)
Power	Max. 4.7W	Max. 5.5W (12V DC) Max. 6W (PoE)	Max. 8.2W (24V AC), Max. 7W (12V DC), Max. 7.8W (PoE) (XNV-6120) Max. 14W (24V AC), Max. 11.5W (12V DC), Max. 12.95W (PoE) (XNV-6120R)	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	Max. 13.5W (24V AC), Max. 11.1W (12V DC), Max. 12.1W (PoE)
Dimensions (WxHxD) / Weight	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61 lb)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 365g (0.80 lb)	Ø160.0 x 128.5mm (Ø6.30" x 5.06") 985g (2.17 lb) (XNV-6120) 995g (2.19 lb) (XNV-6120R)	Ø162 x 134.5mm (Ø6.38" x 5.3") 2.92Kg (6.44 lb)	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.40kg (3.09 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, SUS316L	extraLUX, Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, PTRZ Remote Adjustment





**XNV-6081Z**



**XNV-6081R**



**XNV-6081**



**XNV-6080**



**XNV-6080R**

	<b>XNV-6081Z</b>	<b>XNV-6081R</b>	<b>XNV-6081</b>	<b>XNV-6080</b>	<b>XNV-6080R</b>
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	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.015 lux B/W : 0.0015 Lux	Color : 0.015 Lux B/W : 0Lux (IR LED on)	Color : 0.015 Lux B/W : 0.015 Lux	Color : 0.015Lux B/W : 0.0015Lux	Color : 0.015Lux B/W : 0Lux (IR LED on)
Video Output	Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)
Angular Field of View	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)
Focus Control	Simple focus(Motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
IR Viewable Length	-	70m (229.66ft)	-	-	50m (164.04ft)
Pan / Tilt / Rotate	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	±175° / 0~85° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
Day & Night	Auto (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support	Support
Video & Audio Analytics	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection, Heatmap, People counting, Queue management, Audio Playback on event	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification
Protocol	ONVIF Profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP67, IP66, IP6K9K, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10+	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Power	Max. 11W (24V AC) Max. 9.5W (12V DC) Max. 11W (PoE)	TBD (24V DC) TBD (12V AC)	TBD (24V DC) TBD (12V AC)	Max. 8.2W (24V AC) Max. 7W (12V DC) Max. 7.8W (PoE)	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)
Dimensions (WxHxD) / Weight	Ø 180 x 125mm (7.09" x 4.92") 1.75 kg(3.86lb)	Ø 180 x 125mm (7.09" x 4.92") 1.75 kg(3.86lb)	Ø 180 x 125mm (7.09" x 4.92") 1.75 kg(3.86lb)	Ø 160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø 160.0 x 118.5mm (Ø6.30" x 4.67") 995g (2.19 lb)
Additional Features	Motorized Pan / Tilt / Rotate, Modular design	Modular design	Modular design	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View



**XNV-6080RS**



**XNV-L6080**



**XNV-L6080R**



**XNV-6022R/6022RM**



**XNV-6013M**

	<b>XNV-6080RS</b>	<b>XNV-L6080</b>	<b>XNV-L6080R</b>	<b>XNV-6022R/6022RM</b>	<b>XNV-6013M</b>
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	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 5 Profiles)	Multiple (Up to 5 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.015Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0.01Lux	Color : 0.1 Lux, B/W : 0Lux (IR LED on)	Color : 0.04Lux B/W : 0Lux (IR LED on)	Color : 0.04Lux B/W : 0.04Lux
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.6mm fixed (F2.0)	Micro USB type B
Angular Field of View	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)	H : 109.0°(Wide) ~ 33.2°(Tele) / V : 57.4°(Wide) ~ 18.7°(Tele) / D : 132.0°(Wide) ~ 38.0°(Tele)	H : 109.0°(Wide) ~ 33.2°(Tele) / V : 57.4°(Wide) ~ 18.7°(Tele) / D : 132.0°(Wide) ~ 38.0°(Tele)	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122°
Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Manual	Manual
IR Viewable Length	50m (164.04ft)	-	30m (98.43ft)	15m (49.21ft)	-
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / 0 ~ 67° / ±90°	±5° / ±10° / ±90°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	Auto (Electrical)
Backlight Compensation	WDR (150dB)	WDR (120dB)	WDR (120dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support	Support	Support
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Defocus detection, Motion detection	Tampering, Defocus detection, Motion detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF Profile S & G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	-	-	-	-
Audio	Bi-Directional	-	-	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, NEMA 4X, IK10+	IP66, IK10	IP66, IK10	IP66, NEMA 4X, IK10	IP67, IK10, NEMA4X, IP6K9K
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)
Power	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	Max. 8W (PoE)	Max. 11W (PoE)	Max. 6.7W (PoE)	Max. 7.2W (PoE)
Dimensions (WxHxD) / Weight	Ø162 x 120.5mm (Ø6.38" x 4.74") 2.68kg (5.91 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 935g (2.06 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 940g (2.07 lb)	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	103.7 x 72.3 x 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View, SUS316L	WiseStream II, Lens distortion correction, Defog, Hallway View	WiseStream II, Lens distortion correction, Defog, Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View M12 Connector(XNV-6022RM), Built-in mic	Handover, WiseStream II, Advanced video analytics, Sound classification, (Explosion, Gunshot, Glass breakage, Scream), Hallway View, M12 Connector



**XNV-6012M/6012**



**XNV-6011/6011W**



**XNV-6010**



**XNV-6020R**



**XNP-6550RH**

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" 2.16M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.04Lux B/W : 0.04Lux	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.0055Lux	Color : 0.015Lux B/W : 0Lux (IR LED on)	Color : 0.02Lux B/W : 0Lux (IR LED on)
Video Output	Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp
Lens	2.4mm fixed (F2.0)	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)	4mm fixed (F1.4)	4.75mm ~ 261.4mm (IR Corrected Optical 55x) F1.6(Wide) / F6.5(Tele)
Angular Field of View	H : 135.4° / V : 71.2° / D : 161.6°	H : 112° / V : 62° / D : 130°	H : 139.0° / V : 73.0° / D : 167.0°	H : 88.6° / V : 47.5° / D : 104.8°	H : 58.6°(Wide) ~ 1.23°(Tele) / V : 34.8°(Wide) ~ 0.71°(Tele)
Focus Control	Manual	Manual	Manual	Manual	AF / One-shot AF / Manual
IR Viewable Length	-	-	-	30m (98.43ft)	500m (1,640ft)
Pan / Tilt / Rotate	±5° / 0 ~ 67° / ±90°	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	360° Endless / 95° (-5° ~ 90°) / -
Day & Night	Auto (Electrical)	Auto (Electrical)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (120dB)
Digital Noise Reduction	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support	Support	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis) Appear, Face detection, Motion detection, Digital auto tracking, People counting, Heatmap, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Face detection, Digital auto tracking, Sound classification, Heatmap, People counting, Queue management	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio Detection, Motion detection, Face detection, Sound Classification
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	-	-	1 / 1	1 / 1	4 / 2 (Relay)
Audio	Bi-directional	-	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP67, IP66, NEMA 4X, IK10	IP67, IP66, IK10	IP66, IK10
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -40°C ~ +55°C (-22°F ~ +131°F) * Start up above -30°C (-22°F) (HPoE)
Power	Max. 6.5W (PoE)	Max. 6.5W (PoE)	Max. 5.5W (12V DC) Max. 6W (PoE)	Max. 8W (12V DC) Max. 9W (PoE)	Max. 90.0W (24V AC) 60.0W (HPoE)
Dimensions (WxHxD) / Weight	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 420g (0.93 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 625g (1.38 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36 lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.2kg (15.87 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification, (Explosion, Gunshot, Glass breakage, Scream), Hallway View, M12 Connector (XNV-6012M)	Handover, WiseStream II, Advanced video analytics, Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream), Hallway View	Defog, WiseStream II, Advanced video analytics, Auto tracking, Optional Defog



**XNP-6370RH**



**XNP-6320H/6320**



**XNP-6320HS**



**XNP-6120H**



**XNP-6040H**

	2MP	2MP	2MP	2MP	2MP
Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/1.9" 2M CMOS	1/2.8" 2.4M CMOS	1/2.8" 2.4M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	15 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.05Lux B/W : 0Lux (IR LED on)	Color : 0.05Lux B/W : 0.005Lux	Color : 0.05Lux B/W : 0.005Lux	Color : 0.03Lux B/W : 0.003Lux	Color : 0.015Lux B/W : 0.0015Lux
Video Output	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	6 ~ 222mm (IR Corrected Optical 37x) F1.5(Wide) / F4.6(Tele)	4.44 ~ 142.6mm(Optical 32x) F1.6 (Wide) / F4.4 (Tele)	4.44 ~ 142.6mm(Optical 32x) F1.6 (Wide) / F4.4 (Tele)	5.2 ~ 62.4mm(Optical 12x) F1.6(Wide) / F3.0(Tele)	2.8 ~ 12mm(Optical 4.3x) (F1.4)
Angular Field of View	H : 59.3°(Wide) ~ 1.9°(Tele) / V : 35.8°(Wide) ~ 1.1°(Tele)	H : 61.8°(Wide) ~ 2.19°(Tele) / V : 36.2°(Wide) ~ 1.24°(Tele)	H : 61.8°(Wide) ~ 2.19°(Tele) / V : 36.2°(Wide) ~ 1.24°(Tele)	H : 54.58°(Wide) ~ 5.30°(Tele) / V : 32.19°(Wide) ~ 3.00°(Tele)	H : 119.5°(Wide) ~ 27.9°(Tele) / V : 62.8°(Wide) ~ 15.7°(Tele) / D : 142.1°(Wide) ~ 32.0°(Tele)
Focus Control	AF / One-shot AF / Manual	Auto / Manual / One shot AF	Auto / Manual / One shot AF	Auto / Manual / One shot AF	Auto / Manual / One shot AF
IR Viewable Length	350m (1,148.29ft)	-	-	-	-
Pan / Tilt / Rotate	360° Endless / 190° (-5° ~ 185°) / -	360° Endless / 210° (-15° ~ 195°)	360° Endless / 210° (-15° ~ 195°)	360° Endless / 190° (-5° ~ 185°)	0° ~ 355° / 0° ~ 90°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
Digital Noise Reduction	SSNR (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering, Crossing, Enter/Exit, (Dis)Appear, Audio detection	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Sound classification	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Sound classification, Shock detection	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Digital auto tracking, Sound classification
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	1 / 1	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10	IP66, IK10 (XNP-6320H) IK10 (With SHP-3701H)(XNP-6320)	IP67, IP66, NEMA4X, IK10	IP66, IK10	IP66, IK10
Operating Temperature	-50°C ~ +55°C (-58°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -35°C ~ +55°C (-31°F ~ +131°F) (PoE+) * Start up above -30°C (-22°F) (XNP-6320H) -10°C ~ +55°C (+14°F ~ +131°F) (XNP-6320)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) * Start up above -40°C (-40°F) -35°C ~ +55°C (-31°F ~ +131°F) (PoE+) * Start up above -25°C (-13°F)	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
Power	Max. 60.0W / 90.0W - Heater off / on, IR on (24V AC)	Max. 24.0W - Heater off (24V AC, PoE+) Max. 65.0W - Heater on (24V AC) (XNP-6320H) Max. 20.0W(24V AC, PoE+)(XNP-6320)	Max. 24.0W - Heater off (24V AC, PoE+) Max. 65.0W - Heater on (24V AC)	Max. 12W (12V DC, PoE)	Max. 8.6W (12V DC) Max. 9.6W (PoE)
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)	Ø223.4 x 293.6mm(Ø8.8" x 11.56") 3.3Kg (7.28 lb)(XNP-6320H) Ø152.0 x 218.0mm(Ø5.98" x 8.58") 1.7Kg (3.75 lb)(XNP-6320)	Ø227 x 295.5mm (Ø8.94" x 11.63") 5.3Kg (11.68 lb)	Ø168.0 x 161.5mm (Ø6.61" x 6.36") 1.9kg (4.19 lb)	Ø136.1 x 106.1mm (Ø5.36" x 4.18") 0.78kg (1.72 lb)
Additional Features	Defog, WiseStream, Auto tracking	WiseStream II, Advanced video analytics, Auto Tracking	WiseStream II, Advanced video analytics, Auto Tracking, SUS316L	WiseStream II, Advanced video analytics, Auto Tracking	WiseStream II, Advanced video analytics, Auto Tracking

NETWORK  
ANALOG  
PERIPHERAL  
ACCESSORY

# WISENET P series



## Exceptional image quality of 4K Ultra HD

The Wisenet P series provides an enhanced surveillance system by producing superior 4K Ultra HD image quality. 4K Ultra HD has four times the resolution of standard 1080p, which means it is able to show more detail.



PNO/PND/PNV-9080R, PNP-9200RH

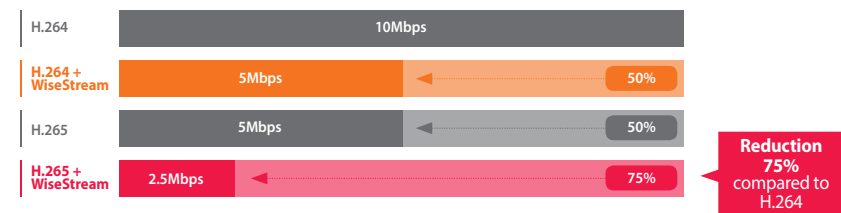
## Premium cameras with the most advanced technology

Wisenet P series, the ultimate premium cameras are designed with the most advanced technology, delivering users an outstanding video surveillance solution. From bullet cameras to multi-sensor cameras, P series have a wide range of products optimized for applications which require extreme detail and wide area coverage.



## Improved Bandwidth with WiseStream technology

Wisenet P series 4K camera's streaming performance is greatly enhanced by applying an advanced compression technology called WiseStream. WiseStream can reduce bandwidth by 50% by using dynamic technology, and when combined with high efficiency video coding (H.265), the bandwidth efficiency can be improved by up to 75% compared to current H.264 technology.



# WISENET P series

## Cover wide areas with multi-sensor cameras

Wisenet P series multi-sensor cameras are equipped with multiple sensors, which means that it can effectively monitor wide areas with just one camera. By installing Wisenet multi-sensor cameras, the cost of system installation and maintenance is reduced while successfully monitoring wide areas.

### Multiple view modes

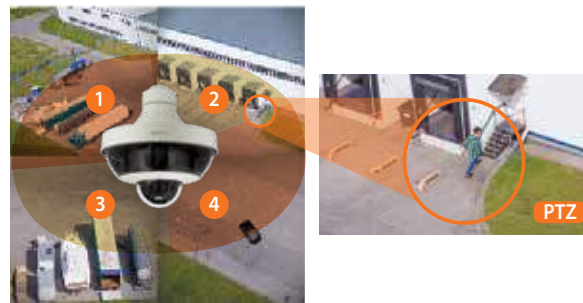
Choose from a variety of viewing options that fit your needs by using the broad line-up of Wisenet multi-sensor cameras.

Multi-directional Camera



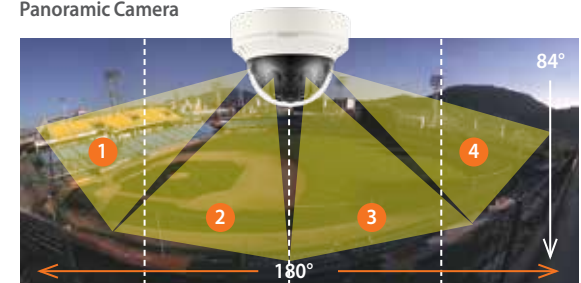
PNM-9081VQ, PNM-9080VQ,  
PNM-9000VQ, PNM-7000VD

Multi-directional Camera with PTZ



PNM-930VQP

Panoramic Camera



PNM-9030V, PNM-9020V

### Selectable and changeable multiple lens

(PNM-7000VD/9000VQ/9320VQP only)

Choose a wide variety of lenses from 2MP 2.4mm 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.



※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 Square



·Mall entrance Distribution center

·City Surveillance Crossroads

·Airport Train station

·Parking lot

·Stadium



**PNO-9080R**



**PND-9080R**



**PNV-9080R**



**PNM-9081VQ**



**PNM-9080VQ**

	<b>PNO-9080R</b>	<b>PND-9080R</b>	<b>PNV-9080R</b>	<b>PNM-9081VQ</b>	<b>PNM-9080VQ</b>
Resolution	12MP	12MP	12MP	20MP (5M x 4ea)	8MP (2M x 4ea)
Imaging Device	1/1.7" 12.4M CMOS	1/1.7" 12.4M CMOS	1/1.7" 12.4M CMOS	1/1.8" 6M CMOS x 4	1/2.8" 2.38M CMOS x 4
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	12M / 20fps, 8M / 30fps	12M / 20fps, 8M / 30fps	12M / 20fps, 8M / 30fps	5M / 30fps	2M / 60fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 40 Profiles)	Multiple (Up to 40 Profiles)
Max. User Access	15 (Unicast)	15 (Unicast)	15 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.3Lux B/W : 0Lux (IR LED on)	Color : 0.3Lux B/W : 0Lux (IR LED on)	Color : 0.3Lux B/W : 0Lux (IR LED on)	Color : 0.07Lux B/W : 0.007Lux	Color : 0.015Lux B/W : 0.0015Lux
Video Output	CVBS 1.0Vpp, DIP Connector Type	CVBS 1.0Vpp, DIP Connector Type	CVBS 1.0Vpp, DIP Connector Type	CVBS 1.0Vpp (selectable CVBS per channel)	CVBS 1.0Vpp (selectable CVBS per channel)
Lens	4.5 ~ 10mm (2.2x) motorized V/F (F1.6)	4.5 ~ 10mm (2.2x) motorized V/F (F1.6)	4.5 ~ 10mm (2.2x) motorized V/F (F1.6)	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)
Angular Field of View	[4096 x 2160] H : 100.3°(Wide) ~ 45.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele) [3840 x 2160] H : 92.3°(Wide) ~ 42.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele)	[4096 x 2160] H : 100.3°(Wide) ~ 45.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele) [3840 x 2160] H : 92.3°(Wide) ~ 42.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele)	[4096 x 2160] H : 100.3°(Wide) ~ 45.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele) [3840 x 2160] H : 92.3°(Wide) ~ 42.6°(Tele) / V : 49.7°(Wide) ~ 24.0°(Tele)	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)
Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
IR Viewable Length	40m (131.23ft)	30m (98.43ft)	40m (131.23ft)	-	-
Pan / Tilt / Rotate	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	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°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (150dB)
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	-	-	-	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering (Scene change), Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection, Digital Auto tracking with Metadata	Tampering (Scene change), Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection, Digital Auto tracking with Metadata	Tampering (Scene change), Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection, Digital Auto tracking with Metadata	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
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Bi-Directional	Bi-Directional	Bi-Directional	-	-
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, Local PC	SD/SDHC/SDXC, Local PC
Environment Protection	IP66, IK10	IK08	IP66, IP67, IK10	IP66, IK10	IP66, IK10
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (14°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Power	Max. 12.43W / 14.08W - Heater on (24V AC) Max. 10.45W / 11.55W - Heater on (12V DC) Max. 11.77W / 12.95W - Heater on (PoE)	Max. 9.5W (12V DC) Max. 10.5W (PoE)	Max. 12.43W / 14.08W - Heater on (24V AC) Max. 10.45W / 11.55W - Heater on (12V DC) Max. 11.77W / 12.95W - Heater on (PoE)	Max. 28.8W (12V DC) Max. 33.6W HPoE Injector included	Max. 21.6W (12V DC) Max. 25.5W (PoE+)
Dimensions (WxHxD) / Weight	82.4 x 87.0 x 348.3mm (3.24" x 3.43" x 13.71") (Without Sunshield), 1.4Kg (3.09 lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 610g (1.34 lb)	Ø160.0 x 118.5mm (Ø6.3" x 4.67") 990g (2.18 lb)	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)
Additional Features	Handover, Hallway View, P-Iris, Defog, WiseStream	Handover, Hallway View, P-Iris, Defog, WiseStream	Handover, Hallway View, P-Iris, Defog, WiseStream	Multi directional camera, Hallway View, P-Iris, Defog, WiseStream II	Multi directional camera, Hallway View, P-Iris, Defog, WiseStream II



**PNM-9030V**



**PNM-9020V**



**PNF-9010R/9010RV/9010RVM**



**PNP-9200RH**

	PNM-9030V	PNM-9020V	PNF-9010R/9010RV/9010RVM	PNP-9200RH
Resolution	15M (5M x 4ea)	7.3MP (2M x 4ea)	12MP	8MP
Imaging Device	15M (5M x 4ea)	7.3M (2M x 4)	1/1.7" 12.4M CMOS	1/2.5" 8M CMOS
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	15.5M / 30fps (H.265, H.264)	7.3M / 30fps (H.265, H.264)	9M / 25fps	8M / 30fps
Streaming Capacity	Multiple (Up to 5 or 3 profiles for each CH)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	15 (Unicast)	15 (Unicast)	15 (Unicast)	15 (Unicast)
Min. Illumination	Color : 0.15Lux B/W : 0.01Lux	Color : 0.3Lux B/W : 0.03Lux	Color : 0.3Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0Lux (IR LED on)
Video Output	Micro USB type B	-	CVBS 1.0Vpp, DIP Connector Type	CVBS 1.0Vpp
Lens	4.0mm fixed (F2.0)	3.6mm fixed (F2.0)	2.1mm fixed (F2.2)	4.8 ~ 96mm (Optical 20x) F1.8(Wide) / F3.6(Tele)
Angular Field of View	[Total 4 Sensor] 180° mode - H: 180° / V: 70° 220° mode - H: 220° / V: 52°	[Total 4 Sensor] H: 180° / V: 84°	H: 180.0° / V: 180.0° / D: 180.0°	H: 65.1°(Wide) ~ 3.8°(Tele) / V: 38.4°(Wide) ~ 2.2°(Tele)
Focus Control	Fixed	-	Simple focus	AF / One-shot AF
IR Viewable Length	-	-	15m (49.21ft)	200m (656.17ft)
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 60° / -	0° ~ 355° / 0° ~ 60° / -	-	360° Endless / 190° (-5° ~ 185°) / -
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNR	SSNR
Digital Image Stabilization	-	-	-	Support
Video & Audio Analytics	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	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection with Metadata
Protocol	ONVIF Profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	4 / 2 (Relay)
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10	IP66, IK10	IK10 (PNF-9010R), IP66, IK10 (PNF-9010RV/9010RVM)	IP66, IK10
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-10°C ~ +55°C (+14°F ~ +131°F)(PNF-9010R) -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F) (PNF-9010RV/9010RVM)	-50°C ~ +55°C (-58°F ~ +131°F)
Power	Max 21.0W (12V DC) Max 25.5W (PoE+)	Max. 21.0W - Heater on (12V DC) Max. 25.5W - Heater on (PoE+)	Max. 11W (12V DC) Max. 12W (PoE)(PNF-9010R) Max. 12W (12V DC) Max. 12.95W (PoE)(PNF-9010RV/RVM)	Max. 60.0W / 90.0W - Heater off / on, IR on (24V AC)
Dimensions (WxHxD) / Weight	Ø253 x 165mm (9.96" x 6.5") 3.2Kg (7.1lb)	Ø199.0 x 143.5mm (Ø7.83" x 5.65") 2.03Kg (4.51 lb)	Ø146.0 x 63.4mm (Ø5.75" x 2.50") 805g (1.77 lb) (PNF-9010R), 810g (1.79 lb) (PNF-9010RV), 815g (1.8 lb) (PNF-9010RVM)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1Kg (15.65 lb)
Additional Features	Handover, Multi sensor camera, Defog, WiseStream II, 3D Stitching, 180°/220° selectable	Handover, Multi sensor camera, Defog, WiseStream	M12 Connector (PNF-9010RVM), Built-in mic, On Board Dewarping, Handover, WiseStream, Heatmap, People counting	Handover, Auto tracking, Defog, WiseStream





**PNM-9320VQP**



**SLA-5M7000P**



**SLA-5M4600P**



**SLA-5M3700P**

	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 1.0Vpp (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	HPoE (injector included)	-	-	-
Dimensions (WxHxD) / Weight	Ø199x122mm (Ø7.83" x 4.80") 7.3Kg (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, Modular lenses	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**

	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



**PNM-9000VQ**



**SLA-5M7000Q**



**SLA-5M4600Q**



**SLA-5M3700Q**

	PNM-9000VQ	SLA-5M7000Q	SLA-5M4600Q	SLA-5M3700Q
Resolution	Max. 20MP (2M/5M x 4ea)	5MP	5MP	5MP
Imaging Device	-	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 : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux	Color : 0.16Lux, B/W : 0.16Lux
Video Output	CVBS 1.0Vpp	-	-	-
Lens	-	7.0mm fixed (F1.6)	4.6mm fixed (F1.6)	3.7mm fixed (F1.6)
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°
Focus Control	-	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-
Pan / Tilt / Rotate	-	±90° / 40°~89° / ±180°	±90° / 50°~80° / ±180°	±90° / 59°~66° / ±180°
Day & Night	Electrical	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	-	-	-
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°C ~ +55°C (-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)
Additional Features	Multi-directional camera, Defog, WiseStream II Hallway View, Modular lenses	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ



**SLA-2M6000Q**



**SLA-2M3600Q**



**SLA-2M2800Q**



**SLA-2M2400Q**

	SLA-2M6000Q	SLA-2M3600Q	SLA-2M2800Q	SLA-2M2400Q
Resolution	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	-	-	-	-
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
Video Output	-	-	-	-
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	±90° / 30°~89° / ±180°	±90° / 37°~89° / ±180°	±90° / 40°~89° / ±180°	±90° / 62° / ±180°
Day & Night	Electrical	Electrical	Electrical	Electrical
Backlight Compensation	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	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	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ	Lens module for PNM-9000VQ

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**PNM-7000VD**



**SLA-2M6000D**



**SLA-2M3600D**



**SLA-2M2800D**



**SLA-2M2400D**

	<b>PNM-7000VD</b>	<b>SLA-2M6000D</b>	<b>SLA-2M3600D</b>	<b>SLA-2M2800D</b>	<b>SLA-2M2400D</b>
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 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	-	-	-	-
Protocol	ONVIF profile S, SUNAPI	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio	-	-	-	-	-
Edge Storage	SD/SDHC/SDXC, Local PC	-	-	-	-
Environment Protection	IP66, IK10	-	-	-	-
Operating Temperature	-40°C ~ +55°C (-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, Modular lenses	Lens module for PNM-7000VD	Lens module for PNM-7000VD	Lens module for PNM-7000VD	Lens module for PNM-7000VD

# WISENET Q series



## Compact cameras with essential qualities

This affordable product line delivers professional quality, ideal for securing small to medium sized applications. The Q series has the ability to create a secure environment with its complete lineup, saving both installation costs and time.



## Complete line-up of indoor and outdoor cameras

Wisenet Q series offers a wide range of indoor and outdoor Bullet / Dome / Vandal / Flat eye / PTZ cameras which covers multiple applications such as retail, banking, offices, transportation and more, while delivering sharp and clear image quality.

	BULLET		DOME		IR VANDAL		FLAT EYE	PTZ
	Fixed IR	V/F IR	Fixed IR	V/F IR	Fixed IR	V/F IR		
4MP	 QNO-7010R QNO-7020R QNO-7030R		 QND-7010R QND-7020R QND-7030R		 QNV-7010R QNV-7020R QNV-7030R		 QNE-7080RV QNE-7080RW	
2MP	 QNO-6010R QNO-6020R QNO-6030R	 QNO-6070R QNO-6080R	 QND-6010R QND-6020R QND-6030R	 QND-6070R QND-6080R	 QNV-6010R QNV-6020R QNV-6030R	 QNV-6070R QNV-6080R	 QNE-6080RV QNE-6080RW	 QNP-6230H QNP-6230

## Perfect for small to medium sized applications

The complete line-up of Wisenet Q series has the ability to solve small to medium sized application challenges. Save both installation costs and time by using the Wisenet Q series together with NVRs to create a suitable solution for small to medium sized applications.



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**QNO-7080R**



**QNO-7010R/7020R/7030R**



**QND-7080R**



**QND-7010R/7020R/7030R**

	4MP	4MP	4MP	4MP
Resolution	4MP	4MP	4MP	4MP
Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS
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	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color : 0.15Lux B/W : 0Lux (IR LED on)	Color : 0.5Lux (QNO-7010R), 0.4Lux (QNO-7020R), 0.3Lux (QNO-7030R) B/W : 0Lux (IR LED on)	Color : 0.15Lux B/W : 0Lux (IR LED on)	Color : 0.5Lux (QND-7010R), 0.4Lux (QND-7020R), 0.3Lux (QND-7030R) B/W : 0Lux (IR LED on)
Lens	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8mm fixed (F2.2) (QNO-7010R) 3.6mm fixed (F2.2) (QNO-7020R) 6.0mm fixed (F2.2) (QNO-7030R)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8mm fixed (F2.2) (QND-7010R) 3.6mm fixed (F2.2) (QND-7020R) 6.0mm fixed (F2.2) (QND-7030R)
Angular Field of View	H : 109.7°(Wide) ~ 26.0°(Tele) / V : 60.8°(Wide) ~ 15.2°(Tele) / D : 131.3°(Wide) ~ 30.1°(Tele)	H : 111.0° / V : 63.0° / D : 128.0° (QNO-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QNO-7020R) H : 53.0° / V : 31.0° / D : 62.0° (QNO-7030R)	H : 109.7°(Wide) ~ 26.0°(Tele) / V : 60.8°(Wide) ~ 15.2°(Tele) / D : 131.3°(Wide) ~ 30.1°(Tele)	H : 111.0° / V : 63.0° / D : 128.0° (QND-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QND-7020R) H : 53.0° / V : 31.0° / D : 62.0° (QND-7030R)
Focus Control	Simple focus (motorized V/F) / Manual	-	Simple focus (motorized V/F) / Manual	-
IR Viewable Length	30m (98.43ft)	20m (65.62ft) (QNO-7010R), 25m (82.02ft) (QNO-7020R), 30m (98.43ft) (QNO-7030R)	20m (65.62ft)	20m (65.62ft)
Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Video & Audio Analytics	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional
Edge Storage	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS
Environment Protection	IP66, IK10	IP66, IK10	-	IK08
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 7.0W (12V DC) Max. 8.0W (PoE)	Max. 6.0W (12V DC) Max. 7.0W (PoE)	Max. 6.4W (12V DC) Max. 7.2W (PoE)	Max. 5.8W (12V DC) Max. 7.0W (PoE) (QND-7010R) Max. 5.43W (12V DC) Max. 6.5W (PoE) (QND-7020R/7030R)
Dimensions (WxHxD) / Weight	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 750g (1.65 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 730g (1.61 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 355g (0.78 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 290g (0.64 lb)
Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream, Built-in mic	Lens distortion correction, Hallway View, WiseStream, Built-in mic



**QNV-7080R**



**QNV-7010R/7020R/7030R**



**QNE-7080R/7080RW**



**QNO-6070R**

	4MP	4MP	4MP	2MP
Resolution	4MP	4MP	4MP	2MP
Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1 / 3" 4M CMOS	1/2.9" 2.19M CMOS
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	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color : 0.15Lux B/W : 0Lux (IR LED on)	Color : 0.5Lux (QNV-7010R), 0.4Lux (QNV-7020R), 0.3Lux (QNV-7030R) B/W : 0Lux (IR LED on)	Color : 0.2Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)
Video Output	-	-	-	-
Lens	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)	2.8mm fixed (F2.0) (QNV-7010R) 3.6mm fixed (F2.2) (QNV-7020R) 6.0mm fixed (F2.2) (QNV-7030R)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	2.8 ~ 12mm (4.3x) Manual V/F (F1.4)
Angular Field of View	H : 109.7°(Wide) ~ 26.0°(Tele) / V : 60.8°(Wide) ~ 15.2°(Tele) / D : 131.3°(Wide) ~ 30.1°(Tele)	H : 110.0° / V : 63.0° / D : 133.0° (QNV-7010R) H : 81.0° / V : 45.0° / D : 95.0° (QNV-7020R) H : 53.0° / V : 31.0° / D : 62.0° (QNV-7030R)	H : 100.0°(Wide) ~ 30.5°(Tele) / V : 55.7°(Wide) ~ 18.3°(Tele) / D : 119.6°(Wide) ~ 35.3°(Tele)	H : 103.8°(Wide) ~ 32.4°(Tele) / V : 53.7°(Wide) ~ 18.4°(Tele) / D : 121.9°(Wide) ~ 37.1°(Tele)
Focus Control	Simple focus (motorized V/F) / Manual	-	Simple focus (Motorized V/F) / Manual	Manual
IR Viewable Length	30m (98.43ft)	20m (65.62ft) (QNV-7010R), 25m (82.02ft) (QNV-7020R), 30m (98.43ft) (QNV-7030R)	30m (98.43ft)	30m (98.43ft)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 70° / 0° ~ 360°	-
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Video & Audio Analytics	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional
Edge Storage	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS
Environment Protection	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Power	Max. 6.4W (12V DC) Max. 7.2W (PoE)	Max. 5.8W (12V DC) Max. 7.0W (PoE) (QNV-7010R) Max. 5.7W (12V DC) Max. 6.8W (PoE) (QNV-7020R/7030R)	Max. 7.7W (12V DC) Max. 8.6W (PoE)	Max. 7.0W (12V DC) Max. 8.0W (PoE)
Dimensions (WxHxD) / Weight	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 680g (1.5 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 490g (1.08 lb)	Ø144.9 x 135.5mm (Ø5.70" x 5.33") 1.3Kg (2.87lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 730g (1.61 lb)
Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream QNE-7080R (Ivory color) QNE-7080RW (White color)	Lens distortion correction, Hallway View, WiseStream





**QNO-6010R/6020R/6030R**



**QND-6070R**



**QND-6010R/6020R/6030R**



**QNV-6070R**

	2MP	2MP	2MP	2MP
Resolution	2MP	2MP	2MP	2MP
Imaging Device	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS
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	2M / 30fps	2M / 30fps	2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.095Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.095Lux B/W: 0Lux (IR LED on)
Video Output	-	-	-	-
Lens	2.8mm fixed (F2.0) (QNO-6010R) 3.6mm fixed (F1.8) (QNO-6020R) 6.0mm fixed (F1.8) (QNO-6030R)	2.8 ~ 12mm (4.3x) Manual V/F (F1.4)	2.8mm fixed (F1.8) (QND-6010R) 3.6mm fixed (F1.8) (QND-6020R) 6.0mm fixed (F1.8) (QND-6030R)	2.8 ~ 12mm (4.3x) Manual V/F (F1.4)
Angular Field of View	H: 116.0° / V: 62.0° / D: 137.0° (QNO-6010R) H: 86.48° / V: 46.22° / D: 102.44° (QNO-6020R) H: 52.54° / V: 28.86° / D: 61.14° (QNO-6030R)	H: 103.8°(Wide) ~ 32.4°(Tele) / V: 53.7°(Wide) ~ 18.4°(Tele) / D: 121.9°(Wide) ~ 37.1°(Tele)	H: 111.0° / V: 61.0° / D: 125.0° (QND-6010R) H: 86.48° / V: 46.22° / D: 102.44° (QND-6020R) H: 52.54° / V: 28.86° / D: 61.14° (QND-6030R)	H: 103.8°(Wide) ~ 32.4°(Tele) / V: 53.7°(Wide) ~ 18.4°(Tele) / D: 121.9°(Wide) ~ 37.1°(Tele)
Focus Control	-	Manual	-	Manual
IR Viewable Length	20m (65.62ft) : QNO-6010R, 25m (82.02ft) : QNO-6020R, 30m (98.43ft) : QNO-6030R	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)
Pan / Tilt / Rotate	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Video & Audio Analytics	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional
Edge Storage	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS
Environment Protection	IP66, IK10	-	IK08	IP66, IK10
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Power	Max. 6.0W (12V DC) Max. 7.0W (PoE)	Max. 5.5W (12V DC) Max. 6.7W (PoE)	Max. 5.8W (12V DC) Max. 7.0W (PoE) (QND-6010R) Max. 5.43W (12V DC) Max. 6.5W (PoE) (QND-6020R/6030R)	Max. 5.5W (12V DC) Max. 6.7W (PoE)
Dimensions (WxHxD) / Weight	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 730g (1.61 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 325g (0.72 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 290g (0.64 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 660g (1.46 lb)
Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream, Built-in mic	Lens distortion correction, Hallway View, WiseStream, Built-in mic	Lens distortion correction, Hallway View, WiseStream



**QNV-6010R/6020R/6030R**



**QNE-6080R/6080RW**



**QNP-6230H/6230**

Resolution	2MP	2MP	2MP
Imaging Device	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.8" 2.4M CMOS
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	2M / 30fps	2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	10 (Unicast)
Min. Illumination	Color : 0.15Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.2Lux B/W : 0.01Lux
Video Output	-	-	CVBS 1.0Vpp
Lens	2.8mm fixed (F1.8) (QNV-6010R) 3.6mm fixed (F1.8) (QNV-6020R) 6.0mm fixed (F1.8) (QNV-6030R)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	4.44 ~ 102.2mm (Optical 23x) F1.6(Wide) / F3.6(Tele)
Angular Field of View	H : 110.0° / V : 61.0° / D : 125.0° (QNV-6010R) H : 86.48° / V : 46.22° / D : 102.44° (QNV-6020R) H : 52.54° / V : 28.86° / D : 61.14° (QNV-6030R)	H : 104.2°(Wide) ~ 31.2°(Tele) / V : 55.1°(Wide) ~ 17.5°(Tele) / D : 124.3°(Wide) ~ 35.8°(Tele)	H : 61.8°(Wide) ~ 3.08°(Tele) / V : 36.2°(Wide) ~ 1.73°(Tele)
Focus Control	-	Simple focus (Motorized V/F) / Manual	Auto / Manual / One shot AF
IR Viewable Length	20m (65.62ft) (QNV-6010R), 25m (82.02ft) (QNV-6020R), 30m (98.43ft) (QNV-6030R)	30m (98.43ft)	-
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 70° / 0° ~ 360°	360° Endless / 210° (-15° ~ 195°)
Day & Night	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR	SSNR	SSNRV (2D+3D Noise filter)
Digital Image Stabilization	-	-	Support (Built in Gyro sensor)
Video & Audio Analytics	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Tampering, Motion detection, Shock detection
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1	4 / 2 (Relay)
Audio	Uni-Directional	Uni-Directional	Bi-directional
Edge Storage	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10	IP66, IK10	IP66, IK10 (QNP-6230H) IK10 (With SHP-3701H)(QNP-6230)
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-50°C ~ +55°C(-58°F ~ +131°F) (24V AC) -30°C ~ +55°C(-22°F ~ +131°F) (PoE+) (QNP-6230H) -10°C ~ +55°C(+14°F ~ +131°F)(QNP-6230)
Power	Max. 5.8W (12V DC) / Max. 7.0W (PoE) (QNV-6010R) Max. 5.7W (12V DC) / Max. 6.8W (PoE) (QNV-6020R/6030R)	Max. 7.6W (12V DC) Max. 8.3W (PoE)	Max. 24.0W - Heater Off (24V AC, PoE+), Max. 65.0W - Heater On (24V AC)(QNP-6230H) Max. 20.0W (24V AC, PoE+)(QNP-6230)
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 490g (1.08 lb)	Ø144.9 x 135.5mm (Ø5.70" x 5.33") 1.3Kg (2.87lb)	Ø223.4 x 293.6mm(Ø8.8" x 11.56") 1.7Kg (3.75 lb)(QNP-6230H) Ø152.0 x 218.0mm(Ø5.98" x 8.58") 1.7Kg (3.75 lb)(QNP-6230)
Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream QNE-6080R (Ivory color) QNE-6080RW (White color)	Defog, WiseStream II

# WISENET T series



## Specialized cameras for challenging conditions

T series offers explosion proof and thermal cameras which ensure a reliable video surveillance system even in the most challenging conditions. Explosion proof cameras can be used in heavy industrial facilities where a single spark may cause an explosion and thermal cameras are suitable for detecting people and objects in difficult weather conditions.



## Explosion proof cameras for hazardous environments

Heavy industrial facilities such as gas pipelines or oil refineries are potentially explosive because of flammable gases and dust emitted. T series explosion proof cameras are designed to be safely operated in hazardous areas with the special enclosure made of stainless steel 316L housing.



## Detect people and objects 24/7 with thermal cameras

When challenging weather or lighting conditions occur, it may be hard to distinguish human or objects in a complex background. Wisenet thermal cameras are essential in these situations: they provide clear images based on temperature differences between objects so that users can detect incidents more easily.



TNO-4051T/4041T/  
4041TR

TNO-4050T/4040T/4030T/  
4040TR/4030TR



**TNV-7010RC**



**TNO-6320E**



**TNU-6320E**



**TNU-4051T/4041T**

	TNV-7010RC	TNO-6320E	TNU-6320E	TNU-4051T/4041T
Resolution	3MP	2MP	2MP	VGA
Imaging Device	1/2.8" 3.2M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	Uncooled Microbolometer
Video Compression	H.265, H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Frame Rate	3M / 30fps	2M / 60fps	2M / 60fps	640 x 480 / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	10 (Unicast)	10 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.3Lux B/W : 0Lux	Color : 015Lux B/W : 0.015Lux	Color : 015Lux B/W : 0.015Lux	-
Video Output	CVBS 1.0Vpp	-	-	CVBS 1.0Vpp
Lens	2.8mm fixed (F2.0)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	35mm fixed (F1.0) (TNU-4051T) 19mm fixed (F1.0) (TNU-4041T)
Angular Field of View	H : 102° / V : 75° / D : 129°	H : 62.8°(Wide) ~ 2.23°(Tele) / V : 36.8°(Wide) ~ 1.26°(Tele)	H : 62.8°(Wide) ~ 2.23°(Tele) / V : 36.8°(Wide) ~ 1.26°(Tele)	H : 17.2° / V : 13° / D : 22° (TNU-4051T) H : 32° / V : 24.3° / D : 39.2° (TNU-4041T)
Focus Control	Manual	Auto / Manual / One push	Auto / Manual / One push	Fixed
IR Viewable Length	10m(32.8ft) with 940nm IR LED	-	-	-
Pan / Tilt / Rotate	- / ±15° / -	-	360° Endless / 180° (-90° ~ 90°) / -	360° Endless / -90° ~ 40° / -
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	-
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	-
Digital Noise Reduction	SSNRV (2D+3D Noise Filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	-
Digital Image Stabilization	Support	Support	Support	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering, Loitering, Directional Detection, Defocus Detection, Fog Detection, Virtual Line, Enter/Exit, (Dis)Appear, Audio Detection, Face Detection, Motion Detection, Digital Auto Tracking, Sound Classification, Shock detection	Motion detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Motion detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection
Protocol	ONVIF Profile S/G, SUNAPI	ONVIF Profile S, SUNAPI	ONVIF Profile S, SUNAPI	ONVIF Profile S/G, SUNAPI
Alarm I/O	1 / 1	1 / 1 (Relay)	1 / 1 (Relay)	1 / 1
Audio	Bi-directional	-	-	Bi-directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	NAS	NAS	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IP6K9K, IK10+	IP67, IK10	IP67, IK10	IP66, NEMA4X, IK10 (TNU-4041T)
Operating Temperature	-10°C ~ +55°C (-14°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Power	Max. 11W (12V DC) Max. 12W (PoE)	Max. 28.0W - Heater on (24V AC)	Max. 49.0W - Heater on (24V AC)	84W - Heater on, 62W - Heater off (24V AC)
Dimensions (WxHxD) / Weight	236 x 236 x 126.5mm (9.29" x 9.29" x 4.98") 2.2kg (4.85lb)	Ø162.0 x 244.0mm (Ø6.38" x 9.61") 7kg (15.43 lb)	384.0 x 402.0 x 250.0mm (15.12" x 15.83" x 9.84") 35Kg (77.16 lb)	219x528x335mm (8.62" x 20.79" x 13.19") 11.7 kg (25.79 lb)
Additional Features	Anti ligature design, Invisible IR LED, Shock detection	Explosion certification : CE2460 EX II 2 GD Ex d IIC T6 Gb IP67 Ex tb IIIC T85°C Db, Built in wiper	Explosion certification : CE2460 EX II 2 GD Ex d IIC T6 Gb IP67 Ex tb IIIC T80°C Db, Built in wiper	Handover, WiseStream II, Advanced video analytics, Sound classification, Various Color palettes



**TNO-4051T**



**TNO-4050T**



**TNO-4041T**



**TNO-4040T**

Resolution	VGA	VGA	VGA	VGA
Imaging Device	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer
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	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	-	-	-	-
Video Output	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B
Lens	35mm fixed (F1.0)	35mm fixed (F1.0)	19mm fixed (F1.0)	19mm fixed (F1.0)
Angular Field of View	H: 17.2° / V: 13° / D: 22°	H: 17.2° / V: 13° / D: 22°	H: 32° / V: 24.3° / D: 39.2°	H: 32° / V: 24.3° / D: 39.2°
Focus Control	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-
Pan / Tilt / Rotate	-	-	-	-
Day & Night	-	-	-	-
Backlight Compensation	-	-	-	-
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection
Protocol	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2
Audio	Bi-directional	Bi-directional	Bi-directional	Bi-directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, NEMA4X	IP66, NEMA4X	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Power	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)
Dimensions (WxHxD) / Weight	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.45Kg (5.41 lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.13Kg (6.89 lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.45Kg (5.40 lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.13Kg (6.89 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes, PT type	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes	Handover, WiseStream II, Advanced video analytics, Sound classification, Various Color palettes, PT type	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes



**TNO-4030T**



**TNO-4041TR**



**TNO-4040TR**



**TNO-4030TR**

Resolution	VGA	VGA	VGA	VGA
Imaging Device	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer
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	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
Min. Illumination	-	-	-	-
Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Lens	13mm fixed (F1.0)	19mm fixed (F1.0)	19mm fixed (F1.0)	13mm fixed (F1.0)
Angular Field of View	H: 48.6° / V: 36.4° / D: 61.6°	H: 32° / V: 24.3° / D: 39.2°	H: 32° / V: 24.3° / D: 39.2°	H: 48.6° / V: 36.4° / D: 61.6°
Focus Control	Fixed	Fixed	Fixed	Fixed
IR Viewable Length	-	-	-	-
Pan / Tilt / Rotate	-	-	-	-
Day & Night	-	-	-	-
Backlight Compensation	-	-	-	-
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)	Support (Built in Gyro sensor)
Video & Audio Analytics	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature change detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature detection	Tampering, Loitering, Directional detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Motion detection, Sound classification, Shock detection, Temperature detection
Protocol	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI	ONVIF profile S&G, SUNAPI
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2
Audio	Bi-directional	Bi-directional	Bi-directional	Bi-directional
Edge Storage	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Power	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)	Max. 10.5W (24V AC), Max. 9W (12V DC), Max. 10W (PoE)
Dimensions (WxHxD) / Weight	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12Kg (6.89 lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.45Kg (5.40 lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.13Kg (6.89 lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12Kg (6.88 lb)
Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes	Handover, WiseStream II, Advanced video analytics, Sound classification, Various Color palettes, PT type, Radiometry	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes, Radiometry	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, Various Color palettes, Radiometry



**LNO-6070R**



**LNO-6010R/6020R/6030R**



**LND-6070R**



**LND-6010R/6020R/6030R**



**LNV-6070R**



**LNV-6010R/6020R/6030R**

	<b>LNO-6070R</b>	<b>LNO-6010R/6020R/6030R</b>	<b>LND-6070R</b>	<b>LND-6010R/6020R/6030R</b>	<b>LNV-6070R</b>	<b>LNV-6010R/6020R/6030R</b>
Resolution	2MP	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Frame Rate	2M / 30fps	2M / 30fps	2M / 30fps	2M / 30fps	2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.18Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.18Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.18Lux B/W : 0Lux (IR LED on)
Lens	3.2 ~ 10mm (3.1x) V/F (F1.6)	3mm fixed (F2.0) (LNO-6010R) 4mm fixed (F2.0) (LNO-6020R) 6mm fixed (F2.0) (LNO-6030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)	3mm fixed (F2.0) (LND-6010R) 4mm fixed (F2.0) (LND-6020R) 6mm fixed (F2.0) (LND-6030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)	3mm fixed (F2.0) (LNV-6010R) 4mm fixed (F2.0) (LNV-6020R) 6mm fixed (F2.0) (LNV-6030R)
Angular Field of View	H : 101.6°(Wide) ~ 31.3°(Tele) / V : 54.1°(Wide) ~ 17.8°(Tele) / D : 120.6°(Wide) ~ 36.0°(Tele)	H : 102° / V : 54° / D : 120° (LNO-6010R) H : 80° / V : 43° / D : 94° (LNO-6020R) H : 51° / V : 29° / D : 58° (LNO-6030R)	H : 101.6°(Wide) ~ 31.3°(Tele) / V : 54.1°(Wide) ~ 17.8°(Tele) / D : 120.6°(Wide) ~ 36.0°(Tele)	H : 102° / V : 54° / D : 120° (LND-6010R) H : 80° / V : 43° / D : 94° (LND-6020R) H : 51° / V : 29° / D : 58° (LND-6030R)	H : 101.6°(Wide) ~ 31.3°(Tele) / V : 54.1°(Wide) ~ 17.8°(Tele) / D : 120.6°(Wide) ~ 36.0°(Tele)	H : 102° / V : 54° / D : 120° (LNV-6010R) H : 80° / V : 43° / D : 94° (LNV-6020R) H : 51° / V : 29° / D : 58° (LNV-6030R)
Focus Control	Manual	-	Manual	-	Manual	-
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)
Pan / Tilt / Rotate	-	-	0°~350° / 0°~67° / 0°~355°	0°~350° / 0°~67° / 0°~355°	0 ~ 350° / 0 ~ 67° / 0 ~ 355°	0 ~ 350° / 0 ~ 67° / 0 ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-	-
Video & Audio Analytics	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering
Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI
Alarm I/O	-	-	-	-	-	-
Audio	-	-	-	-	-	-
Edge Storage	SD/SDHC, Local PC	SD/SDHC, Local PC	SD/SDHC, Local PC	SD/SDHC, Local PC	SD/SDHC, Local PC	SD/SDHC, Local PC
Environment Protection	IP66	IP66	-	-	IP66, IK10	IP66, IK10
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Power	6.5W (PoE)	6.5W (PoE)	6.5W (PoE)	6.5W (PoE)	6.5W (PoE)	6.5W (PoE)
Dimensions (WxHxD) / Weight	Ø78.0 x 262.0mm (Ø3.07" x 10.32") 380g (0.84 lb)	Ø58.6 x 182.0mm (Ø2.31" x 7.17") 240g (0.53 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 274g (0.60 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 230g (0.51 lb)	Ø137.8 x 106.1mm (Ø5.43" x 4.18") 515g (1.16 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 395g (0.87 lb)
Additional Features	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View



**SNZ-6320**

**SNO-6084R**

**SNO-6011R**

**SNO-L6083R**

**SNO-L6013R**

**SND-6084**

	SNZ-6320	SNO-6084R	SNO-6011R	SNO-L6083R	SNO-L6013R	SND-6084
Resolution	2MP	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.8" 2.38M CMOS
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 30fps	2M / 30fps	2M / 30fps	2M / 60fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	10 (Unicast)	15 (Unicast)	15 (Unicast)	6 (Unicast)	6 (Unicast)	15 (Unicast)
Min. Illumination	Color: 0.15Lux B/W: 0.015Lux	Color: 0.03Lux B/W: 0Lux (IR LED on)	Color: 0.08Lux B/W: 0Lux (IR LED on)	Color: 0.095Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.03Lux B/W: 0.002Lux
Video Output	CVBS 1.0Vpp DIP Connector Type	CVBS 1.0Vpp DIP Connector Type	CVBS 1.0Vpp	-	-	CVBS 1.0Vpp DIP Connector Type
Lens	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)	3.8mm fixed (F2.0)	2.8 ~ 12mm (4.3x) V/F (F1.4)	3.6mm fixed (F1.8)	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)
Angular Field of View	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.8°(Wide) ~ 1.26°(Tele)	H: 105.5°(Wide) ~ 37.1°(Tele) / V: 57.5°(Wide) ~ 21.0°(Tele)	H: 84.5° / V: 45.8° / D: 98.8°	H: 103.8°(Wide) ~ 32.4°(Tele) / V: 53.7°(Wide) ~ 18.4°(Tele) / D: 121.9°(Wide) ~ 37.1°(Tele)	H: 86.5° / V: 47.8° / D: 101.2°	H: 105.5°(Wide) ~ 37.1°(Tele) / V: 57.5°(Wide) ~ 21.0°(Tele)
Focus Control	Auto / Manual / One push	Simple focus (motorized V/F) / Manual	Manual	Manual	-	Simple focus (motorized V/F) / Manual
IR Viewable Length	-	30m (98.43ft)	15m (49.21ft)	20m (65.62ft)	20m (65.62ft)	-
Pan / Tilt / Rotate	-	-	-	-	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB, 15fps)	BLC, DWDR	BLC, DWDR	WDR (120dB)
Digital Noise Reduction	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNR	SSNR	SSNRIII (2D+3D Noise filter)
Digital Image Stabilization	Support	Support	Support	-	-	Support
Video & Audio Analytics	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Face detection with Metadata	Motion detection with Metadata, Tampering	Motion detection with Metadata, Tampering	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection
Protocol	ONVIF Profile S,	ONVIF Profile S,	ONVIF Profile S,	ONVIF Profile S & G,	ONVIF Profile S & G,	ONVIF Profile S,
Alarm I/O	1 / 1 (Relay)	1 / 1	1 / 0	-	-	1 / 1
Audio	Bi-Directional	Bi-Directional	-	Uni-Directional	Uni-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC	Micro SD/SDHC, NAS	Micro SD/SDHC, NAS	SD/SDHC/SDXC, NAS
Environment Protection	-	IP66, IK10	IP66	IP66, IK10	IP66	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -20°C ~ +55°C (-4°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 9.0W (12V DC) Max. 10.0W (PoE)	Max. 11.0W - Heater off Max. 17.0W - Heater on (24V AC)	Max. 8.5W (PoE)	Max. 5.9W (PoE)	Max. 5.7W (PoE)	Max. 8.79W (12V DC) Max. 9.57W (PoE)
Dimensions (WxHxD) / Weight	72.0 x 59.9 x 135.4mm (2.83" x 2.36" x 5.33") 540g (1.19 lb)	82.4 x 82.4 x 312.6mm (3.24" x 3.24" x 12.31") (Without Sunshield) 1.19Kg (2.62 lb)	77.1 x 83.0 x 302.4mm (3.04" x 3.27" x 11.91") 560g (1.23 lb)	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 700g (1.54 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.5") (Without Sunshield) 250g (0.55 lb)	Ø132.1 x 107.6mm (Ø5.20" x 4.24") 505g (1.11 lb)
Additional Features	RS-485, Defog	P-Iris, Defog	Defog	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	P-Iris, Defog





**SND-L6013**



**SND-L6012**



**SND-7084R**



**SND-6084R**



**SND-L6083R**



**SND-L6013R**

	SND-L6013	SND-L6012	SND-7084R	SND-6084R	SND-L6083R	SND-L6013R
Resolution	2MP	2MP	3MP	2MP	2MP	2MP
Imaging Device	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.8" 3.2M CMOS	1/2.8" 2.38M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Frame Rate	2M / 30fps	2M / 30fps	3M / 30fps	2M / 60fps	2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	6 (Unicast)	6 (Unicast)	15 (Unicast)	15 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color : 0.15Lux B/W : 0.15Lux	Color : 0.15Lux B/W : 0.15Lux	Color : 0.06Lux B/W : 0Lux (IR LED on)	Color : 0.03Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.15Lux B/W : 0Lux (IR LED on)
Video Output	-	-	CVBS 1.0Vpp DIP Connector Type	CVBS 1.0Vpp DIP Connector Type	-	-
Lens	3.6mm fixed (F1.8)	2.8mm fixed (F1.8)	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)	2.8 ~ 12mm (4.3x) V/F (F1.4)	3.6mm fixed (F1.8)
Angular Field of View	H : 86.5° / V : 47.8° / D : 101.2°	H : 110.0° / V : 61.0° / D : 125.0°	H : 100.12°(Wide) ~ 35.38°(Tele) / V : 73.76°(Wide) ~ 26.58°(Tele)	H : 105.5°(Wide) ~ 37.1°(Tele) / V : 57.5°(Wide) ~ 21.0°(Tele)	H : 103.8°(Wide) ~ 32.4°(Tele) / V : 53.7°(Wide) ~ 18.4°(Tele) / D : 121.9°(Wide) ~ 37.1°(Tele)	H : 86.5° / V : 47.8° / D : 101.2°
Focus Control	-	-	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Manual	-
IR Viewable Length	-	-	25m (82.02ft)	15m (49.21ft)	15m (49.21ft)	15m (49.21ft)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
Day & Night	Electrical	Electrical	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	BLC, DWDR	BLC, DWDR	WDR (120dB)	WDR (120dB)	BLC, DWDR	BLC, DWDR
Digital Noise Reduction	SSNR	SSNR	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR	SSNR
Digital Image Stabilization	-	-	Support	Support	-	-
Video & Audio Analytics	Motion detection with Metadata,	Motion detection with Metadata,	Tampering, Virtual line, Enter/Exit, (Dis)Appear,	Tampering, Virtual line, Enter/Exit, (Dis)Appear,	Motion detection with Metadata,	Motion detection with Metadata,
Protocol	ONVIF Profile S & G, SUNAPI	ONVIF Profile S & G, SUNAPI	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S & G, SUNAPI	ONVIF Profile S & G, SUNAPI
Alarm I/O	-	-	1 / 1	1 / 1	-	-
Audio	Uni-Directional	Uni-Directional	Bi-Directional	Bi-Directional	Uni-Directional	Uni-Directional
Edge Storage	Micro SD/SDHC, NAS	Micro SD/SDHC, NAS	Micro SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	Micro SD/SDHC, NAS	Micro SD/SDHC, NAS
Environment Protection	-	-	-	-	-	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 2.4W (PoE)	Max. 2.4W (PoE)	Max. 10.0W (12V DC) Max. 11.0W (PoE)	Max. 9.0W (12V DC, PoE)	Max. 5.4W (PoE)	Max. 5.9W (PoE)
Dimensions (WxHxD) / Weight	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 250g (0.55 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 240g (0.53 lb)	Ø132.1 x 107.6mm (Ø5.20" x 4.24") 575g (1.27 lb)	Ø132.1 x 107.6mm (Ø5.20" x 4.24") 525g (1.16 lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 290g (0.64 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 245g (0.54 lb)
Additional Features	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	P-Iris, Defog	P-Iris, Defog	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View



**SNV-6084**



**SNV-6013**



**SNV-6084R**



**SNV-L6083R**



**SNV-L6013R**



**SNV-L6014RM/L6014RBM**

Resolution	2MP	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 30fps	2M / 30fps	2M / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 3 Profiles)
Max. User Access	15 (Unicast)	15 (Unicast)	15 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)
Min. Illumination	Color : 0.03Lux B/W : 0.002Lux	Color : 0.15Lux B/W : 0.15Lux	Color : 0.03Lux B/W : 0Lux (IR LED on)	Color : 0.095Lux B/W : 0Lux (IR LED on)	Color : 0.15Lux B/W : 0Lux (IR LED on)	Color : 0.15Lux B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp DIP Connector Type	CVBS 1.0Vpp DIP Connector Type	CVBS 1.0Vpp DIP Connector Type	-	-	-
Lens	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)	2.8mm fixed (F1.8)	3 ~ 8.5mm (2.8x) motorized V/F (F1.2)	2.8 ~ 12mm (4.3x) V/F (F1.4)	3.6mm fixed (F1.8)	3.6mm fixed (F1.8)
Angular Field of View	H : 105.5°(Wide) ~ 37.1°(Tele) / V : 57.5°(Wide) ~ 21.0°(Tele)	H : 112.0° / V : 62.0°	H : 105.5°(Wide) ~ 37.1°(Tele) / V : 57.5°(Wide) ~ 21.0°(Tele)	H : 103.8°(Wide) ~ 32.4°(Tele) / V : 53.7°(Wide) ~ 18.4°(Tele) / D : 121.9°(Wide) ~ 37.1°(Tele)	H : 86.5° / V : 47.8° / D : 101.2°	H : 86.5° / V : 47.8° / D : 101.2°
Focus Control	Simple focus (motorized V/F) / Manual	-	Simple focus (motorized V/F) / Manual	Manual	-	-
IR Viewable Length	-	-	15m (49.21ft)	20m (65.62ft)	15m (49.21ft)	15m (49.21ft)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-5° ~ 5° / 0° ~ 67° / 90°	-5° ~ 5° / 0° ~ 67° / 90°
Day & Night	True (ICR)	Electrical	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	BLC, DWDR	BLC, DWDR	BLC, DWDR
Digital Noise Reduction	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNR	SSNR	SSNR
Digital Image Stabilization	Support	Support	Support	-	-	-
Video & Audio Analytics	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Face detection, People counting, Zone analyzing	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Motion detection with Metadata, Tampering	Motion detection with Metadata, Tampering	Motion detection with Metadata, Tampering
Protocol	ONVIF Profile S,	ONVIF Profile S,	ONVIF Profile S,	ONVIF Profile S & G,	ONVIF Profile S,	ONVIF Profile S,
Alarm I/O	1 / 1	-	1 / 1	-	-	-
Audio	Bi-Directional	-	Bi-Directional	Uni-Directional	Uni-Directional	Uni-Directional
Edge Storage	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	Micro SD/SDHC, NAS	Micro SD/SDHC, NAS	Micro SD/SDHC, NAS
Environment Protection	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-40°C ~ +55°C (-40°F ~ +131°F) (24V AC) -20°C ~ +55°C (-4°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Power	Max. 14.0W - Heater on (24V AC, 12V DC) Max. 12.95W	Max. 7.5W (PoE)	Max. 9.5W / Max. 13.5W - Heater on (24V AC)	Max. 5.8W (PoE)	PoE	PoE
Dimensions (WxHxD) / Weight	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 550g (1.21 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 960g (2.12 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 670g (1.48 lb)	99.0 x 52.0 x 100.0mm (3.90" x 2.05" x 3.94") 300g (0.66 lb)	99.0 x 52.0 x 100.0mm (3.90" x 2.05" x 3.94") 300g (0.66 lb)
Additional Features	P-Iris, Defog	Defog	P-Iris, Defog	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	M12 connector, Lens distortion correction, Hallway View, Built-in mic



**SNP-6321H/6321**



**SNP-6320H/6320**



**SNP-L6233H/L6233**



**SNP-6320RH**



**SNP-6230RH**



**SNP-L6233RH**

Resolution	2MP	2MP	3MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Frame Rate	2M / 60fps	2M / 60fps	2M / 30fps	2M / 60fps	2M / 60fps	2M / 30fps
Streaming Capacity	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
Max. User Access	10 (Unicast)	15 (Unicast)	10 (Unicast)	15 (Unicast)	15 (Unicast)	15 (Unicast)
Min. Illumination	Color: 0.15Lux B/W: 0.015Lux	Color: 0.2Lux B/W: 0.01Lux	Color: 0.15Lux B/W: 0.015Lux	Color: 0.1Lux B/W: 0Lux (IR LED on)	Color: 0.1Lux B/W: 0Lux (IR LED on)	Color: 0.1Lux B/W: 0Lux (IR LED on)
Video Output	CVBS 1.0Vpp	CVBS 1.0Vpp	CVBS 1.0Vpp	CVBS 1.0Vpp	CVBS 1.0Vpp	CVBS 1.0Vpp
Lens	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	4.44 ~ 102.1mm (Optical 23x)	4.4 ~ 140.8mm (IR Corrected Optical 32x)	4.4 ~ 101.2mm (IR Corrected Optical 23x)	4.4 ~ 101.2mm (IR Corrected Optical 23x)
Angular Field of View	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.8°(Wide) ~ 1.26°(Tele)	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.8°(Wide) ~ 1.26°(Tele)	H: 62.8°(Wide) ~ 3.14°(Tele) / V: 36.8°(Wide) ~ 1.76°(Tele)	H: 63.68°(Wide) ~ 2.24°(Tele) / V: 37.52°(Wide) ~ 1.28°(Tele)	H: 63.68°(Wide) ~ 3.1°(Tele) / V: 37.52°(Wide) ~ 1.76°(Tele)	H: 63.68°(Wide) ~ 3.1°(Tele) / V: 37.52°(Wide) ~ 1.76°(Tele)
Focus Control	Auto / Manual / One push	Auto / Manual / One push	Auto / Manual / One push	AF / One-shot AF / Manual	AF / One-shot AF / Manual	AF / One-shot AF / Manual
IR Viewable Length	-	-	-	150m (492.13ft)	100m (328.08ft)	100m (328.08ft)
Pan / Tilt / Rotate	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 190° (-5° ~ 185°) / -	360° Endless / 190° (-5° ~ 185°) / -	360° Endless / 190° (-5° ~ 185°) / -
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (100dB)	WDR (120dB)	WDR (120dB)	WDR (100dB)
Digital Noise Reduction	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR
Digital Image Stabilization	Support	Support	Support	Support	Support	Support
Video & Audio Analytics	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI, Open Platform	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI, Open Platform	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI, Open Platform	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI, Open Platform	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI, Open Platform	Tampering, Virtual line, Enter/Exit, (Dis)Appear, ONVIF Profile S, SUNAPI
Protocol	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI
Alarm I/O	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	4 / 3 (Relay)	4 / 3 (Relay)	4 / 3 (Relay)
Audio	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional	Bi-Directional
Edge Storage	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IP66, IK10 (SNP-6321H) IK10 (With SHP-3701H) (SNP-6321H)	IP66, IK10 (SNP-6320H) IK10 (With SHP-3701H) (SNP-6320H)	IP66, IK10 (SNP-L6233H) IK10 (With SHP-3701H) (SNP-L6233H)	IP66, IK10	IP66, IK10	IP66, IK10
Operating Temperature	50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -30°C ~ +55°C (-22°F ~ +131°F) (PoE+) (SNP-6321H)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -30°C ~ +55°C (-22°F ~ +131°F) (PoE+) (SNP-6320H)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -30°C ~ +55°C (-22°F ~ +131°F) (PoE+) (SNP-L6233H)	-50°C ~ +55°C (-58°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F)
Power	Max. 65.0W - AC & PoE Heater on (24V AC)	Max. 24.0W (24V AC, PoE+)	Max. 65.0W - AC & PoE Heater on (24V AC)	Max. 30.0W - Heater off Max. 35.0W / 90.0W -	Max. 30.0W - Heater off Max. 35.0W / 90.0W -	Max. 30.0W - Heater off Max. 35.0W / 90.0W -
Dimensions (WxHxD) / Weight	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 3.2Kg (7.05 lb) (SNP-6321H) Ø152.0 x 218.0mm	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 3.2Kg (7.05 lb) (SNP-6320H) Ø152.0 x 218.0mm	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 3.2Kg (7.05 lb) (SNP-L6233H) Ø152.0 x 218.0mm	Ø248.0 x 399.5mm (Ø9.76" x 15.73") 7.1Kg (15.65 lb)	Ø248.0 x 399.5mm (Ø9.76" x 15.73") 7.1Kg (15.65 lb)	Ø248.0 x 399.5mm (Ø9.76" x 15.73") 7.1Kg (15.65 lb)
Additional Features	RS-485, Defog	Auto tracking, RS-485, Defog	RS-485, Defog	Auto tracking, RS-485/422, Defog	Auto tracking, RS-485/422, Defog	RS-485/422, Defog

## NVR



**XRN-3010/3010A**



**XRN-2011/2011A**



**XRN-2010/2010A**



**XRN-1610S/1610/1610SA/1610A**

OS	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	300Mbps	256Mbps 100Mbps (RAID 5 mode)	256Mbps	180Mbps
Max # of Cameras	64	32	32	16
Internal Storage	Up to 8 SATA (Max. 64TB)	Up to 8 SATA (Hot swap) Max. 48TB (Non RAID), Max.36TB (RAID 5)	Up to 8 SATA (Max. 48TB) (XRN-2010)	Up to 4 SATA (Max. 24TB) (XRN-1610S) Up to 8 SATA (Max. 48TB) (XRN-1610)
External Storage	1 e-SATA	iSCSI	iSCSI, 1 e-SATA	iSCSI, 1 e-SATA
RAID	-	RAID 5	-	-
Hot Swap	-	Yes	-	-
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA	HDMI (Up to 4K), VGA Support dual monitor : HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB redundancy supported</li> <li>• WiseStream supported</li> <li>• Defocus event trigger</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-3010A)</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB redundancy supported</li> <li>• WiseStream supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-2011A)</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB redundancy supported</li> <li>• WiseStream supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-2010A)</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 16 PoE / PoE+ Ports (XRN-1610S)</li> <li>• WiseStream supported</li> <li>• Defocus event trigger</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code)) (XRN-1610SA/1610A)</li> </ul>



**XRN-810S**



**XRN-410S**



**PRN-4011/4011A**

OS	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	100Mbps	50Mbps	400Mbps
Max # of Cameras	8	4	64
Internal Storage	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 12 SATA (Max. 96TB)
External Storage	-	-	iSCSI
RAID	-	-	RAID 5/6
Hot Swap	-	-	Yes
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA Support dual monitor: HDMI / VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Features	<ul style="list-style-type: none"> <li>• Plug &amp; play by 8 PoE / PoE+ Ports</li> <li>• ARB supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Event push to smart phone</li> <li>• Transmission bandwidth 128Mbps</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 4 PoE / PoE+ Ports</li> <li>• ARB supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Event push to smart phone</li> <li>• Transmission bandwidth 64Mbps</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB redundancy supported</li> <li>• WiseStream supported</li> <li>• Defocus event trigger</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code)) (PRN-4011A)</li> </ul>



**QNR-1610S**



**QNR-810S/810**



**QNR-410S/410**

	QNR-1610S	QNR-810S/810	QNR-410S/410
OS	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	128Mbps	100Mbps (QNR-810), 80Mbps (QNR-810S)	50Mbps (QNR-410), 40Mbps (QNR-410S)
Max # of Cameras	16	8	4
Internal Storage	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
External Storage	-	-	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA (QNR-810) HDMI (Up to 4K) (QNR-810S)	HDMI (Up to 4K), VGA (QNR-410) HDMI (Up to 4K) (QNR-410S)
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Features	<ul style="list-style-type: none"> <li>• Plug &amp; play by 16 PoE ports</li> <li>• ARB supported</li> <li>• Easy Configuration (Setup Wizard, P2P (QR Code))</li> <li>• Event push to smart phone</li> <li>• Transmission bandwidth 128Mbps</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 8 PoE ports (QNR-810S)</li> <li>• ARB supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Event push to smart phone</li> <li>• Transmission bandwidth 128Mbps (QNR-810), 80Mbps (QNR-810S)</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 4 PoE ports (QNR-410S)</li> <li>• ARB supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Event push to smart phone</li> <li>• Transmission bandwidth 64Mbps (QNR-410), 50Mbps (QNR-410S)</li> <li>• Defocus event trigger</li> </ul>



**TRM-1610M/1610S**

OS	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	128Mbps
Max # of Cameras	16 (4PoE, M12: TRM-1610M / RJ-45: TRM-1610S)
Internal Storage	Up to 2 SATA (Front-Swap) Max. 4TB (HDD, SSD)
External Storage	-
RAID	RAID 1
Hot Swap	Yes (RAID 1)
Network Viewer Software	SSM Transportation, WebViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA
Camera Support	SUNAPI, ONVIF
Features	<ul style="list-style-type: none"> <li>• GPS supported</li> <li>• Wi-fi supported</li> <li>• Standards approval for transportation (EN50155)</li> <li>• Wide operating temperature range -40°C ~ +70°C (-40°F ~ +158°F)</li> </ul>



**SRN-1673S**



**SRN-873S**



**SRN-473S**

	SRN-1673S	SRN-873S	SRN-473S
OS	Linux	Linux	Linux
Supported Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Max. Recording Bit Rate	80Mbps	64Mbps	32Mbps
Max # of Cameras	16	8	4
Internal Storage	Up to 4 SATA	Up to 2 SATA	Up to 1 SATA
External Storage	1 e-SATA	1 e-SATA	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, SmartViewer,	SSM, SmartViewer,	SSM, SmartViewer,
Local Monitor	HDMI /VGA	HDMI /VGA	HDMI /VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Features	<ul style="list-style-type: none"> <li>• Plug &amp; play by 16 PoE / PoE+ Ports</li> <li>• WebViewer supported</li> <li>• HDD removable (Easy install)</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 8 PoE / PoE+ Ports</li> <li>• WebViewer supported</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 4 PoE / PoE+ Ports</li> <li>• WebViewer supported</li> </ul>

## Encoder



**SPE-1610**



**SPE-410**



**SPE-110**



**SPE-101**

	SPE-1610	SPE-410	SPE-110	SPE-101
Max. # of Cameras	16	4	1	1
Supported Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG, MPEG-4
Max. Resolution	4M, 1920 x 1080 704 x 480 / 704 x 576 (NTSC / PAL)	4M, 1920 x 1080 704 x 480 / 704 x 576 (NTSC / PAL)	4M, 1920 x 1080 704 x 480 / 704 x 576 (NTSC / PAL)	704 x 480 / 704 x 576 (NTSC / PAL)
Max. Frame Rate per Channel	4M@15fps 1920 x 1080, 704 x 480, 704 x 576@30fps	4M@15fps 1920 x 1080, 704 x 480, 704 x 576@30fps	4M@15fps 1920 x 1080, 704 x 480, 704 x 576@30fps	30/25fps (NTSC / PAL)
Bi-Directional Audio	Yes	Yes	-	-
RS-485	1	1	RS-485 / 422	1
Alarm I/O	16 / 4	4 / 2	-	-
SD Card	-	-	-	-
ONVIF	Yes	Yes	Yes	Yes
Power	12V DC	12V DC, PoE	12V DC / PoE	12V DC / PoE

## Decoder



**SPD-150**

Video Out	HDMI, VGA, BNC
Resolution	HDMI up to 4K, VGA up to 1080p
Display	(HDMI) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 25 / 36(32) / 2V / 3V (VGA) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V Spilt mode, Hallway View mode (Up to 20 layouts and sequence)
Power	12V DC, PoE
Additional Features	Up to 49CH, H.265 / H.264 / MJPEG codec, Layout sequence support

## Wisenet WAVE

Wisenet WAVE is an endlessly customizable IP video management platform that gives users the ability to create tailored networked video solutions for any type of project, of any size, on any device.

## Features of Wisenet WAVE

### Simple

Whether it's software installation, server configuration, recording setup, layout creation or system sharing, Wisenet WAVE makes it easy for you!

### Reliable

With built-in multi-server redundant fail-over you can rest assured critical events will never be missed!

### Light and Efficient

WAVE's light weight design runs fast and smooth on some of the lowest system specifications on the market.

### WAVE Sync

By linking your WAVE system with WAVE Sync, you can easily remote access or share your system. It's that simple!

### Open SDK/API

Do things YOUR way. WAVE's open SDK and API make customizing your software experience a breeze.

### Cross Platform Support

Microsoft Windows, Linux Ubuntu, Apple macOS, Apple iOS, Google Android and most web clients. You use it, we support it!



Dynamic Layout



Motion Search



Storage Analysis

## An Operating System to Suit Your needs



WAVE Sync

A cloud-based service that enables simple, centralized remote access and insight into any Wisenet WAVE system.



Desktop

A rich media player designed to view and manage a single Wisenet WAVE system from a desktop or laptop PC.



Mobile

A mobile app designed for viewing Wisenet WAVE system video and archives while on-the-go.



Server

A media server responsible for discovering, connecting to, and managing system devices and data.

Max Clients per system	Unlimited		
Max Streams per server	128		
Max Servers per system	50		
Max Live Streams	64 (64bit OS), 24 (32bit OS)		
Video Codecs	H.265, H.264, MJPEG		
Audio	AAC PCM (Mu-Law, A-law) G.726 MP3		
Features	2 Way Audio	Events & Rules Engine	Preview Search (Thumbnail Search)
	Adaptive Resolution Scaling	Fisheye Dewarping	Quick System Switch
	Advanced PTZ	Flex Timeline	Remote Connect
	Audit Trail	I/O Devices	RTSP / HTTP Streams
	Bookmarks	IP Cameras / Encoders	Server Management
	Calendar Search	Keyword Search	Smart Motion Search
	Consolidated Notifications	Layouts	Storage Management
	Customizable Layouts	Live Thumbnails	User Management
	Digital Maps	NVRs / DVRs	Videos I/O Device Mangement

<b>WAVE Server App</b>			
Supported OS	Microsoft Windows, Linux Ubuntu		
System Requirements	CPU	RAM	NIC
Up to 16 streams	Intel Atom (Dual Core)	2GB	1GB
Up to 32 streams	Intel Atom (Dual Core)	4GB	1GB
Up to 64 streams	Intel Core i3	8GB	1GB
Up to 128 streams	Intel Core i3	16GB	1GB

<b>WAVE Desktop App</b>		
Supported OS	Microsoft Windows, Linux Ubuntu, Apple macOS	
System Requirements	Minimum Specifications	Performance Specifications
CPU	Intel Celeron (Quad Core)	Intel Core i5
RAM	2GB	16GB
Graphics	Intel HD Graphics 3000	Nvidia GeForce GTX 1050
Network	1GB NIC	10GB NIC
Storage	HDD	Performance SSD

<b>WAVE Mobile App</b>	
Supported Platforms	Google Android, Apple iOS
<b>WAVE Sync</b>	
Supported Browsers	Google Chrome, Mozilla Firefox, Opera/Opera Neon, Microsoft Edge, Apple Safari

\*listed specifications are true at the time of this printing and are subject to change without notice.



## Camera



**HCB-7000**



**HCO-7070R**



**HCO-7010R/20R/30R**



**HCD-7070R**

	HCB-7000	HCO-7070R	HCO-7010R/20R/30R	HCD-7070R
Resolution	4MP	4MP	4MP	4MP
Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS
Horizontal Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
Min. Illumination	Color : 0.16Lux B/W : 0.009Lux	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.26Lux (HCO-7010R) 0.27Lux (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0Lux (IR LED on)
Lens	-	3.2 ~ 10mm (3.1x) V/F (F1.6)	2.8mm fixed (F1.8) (HCO-7010R) 4.0mm fixed (F2.0) (HCO-7020R) 6.0mm fixed (F2.0) (HCO-7030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)
Angular Field of View	-	H : 93.48°(Wide) ~ 29.44°(Tele) / V : 50.47°(Wide) ~ 16.64°(Tele) / D : 112.53°(Wide) ~ 33.7°(Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030R)	H : 93.48°(Wide) ~ 29.44°(Tele) / V : 50.47°(Wide) ~ 16.64°(Tele) / D : 112.53°(Wide) ~ 33.7°(Tele)
Focus Control	Manual	Manual	Fixed	Manual
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 63° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	-	MD Output 1
Communication	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Environment Protection	-	IP66, IK10	IP66, IK10	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 3.6W (24V AC & 12V DC)	Max. 5.8W (24V AC & 12V DC)	Max. 5.0W (12V DC)	Max. 5.8W (24V AC & 12V DC)
Dimensions (WxHxD) / Weight	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 186g (0.41 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø70.0 x 246.0 mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)



HCD-7010R/20R/30R



HCV-7070R



HCV-7010R/20R/30R



HCB-6001



HCB-6000

Resolution	4MP	4MP	4MP	2MP	2MP
Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Horizontal Resolution	2560 x 1440	2560 x 1440	2560 x 1440	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.26Lux (HCD-7010R) 0.27Lux (HCD-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux B/W : 0Lux (IR LED on)	Color : 0.26Lux (HCV-7010R) 0.27Lux (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.09Lux B/W : 0.009Lux	Color : 0.09Lux B/W : 0.009Lux
Lens	2.8mm fixed (F1.8) (HCD-7010R) 4.0mm fixed (F2.0) (HCD-7020R) 6.0mm fixed (F2.0) (HCD-7030R)	3.2 ~ 10mm (3.1x) V/F (F1.6)	2.8mm fixed (F1.8) (HCV-7010R) 4.0mm fixed (F2.0) (HCV-7020R) 6.0mm fixed (F2.0) (HCV-7030R)	-	-
IR Viewable Length	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	-	-
Angular Field of View	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCD-7030R)	H : 93.48°(Wide) ~ 29.44°(Tele) / V : 50.47°(Wide) ~ 16.64°(Tele) / D : 112.53°(Wide) ~ 33.7°(Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	-	-
Focus Control	Fixed	Manual	Fixed	Simple Focus	Manual
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-	-
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	4 Zones	8 Zones
Alarm I/O	-	MD Output 1	-	0 / 1, External D/N 1	0 / 1, External D/N 1
Communication	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), RS-485 : Samsung T/E, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD
Environment Protection	-	IP66, IK10	IP66, IK10	-	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 5.0W (12V DC)	Max. 5.8W (24V AC & 12V DC)	Max. 5.0W (12V DC)	Max. 6W (24V AC & 12V DC)	Max. 3.5W (24V AC & 12V DC)
Dimensions (WxHxD) / Weight	Ø110.1 × 86.1mm (Ø4.33" × 3.39") 240g (0.53 lb)	Ø137 × 106.1mm (Ø5.39" × 4.18") 715g (1.58 lb)	Ø120.3 × 91.7mm (Ø4.74" × 3.61") 510g (1.12 lb)	73.1 × 67.2 × 123.9mm (2.88" × 2.65" × 4.88") 287g (0.63 lb)	68.4 × 59.6 × 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)



**HCZ-6320**



**HCO-6080R**



**HCO-6070R**



**HCO-6020R**



**HCD-6080R/6070R**

Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2.38M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.2Lux B/W: 0.01Lux	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.17Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0Lux (IR LED on)
Lens	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) V/F (F1.6)	4mm fixed (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6) (HCD-6080R) V/F (F1.6) (HCD-6070R)
IR Viewable Length	-	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)
Angular Field of View	H: 62.8°(Wide) ~ 2.23°(Tele) / V: 36.80°(Wide) ~ 1.26°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 87.6° / V: 46.4° / D: 104.5°	H: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)
Focus Control	Auto / Manual / One push	Simple focus (motorized V/F) / Manual	Manual	Manual	Simple focus (motorized V/F) / Manual (HCD-6080R) Manual (HCD-6070R)
Pan / Tilt / Rotate	-	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR III	SSNR IV	SSNR IV	SSNR IV	SSNR IV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	12 Zones	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	-	MD Output 1	MD Output 1	-	MD Output 1
Communication	AHD: ACP (AHD Coax Protocol), RS-485: Samsung-T/E, Pelco-D/P, Panasonic, Bosch, Honeywell, Vicon, AD	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Environment Protection	-	IP66, IK10	IP66, IK10	IP66	-
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Power	Max. 6W (12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max 6.0W (24V AC & 12V DC) (HCD-6080R) Max 4.2W (24V AC & 12V DC) (HCD-6070R)
Dimensions (WxHxD) / Weight	72.0 x 60 x 137mm (2.83" x 2.36" x 5.39") 476g (1.05 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09 lb)	Ø78.0 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without sunshield) 285g (0.62 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)
Additional Features	Defog	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)



NEW

HCD-6020R



NEW

HCD-6010



HCV-6080R/6070R



HCP-6320HA/6320A

Resolution	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2.38M CMOS
Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.17Lux B/W : 0Lux (IR LED on)	Color : 0.27Lux B/W : 0.017 Lux	Color : 0.11Lux B/W : 0Lux (IR LED on)	Color : 0.2Lux B/W : 0.01Lux
Lens	4mm fixed (F1.6)	2.8mm fixed (F2.0)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6) (HCV-6080R) V/F (F1.6) (HCV-6070R)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)
IR Viewable Length	20m (65.62ft)	-	30m (98.43ft)	-
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.7° / V : 61.5° / D : 134.5°	H : 110.2°(Wide) ~ 32°(Tele) / V : 55.4°(Wide) ~ 18°(Tele) / D : 128.4°(Wide) ~ 36.6°(Tele)	H : 62.8°(Wide) ~ 2.23°(Tele) / V : 36.8°(Wide) ~ 1.26°(Tele)
Focus Control	Manual	Manual	Simple focus (motorized V/F) / Manual (HCV-6080R) Manual (HCV-6070R)	Auto / Manual / One push
Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	360° Endless / 210° (-15° ~ 195°) / -
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIII
Motion detection	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	32 Zones
Alarm I/O	-	-	MD Output 1	4 / 2 (Relay)
Communication	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), RS-485 : Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE
Environment Protection	-	-	IP66, IK10	IP66, IK10 (HCP-6320HA), IK10 (With SHP-3701H) (HCP-6320A)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6320HA), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6320A)
Power	Max. 4.2W (12V DC)	Max. 3.5W (12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 24.0W / 65.0W - Heater off / on (24V AC) (HCP-6320HA) Max. 20.0W (24V AC) (HCP-6320A)
Dimensions (WxHxD) / Weight	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) 715g (1.58lb)	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (HCP-6320HA), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (HCP-6320A)
Additional Features	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Defog



HCP-6230H/6230



SCB-6003



SCO-6083R



SCO-6023R

Resolution	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2.38M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS
Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.2Lux B/W : 0.01Lux	Color : 0.04Lux B/W : 0.004Lux	Color : 0.11Lux B/W : 0Lux (IR LED on)	Color : 0.25Lux B/W : 0Lux (IR LED on)
Lens	4.44 ~ 101.2mm (Optical 23x) F1.6(Wide) / F3.63(Tele)	-	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm fixed (F2.1)
IR Viewable Length	-	-	30m (98.43ft)	20m (65.62ft)
Angular Field of View	H : 62.8°(Wide) ~ 3.14°(Tele) / V : 36.8°(Wide) ~ 1.76°(Tele)	-	H : 102°(Wide) ~ 32.2°(Tele) / V : 54°(Wide) ~ 18.2°(Tele) / D : 121°(Wide) ~ 38°(Tele)	H : 80.7° / V : 43.5° / D : 95.8°
Focus Control	Auto / Manual / One push	-	Manual	Fixed
Pan / Tilt / Rotate	360° Endless / 210° (-15° ~ 195°) / -	-	-	-
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
Digital Noise Reduction	SSNRIII	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support
Privacy Masking	32 Zones	4 Zones	4 Zones	4 Zones
Alarm I/O	4 / 2 (Relay)	0 / 1, External D/N 1	0 / 1	-
Communication	AHD : ACP (AHD Coax Protocol), RS-485 : Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), RS-485	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Environment Protection	IP66, IK10 (HCP-6230H), IK10 (With SHP-3701H) (HCP-6230)	-	IP66, IK10	IP66
Operating Temperature	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6230H), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6230)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Power	Max. 24.0W / 65.0W - Heater off / on (24V AC) (HCP-6230H) Max. 20.0W (24V AC) (HCP-6230)	Max. 4.2W (24V AC & 12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 4.2W (12V DC)
Dimensions (WxHxD) / Weight	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (HCP-6230H), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (HCP-6230)	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 175.5g (0.39 lb)	Ø78.0 x 260.0mm (Ø3.07" x 10.24") (Without sunshield) 922g (2.03 lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without Sunshield) 208g (0.46 lb)
Additional Features	Defog	Defog	Defog	Defog



SCD-6083R



SCD-6023R



SCD-6013



SCV-6083R



SCV-6023R

Resolution	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS	1/3" 2M CMOS
Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.11Lux B/W : 0Lux (IR LED on)	Color : 0.25Lux B/W : 0Lux (IR LED on)	Color : 0.1Lux B/W : 0.01Lux	Color : 0.11Lux B/W : 0Lux (IR LED on)	Color : 0.25Lux B/W : 0Lux (IR LED on)
Lens	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm fixed (F 2.1)	2.8mm fixed (F1.8)	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm fixed (F 2.1)
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	-	30m (98.43ft)	20m (65.62ft)
Angular Field of View	H : 102°(Wide) ~ 32.2°(Tele) / V : 54°(Wide) ~ 18.2°(Tele) / D : 121°(Wide) ~ 38°(Tele)	H : 80.7° / V : 43.5° / D : 95.8°	H : 108.7° / V : 60.6° / D : 125.4°	H : 102°(Wide) ~ 32.2°(Tele) / V : 54°(Wide) ~ 18.2°(Tele) / D : 121°(Wide) ~ 38°(Tele)	H : 80.7° / V : 43.5° / D : 95.8°
Focus Control	Manual	Fixed	Fixed	Manual	Fixed
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones
Alarm I/O	0 / 1	-	-	0 / 1	-
Communication	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Environment Protection	-	-	-	IP66, IK10	IP66, IK10
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Power	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max. 2.5w (12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (12V DC)
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 304g (0.67 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 242g (0.53 lb)	Ø110.0 x 86.0mm (Ø4.33" x 3.39") 231g (0.51 lb)	Ø137.0 x 106.1mm (Ø5.39" x 4.18") 716g (1.58 lb)	Ø137.0 x 94.0mm (Ø5.39" x 3.70") 560g (1.23 lb)
Additional Features	Defog	Defog	Defog	Defog	Defog

## DVR



**HRD-1642**

**HRD-1641**

**HRD-842**

**HRD-841**

**HRD-442**

**HRD-440**

Channel	16CH	16CH	8CH	8CH	4CH	4CH
Live (NTSC / PAL)	480fps / 400fps	480fps / 400fps	240fps / 200fps	240fps / 200fps	120fps / 100fps	120fps / 100fps
Recording Compression	H.264	H.264	H.264	H.264	H.264	H.264
Max. Recording (NTSC / PAL)	240fps / 200fps@2560 x 1440 480fps / 400fps@1920 x 1080	240fps / 200fps@2560 x 1440 480fps / 400fps@1920 x 1080	120fps / 100fps@2560 x 1440 240fps / 200fps@1920 x 1080	120fps / 100fps@2560 x 1440 240fps / 200fps@1920 x 1080	60fps / 50fps@2560 x 1440 120fps / 100fps@1920 x 1080	60fps / 50fps@2560 x 1440 120fps / 100fps@1920 x 1080
Video Inputs	16CH : AHD, NTSC, PAL TVI, CVI	16CH : AHD, NTSC, PAL TVI, CVI	8CH : AHD, NTSC, PAL TVI, CVI	8CH : AHD, NTSC, PAL TVI, CVI	4CH : AHD, NTSC, PAL HDTV, HDCVI	4CH : AHD, NTSC, PAL TVI, CVI
Audio I/O	16CH (Built-in 4CH) / CH	4CH / 1CH	8CH (Built-in 4CH) / 1CH	4CH / 1CH	4CH / 1CH	1CH / 1CH
Alarm I/O	16/4	16/4	8/4	8/4	4/1	4/1
Internal Storage	Up to 8 SATA HDDs	Up to 2 SATA HDDs	Up to 4 SATA HDDs	Up to 2 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDD
Monitors	VGA	Yes	Yes	Yes	Yes	Yes
	HDMI	Yes	Yes	Yes	Yes	Yes
	Spot Composite	1CH (BNC)	1CH (BNC)	1CH (BNC)	1CH (BNC)	1CH (BNC)
USB	2 ports	2 ports	2 ports	2 ports	2 ports	2 ports
e-SATA	2 External SATA ports	1 External SATA port	2 External SATA Ports	1 External SATA port	-	-
Network	Remote Users	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20	Search 3 / Live Unicast 10 / Live Multicast 20
	Transmission	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, 2CIF, CIF	4MP, 1080p, 720p, WD1, 4CIF, CIF	4MP, 1080P, 720P, WD1, 4CIF, CIF
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer	SSM, WebViewer, SmartViewer, Mobile Viewer
Coax Protocol	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron) AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron), AHD : ACP (AHD Coax Protocol)	NTSC/PAL : Pelco-C (Coaxitron), AHD : ACP (AHD Coax Protocol)
Serial Interface	RS-485(Half-duplex)	RS-485(Half-duplex)	RS-485(Half-duplex)	RS-485(Half-duplex)	RS-485(Half-duplex)	RS-485(Half-duplex)

# PERIPHERAL

## LED Monitor



**SMT-4033**



**SMT-3233**



**SMT-2233**



**SMT-1935**



**SMT-1931**



**SMT-1914**

	SMT-4033	SMT-3233	SMT-2233	SMT-1935	SMT-1931	SMT-1914
Screen Size	40"	32"	22"	19"	19"	19"
Resolution (pixels HxV)	1,920 x 1,080	1,920 x 1,080	1,920 x 1,080	1,280 x 1,024	1,366 x 768	1,280 x 1,024
Video In/Out	1	1	2/2	2/2	2/2	-
VGA	1	1	1	1	1	1
DVI / HDMI	1 / 1	1 / 1	0 / 1	0 / 1	0 / 1	-
USB	-	-	-	-	-	-
Audio In (Stereo)	1	1	2	2	2	-
Contrast Ratio	5,000 : 1	1,200 : 1	1,000 : 1	1,000 : 1	1,000 : 1	1,000 : 1
Aspect Ratio	16 : 9	16 : 9	16 : 9	4 : 3	16 : 9	4 : 3
Response Time	9.5ms	8ms	5ms	5ms	5ms	5ms
Brightness	350cd/m <sup>2</sup>	350cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>	250cd/m <sup>2</sup>
Tempered Glass Screen	-	-	Yes	Yes	Yes	Yes
Picture In Picture	-	-	-	-	-	Yes
Built-in Speakers	Yes	Yes	Yes	Yes	Yes	-
Stand	Optional	Optional	Standard	Standard	Standard	Standard
Power	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC
Additional Features	Remote Controller	Remote Controller	-	-	-	-

## Controller



**SPC-7000**



**SPC-2000**



**SPC-2010**






**SPC-1010**

	SPC-7000	SPC-2000	SPC-2010	SPC-1010
Features	<p>Network/Analog Cameras / NVR / DVR / SSM Controller</p> <ul style="list-style-type: none"> <li>• 5" TFT Touch LCD</li> <li>• Network Camera / SSM / Analog Camera / DVR Control</li> <li>• User-Friendly Design and Easy-to-Use Keypad</li> <li>• 3 Axis Joystick to Control PTZ Function</li> <li>• Detachable Joystick / Jogshuttle for Universe Use (Right / Left Hand Use)</li> <li>• USB Interface Support (1ea for SSM, 1ea for Image Snapshot / Upgrade)</li> <li>• Fast Camera-Tile Mapping, Config Import / Export</li> </ul>	<p>Network Controller</p> <ul style="list-style-type: none"> <li>• Superior System Compatibility</li> <li>• 3D Joystick Control</li> <li>• Quick and Easy Installation</li> <li>• SSM Support</li> </ul>	<p>PTZ / DVR System Controller</p> <ul style="list-style-type: none"> <li>• Control up to 255 PTZ Cameras / DVRs</li> <li>• Built-in 3 Axis Twist Zoom Joystick</li> <li>• Built-in Jog Shuttle</li> <li>• 16 x 2 Character LCD Display</li> <li>• RS-485 and RS-422 Interface</li> </ul>	<p>PTZ Control Keyboard</p> <ul style="list-style-type: none"> <li>• Control up to 255 PTZ Cameras</li> <li>• Multi Protocols Supports</li> <li>• OSD Menu, 3D Joystick Control</li> <li>• RS-485 and RS-422 Interface</li> </ul>



# PERIPHERAL

## Lens

Lens Description	Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F.No	Angle of View	Operation			Dimensions W x H x D (mm / inch)	Weight (g / lb)
											Iris	Focus	Zoom		
Varifocal Lens	SLA-M8550D		CS	1/2.8"	3Megapixel	8.5 ~ 50mm (0.33" ~ 1.97")	9.4 ~ 10.7mm (0.37" ~ 0.42")	5.9	F1.6	42.3° ~ 7.5°	DC	Manual	Manual	46 x 60 x 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17 lb)
	SLA-M2890DN					2.8 ~ 9mm (0.11" ~ 0.35")	7.5 ~ 15.9mm (0.30" ~ 0.63")	3.2	1.2	134.2° ~ 42.7°				45.0 x 51.5 x 54.3mm (1.77" x 2.03" x 2.14")	84.0g (0.19 lb)
	SLA-M2890PN													P-Iris	

# ACCESSORY

NETWORK



**SHP-1680F**



**SHP-3701H**



**SHP-3701F**



**SHD-3000F/3000F1**



**SHD-3000F2**

In-Ceiling Housing for PTZ & Dome

- For indoor applications
- Polycarbonate
- Can be used with  
XNP-6120H  
XNV-6120/6120R/6085  
XND-6085/6085V

Outdoor Housing for PTZ Dome

- For outdoor applications
- Weatherproof rated to IP66
- Aluminium + Polycarbonate
- IK10 vandal resistant
- Can be used with  
HCP-6320A/6320/6230  
XNP-6320, QNP-6230  
SNP-3300A/3301/3302/3350/3370/3371/  
3750/5200/5300/5320/5321/5430/  
6200/6201/6230/6320/6321/L5233/L6233  
SCP-2250/2251/2270/2271/2273/2330/2370/  
2371/2373/2430/3250/3370/3371/3430

In-Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with  
HCP-6321/6321A/6320/6231  
XNP-6321  
QNP-6231  
SNP-3301/3301A/3302/3350/3370/3371/  
3750/5200/5300/5320/5321/5430/  
6200/6201/6230/6320/6321/L5233/L6233  
SCP-2250/2251/2270/2271/2273/2330/2370/  
2371/2373/2430/3250/3370/3371/3430

In-Ceiling Housing for PTZ Dome

- For indoor applications
- Polycarbonate
- Can be used with  
SND-7084R/7084/6084R/6084/6083/5084R/  
5084/5083  
SCD-6081R  
PNV-9080R  
XNV-8080R/6080R/6080  
XNV-L6080/L6080R  
SNV-8081R/8080/7084R/7084/6085R/6084R/  
6084/5084R/5084

In Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with  
QND-6070R/6071R/7080R/7081R  
SND-6011R/L5083R/L6083R  
SCD-5080A/5082/5083/5083R/  
6021/6083R  
SUD-5082/6083R/6023R  
HCD-6070R/7070R/6080R/7080R  
LND-6071R



**SHD-3000F3**



**SHD-3000F4**



**SHD-3000F5**



**SHF-1500F**



**SBP-301HM3**

In Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with  
QNV-6070R/7080R/6071R/7081R  
SNV-L6083R  
SCV-5082/6023R/6083R  
HCV-7070R/6080R/6070R  
LNV-6071R

In Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with  
PND-9080R  
XND-6080/6080R/6080RV/6080V/  
L6080R/L6080RV/L6080V/  
8080R/8080RV

In Ceiling Housing for Dome

- For indoor applications
- Polycarbonate
- Can be used with  
PNM-9000VQ

In-Ceiling Housing for PTZ & Dome

- For indoor applications
- Polycarbonate
- Can be used with  
PNF-9010R/9010RV/9010RVM  
XNF-8010R/8010RV/8010RVM

Hanging Mount

- Aluminum
- Can be used with  
SNP-L6233/L5233/6321/6230/  
6320/5430/5321/5320  
HCP-6320A/6320/6230  
SCP-3371/2273  
XNP-6320  
QNP-6230



**SBP-301HM4**



**SBP-301HM5**



**SBP-300HM5**



**SBP-300HM6**



**SBP-300HM7**

Hanging Mount

- Aluminum
- Can be used with  
SNF-7010/7010V  
LND-6071R  
QND-6070R/6071R/7080R/7081R  
HCD-6070R/7070R/7080R/6080R  
SND-6011R/L5083R/L6083R  
SCD-6021/6083R/5083R/5083B/5080A  
SUD-6083R/6023R

Hanging Mount

- Aluminum
- Can be used with  
XNP-6040H  
QNV-6070R/6071R/7080R/7081R  
HCV-7070R/6080R/6070R  
LNV-6071R  
SNV-L6083R  
SCV-6083R/6023R/2081/5082  
SND-7084R/7084/6084R/6084/6083/5084R/  
5084/5083  
SCD-6081R

Hanging Mount

- Aluminum
- Can be used with  
XNF-8010R/8010RV/8010RVM  
SNF-8010/8010VM, PNF-9010R/9010RV/9010RVM  
QNE-6080RV/7080RV

Hanging Mount

- Aluminum
- Can be used with  
PNV-9080R  
XNV-8080R/6120R/6120/  
6080R/6080/L6080R  
SNV-8081R/8080/7084R/7084/6085R/  
6084R/6084/5084R/5084/6085  
XND-6085V/6085  
PNM-7000VD
















Hanging Mount

- Aluminum
- Can be used with  
SNV-6013  
XNV-6011  
XND-8040R/8030R/8020R/6020R/6010  
QND-7030R/7020R/7010R/6030R/6020R/6010R  
HCD-7010R/7020R/7030R/6020R/6010/E6020R  
SND-L6014R/L6013R/L6013/L6012  
SCD-6013/6023R  
LND-6011R/6021R/6031R

ANALOG

PERIPHERAL

ACCESSORY

 <p><b>SBP-300HM8</b></p>	 <p><b>SBP-122HM</b></p>	 <p><b>SBP-160HM/180HM</b></p>	 <p><b>SBP-168HM</b></p>	 <p><b>SBP-201HM/317HM/329HM/276HM</b></p>
<p>Hanging Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with SND-6083/5084R/5084/5083/7084R/7084/6084R/6084 SCD-6081R PND-9080R XND-8080RV/8080R/6080V/6080RV/6080R/6080/L6080R/L6080RV/L6080V</li> </ul>	<p>Hanging Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with XNV-6010/6020R/8020R/8030R/8040R QNV-6010R/6020R/6030R/7010R/7020R/7030R HCV-7010R/7020R/7030R LNV-6011R/6021R/6031R QND-6070R/6071R/7080R/7081R HCD-6070R/7070R/7080R/6080R SND-6011R/L5083R/L6083R SCD-6021/6083R/5083R/5083B/5080A SUD-6083R/6023R LND-6071R</li> </ul>	<p>Hanging Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with XND-8081VZ/6081VZ/8081RV/6081RV/6081V(SBP-160HM)</li> <li>Can be used with XNV-8081Z/6081Z/6081R/6081(SBP-180HM)</li> </ul>	<p>Hanging Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with XNP-6120H</li> </ul>	<p>Hanging Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with PNM-9020V HCM-9020VQ(SBP-201HM)</li> <li>Can be used with PNM-9080VQ/9081VQ(SBP-317HM : Indoor, SBP-329HM : Outdoor)</li> <li>Can be used with PNM-9000VQ/9030V(SBP-276HM)</li> </ul>
 <p><b>SBP-300HF/301HF/302HF/303HF</b></p>	 <p><b>SBP-300TM1/300TM</b></p>	 <p><b>SBP-160TM</b></p>	 <p><b>SBP-300WM1/300WM</b></p>	 <p><b>SBP-300CM/300LM</b></p>
<p>Built-in SFP Install Base for PTZ Cameras</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>LC SFP port type</li> <li>100Mbps Ethernet speed (Default speed : 1000Mbps)</li> <li>IEEE 802.3u, IEEE 802.3z Support</li> <li>Audio input/output, 3.5mm type</li> <li>24V AC, IP66, IK10, -50°C to +55°C</li> <li>Can be used with SNP-6320H/5430H (SBP-300HF)</li> <li>Can be used with SNP-6321H/5321H/L6233H/L5233H (SBP-301HF)</li> <li>Can be used with PNP-9200RH/XNP-6370RH (SBP-302HF)</li> <li>Can be used with XNP-6550RH/6371RH/6320H/QNP-6230H (SBP-302HF)</li> </ul>	<p>Tilt Mount</p> <ul style="list-style-type: none"> <li>Poly Carbonate</li> <li>Can be used with PNF-9010R/9010RV/9010RVM XNF-8010R/8010RV/8010RVM QNE-6080RV/7080RV SNF-8010/8010VM (SBP-300TM1)</li> <li>Can be used with SNF-7010/7010V (SBP-300TM)</li> </ul>	<p>Tilt Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with PNV-9080R XNV-8080R/6120R/6120/6085R/6080R/6085/6080/L6080/L6080R SNV-8081R/8080/7084R/7084/6085R/6084R/6084/5084R/5084 XND-6085V/6085</li> </ul>	<p>Wall Mount</p> <ul style="list-style-type: none"> <li>Aluminum + SECC</li> <li>Can be used with SBP-300HM1/301HM2/301HM3/301HM4/301HM5 300HM5/300HM6/300HM7/300HM8/ 122HM/201HM/317HM/329HM/276HM/ 168HM/300B/300PM/300KM PH1/PH2/PH3/PH4/PH5/PH6</li> </ul>	<p>Ceiling Mount / Parapet Mount</p> <ul style="list-style-type: none"> <li>Aluminum + SECC</li> <li>Can be used with SBP-300HM1/301HM2/301HM3/301HM4/301HM5 300HM5/300HM6/300HM7/300HM8/ 122HM/201HM/317HM/329HM/ 276HM/168HM PH1/PH2/PH3/PH4/PH5/PH6 (SBP-300CM)</li> <li>Can be used with SBP-300HM1/301HM2/301HM3/301HM4/301HM5 300HM5/300HM6/300HM7/300HM8/ 122HM/201HM/317HM/329HM/ 276HM/168HM/300B/300PM/300KM PH1/PH2/PH3/PH4/PH5/PH6 (SBP-300LM)</li> </ul>
 <p><b>SBP-137WM/137WM1</b></p>	 <p><b>SBP-120WM</b></p>	 <p><b>SBP-390WM1</b></p>	 <p><b>SBP-300PM/300KM</b></p>	 <p><b>SBP-300B/300NB</b></p>
<p>Wall Mount</p> <ul style="list-style-type: none"> <li>Alluminum and Poly Carbonate</li> <li>Can be used with XNP-6040H QNV-6070R/6071R/6080R/7080R/7081R HCV-7070R/6080R/6070R/7010R/7020R/7030R LNV-6071R/6011R/6021R/6031R SNV-L6083R SCV-6083R/6023R/5082/2081 XNV-8040R/8030R/8020R/6020R/6010 QNV-7030R/7020R/7010R/6030R/6020R/6010R</li> </ul>	<p>Wall Mount</p> <ul style="list-style-type: none"> <li>Plastic</li> <li>Can be used with QND-6070R/6071R/7080R/7081R/7030R/7020R/7010R/6030R/6020R/6010R HCD-6070R/7070R/7080R/6080R/7010R/7020R/7030R/6020R/E6020R SCD-6021/6083R/5083R/5083B/5080A/6013/6023R SUD-6083R/6023R LND-6071R/6011R/6021R/6031R XND-8040R/8030R/8020R/6020R/6010 SND-6011R/L5083R/L6083R/L6014R/L6013R/L6013/L6012, XNV-6011, SNV-6013</li> </ul>	<p>Wall Mount</p> <ul style="list-style-type: none"> <li>Aluminum</li> <li>Can be used with SBP-317HM/329HM/276HM</li> </ul>	<p>Pole Mount / Corner Mount Base</p> <ul style="list-style-type: none"> <li>SECC</li> <li>Can be used with SBP-300WM1/300WM</li> </ul>	<p>Wall Mount Base / Installation Box</p> <ul style="list-style-type: none"> <li>Aluminum + SECC</li> <li>Can be used with SBP-300WM1/300WM/ 300WMS1/300WMS SBU-500WM (SBP-300B)</li> <li>Steel</li> <li>Can be used with SBP-300WM/300WM1 (SBP-300NB)</li> </ul>

# ACCESSORY

NETWORK



**SBV-160WC/120WC**



**SBV-116B**



**SBV-136B/158G**



**SBF-100B1/SBO-100B1/SBO-126B**



**SBP-301HMW2/300HMW5/300HMW7**

**Weather Cap**

- Alluminum and Polycarbonate
- Can be used with XNV-8080R/6120R/6120/6085/6080R/6080/L6080/L6080R SNV-5084/5084R/6084/6084R/6085R/7084/7084R/8080/8081R XND-6085V/6085, PNV-9080R(SBV-160WC)
- Can be used with XNV-6011/6020R/8020R/8030R/8040R QNV-6010R/6020R/6030R/7010R/7020R/7030R HCV-7010R/7020R/7030R LNV-6011R/6021R/6031R(SBV-120WC)

**Back Box**

- Aluminum
- Can be used with XNV-6011 SNV-6013

**Back Box**

- Aluminum
- Can be used with XNP-6040H, HCV-7070R/6080R/6070R QNV-6070R/6071R/6080R/7080R/7081R LNV-6071R, SNV-L6083R/L5083R SCV-6083R/6023R/5082/5085/5083R/5083/5082R/2081 (SBV-136B)
- Can be used with PNV-9080R, XNV-8080R/6120R/6120/6085R 6080R/6080/L8080R/L6080/L6080R/6085 SNV-8081R/8080/7084R/7084/6085R/6084R/6084/5084R/5084 XND-6085V/6085, PNM-7000VD (SBV-158G)

**Back Box**

- Aluminum
- Can be used with XNF-8010R/8010RV/8010RVM SNF-8010/8010VM, PNF-9010R/9010RV/9010RVM QNE-6080RV/7080RV (SBF-100B1)
- Can be used with QNO-7080R/6070R/7010R/7020R/7030R/6010R/6020R/6030R SNO-L6083R/L5083R, SCCO-6083R HCO-7070R/7010R/7020R/7030R/6080R/6070R (SBO-100B1)
- Can be used with XNO-L6080R (SBO-126B)

**Hanging Mount**

- Aluminum, White
- Can be used with LNV-6070R (SBP-301HMW2)
- Can be used with QNE-7080RVW/6080RVW (SBP-300HMW5)
- Can be used with LND-6010R/6020R/6030R (SBP-300HMW7)

ANALOG



**SBP-122HMW**



**SBP-300WMW1/300CMW/300WMW**



**SBP-302PM/303PM**



**SBP-300HMS6**



**SBP-300WMS1/300WMS**

**Wall Mount**

- Aluminum, White
- Can be used with LNV-6010R/6020R/6030R LND-6070R

**Wall Mount /Ceiling Mount**

- Aluminum, White
- Can be used with SBP-300HMW7/300HMW5/301HMW2/122HMW 160HM/180HM

**Pole Mount**

- SECC
- Can be used with SBO-100B1/126B PNO-9080R XNO-8080R/6080R/8040R/8030R/8020R/6020R/6010R/6120R/6085R SNO-8081R (SBP-302PM)
- Can be used with TNO-4030T/4030TR/4040T/4040TR/4050T/4050TR (SBP-303PM, White)

**Wall Mount**

- Stainless steel (SUS316L)
- Can be used with XNV-8080RS/6120RS/6080RS

**Wall Mount**

- Stainless steel (SUS316L)
- Can be used with XNP-6320HS SBP-300HMS6

PERIPHERAL



**SBP-300KMS**



**SBP-300PMS**



**SHB-4300H/4300H1/4300H2/4300HP**



**SHB-4200/4200H**



**STH-200**

**Corner Mount Base**

- Stainless steel (SUS316L)
- Can be used with SBP-300WMS1/300WMS (SBP-300KMS)

**Pole Mount**

- Stainless steel (SUS316L)
- Can be used with SBP-300WMS1/300WMS

**Fixed Housing**

- Aluminum diecasting construction
- Fully cable managed bracket
- Built-in fan & heater
- Support three cable glands, IP66

**Fixed Housing**

- Support two cable glands
- Built-in fan & heater : SHB-4200H

**Fixed Housing**

- For fixed camera application
- Wall/ceiling installations
- Easy to install side open type

ACCESSORY

# ACCESSORY



**STB-400/4150V**

- Fixed Mount
- Bracket for STH-500/200
  - Aluminum and Steel material (STB-400)
  - Bracket for box cameras
  - Aluminum and Steel material (STB-4150V)



**SPI-50**

- IR Illuminator
- Compatible IR Illuminator for TNU-6320
  - Wavelength 850nm
  - Angle 25°



**SBU-500WM**

- Mount-Fixed
- Aluminum
  - Can be used with SPT-3100 TNU-6320



**SPB-IND5/IND6/IND7**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with SCD-6081R SND-7084/6084R/6084/6083/5084/5083 (SPB-IND5)
  - Can be used with HCD-6070R/7070R/7080R/6080R SND-6011R SCD-6021/6083R/5083R/5083B/5080A SUD-6083R/6023R (SPB-IND6)
  - Can be used with SND-L5083R/L5084R/L6083R/L6084R (SPB-IND7)



**SPB-IND11/IND81/IND81V**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with XND-6010/6020/8020R/8030R/8040R (SPB-IND11)
  - Can be used with XND-6080/6080R/L6080R/8080R PND-9080R (SPB-IND81)
  - Can be used with XND-6080V/6080RV/L6080RV/8080RV (SPB-IND81V)



**SPB-IND12/IND72**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with QND-6010R/6020R/6030R/7010R/7020R/7030R HCD-7010R/7020R/7030R/6020R (SPB-IND12)
  - Can be used with QND-6070R/6071R/7080R/7081R HCD-6070R/7070R/7080R/6080R SND-6011R/L5083R/L6083R SCD-6021/6083R/5083R/5083B/5080A SUD-6083R/6023R (SPB-IND72)



**SPB-IND83/IND83V**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with XND-6085 (SPB-IND83)
  - Can be used with XND-6085V (SPB-IND83V)



**SPB-VAN3/VAN4**

- Smoked Dome Cover
- Aluminium + Poly Carbonate
  - Can be used with PNV-9080R XNV-8080R/6120R/6120/6080R/6080/L6080/L6080R SNV-8081R/8080/7084R/7084/6085R/6084R/6084/5084R/5084 (SPB-VAN3)
  - Can be used with QNV-6070R/6071R/7080R/7081R HCV-7070R/6080R/6070R SNV-L6083R SCV-6083R/6023R/5082 (SPB-VAN4)



**SPB-VAN11/VAN71/VAN81**

- Smoked Dome Cover
- Aluminium + Poly Carbonate
  - Can be used with XNV-6010/6020R/8020R/8030R/8040R (SPB-VAN11)
  - Can be used with XNV-6120/6120R (SPB-VAN71)
  - Can be used with XNV-6085 (SPB-VAN81)



**SPB-VAN12/VAN72**

- Smoked Dome Cover
- Aluminium + Poly Carbonate
  - Can be used with QNV-7030R/7020R/7010R/6030R/6020R/6010R HCV-7010R/7020R/7030R (SPB-VAN12)
  - Can be used with QNV-6070R/6071R/7080R/7081R HCV-7070R/6080R/6070R (SPB-VAN72)



**SPB-PTZ71**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with XNP-6040H



**SPB-PTZ73**

- Smoked Dome Cover
- Poly Carbonate + Poly Carbonate
  - Can be used with XNP-6120H

# ACCESSORY CONFIGURATION








NETWORK

## PTZ Cameras

Type	Outdoor PTZ					Indoor PTZ
Shape	 PH4	 PH5	 PH6	 PH7	 PH8	 P4
Color	Ivory					
Model	SCP-2271H/2273H/ 2371H/2373H/ 3371H SNP-5300H/5320H/ 5321H/5430H/ 6201H/6320H/ 6321H/L5233H/ L6233H HCP-6230H/6320H/ 6320HA XNP-6320H QNP-6230H	SCP-2370RH SNP-6200RH/ 6230RH/ 6320RH/ L6233RH	PNP-9200RH XNP-6370RH/ 6371RH/ 6550RH	XNP-6120H	XNP-6040H	SCP-2271/2273/ 2371/2373/ 3371 SNP-5300/5320/ 5321/5430/ 6201/6230/ 6320/6321/ L5233/L6233 HCP-6230/6320/ 6320A XNP-6320 QNP-6230

ANALOG

## White Cameras

Type	Vandal-Resistant				Indoor Dome		
Shape	 VW5	 VW6	 VW7	 VW8	 DW4	 DW5	 FEW1
Color	White						
Model	LNV-6070R	LNV-6010R/ 6020R/ 6030R	XND-8081VZ/ 6081VZ/ 8081RV/ 6081RV/ 6081V	XNV-8081Z/ 6081Z/ 6081R/ 6081	LND-6070R	LND-6010R/ 6020R/ 6030R	QNE-7080RVW/ 6080RVW

PERIPHERAL

ACCESSORY

# ACCESSORY CONFIGURATION

## Dome Cameras

Type	Vandal-Resistant						Indoor Dome					
Shape												
Color	Ivory											
Model	SCV-2060/2080/ 3080/3120 SNV-3080/3082/ 3120/5080/ 5080R/7080/ 7080R/7082	SCV-2081/2081R/ 2082R/3081/ 3082/3083 SNV-1080/1080R	PNV-9080R XNV-8080R/6120R/ 6120/6085R/ 6080R/6080/ L6080/L6080R/ 6085 SNV-8081R/8080/ 7084R/7084/ 6085R/6084R/ 6084/5084R 5084 SCV-6081R	SNV-6013 XNV-6011	QNV-6070R/6071R/ 6080R/7080R/ 7081R HCV-7070R/6080R/ 6070R LNV-6071R SNV-L6083R/L5083R SCV-6083R/6023R/ 5082/5085/ 5083R/5083/ 5082R	XNV-8040R/8030R/ 8020R/6020R/ 6010 QNV-7030R/7020R/ 7010R/6030R/ 6020R/6010R HCV-7010R/7020R/ 7030R LNV-6011R/6021R/ 6031R	SND-5061/7061/ 1080 SCD-3083/3082E 3081/3080/ 2082/2081 2080R/2080E/ 2080/2060E	SCD-6081R SND-5083/5084/ 5084R/6083/ 6084/6084R/ 7084/7084R	QND-6070R/6071R/ 6080R/7080R/ 7081R HCD-6070R/7070R/ 7080R/6080R SND-6011R/L5083R/ L6083R SCD-6021/6083R/ 5083R/5083B/ 5080A/5082 SUD-6083R/6023R/ 5082 LND-6071R	XND-8040R/8030R/ 8020R/6020R/ 6010 QND-7030R/7020R/ 7010R/6030R/ 6020R/6010R HCD-7010R/7020R/ 7030R/6010 6020R/E6020R SND-L6014R/L6013R/ L6013/L6012/ L5013 SCD-6013/6023R LND-6011R/6021R/ 6031R	PND-9080R XND-6080/6080R/ 6080RV/ 6080V/ L6080R/ L6080RV L6080V/ 8080R/ 8080RV	XND-6085V/ 6085

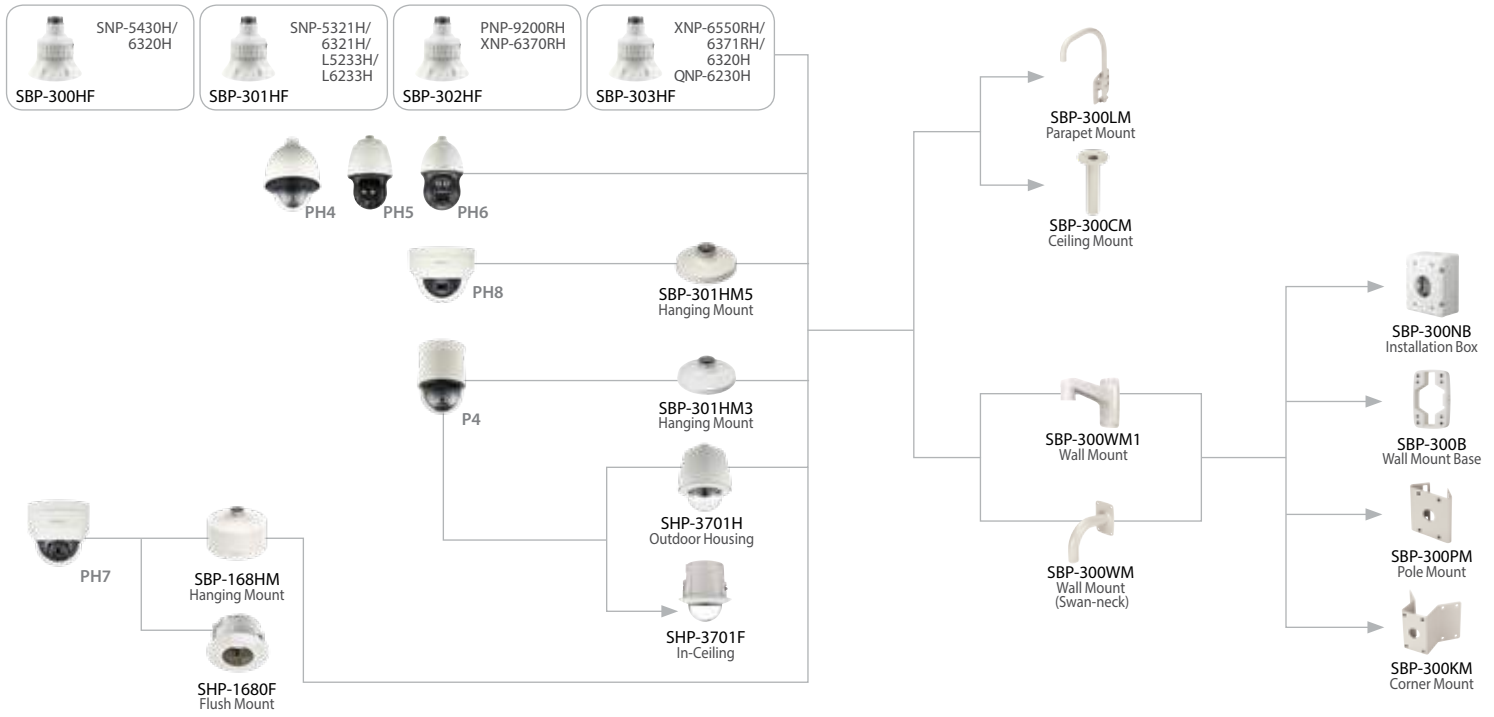
## Fisheye / Multi-Sensor Cameras

Type	Fisheye						Dome	Multi-Sensor					
Shape													
Color	Ivory												
Model	SNF-7010	SNF-8010	XNF-8010R PNF-9010R	SNF-7010V/ 7010VM	SNF-8010VM	PNF-9010RV/ 9010RVM XNF-8010RV/ 8010RVM	QNE-7080RV/ 6080RV	PNM-9020V HCM-9020VQ	PNM-9081VQ/ 9080VQ	PNM-7000VD	PNM-9000VQ	PNM-9030V	PNM-9320VQ

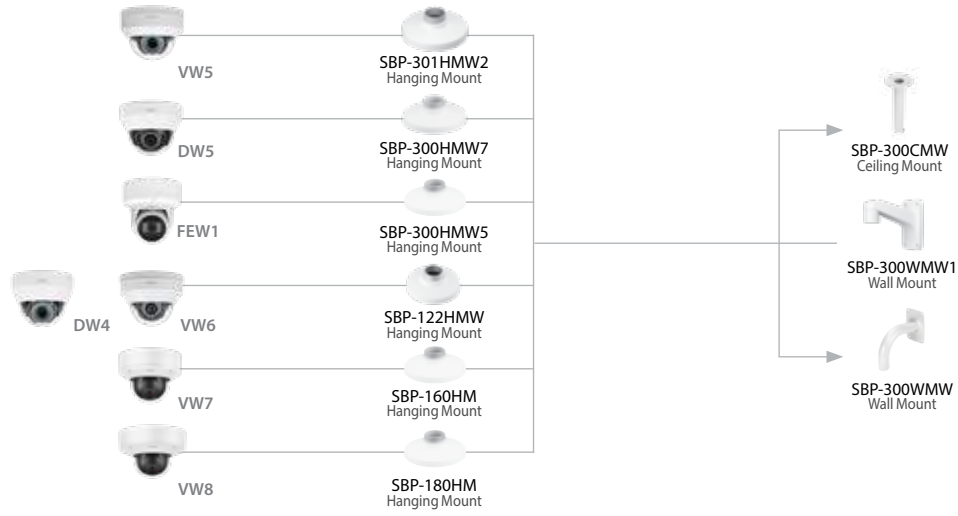
# ACCESSORY CONFIGURATION

NETWORK  
ANALOG  
PERIPHERAL  
ACCESSORY

## PTZ ACC



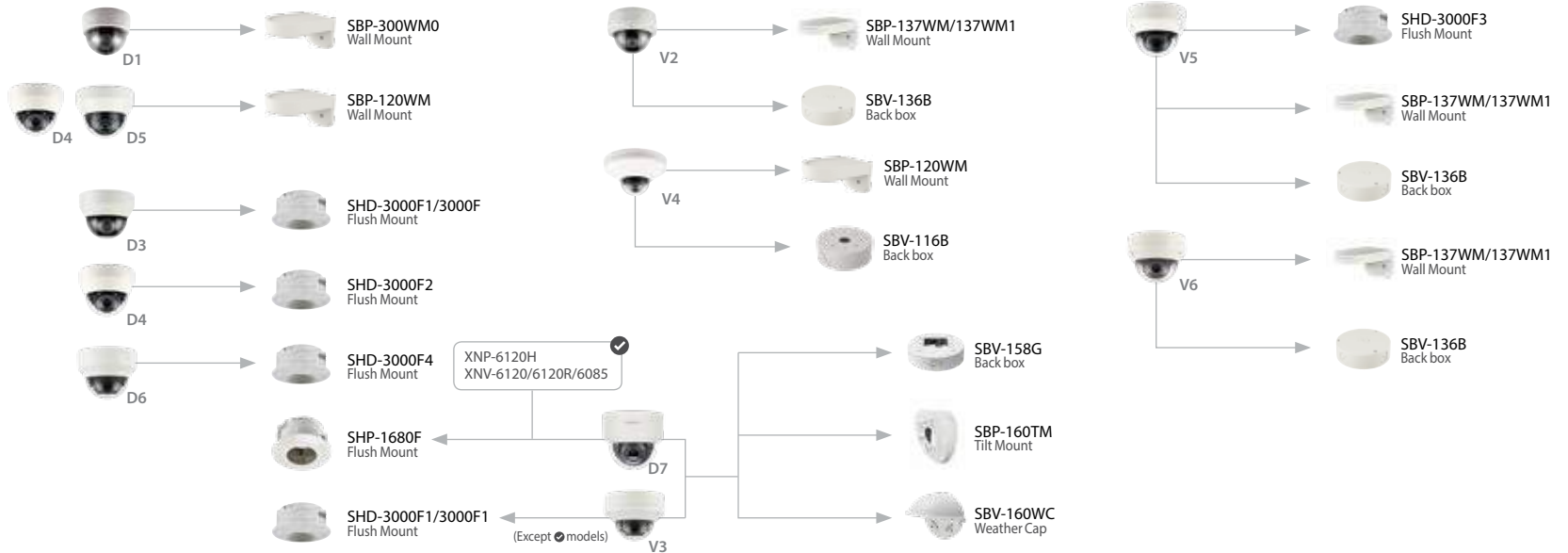
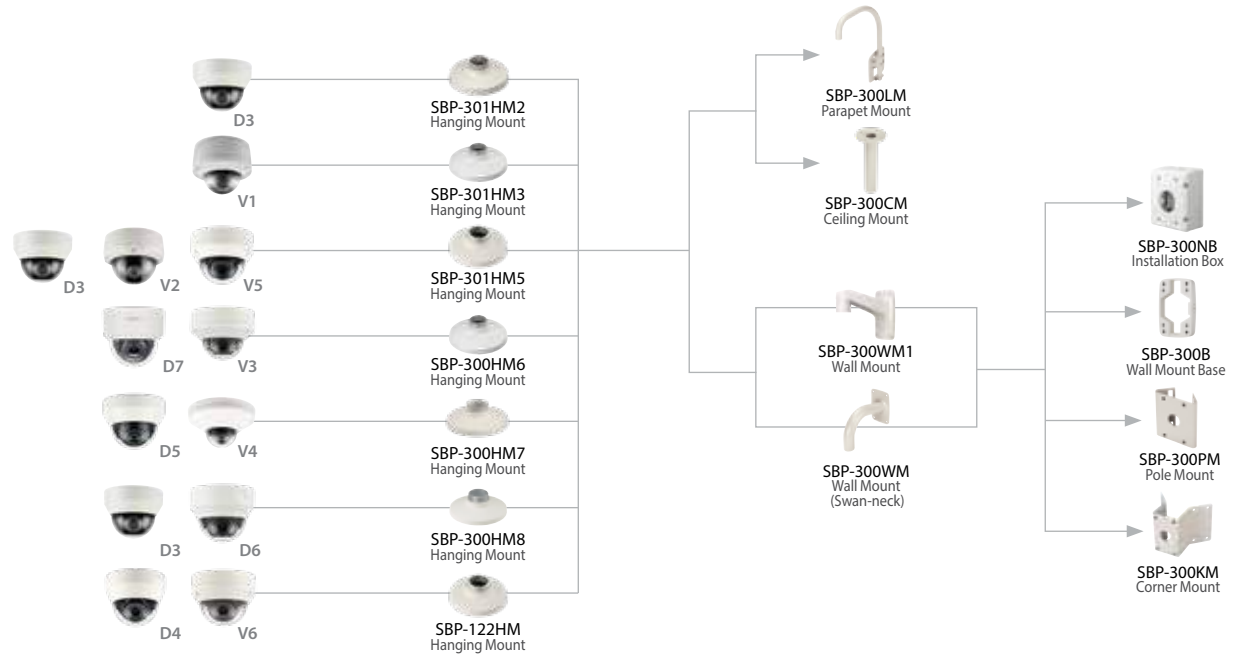
## WHITE ACC





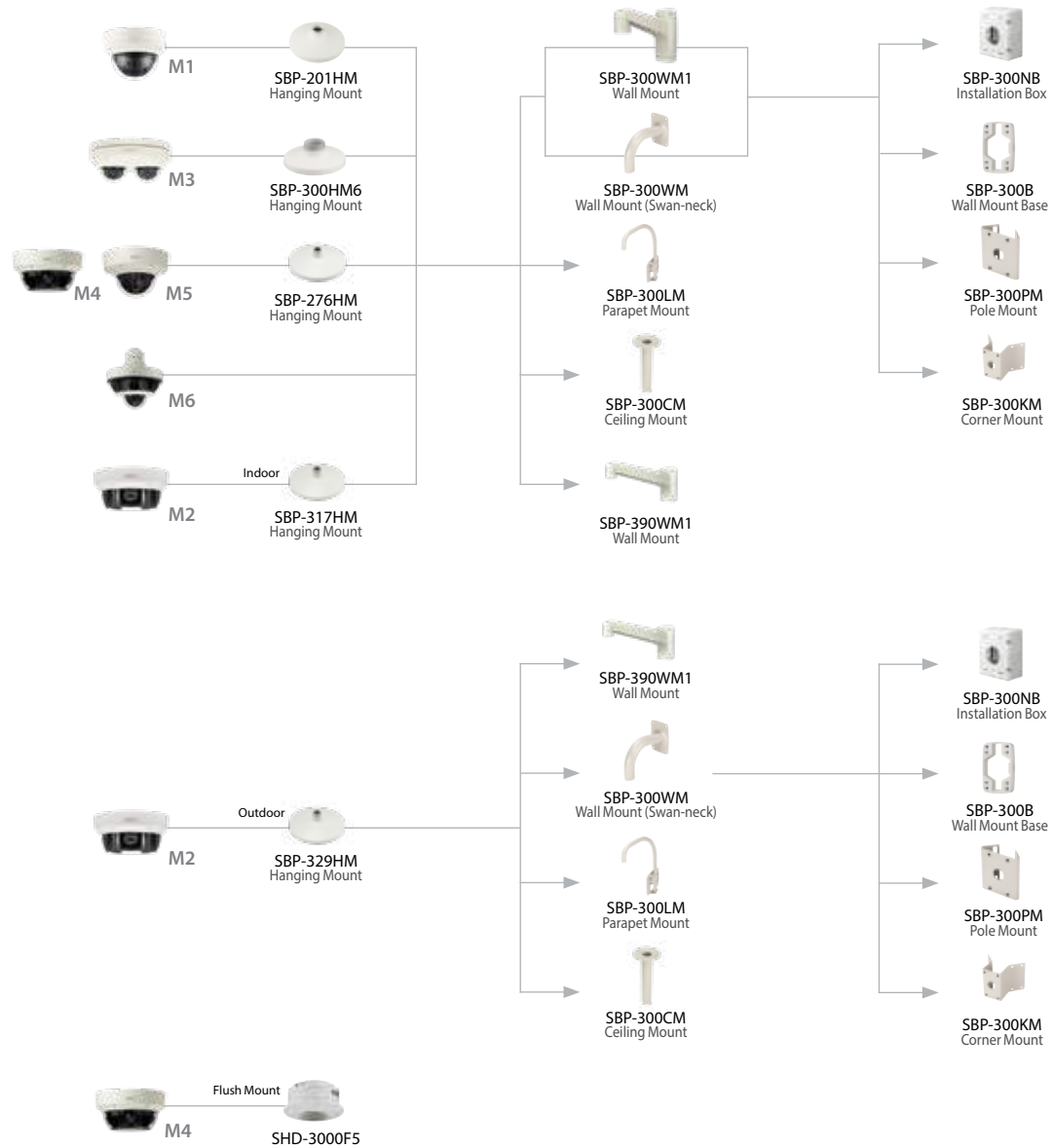
# ACCESSORY CONFIGURATION

## DOME ACC



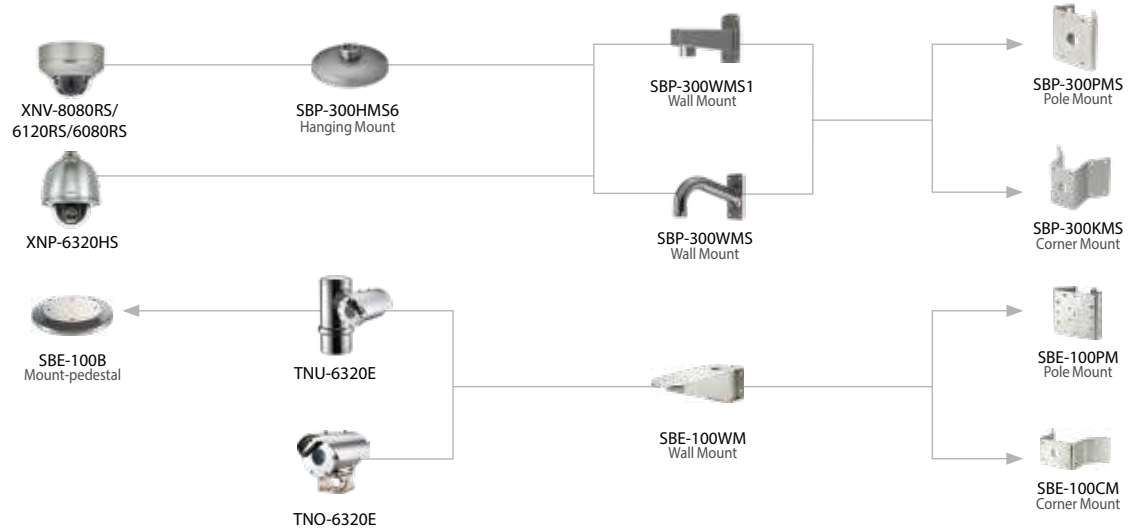
# ACCESSORY CONFIGURATION

## MULTI SENSOR ACC

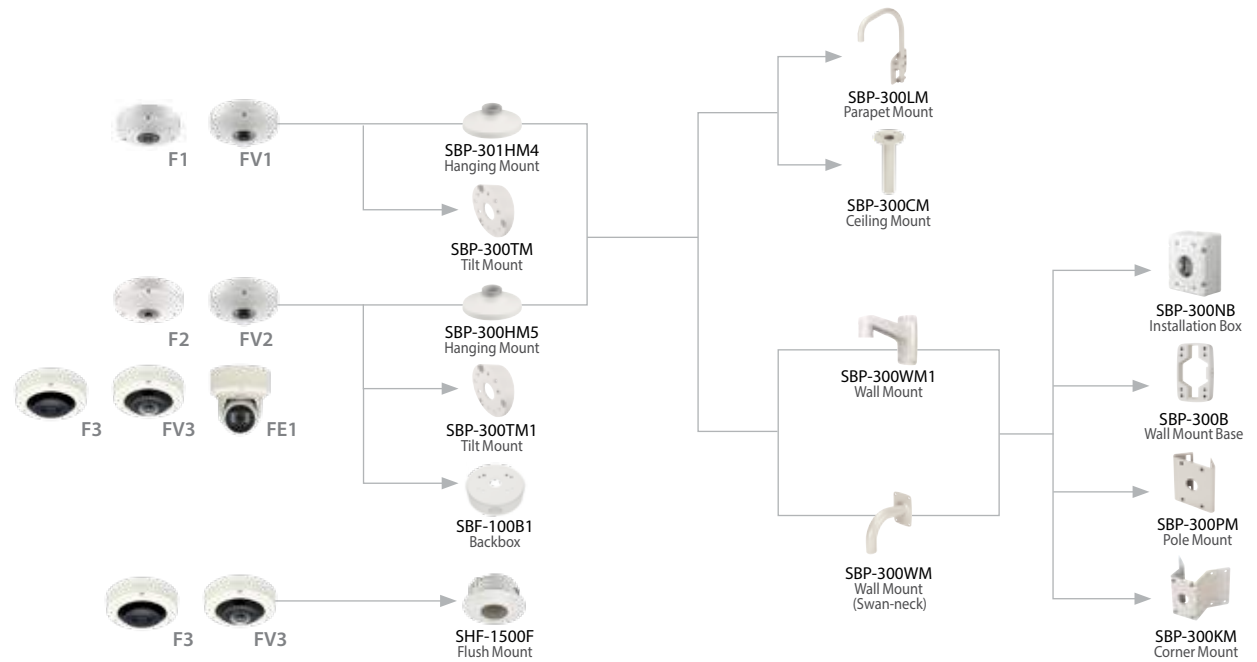


# ACCESSORY CONFIGURATION

## STAINLESS ACC



## FISHEYE ACC



# ACCESSORY CONFIGURATION

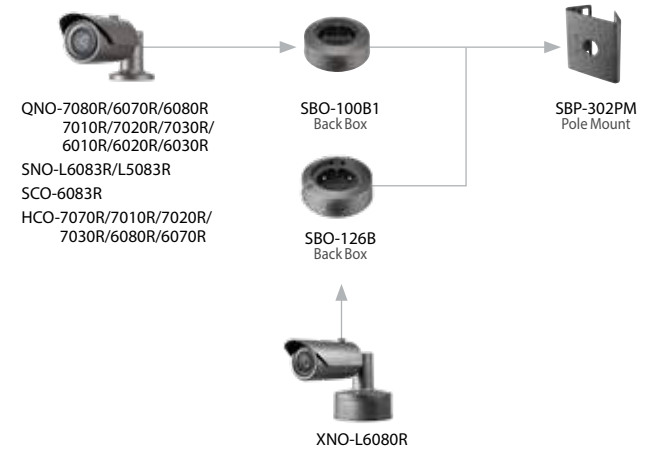
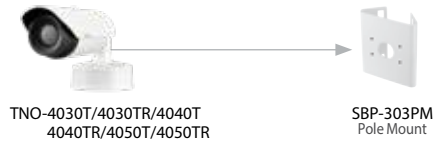
NETWORK

## BULLET ACC

ANALOG

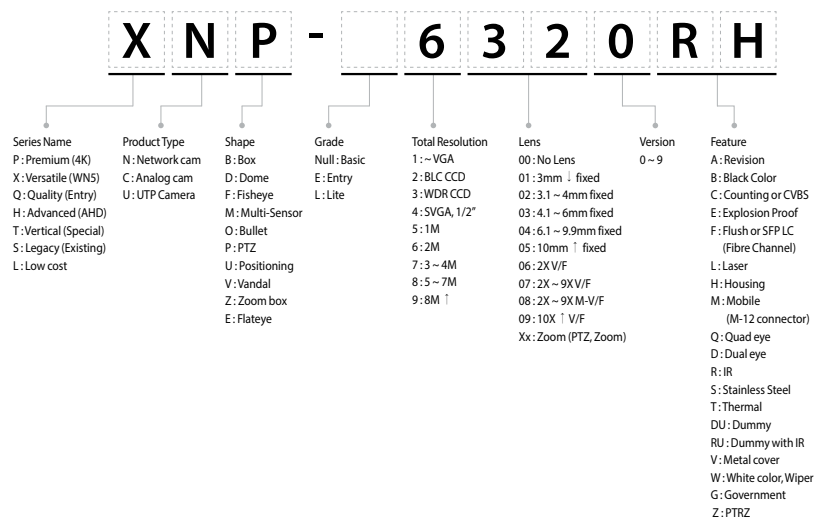
PERIPHERAL

ACCESSORY

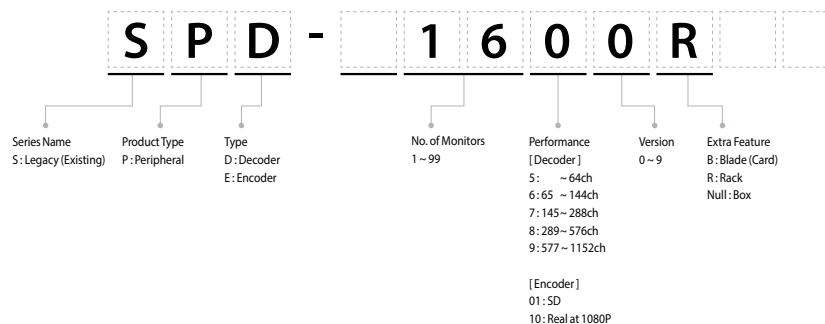


# PRODUCT NAMING RULE

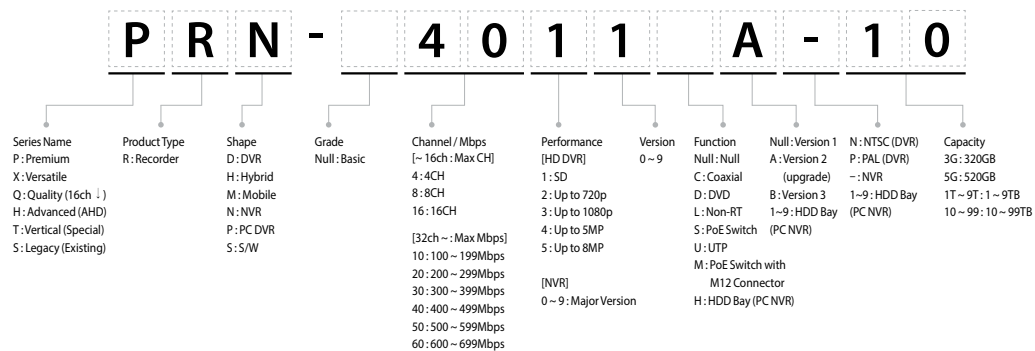
## Camera



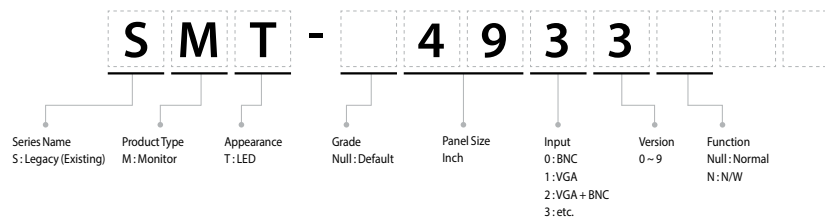
## Decoder/Encoder



## Recorder



## Monitor







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