

**WISENET**



# Product line-up

2<sup>nd</sup> Quarter 2018



# Security Solutions

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

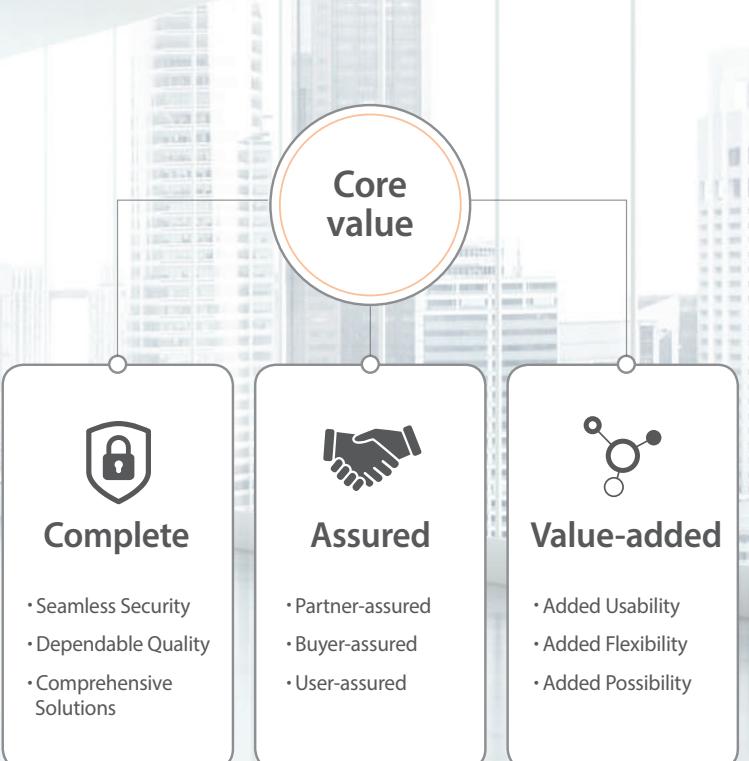
2015 Hanwha group acquires Samsung Techwin and Hanwha Techwin is established

2016 Development of WISENET5 ISP Chip (SoC)

2017 Release of Wisenet X camera

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

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.



The world's best WDR (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

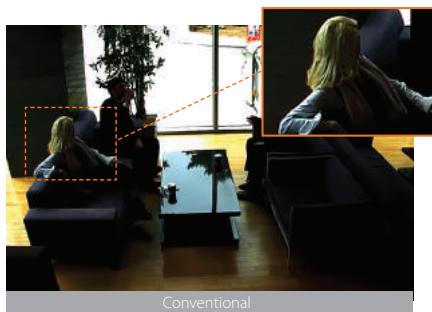


# WISENET X series

## The world's best 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.



※ 150dB WDR only available in 2MP X series

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

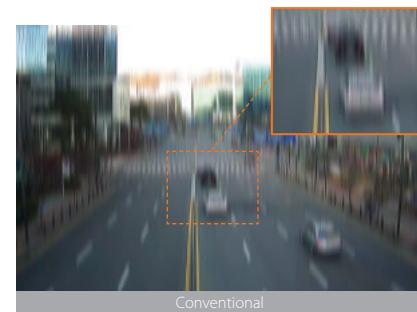


Wisenet X series achieves optimal performance in low-light conditions by producing crystal-clear and true-color images without IR LEDs, regardless of the environment or time of day. The extraLUX series (XNO-6085R, XND/XNV-6085(V)) feature outstanding F0.94 lens with the 1/2" CMOS sensor, capturing vivid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



## 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.



Wisenet X series

## Improve bandwidth by up to 99% 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.



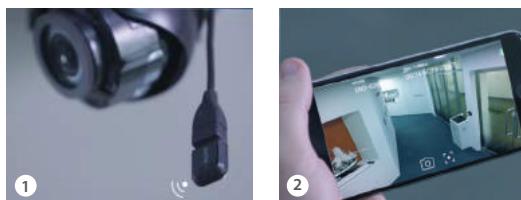
WiseStream II OFF : 7160kbps WiseStream II ON : 74kbps



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

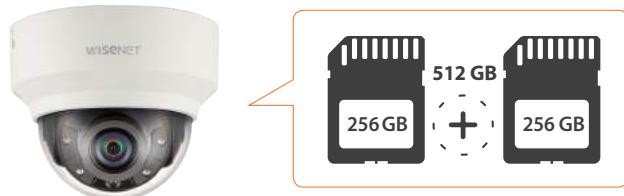
## More convenient installation with USB

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. This feature improves the efficiency of the surveillance system by decreasing the reliance on the system operator on tracking events, and by increasing the likelihood that critical events in a surveillance area will be captured and recorded. \*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 deleted 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.

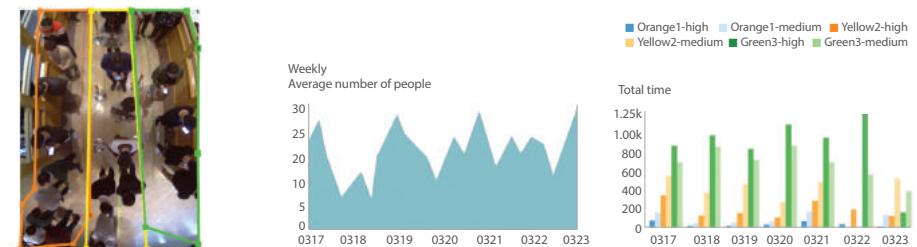
### Loitering detection

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.



# WISENET P series



## 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.



### Exceptional image quality of 4K Ultra HD

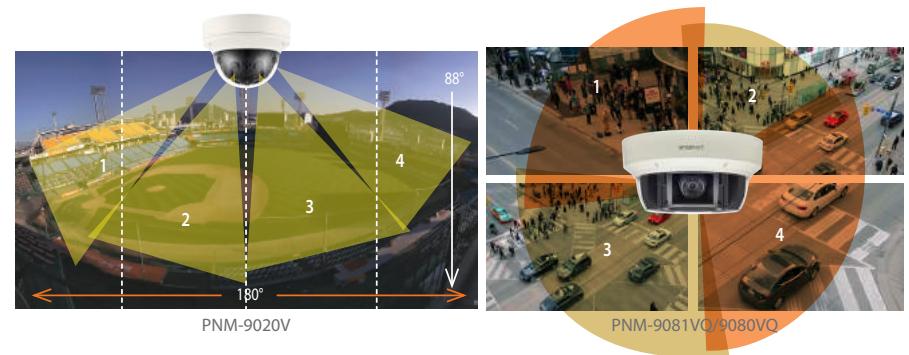
The Wisenet P series provides an enhanced surveillance system by producing superior 4K Ultra HD image quality. 4K Ultra HD has four times the resolution of standard 1080p, which means it is able to show more detail.



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

### Four cameras in one

Wisenet P series multi-sensor cameras have four sensors which is ideal for wide areas. 180° panoramic camera delivers a super wide angle 7.3megapixel image within a single camera by merging the four images from each sensor. And multi-directional cameras can cover the full 360° range with no blind spots, ideal for wide areas such as shopping mall entrances, lobbies, and airports.



# 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.



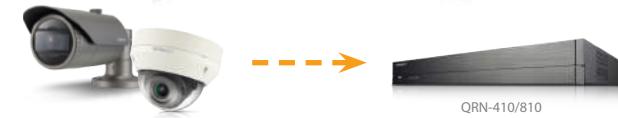
## Complete line-up of indoor and outdoor cameras

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	QNO-7080R	QND-7010R QND-7020R QND-7030R	QND-7080R	QNV-7010R QNV-7020R QNV-7030R	QNV-7080R	QNE-7080RV	QNE-7080RV
2MP								
	QNO-6010R QNO-6020R QNO-6030R	QNO-6070R	QND-6010R QND-6020R QND-6030R	QND-6070R	QNV-6010R QNV-6020R QNV-6030R	QNV-6070R	QNE-6080RV	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.



# 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. The ATEX certified enclosure has the ability to contain any internal sparks or explosions which may lead to a disaster.



ATEX



TNO-6320E



TNU-6320E

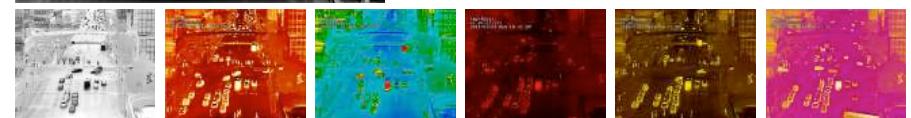
### Detect people and objects 24/7 with thermal cameras

When challenging weather or lighting conditions occur, it may be hard to distinguish people 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

TNO-4050T/4040T/4030T



## Camera



	Wisenet X XNB-8000	Wisenet X XNO-8080R	Wisenet X XNO-8020R/8030R/8040R	Wisenet X XND-8080R/8080RV	Wisenet X XND-8020R/8030R/8040R	Wisenet X XND-8020F	
VIDEO	Resolution	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	
	Video Compression Format	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 / Max. Frame Rate	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)	
	Max. User Access	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 : 0.07Lux B/W: 0Lux (IR LED on)	Color : 0.16Lux 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	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)	3.9 ~ 9.4mm (2.4x) motorized V/F (F1.3)	3.7mm fixed (F1.6) (XND-8020R) 4.6mm fixed (F1.6) (XND-8030R) 7.0mm fixed (F1.6) (XND-8040R)	
	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: 92.1°(Wide) ~ 38.7°(Tele) / V: 67.2°(Wide) ~ 29.0°(Tele) / D: 119.9°(Wide) ~ 48.6°(Tele)	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)	
	Focus Control	Simple focus / Manual	Simple focus (motorized V/F) / Manual	-	Simple focus (motorized V/F) / Manual	Manual	
OPERATIONAL	IR Viewable Length	-	50m (164.04ft)	30m (98.43ft)	30m (98.43ft)	-	
	Pan / Tilt / Rotate	-	-	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	
	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	Auto (Electrical)	
	Backlight Compensation	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)	
	Digital Image Stabilization	Support (Built in Gyro sensor)	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, 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, 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	
FEATURES	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	Uni-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	IK08	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)	-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. 9W (12V DC) Max. 10W (PoE)	Max. 8W (12V DC) Max. 9W (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)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 628g (1.39 lb) (XND-8080R) 732g (1.61 lb) (XND-8080RV)	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)
	Additional Features	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	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	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc)	



	Wisenet X XNV-8080R	Wisenet X XNV-8080RS	Wisenet X XNV-8020R/8030R/8040R	Wisenet X XNF-8010R/8010RV/8010RVM	Wisenet X XNB-6005	Wisenet X XNB-6000
VIDEO	Resolution Imaging Device Video Compression Format Resolution / Max. Frame Rate Streaming Capacity Max. User Access Min. Illumination Video Output Lens Angular Field of View Focus Control	5MP 1/1.8" 6M CMOS H.265, H.264, MJPEG 5M / 30fps Multiple (Up to 10 Profiles) 20 (Unicast) Color : 0.07Lux B/W: 0Lux (IR LED on) CVBS 1.0Vpp, Micro USB type B	5MP 1/1.8" 6M CMOS H.265, H.264, MJPEG 5M / 30fps Multiple (Up to 10 Profiles) 20 (Unicast) Color : 0.07Lux B/W: 0Lux (IR LED on) CVBS 1.0Vpp, Micro USB type B	5MP 1/1.8" 6M CMOS H.265, H.264, MJPEG 5M / 30fps Multiple (Up to 10 Profiles) 20 (Unicast) Color : 0.16Lux B/W: 0Lux (IR LED on) CVBS 1.0Vpp, DIP connector type	6MP 1/1.8" 6M CMOS H.265, H.264, MJPEG 2048 x 2048 / 30fps Multiple (Up to 10 Profiles) 20 (Unicast) Color : 0.1Lux B/W: 0Lux (IR LED on) CVBS 1.0Vpp, DIP connector type	2MP 1/2" 2.17M CMOS H.265, H.264, MJPEG 2M / 60fps Multiple (Up to 10 Profiles) 20 (Unicast) Color : 0.006Lux B/W: 0.0006Lux CVBS 1.0Vpp, Micro USB type B
	IR Viewable Length Pan / Tilt / Rotate Day & Night Backlight Compensation Digital Noise Reduction	50m (164.04ft) 0° ~ 354° / 0° ~ 67° / 0° ~ 355° True (ICR) WDR(120dB)	50m (164.04ft) 0° ~ 354° / 0° ~ 67° / 0° ~ 355° True (ICR) WDR(120dB)	30m (98.43ft) 0° ~ 354° / 0° ~ 67° / 0° ~ 355° True (ICR)	30m (98.43ft) 0° ~ 354° / 0° ~ 67° / 0° ~ 355° True (ICR)	15m (49.21ft) - True (ICR)
	Digital Image Stabilization	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)
	Video & Audio Analytics	Support 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	Support 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	Support 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	Support 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	Support 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 Alarm I/O Audio	ONVIF profile S/G, SUNAPI 1 / 1 Bi-Directional	ONVIF profile S/G, SUNAPI 1 / 1 Bi-Directional	ONVIF profile S/G, SUNAPI 1 / 1 Bi-Directional	ONVIF profile S/G, SUNAPI 1 / 1 Bi-Directional	ONVIF profile S/G, SUNAPI 1 / 1 Bi-Directional
	Edge Storage Environment Protection	SD/SDHC/SDXC, NAS, Local PC IP67, IP66, NEMA 4X, IK10	SD/SDHC/SDXC, NAS, Local PC IP66, NEMA 4X, IK10+	SD/SDHC/SDXC, NAS, Local PC IP67, IP66, IK10	SD/SDHC/SDXC, NAS, Local PC IP66, IK10 (XNF-8010RV/8010RVM)	SD/SDHC/SDXC, NAS, Local PC -
	Operating Temperature	-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)	-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)
	Power	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)	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. 9W (24V AC) Max. 8W (12V DC) Max. 8.5W (PoE)
	Dimensions (WxHxD) / Weight	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 (5.91 lb)	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)	73.1 x 66.6 x 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93 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, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View, SUS316L	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarping, Handover, WiseStream II, Heatmap, People counting	extraLUX, Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View

Wisenet X  
XNB-6001Wisenet X  
SLA-T4680Wisenet X  
SLA-T4680VWisenet X  
SLA-T2480Wisenet X  
SLA-T2480VWisenet X  
SLA-T1080F

	Wisenet X XNB-6001	Wisenet X SLA-T4680	Wisenet X SLA-T4680V	Wisenet X SLA-T2480	Wisenet X SLA-T2480V	Wisenet X SLA-T1080F
VIDEO	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
	Video Compression Format	H.265, H.264, MJPEG	-	-	-	-
	Resolution / Max. Frame Rate	2M / 60fps	-	-	-	-
	Streaming Capacity	Multiple (Up to 10 Profiles)	-	-	-	-
	Max. User Access	20 (Unicast)	-	-	-	-
	Min. Illumination	-	0.06Lux	0.06Lux	0.45Lux	0.03Lux
	Video Output	CVBS 1.0Vpp, Micro USB type B	-	-	-	-
	Lens	-	4.6mm Pinhole (F2.5)	4.6mm Pinhole (F2.5)	2.4mm fixed (F2.0)	2.4mm fixed (F2.0)
	Angular Field of View	-	H:73°/V:39°/D:85°	H:73°/V:39°/D:85°	H:138°/V:73°/D:168°	H:138°/V:73°/D:168°
OPERATIONAL	Focus Control	-	Fixed	Fixed	Fixed	Fixed
	IR Viewable Length	-	-	-	-	-
	Pan / Tilt / Rotate	-	-	-	-	-
	Day & Night	-	Electrical	Electrical	Electrical	Electrical
	Backlight Compensation	WDR(120dB)	WDR(120dB)	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, 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	-	-	-	-
	Alarm I/O	1 / 1	-	-	-	-
FEATURES	Audio	Bi-Directional	-	-	-	-
	Edge Storage	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)
	Power	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)	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 1.0" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72 lb)
	Additional Features	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



New

Wisenet X  
XNO-6120RWisenet X  
XNO-6085RWisenet X  
XNO-6080RWisenet X  
XNO-L6080RWisenet X  
XNO-6010R/6020RWisenet X  
XND-6085/6085VWisenet X  
XND-6080

	Resolution	2MP	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	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	1/2" 2.17M CMOS	1/2.8" 2M CMOS
	Video Compression Format	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	H.265, H.264, MJPEG
	Resolution / Max. Frame Rate	2M / 60fps	2M / 60fps	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)	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)	20 (Unicast)
	Min. Illumination	Color: 0.03Lux B/W: 0Lux (IR LED on)	Color: 0.004Lux B/W: 0Lux (IR LED on)	Color: 0.01Lux 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)	Color: 0.004Lux B/W: 0.0004Lux	Color: 0.015Lux B/W: 0.0015Lux
	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	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)	4.1 ~ 16.4mm (Optical 4x) F0.94(Wide) / F2.4(Tele)	2.8 ~ 12mm (4.3x) motorized V/F (F1.4)
	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)	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)
	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	-	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual
OPERATIONAL	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	-	-	-	-	-	±175° / ±73° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (120dB)	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)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
	Digital Image Stabilization	Support	Support (Built in Gyro sensor)	Support	Support	Support	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	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	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	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
FEATURES	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	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	IP51, IK08	IK08
	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)	-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. 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)	Max. 8.6W (12V DC) Max. 10.2W (PoE)	Max. 6W (12V DC) Max. 6.5W (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)	Ø91.0 x 322.9mm (Ø3.58" x 12.71") (Without Sunshield) 1.30Kg (2.87 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)	Ø160.0 x 140.0mm (Ø6.30" x 5.51") 1.10 kg (2.43 lb) (XND-6085) 1.25 kg (2.76 lb) (XND-6085V)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 610g (1.34 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, Lens distortion correction, Defog, Hallway View	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



New

New

	Wisenet X XND-6080R	Wisenet X XND-6080V	Wisenet X XND-6080RV	Wisenet X XND-L6080R/L6080RV	Wisenet X XND-6080V	Wisenet X XND-6020R	Wisenet X XND-6011F
Resolution	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 Format	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	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2M / 60fps	2M / 60fps	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 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)	20 (Unicast)	20 (Unicast)
Min. Illumination	Color : 0.015Lux B/W: 0Lux (IR LED on)	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)	Color : 0.055Lux B/W: 0.055Lux
VIDEO	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	CVBS 1.0Vpp, Micro USB type B	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)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	4mm fixed (F1.4)	2.8mm fixed (F2.0)
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: 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°	H: 112° / V: 62° / D: 130°
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	-	Manual
IR Viewable Length	30m (98.43ft)	-	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°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°
Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	Auto (Electrical)
Backlight Compensation	WDR (150dB)	WDR (150dB)	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)	SSNRV (2D+3D Noise filter)	SSNRV (2D+3D Noise filter)
OPERATIONAL	Support	Support	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, 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	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	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	Uni-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	SD/SDHC/SDXC, NAS, Local PC
Environment Protection	IK08	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)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
FEATURES	Power	Max. 9W (12V DC) Max. 10W (PoE)	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") 624g (1.38 lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 714g (1.57 lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 724g (1.60 lb)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 580g (1.28 lb) (XND-6080R) 690g (1.52 lb) (XND-6080RV)	Ø140.8 x 113.0mm (Ø5.54" x 4.45") 675g (1.49 lb)	Ø110.0 x 90.0mm (Ø4.33" x 3.54") 380g (0.84 lb)	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61 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, 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, 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 etc), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View



New



New

Wisenet X  
XND-6010Wisenet X  
XNV-6120/6120RWisenet X  
XNV-6120RSWisenet X  
XNV-6085Wisenet X  
XNV-6080Wisenet X  
XNV-6080RWisenet X  
XNV-6080RS

	Resolution	2MP	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	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 Format	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	H.265, H.264, MJPEG
	Resolution / Max. Frame Rate	2M / 60fps	2M / 60fps	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)	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)	20 (Unicast)
	Min. Illumination	Color : 0.055Lux B/W: 0.0055Lux	Color : 0.03Lux B/W: 0.003Lux (XNV-6120) Color : 0.03Lux B/W: 0.003Lux (XNV-6120R)	Color : 0.03Lux B/W: 0Lux (IR LED on)	Color: 0.004Lux B/W: 0.0004Lux	Color: 0.015Lux B/W: 0.0015Lux	Color: 0.015Lux B/W: 0Lux (IR LED on)	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	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
	Lens	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)	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: 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)	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	-	Auto / Manual / One shot AF	Auto / Manual / One shot AF	Simple focus (motorized V/F) / Manual			
OPERATIONAL	IR Viewable Length	-	70m (229.66ft) (XNV-6120R)	70m (229.66ft)	-	-	50m (164.04ft)	50m (164.04ft)
	Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	±175° / ±73° / ±175°	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)	True (ICR)	True (ICR)
	Backlight Compensation	WDR (150dB)	WDR (150dB)	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)	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	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	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	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	ONVIF profile S/G, SUNAPI
	Alarm I/O	1 / 1	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	Bi-Directional
FEATURES	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	SD/SDHC/SDXC, NAS, Local PC
	Environment Protection	IK08	IP67, IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10+	IP67, IP66, 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)	-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) * 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)
	Power	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)	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)	Max. 14W (24V AC) Max. 11.5W (12V DC) Max. 12.95W (PoE)
	Dimensions (WxHxD) / Weight	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)	Ø162.0 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)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 985g (2.17 lb)	Ø160.0 x 118.5mm (Ø6.30" x 4.67") 995g (2.19 lb)	Ø162 x 120.5mm (Ø6.38" x 4.74") 2.68Kg (5.91 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, 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, SUS316L	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	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



New



New

Wisenet X  
XNV-6022RWisenet X  
XNV-6022RMWisenet X  
XNV-6020RWisenet X  
XNV-6013MWisenet X  
XNV-6012M/6012

	Wisenet X XNV-L6080	Wisenet X XNV-L6080R	Wisenet X XNV-6022R	Wisenet X XNV-6022RM	Wisenet X XNV-6020R	Wisenet X XNV-6013M	Wisenet X XNV-6012M/6012
VIDEO	Resolution	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
	Video Compression Format	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 / Max. Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps
	Streaming Capacity	Multiple (Up to 5 Profiles)	Multiple (Up to 5 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: 0.1Lux 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: 0Lux (IR LED on)	Color: 0.015Lux 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	Micro USB type B	Micro USB type B	Micro USB type B	Micro USB type B
	Lens	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)	3.6mm fixed (F2.0)	4mm fixed (F1.4)	2.8mm fixed (F2.0)
	Angular Field of View	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: 94.8° / V: 49.3° / D: 114.3°	H: 88.6° / V: 47.5° / D: 104.8°	H: 107.4° / V: 62.2° / D: 122°
OPERATIONAL	Focus Control	Simple focus (motorized V/F) / Manual	Simple focus (motorized V/F) / Manual	Manual	Manual	Manual	Manual
	IR Viewable Length	-	30m (98.43ft)	15m (49.21ft)	15m (49.21ft)	30m (98.43ft)	-
	Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / 0 ~ 67° / ±90°	±5° / 0 ~ 67° / ±90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / ±10° / ±90°
	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
	Backlight Compensation	WDR (120dB)	WDR (120dB)	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)	SSNRV (2D+3D Noise filter)
	Digital Image Stabilization	Support	Support	Support	Support	Support	Support
	Video & Audio Analytics	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	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	-
FEATURES	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	SD/SDHC/SDXC, NAS, Local PC
	Environment Protection	IP66, IK10	IP66, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP67, IP66, IK10	IP67, IK10, NEMA4X, IP6K9K
	Operating Temperature	-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)	-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)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)
	Power	Max. 8W (PoE)	Max. 11W (PoE)	Max. 6.7W (PoE)	Max. 6.7W (PoE)	Max. 8W (12V DC) Max. 9W (PoE)	Max. 7.2W (PoE)
	Dimensions (WxHxD) / Weight	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)	98.9 x 52.0 x 100.0mm (3.89" x 2.05" x 3.94") 295g (0.65 lb)	Ø120.0 x 97.5mm (Ø4.72" x 3.84") 615g (1.36 lb)	103.7 x 72.3 x 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04 lb)
	Additional Features	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 etc), Hallway View	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View, M12 Connector	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, M12 Connector

Wisenet X  
XNV-6011Wisenet X  
XNV-6010Wisenet X  
XNP-6370RHWisenet X  
XNP-6320HWisenet X  
XNP-6320Wisenet X  
XNP-6320HSWisenet X  
XNP-6120HWisenet X  
XNP-6040H

	Resolution	2MP	2MP	2MP	2MP	2MP	2MP	2MP	
VIDEO	Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	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 Format	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	H.265, H.264, MJPEG	
	Resolution / Max. Frame Rate	2M / 60fps	2M / 60fps	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 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	20 (Unicast)	20 (Unicast)	15 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	
	Min. Illumination	Color : 0.055Lux B/W : 0.055Lux	Color : 0.055Lux B/W : 0.055Lux	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 : 0.001Lux	
	Video Output	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B				
	Lens	2.8mm fixed (F2.0)	2.4mm fixed (F2.0)	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)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	5.2 ~ 62.4mm (Optical 12x) F1.6(Wide) / F3.0(Tele)	
	Angular Field of View	H : 112° / V : 62° / D : 130°	H : 139.0° / V : 73.0° / D : 167.0°	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 : 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)	
	Focus Control	Manual	Manual	AF / One-shot AF / Manual	Auto / Manual / One shot AF				
OPERATIONAL	IR Viewable Length			350m (1,148.29ft)					
	Pan / Tilt / Rotate	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	360° Endless / 190° ~ 185° / -	360° Endless / 210° (-15° ~ 195°)	360° Endless / 210° (-15° ~ 195°)	360° Endless / 210° (-15° ~ 195°)	360° Endless / 190° (-5° ~ 185°)	
	Day & Night	Auto (Electrical)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)	
	Backlight Compensation	WDR (150dB)	WDR (150dB)	WDR (120dB)	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)	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)	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, 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, 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	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	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection, Motion detection, Sound classification	
FEATURES	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	ONVIF profile S/G, SUNAPI	
	Alarm I/O	-	1 / 1	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	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	SD/SDHC/SDXC, NAS, Local PC	
	Environment Protection	IP66, IK10, NEMA4X	IP67, IP66, NEMA4X, IK10	IP66, IK10	IK10 (with SHP-3701H)	IP67, IP66, NEMA4X, 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)	-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)	-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)	-10°C ~ +55°C (+14°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 -25°C (-13°F)	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
	Power	Max. 6.5W (PoE)	Max. 5.5W (12V DC) Max. 6W (PoE)	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)	Max. 20.0W (24V AC, PoE+)	Max. 24.0W - Heater off (24V AC, PoE+) Max. 65.0W - Heater on (24V AC)	Max. 8.6W (12V DC) Max. 9.6W (PoE)	
	Dimensions (WxHxD) / Weight	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)	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)	Ø152.0 x 218.0mm (Ø6.1" x 8.58") 1.7Kg (3.75 lb)	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") 0.78 kg (1.72 lb)
	Additional Features	Handover, WiseStream II, Advanced video analytics, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), Hallway View	Defog, WiseStream, Auto tracking	WiseStream II, Advanced video analytics, Auto Tracking, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc)	WiseStream II, Advanced video analytics, Auto Tracking, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc)	WiseStream II, Advanced video analytics, Auto Tracking, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc), SUS316L	WiseStream II, Advanced video analytics, Auto Tracking, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc)	WiseStream II, Advanced video analytics, Auto Tracking, Sound classification (Explosion, Gunshot, Glass breakage, Scream etc)	


**Wisenet P  
NPO-9080R**

**Wisenet P  
PND-9080R**

**Wisenet P  
PNV-9080R**

**Wisenet P  
PNM-9081VQ**

**Wisenet P  
PNM-9080VQ**

**Wisenet P  
PNM-9020V**

	Wisenet P NPO-9080R	Wisenet P PND-9080R	Wisenet P PNV-9080R	Wisenet P PNM-9081VQ	Wisenet P PNM-9080VQ	Wisenet P PNM-9020V	
VIDEO	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 Format	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 / Max. Frame Rate	12M / 20fps, 8M / 30fps	12M / 20fps, 8M / 30fps	12M / 20fps, 8M / 30fps	4ea x 5M / 30fps	4ea x 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)	
OPERATIONAL	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 (120dB)	
	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)	
FEATURES	Intelligent Video 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	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection, Digital Auto tracking, Heatmap
	Protocol	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	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	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, Local PC	SD/SDHC/SDXC, Local PC	SD/SDHC/SDXC, NAS, Local PC
	Environment Protection	IP66, IK10	IK08	IP66, IP67, 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) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°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. 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)	Max. 21.6W (12V DC) Max. 25.5W (PoE+)	Max. 21.0W - Heater on (12V DC) Max. 25.5W - Heater on (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)	Ø199.0 x 143.5mm (Ø7.83" x 5.65") 2.03Kg (4.48 lb)
	Additional Features	Handover, Hallway View, P-Iris, Defog, WiseStream	Handover, Hallway View, P-Iris, Defog, WiseStream	Handover, Hallway View, P-Iris, Defog, WiseStream	Multidirectional camera, Hallway View, P-Iris, Defog, WiseStream II	Multidirectional camera, Hallway View, P-Iris, Defog, WiseStream II	Handover, Multi sensor, Defog, WiseStream



	Wisenet P PNP-9010R/9010RV/9010RVM	Wisenet P PNP-9200RH	Wisenet P PNM-7000VD	SLA-2M6000D	SLA-2M3600D	SLA-2M2800D	SLA-2M2400D
VIDEO	Resolution 12MP	8MP	4MP (2M x 2ea)	2MP	2MP	2MP	2MP
	Imaging Device 1/1.7" 12.4M CMOS	1/2.5" 8M CMOS	-	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS
	Video Compression Format H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	-	-	-	-
	Resolution / Max. Frame Rate 12M / 20fps, 9M / 25fps	8M / 30fps	2ea x 2M / 60fps	-	-	-	-
	Streaming Capacity (Up to 3 Profiles)	Multiple (Up to 3 Profiles)	Multiple (Up to 10 Profiles)	-	-	-	-
	Max. User Access 15 (Unicast)	15 (Unicast)	20 (Unicast)	-	-	-	-
	Min. Illumination B/W: 0Lux (IR LED on)	Color: 0.3lux B/W: 0Lux (IR LED on)	Color: 0.1Lux B/W: 0Lux (IR LED on)	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, DIP Connector Type	CVBS 1.0Vpp	CVBS 1.0Vpp	-	-	-	-
	Lens 2.1mm fixed (F2.2)	4.8 ~ 96mm (Optical 20x) F1.8(Wide) / F3.6(Tele)	-	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: 180.0° / V: 180.0° / D: 180.0°	H: 65.1°(Wide) ~ 3.8°(Tele) / V: 38.4°(Wide) ~ 2.2°(Tele)	-	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°
OPERATIONAL	Focus Control Simple focus	AF / One-shot AF	-	Fixed	Fixed	Fixed	Fixed
	IR Viewable Length 15m (49.21ft)	200m (656.17ft)	-	-	-	-	-
	Pan / Tilt / Rotate -	360° Endless / 190°(-5° ~ 185°) / -	-	-	-	-	-
	Day & Night True (ICR)	True (ICR)	Electrical	Electrical	Electrical	Electrical	Electrical
	Backlight Compensation WDR (120dB)	WDR (120dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)	WDR (150dB)
	Digital Noise Reduction SSNR	SSNR	SSNRV (2D+3D Noise filter)	-	-	-	-
	Digital Image Stabilization -	Support	Support	-	-	-	-
FEATURES	Intelligent Video Analytics Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Defocus detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection with Metadata	Tampering, Loitering, Directional detection, Fog detection, Virtual line, Enter/Exit, (Dis)Appear, Motion detection, Face detection	-	-	-	-
	Protocol ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	ONVIF profile S, SUNAPI	-	-	-	-
	Alarm I/O 1 / 1	4 / 2 (Relay)	-	-	-	-	-
	Audio Bi-Directional	Bi-Directional	-	-	-	-	-
	Edge Storage SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, Local PC	-	-	-	-
	Environment Protection IK10 (PNF-9010R), IP66, IK10 (PNF-9010RV/9010RVM)	IP66, IK10	IP66, IK10	-	-	-	-
	Operating Temperature -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)	-40°C ~ +55°C (-40°F ~ +131°F)	-	-	-	-
	Power Max. 11W (12V DC) Max. 12W (PoE) (PNF-9010R) Max. 12W (12V DC) Max. 12.95W (PoE) (PNF-9010R/RVM)	Max. 60.0W / 90.0W - Heater off / on, IR on (24V AC)	Max. 12.95W (PoE)	-	-	-	-
	Dimensions (WxHxD) / Weight 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)	Ø160 x 73mm (Ø6.3" 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 M12 Connector (PNF-9010RVM), Built-in mic, On Board Dewarping, Handover, WiseStream, Heatmap, People counting	Handover, Auto tracking, Defog, WiseStream	Defog, WiseStream II Hallway View	Lens module for PNM-7000VD			



	Wisenet Q QNO-7080R	Wisenet Q QNO-7010R/7020R/7030R	Wisenet Q QND-7080R	Wisenet Q QND-7010R/7020R/7030R	Wisenet Q QNV-7080R	Wisenet Q QNV-7010R/7020R/7030R	Wisenet Q QNE-7080RV	Wisenet Q QNO-6070R
VIDEO	Resolution	4MP	4MP	4MP	4MP	4MP	4MP	2MP
	Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	1/2.9" 2.19M CMOS	1/2.9" 2.19M CMOS
	Video Compression Format	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	H.265, H.264, MJPEG
	Resolution / Max. Frame Rate	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	4M / 20fps, 2M / 30fps	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)	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)	6 (Unicast)
	Min. Illumination	Color: 0.1Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: TBD B/W: 0Lux (IR LED on)	Color: 0.095Lux 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)	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)
	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)	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)	TBD
	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	Manual
OPERATIONAL	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)	30m (98.43ft)	20m (65.62ft) (QNV-7010R), 25m (82.02ft) (QNV-7020R), 30m (98.43ft) (QNV-7030R)	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°	0° ~ 350° / 0° ~ 67° / 0° ~ 360°
	Day & Night	True (ICR)	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)	WDR (120dB)
	Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
	Digital Image Stabilization	-	-	-	-	-	-	-
FEATURES	Intelligent Video 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	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	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	1 / 1
	Audio	Uni-Directional	Uni-Directional	Uni-Directional	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	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS
	Environment Protection	IP66, IK10	IP66, IK10	-	IK08	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)	-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)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°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)	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)	TBD (12V DC, PoE)
	Dimensions (WxHxD) / Weight	Ø70.0 x 246.0mm (Ø2.76" x 9.69") (Without Sunshield) 750g (1.61 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)	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") TBD
	Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream



New

	Wisenet Q NQ-6010R/6020R/6030R	Wisenet Q QND-6070R	Wisenet Q QND-6010R/6020R/6030R	Wisenet Q QNV-6070R	Wisenet Q QNV-6010R/6020R/6030R	Wisenet Q QNE-6080RV	Wisenet Q QNP-6230H	Wisenet Q QNP-6230	
VIDEO	Resolution	2MP	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	1/2.8" 2.4M CMOS	1/2.8" 2.4M CMOS	
	Video Compression Format	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	H.265, H.264, MJPEG	
	Resolution / Max. Frame Rate	2M / 30fps	2M / 30fps	2M / 30fps	2M / 30fps	4M / 20fps, 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 10 Profiles)	Multiple (Up to 10 Profiles)	
	Max. User Access	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)	6 (Unicast)	10 (Unicast)	10 (Unicast)	
	Min. Illumination	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.095Lux B/W: 0Lux (IR LED on)	Color: 0.15Lux B/W: 0Lux (IR LED on)	Color: 0.095Lux B/W: 0Lux (IR LED on)	Color: TBD B/W: 0Lux (IR LED on)	Color: 0.2Lux B/W: 0.01Lux	Color: 0.2Lux B/W: 0.01Lux	
	Video Output	-	-	-	-	-	CVBS 1.0Vpp	CVBS 1.0Vpp	
	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)	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)	4.44 ~ 102.2mm (Optical 23x) F1.6(Wide) / F3.6(Tele)
	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)	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)	TBD	H: 61.8°(Wide) ~ 3.08°(Tele) / V: 36.2°(Wide) ~ 1.73°(Tele)	H: 61.8°(Wide) ~ 3.08°(Tele) / V: 36.2°(Wide) ~ 1.73°(Tele)
OPERATIONAL	Focus Control	-	Manual	-	Manual	-	Simple focus (Motorized V/F) / Manual	Auto / Manual / One shot AF	
	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)	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° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 360°	360° Endless / 210° (-15° ~ 195°)	
	Day & Night	True (ICR)	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)	WDR (120dB)	
	Digital Noise Reduction	SSNR	SSNR	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)	
FEATURES	Intelligent Video 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	Motion detection with metadata, Tampering, Defocus detection	Motion detection with metadata, Tampering, Defocus detection	Tampering, Motion 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	ONVIF profile S/G, SUNAPI	ONVIF profile S/G, SUNAPI	
	Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1	4 / 2 (Relay)	4 / 2 (Relay)	
	Audio	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional	Uni-Directional	Bi-directional	
	Edge Storage	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS	Micro SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	
	Environment Protection	IP66, IK10	-	IK08	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)	-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)	-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+)	
	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)	Max. 5.8W (12V DC) Max. 7.0W (PoE) (QNV-6010R) Max. 5.7W (12V DC) Max. 6.8W (PoE) (QNV-6020R/6030R)	TBD (12V DC, PoE)	Max. 24.0W - Heater Off (24V AC, PoE+), Max. 65.0W - Heater On (24V AC)	
	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)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 490g (1.08 lb)	Ø144.9 x 135.5mm (Ø5.70" x 5.33") TBD	Ø223.4 x 293.6mm (Ø8.8" x 11.56") 1.7kg (3.75 lb)	
	Additional Features	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Lens distortion correction, Hallway View, WiseStream	Defog, WiseStream II	
								Defog, WiseStream II	

Wisenet T  
TNO-6320EWisenet T  
TNU-6320EWisenet T  
TNU-6320Wisenet T  
TNO-4051TWisenet T  
TNO-4050TWisenet T  
TNO-4041TWisenet T  
TNO-4040TWisenet T  
TNO-4030T

New

	Resolution	2MP	2MP	2MP	VGA	VGA	VGA	VGA
VIDEO	Imaging Device	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer	Uncooled Microbolometer
	Video Compression Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
	Resolution / Max. Frame Rate	2M / 60fps	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)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)	Multiple (Up to 10 Profiles)
	Max. User Access	10 (Unicast)	10 (Unicast)	10 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)	20 (Unicast)
	Min. Illumination	Color : 0.15Lux B/W: 0.015Lux	Color : 0.15Lux B/W: 0.015Lux	Color : 0.3Lux B/W: 0.03Lux	-	-	-	-
	Video Output	-	-	CVBS 1.0Vpp	CVBS 1.0Vpp	CVBS 1.0Vpp, Micro USB type B	CVBS 1.0Vpp Micro USB type B	CVBS 1.0Vpp, Micro USB type B
	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 ~ 142.6mm (Optical 32x) F1.6(Wide)/F4.4(Tele)	35mm fixed (F1.0)	35mm fixed (F1.0)	19mm fixed (F1.0)	19mm fixed (F1.0)
	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) ~ 2.23°(Tele) / V: 36.8°(Wide) ~ 1.26°(Tele)	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	Auto / Manual / One push	Auto / Manual / One push	Auto / Manual / One push	Fixed	Fixed	Fixed	Fixed
OPERATIONAL	IR Viewable Length	-	-	-	-	-	-	-
	Pan / Tilt / Rotate	-	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	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	-	-	-	-
	Digital Image Stabilization	Support	Support	Support	Support (Built in Gyro sensor)			
	Intelligent Video Analytics	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, Virtual line, Enter/Exit, (Dis)Appear, Face 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	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, SUNAPI	ONVIF Profile S, SUNAPI	ONVIF Profile S, 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 (Relay)	1 / 1 (Relay)	1 / 1 (Relay)	1 / 2	1 / 2	1 / 2	1 / 2
	Audio	-	-	Bi-directional	Bi-directional	Bi-directional	Bi-directional	Bi-directional
FEATURES	Edge Storage	NAS	NAS	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS, Local PC			
	Environment Protection	IP67, IK10	IP67, IK10	IP66	IP66, NEMA4X	IP66, NEMA4X	IP66, NEMA4X, IK10	IP66, NEMA4X, IK10
	Operating Temperature	-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 ~ +55°C (-40°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F)			
	Power	Max. 28.0W - Heater on (24V AC)	Max. 49.0W - Heater on (24V AC)	100W - Heater on, 25W - Heater off (24V AC)	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	Ø16.0 x 244.0mm (Ø6.38" x 9.61") 7Kg (15.43lb)	384.0 x 402.0 x 250.0mm (15.12" x 15.83" x 9.84") 35Kg (77.16lb)	219.0 x 460.0 x 528.0mm (8.62" x 18.11" x 20.79") 14Kg (30.86lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.45Kg (5.41lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.13Kg (6.89lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12Kg (6.89lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12Kg (6.89lb)
	Additional Features	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	Defog, Built in wiper	Handover, WiseStream II, Advanced video analytics, Sound classification, 7 Color palettes	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, 7 Color palettes	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, 7 Color palettes	Handover, WiseStream II, Advanced video analytics, Sound classification, Hallway view, 7 Color palettes

# NETWORK



	<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>
VIDEO	Resolution	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
	Video Compression Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
	Resolution / Max. Frame Rate	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)
	Max. User Access	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: 0.18Lux 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)
	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
OPERATIONAL	IR Viewable Length	30m (98.43ft)	30m (98.43ft)	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)	True (ICR)
	Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
	Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
	Digital Image Stabilization	-	-	-	-	-
	Intelligent Video Analytics	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering
FEATURES	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	-	-	-	-	-
	Audio	-	-	-	-	-
	Edge Storage	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
	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)
	Power	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)
	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



**Wisenet III  
SNZ-6320**

**Wisenet III  
SNO-6084R**

**Wisenet III  
SNO-6011R**

**SNO-L6083R**

**SNO-L6013R**

**Wisenet III  
SND-6084**

	Resolution	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	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 Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
	Resolution / Max. 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
OPERATIONAL	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	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR III (2D+3D Noise filter)	SSNR	SSNR	SSNR III (2D+3D Noise filter)
	Digital Image Stabilization	Support	Support	Support	-	-	Support
	Intelligent Video 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
FEATURES	Protocol	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S & G, SUNAPI	ONVIF Profile S & G, SUNAPI	ONVIF Profile S, SUNAPI, Open Platform
	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) (12V DC, PoE) * 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 -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

Wisenet III  
SND-7084RWisenet III  
SND-6084R

SND-L6083R

SND-L6013R

	SND-L6013	SND-L6012	Wisenet III SND-7084R	Wisenet III SND-6084R	SND-L6083R	SND-L6013R
VIDEO	Resolution	2MP	2MP	3MP	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
	Video Compression Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
	Resolution / Max. Frame Rate	2M / 30fps	2M / 30fps	3M / 30fps	2M / 60fps	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)
	Max. User Access	6 (Unicast)	6 (Unicast)	15 (Unicast)	15 (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)
	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)
	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)
OPERATIONAL	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)
	Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 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)
	Backlight Compensation	BLC, DWDR	BLC, DWDR	WDR (120dB)	WDR (120dB)	BLC, DWDR
	Digital Noise Reduction	SSNR	SSNR	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNR
	Digital Image Stabilization	-	-	Support	Support	-
	Intelligent Video Analytics	Motion detection with Metadata, Tampering	Motion detection with Metadata, Tampering	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	Motion detection with Metadata, Tampering
FEATURES	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
	Alarm I/O	-	-	1 / 1	1 / 1	-
	Audio	Uni-Directional	Uni-Directional	Bi-Directional	Bi-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
	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)
	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)
	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)
	Additional Features	Lens distortion correction, Hallway View	Lens distortion correction, Hallway View	P-Iris, Defog	P-Iris, Defog	Lens distortion correction, Hallway View

# NETWORK



**Wisenet III  
SNV-6084**

**Wisenet III  
SNV-6013**

**Wisenet III  
SNV-6084R**

**SNV-L6083R**

**SNV-L6013R**

**SNV-L6014RM/L6014RBM**

	Resolution	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	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 Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
	Resolution / Max. 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	-	-
OPERATIONAL	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	-	-	-
	Intelligent Video 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
FEATURES	Protocol	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S, SUNAPI, Open Platform	ONVIF Profile S & G, SUNAPI	ONVIF Profile S, SUNAPI	ONVIF Profile S, SUNAPI
	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) (12V DC, PoE) * 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)	-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 - Heater on (PoE)	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

# NETWORK



	Wisenet III SNP-6321H	Wisenet III SNP-6321	Wisenet III plus SNP-6320H	Wisenet III plus SNP-6320	SNP-L6233H/L6233	Wisenet III plus SNP-6320RH	Wisenet III plus SNP-6230RH	SNP-L6233RH	
VIDEO	Resolution	2MP	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	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS	
	Video Compression Format	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	
	Resolution / Max. Frame Rate	2M / 60fps	2M / 60fps	2M / 60fps	2M / 60fps	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)	Multiple (Up to 10 Profiles)	
	Max. User Access	10 (Unicast)	10 (Unicast)	15 (Unicast)	15 (Unicast)	10 (Unicast)	15 (Unicast)	15 (Unicast)	
	Min. Illumination	Color: 0.1Lux B/W: 0.015Lux	Color: 0.15Lux B/W: 0.015Lux	Color: 0.2Lux B/W: 0.01Lux	Color: 0.2Lux B/W: 0.01Lux	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	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 ~ 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) (IR Corrected Optical 32x) F1.6(Wide)/F4.9(Tele)	4.4 ~ 140.8mm (IR Corrected Optical 23x) F1.6(Wide)/F4.5(Tele)	4.4 ~ 101.2mm (IR Corrected Optical 23x) F1.6(Wide)/F4.5(Tele)	
	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) ~ 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: 63.68°(Wide) ~ 3.14°(Tele) / V: 37.52°(Wide) ~ 1.76°(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)	
OPERATIONAL	Focus Control	Auto / Manual / One push	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 / 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)	True (ICR)	
	Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (100dB)	WDR (120dB)	WDR (120dB)	WDR (100dB)	
	Digital Noise Reduction	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNRIII (2D+3D Noise filter)	SSNR	
	Digital Image Stabilization	Support	Support	Support	Support	Support	Support	Support	
FEATURES	Intelligent Video 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, Audio detection, Face detection	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, Audio detection, Face detection	Tampering, Virtual line, Enter/Exit, (Dis)Appear, Audio detection, Face detection	
	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, Open Platform	ONVIF Profile S, SUNAPI	
	Alarm I/O	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	4 / 2 (Relay)	4 / 3 (Relay)	4 / 3 (Relay)	
	Audio	Bi-Directional	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	Micro SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS	SD/SDHC/SDXC, NAS, Local PC	SD/SDHC/SDXC, NAS, Local PC	
	Environment Protection	IP66, IK10	IK10 (With SHP-3701H)	IP66, IK10	IK10 (With SHP-3701H)	IP66, IK10 (SNP-L6233H) IK10 (With SHP-3701H) (SNP-L6233)	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+)	-10°C ~ +55°C (+14°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -30°C ~ +55°C (-22°F ~ +131°F) (PoE+)	-10°C ~ +55°C (+14°F ~ +131°F)	-50°C ~ +55°C (-58°F ~ +131°F) (24V AC) -30°C ~ +55°C (-22°F ~ +131°F) (PoE+) (SNP-L6233H) -10°C ~ +55°C (-14°F ~ +131°F) (SNP-L6233)	-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. 25.0W - 24V AC Heater off / PoE Heater on (PoE+)	Max. 20.0W (24V AC, PoE+)	Max. 24.0W (24V AC, PoE+) Max. 65.0W - Heater on (24V AC)	Max. 20.0W (24V AC, PoE+)	Max. 65.0W - AC & PoE Heater on (24V AC) Max. 25.0W - PoE Heater on (PoE+) (SNP-L6233H) Max. 20.0W (24V AC, PoE+) (SNP-L6233)	Max. 30.0W - Heater off Max. 35.0W / 90.0W - Heater off / on, IR on (24V AC)	Max. 30.0W - Heater off Max. 35.0W / 90.0W - Heater off / on, IR on (24V AC)	Max. 30.0W - Heater off Max. 35.0W / 90.0W - Heater off / on, IR on (24V AC)
	Dimensions (WxHxD) / Weight	Ø223.4 x 293.6mm (Ø8.80" x 11.56") 3.2Kg (7.05 lb)	Ø152.0 x 218.0mm (Ø5.98" x 8.58") 1.8Kg (3.97 lb)	Ø223.4 x 293.6mm (Ø8.80" x 11.56") 3.3Kg (7.28 lb)	Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb)	Ø223.4 x 293.6mm (Ø8.80" x 11.56") 3.2Kg (7.05 lb) (SNP-L6233H) Ø152.0 x 218.0mm (Ø5.98" x 8.58") 1.8Kg (3.97 lb) (SNP-L6233)	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	RS-485, Defog	Auto tracking, 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, Defog	RS-485, Defog	Auto tracking, RS-485, Defog	Auto tracking, RS-485, Defog	RS-485, Defog	Auto tracking, RS-485/422, Defog	RS-485/422, Defog	

## NVR

Wisenet X  
XRN-3010Wisenet X  
XRN-2011/2010Wisenet X  
XRN-1610S/1610Wisenet X  
XRN-810SWisenet X  
XRN-410S

OS	Linux	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	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	300Mbps	256Mbps 100Mbps (RAID 5 mode) (XRN-2011)	180Mbps	100Mbps	50Mbps
Max # of Cameras	64	32	16	8	4
Internal Storage	Up to 8 SATA (Max. 64TB)	Up to 8 SATA (Hot swap) (XRN-2011) 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)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)
External Storage	1 e-SATA	iSCSI, 1 e-SATA (XRN-2010)	iSCSI, 1 e-SATA	-	-
RAID	-	RAID 5 (XRN-2011)	-	-	-
Hot Swap	-	Yes (XRN-2011)	-	-	-
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	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	HDMI (Up to 4K), VGA
Camera Support	SUNAPI, ONVIF	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 support</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 support</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 16 PoE / PoE+ Ports (XRN-1610S)</li> <li>• WiseStream support</li> <li>• Defocus event trigger</li> </ul>	<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>

Wisenet P  
PRN-4011Wisenet Q  
QRN-1610SWisenet Q  
QRN-810S/810Wisenet Q  
QRN-410S/410Wisenet T  
TRM-1610M/1610S

OS	Linux	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	128Mbps	100Mbps (QRN-810), 80Mbps (QRN-810S)	50Mbps (QRN-410), 40Mbps (QRN-410S)	128Mbps
Max # of Cameras	64	16	8	4	16 (4PoE, M12:TRM-1610M / RJ-45 : TRM-1610S)
Internal Storage	Up to 12 SATA (Max. 96TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)	Up to 2 SATA (Front-Swap) Max. 4TB (HDD, SSD)
External Storage	iSCSI	-	-	-	-
RAID	RAID 5/6	-	-	-	RAID 1
Hot Swap	Yes	-	-	-	Yes (RAID 1)
Network Viewer Software	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM, WebViewer, SmartViewer, Wisenet Mobile	SSM Transportation, WebViewer, Wisenet Mobile
Local Monitor	HDMI (Up to 4K), VGA Support dual monitor: HDMI / VGA	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA	HDMI (Up to 4K), VGA
Camera Support	SUNAPI, ONVIF	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 support</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 16 PoE / PoE+ ports (QRN-1610S)</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 (QRN-810), 80Mbps (QRN-810S)</li> <li>• Defocus event trigger</li> </ul>	<ul style="list-style-type: none"> <li>• Plug &amp; play by 8 PoE / PoE+ ports (QRN-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 (QRN-410), 50Mbps (QRN-410S)</li> <li>• Defocus event trigger</li> </ul>	<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>	

# NETWORK

## Decoder



	<b>SRN-1673S</b>	<b>SRN-873S</b>	<b>SRN-473S</b>
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, Wisenet Mobile	SSM, SmartViewer, Wisenet Mobile	SSM, SmartViewer, Wisenet Mobile
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>



	<b>SPD-1660R</b>	<b>SPD-260B</b>	<b>SPD-150</b>
Video Out	HDMI (16ea), VGA (16ea)	HDMI (2ea), VGA (2ea)	HDMI, VGA, CVBS
Resolution	HDMI up to 4K, VGA up to 1080p	HDMI up to 4K, VGA up to 1080p	HDMI up to 4K, VGA up to 1080p
Display	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)	(HDMI) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 25 / 36(32) / 2V / 3V (VGA) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V Split mode, Hallway View mode (Up to 20 layouts and sequence)
Power	220V AC	-	12V DC, PoE
Additional Features	Monitor merge - 1x2, 2x1, 2x2, 2x3, 3x2, 2x4, 2x5, 4x2, 3x3, 3x4, 4x3, 4x4, 3x5, 5x3, 5x2 SSM, WebViewer supported	Board of SPD-1660R	Up to 49CH, H.265 / H.264 / MJPEG codec, Layout sequence support

## Encoder



	<b>SPE-1610</b>	<b>SPE-410</b>	<b>SPE-400</b>	<b>SPE-101</b>	<b>SPE-100</b>
Max. # of Cameras	16	4	4	1	1
Supported Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG, MPEG-4	H.264, MJPEG, MPEG-4	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)	704 x 480 / 704 x 576 (NTSC / PAL)	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	30/25fps (NTSC / PAL)	30/25fps (NTSC / PAL)	30/25fps (NTSC / PAL)
Bi-Directional Audio	Yes	Yes	Yes	-	Yes
RS-485	1	1	4	1	1
Alarm I/O	16 / 4	4 / 2	4 / 4	-	1 / 1
SD Card	-	-	SD/SDHC	-	SD/SDHC
ONVIF	Yes	Yes	Yes	Yes	Yes
Power	12V DC	12V DC, PoE	12V DC	12V DC / PoE	12V DC / PoE

## iSCSI External Storage



	<b>SRB-160S</b>
OS	Linux
Max. recording bandwidth	800Mbps
Internal HDD	Max. 16 Hot swappable HDDs (Max. 128TB) * RAID 0 mode
RAID	0 / 10 / 5 / 6, RAID5 + Hotstandby
iSCSI volume	Max. 8 NVRs can be connected
Setup	One-touch setup of RAID volume Setup via webpage & remote storage management S/W
Redundancy	Network failover, Load balancing
Mechanical	4 Gigabit ethernet ports 3U chassis with front key-lock
Features	Dual SMPS for high reliability

## Wisenet SSM

Wisenet SSM is video management software with features for both traditional and contemporary surveillance operations. It mainly consists of two parts; server and client software giving users a simple and easy to expand architecture. Server software includes core server for system management, plugins for intelligent business reports, transaction server to link your system to other surveillance areas such as access control, video decoder for wall display, and more. On the other hand, client software provides PC console for operators in security room and mobile viewer for guards on the move.

## What's New in Wisenet SSM



### Free Trial License

Users are given 45 days of trial period before activating license. During this period full features including recording are available. After trial periods, features will be limited and SSM will generate a warning message.



### Single Core Server with Clustering

Basic servers such as MG, RS, SM, HA have been put in a single "Core Server" for new launched Wisenet SSM. In addition, these "Core Servers" can be clustered together providing higher level of reliability. From Wisenet SSM, a group of clustered core servers will be named 'Domain' and in the same domain, core servers will synchronize data.



### New Client User Interface

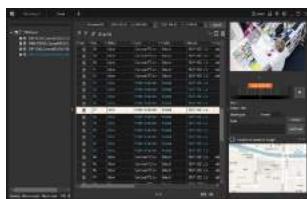
You can play back recorded video during live streaming and easily control playback up to 32x as well as reverse playback. Also Wisenet SSM displays the events in the same area as thumbnails making it easier to carry out a detailed search.



Live Streaming

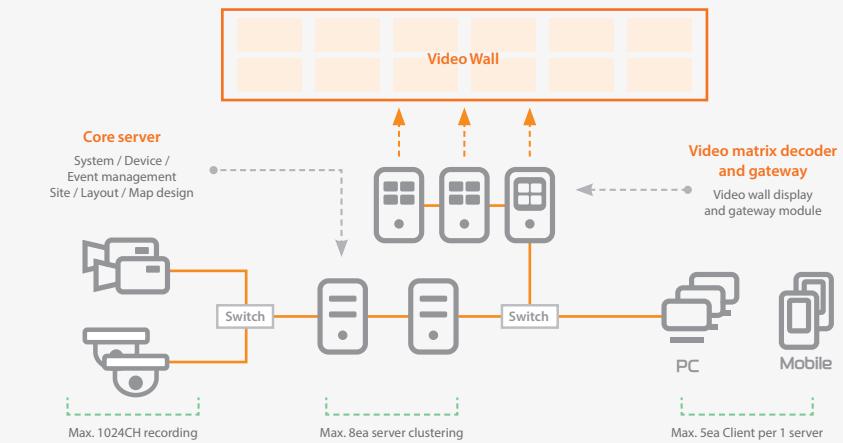


Display Events as Thumbnails



Location of Events for Google Map

### System configuration



	General	Wisenet SSM (v2.0)
	System	
	Maximum Number of Monitoring Channel	Up to 10,000channel / domain
	Maximum Number of Recording Channel	Up to 10,000channel / domain
	Architecture	Server / Client
	Clients	Console Client, Mobile Viewer
	Supported Devices	Network camera / encoder / decoder, DVR / NVR, Controller
	Basic Component	
	Centralized License Management	45 days free trial
	Server Clustering	Data sharing
	System Dashboard	Real-time system status monitoring
	User Management	Device access authority, Feature level authority
	Federation	Multi-tier domain federation, Max. 100 domains
Core Server	Centralized Device Configuration	Auto / Manual Device and add-on server registration
	Device Connection	Up to 3,000 channel
	Event Configuration	4 levels event priority, Configurable event color
	Event Action	Rule based event and triggering action setup
	Layout & Pattern	User defined layout and tile pattern
	Tab Based Window	Live, Advanced search, Event, Configuration, Retail
	Number of Channels	Max. 100 channels, Max. 64 channels per tab
Console Client	Decoding	Hardware accelerator supported (NVIDIA CUDA)
	Playback	Multi channel playback, Bookmark
	Real-time Event	Event filtering by status, type, and priority
	Event Search	Event acknowledgement history
	Smart Search	Search by virtual area and virtual line

## Reader



**Wisenet ACS  
R10/R40/RK40 (Elite / Mobile)**

Frequency	13.56MHz	902 ~ 928 MHz	13.56MHz	13.56MHz	-
Communication	Wiegand / Clock & Data(RK40/RK40 Elite/RK40 Mobile)	Wiegand	Wiegand	USB 2.0	USB 2.0
Compatible Access Cards	R10/R40/RK40 : iCLASS SEOS, MIFARE (Classic) / DESFire EV1 CSN R10/R40/RK40 Elite : iCLASS SEOS Elite, MIFARE (Classic) / DESFire EV1 CSN R10/R40/RK40 Mobile : Mobile ID, MIFARE (Classic) / DESFire EV1 CSN	UHF Card	iCLASS SE, MIFARE (Classic) / DESFire EV1 CSN	iCLASS SE / SEOS Elite, MIFARE (Classic) / DESFire EV1 CSN	-
Keypad	Yes (4 x 3) (RK40/RK40 Elite/RK40 Mobile)	-	-	-	-
Operating Voltage Range	5-16V DC	12V DC or 24V DC	12V DC	USB 2.0	USB 2.0
Operating Temperature	-35°C ~ +65°C (-31°F ~ +150°F)	-35°C ~ +65°C (-31°F ~ +150°F)	-20°C ~ +50°C (-4°F ~ +122°F)	0°C ~ +70°C (+32°F ~ +158°F)	-10°C ~ +50°C (+14°F ~ +122°F)
Ingress Protection	IP55	IP65	IP67	IP54	-
Impact Protection	-	-	IK08	-	-
Panel Connection	Pigtail	Pigtail	Pigtail	-	-
Color	Black	Black	Dark Gray	Black	Dark Gray
Max. User	-	-	500,000 (1 : 1), 100,000 (1 : N)	-	-
Max. Fingerprint Template	-	-	1,000,000 (1 : 1), 200,000 (1 : N)	-	-
Ethernet	-	-	10/100Mbps	-	-

## Controller



**Wisenet ACS  
V2000**      **Wisenet ACS  
EH400K**

Communication Port	Ethernet (10/100)	Ethernet (10/100)	Ethernet (10/100) / RS-485	RS-485
Reader interface	2ea	1ea	-	2ea (V100)
Max. expansion board	-	-	32ea	-
Max. card holders	250,000	125,000	250,000	-
Max. Event buffers	99,999	99,999	99,999	-
Input port	2ea	4ea	2ea	4ea/16ea/2ea
Output port	4ea	2ea	2ea	4ea/2ea/12ea
Operating Current	210mA / 12V DC	-	-	-
Operating Temperature	0°C ~ +50°C (+32°F ~ +122°F)			
PoE	-	802.af	-	-
Color	Gray	Black	Gray	Gray

## Card



**iCLASS SEOS (Elite)**

- 13.56MHz
- Compatible with R10 / R40 / RK40 (Elite)
- Encoded by Hanwha Techwin unique format (Elite)

**Mobile ID**

- Bluetooth / NFC via mobile device (Android, iOS)
- Compatible with R10 Elite mobile / R40 Elite mobile / RK40 Elite mobile

**UHF**

- 902 ~ 928 MHz
- Long range card (3~5m)

## Appliance



**Wisenet ACS  
SSA-A100**

Supported Platform	Windows 10 IoT 2016 Enterprise entry SSA-M1000 (up to 32doors)
Installed S/W	Intel celeron J3455 quad core 1.5 GHz to 2.3 GHz burst
Processor	SODIMM 8GB
RAM	120GB SSD
Storage	2x Front USB 3.0, 2 x Rear USB 3.0
USB Storage	Intel HD graphics 500
Graphics	19V, 65W
Power Supply	10/100/1000 Mbps ethernet
Ethernet	Wireless-AC 3168, IEEE 802.11ac 1x1 + Bluetooth v4.2
Connectivity	115 x 51 x 11mm (4.53" x 2.01" x 4.37")
Dimension (WxHxD)	

## Standalone



**Wisenet ACS  
Face station2**

Biometric	Face
RFID Card	iCLASS SE, MIFARE (Classic) / DESFire EV1 CSN
CPU	1.4 GHz Quad
Memory	8GB Flash + 1GB RAM
LCD	4" color TFT
IR LED	140ea
Operating Temperature	-20°C ~ 50°C (+4°F ~ +122°F)
Power	24V DC / 2.5A
Detection	LFD (Live Face detection)
Max. User	30,000 (1 : 1), 3,000 (1 : N)
Wiegand	1ea input / output
Relay	1ea

## Peripheral



**Wisenet ACS  
SSA-X300**

Controller/ Interface On Board	Max. 2ea Boards in enclosure
Input Power	100 ~ 240V AC (50Hz/60Hz) / 2.0A
Power Consumption	13.5V ±5%, 4.7A (Strobe, Horn 12.5V DC ±5%)
Charging Current	700mA
Back up Battery	12V, 18Ah, rechargeable
SMPS Status Transmission	AC loss, Battery fail (Non battery)
AC Input Protection	by Fuse in input port
Operation Temperature	0°C ~ +45°C (+32°F ~ +113°F)
Case Lock	Lock on front door with keys
Dimension (mm)	410 x 410 x 97mm (16.14" x 16.14" x 3.82")

## Wisenet ACS Control Software

Wisenet ACS Control Software is access control management software and can be integrated with Wisenet SSM for integrated Monitoring solution.

It is highly scalable up to unlimited doors system and has robust software architecture.

### Key Features



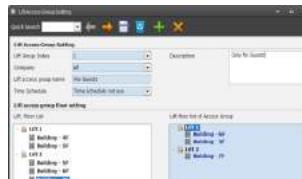
Configuration



Mustering Report



Monitoring



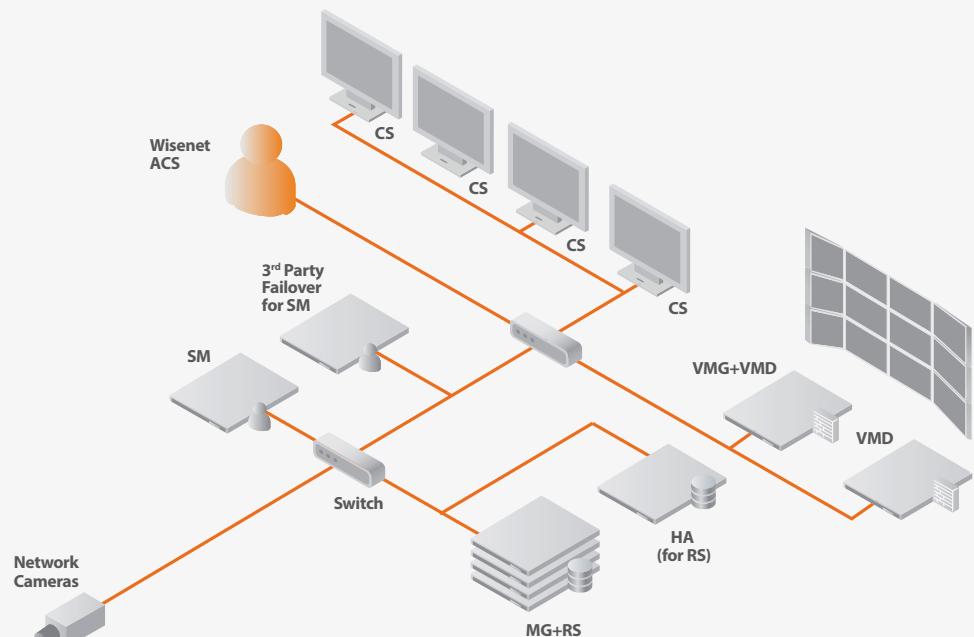
Lift Control

Access Control	<ul style="list-style-type: none"> <li>Device auto discovery</li> <li>Cardholder management</li> <li>Batch uploads</li> <li>Card(s) pre-registration</li> <li>Device maintenance</li> <li>Unlimited access groups, Time schedules</li> <li>Area / Zone management</li> <li>Biometric readers (FP)</li> <li>Lift Control (with V300)</li> </ul>
Monitoring	<ul style="list-style-type: none"> <li>Real time access events &amp; alarm monitoring</li> <li>Graphic maps</li> <li>Remote door management (Close / Open)</li> <li>I/O monitoring</li> <li>Mustering</li> <li>Event filtering for monitoring</li> <li>Control door monitoring / Management permissions per user group</li> </ul>
Card Design and Printing	<ul style="list-style-type: none"> <li>Create multiple design templates</li> <li>Auto-fill card holder data from system database</li> <li>Print cards</li> </ul>
Fire Groups	Create firegroups for each fire sensor input
Advanced Reporting	<ul style="list-style-type: none"> <li>Extensive reporting options</li> <li>Export to multiple formats (excel, pdf, word etc.)</li> <li>Full Integration with Hanwha Techwin's VMS, SSM</li> </ul>
Video Integration with SSM	<ul style="list-style-type: none"> <li>Review video of the access events &amp; alarms</li> <li>Real-time event &amp; alarm notification to SSM</li> </ul>
Maintenance	<ul style="list-style-type: none"> <li>User group &amp; user privileges</li> <li>Manual &amp; scheduled database backup</li> <li>Database restore</li> <li>Data export &amp; import</li> <li>Custom fields</li> <li>Auditing &amp; user activity logs</li> </ul>
System	<ul style="list-style-type: none"> <li>Up to 32doors (standard), 256doors (professional), Unlimited doors (enterprise)</li> <li>Very simple and intuitive user interface</li> <li>Highly scalable</li> </ul>

### Wisenet ACS



### Integration with Wisenet SSM



## Camera



	Wisenet HD+ HCB-7000	Wisenet HD+ HCO-7070R	Wisenet HD+ HCO-7010R/20R/30R	Wisenet HD+ HCD-7070R	Wisenet HD+ HCD-7010R/20R/30R	Wisenet HD+ HCV-7070R	Wisenet HD+ HCV-7010R/20R/30R
TV Lines / Resolutions	4MP	4MP	4MP	4MP	4MP	4MP	4MP
Imaging Device	1/3" 4M CMOS	1/3" 4M CMOS	1/3" 4M CMOS	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	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)	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)
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)	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)
VIDEO	IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)
	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)	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)
Focus Control	Manual	Manual	Fixed	Manual	Fixed	Manual	Fixed
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 63° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
OPERATIONAL	Day & Night	True (ICR)	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	BLC / HLC / DWDR
	Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
	Motion detection	Support	Support	Support	Support	Support	Support
	Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	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)	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	-	-	IP66, IK10	IP66, IK10
FEATURES	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)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°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)	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)	Ø110.1 x 86.1mm (Ø4.33" x 3.39") 240g (0.53 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12 lb)
Additional Features	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)	Video Transmission up to 500m (SC2V Coaxial Cable)

Wisenet HD+  
HCB-6001Wisenet HD+  
HCB-6000Wisenet HD+  
HCZ-6320Wisenet HD+  
HCO-6080RWisenet HD+  
HCO-6070RWisenet HD+  
HCD-6080R

	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	TV Lines / Resolutions	2MP	2MP	2MP	2MP	2MP
	Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2.38M 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: 0.09Lux B/W: 0.009Lux	Color: 0.09Lux B/W: 0.009Lux	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)
	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)
	IR Viewable Length	-	-	-	30m (98.43ft)	30m (98.43ft)
	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)
	Focus Control	Simple Focus	Manual	Auto / Manual / One push	Simple focus (motorized V/F) / Manual	Manual
	Pan / Tilt / Rotate	-	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
OPERATIONAL	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	SSNRIV	SSNRIV	SSNRIII	SSNRIV	SSNRIV
	Motion detection	Support	Support	Support	Support	Support
	Privacy Masking	4 Zones	8 Zones	12 Zones	8 Zones	8 Zones
FEATURES	Alarm I/O	0 / 1, External D/N 1	0 / 1, External D/N 1	-	MD Output 1	MD Output 1
	Communication	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, AD	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)
	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. 6W (24V AC & 12V DC)	Max. 3.5W (24V AC & 12V DC)	Max. 6W (12V DC)	Max. 6.0W (24V AC & 12V DC)	Max. 6.0W (24V AC & 12V DC)
	Dimensions (WxHxD) / Weight	73.1 x 67.2 x 123.9mm (2.88" x 2.65" x 4.88") 287g (0.63 lb)	68.4 x 59.6 x 92.7mm (2.69" x 2.35" x 3.65") 186g (0.41 lb)	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)
	Additional Features	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Defog	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)

Wisenet HD+  
HCD-6070RWisenet HD+  
HCV-6080RWisenet HD+  
HCV-6070RWisenet HD+  
HCM-9020VQWisenet HD+  
HCP-6320HA/6320AWisenet HD+  
HCP-6230H/6230

	Wisenet HD+ HCD-6070R	Wisenet HD+ HCV-6080R	Wisenet HD+ HCV-6070R	Wisenet HD+ HCM-9020VQ	Wisenet HD+ HCP-6320HA/6320A	Wisenet HD+ HCP-6230H/6230
TV Lines / Resolutions	2MP	2MP	2MP	2MP	2MP	2MP
Imaging Device	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/2.8" 2M CMOS	1/3" 2M CMOS Sensor x 4	1/2.8" 2.38M CMOS	1/2.8" 2.38M CMOS
Horizontal Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	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)	Color: 0.1Lux (4mm) / 0.01Lux (6mm) B/W: 0.01Lux (4mm, 0.6mm)	Color: 0.2Lux B/W: 0.01Lux	Color: 0.2Lux B/W: 0.01Lux
Lens	3.2 ~ 10mm (3.1x) V/F (F1.6)	3.2 ~ 10mm (3.1x) motorized V/F (F1.6)	3.2 ~ 10mm (3.1x) V/F (F1.6)	4mm x 2 (F2.6), 6mm x 2 (F2.0)	4.44 ~ 142.6mm (Optical 32x) F1.6(Wide) / F4.4(Tele)	4.44 ~ 101.2mm (Optical 23x) F1.6(Wide) / F3.63(Tele)
VIDEO	IR Viewable Length	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	-	-
Angular Field of View	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: 110.2°(Wide) ~ 32°(Tele) / V: 55.4°(Wide) ~ 18°(Tele) / D: 128.4°(Wide) ~ 36.6°(Tele)	H: 80.20° / V: 43.50° / D: 95.24° [4mm] H: 51.66° / V: 30.46° / D: 60.78° [6mm]	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)
Focus Control	Manual	Simple focus (motorized V/F) / Manual	Manual	Fixed	Auto / Manual / One push	Auto / Manual / One push
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	20° ~ 60° / 0° / 355°	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 210° (-15° ~ 195°) / -
OPERATIONAL	Day & Night	True (ICR)	True (ICR)	True (ICR)	True (ICR)	True (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (100dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	Off / Low / Middle / High	SSNRIII	SSNRIII
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	16 Zones	32 Zones	32 Zones
Alarm I/O	MD Output 1	MD Output 1	MD Output 1	0 / 4	4 / 2 (Relay)	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)	Pelco-C (Coaxitron), RS-485 : Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE	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), RS-485 : Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE
Environment Protection	-	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10 (HCP-6320HA), IK10 (With SHP-3701H) (HCP-6230A)	IP66, IK10 (HCP-6230H), IK10 (With SHP-3701H) (HCP-6230)
FEATURES	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 ~ +50°C (-22°F ~ +122°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 (24V AC & 12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 7.3W, TDN On (24V AC) Max. 6.7W, TDN On (12V DC)	Max. 24.0W / 65.0W - Heater off / on (24V AC) (HCP-6320HA) Max. 20.0W (24V AC) (HCP-6320A)	Max. 24.0W / 65.0W - Heater off / on (24V AC) (HCP-6230H) Max. 20.0W (24V AC) (HCP-6230)
Dimensions (WxHxD) / Weight	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58 lb)	Ø199 x 89.5mm (7.83" x 3.52") 2Kg (4.41 lb)	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (SNP-6320HA), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (SNP-6320A)	Ø220.0 x 293.6mm (Ø8.66" x 11.56") 3.3Kg (7.28 lb) (SNP-6230H), Ø152.0 x 218.0mm (Ø5.98" x 8.58") 2.2Kg (4.85 lb) (SNP-6230)
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)	Multi-directional camera	Defog	Defog

Wisenet HD+  
SCB-6003Wisenet HD+  
SCO-6083RWisenet HD+  
SCO-6023RWisenet HD+  
SCD-6083RWisenet HD+  
SCD-6023RWisenet HD+  
SCD-6013Wisenet HD+  
SCV-6083RWisenet HD+  
SCV-6023R

	2MP	2MP	2MP	2MP	2MP	2MP	2MP	2MP
VIDEO	TV Lines / Resolutions	2MP	2MP	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	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	1920 x 1080	1920 x 1080
	Min. Illumination	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)	Color: 0.11Lux B/W: 0Lux (IR LED on)	Color: 0.25Lux B/W: 0Lux (IR LED on)	Color: 0.11Lux B/W: 0.01Lux	Color: 0.25Lux B/W: 0Lux (IR LED on)
	Lens	-	2.8 ~ 12mm (4.3x) V/F (F1.4)	4mm fixed (F 2.1)	2.8 ~ 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)
	IR Viewable Length	-	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	-	30m (98.43ft)
	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: 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)
	Focus Control	-	Manual	Fixed	Manual	Fixed	Fixed	Manual
OPERATIONAL	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)	True (ICR)
	Backlight Compensation	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR	BLC / HLC / DWDR
	Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
	Motion detection	Support	Support	Support	Support	Support	Support	Support
FEATURES	Privacy Masking	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones	4 Zones
	Alarm I/O	0 / 1, External D/N 1	0 / 1	-	0 / 1	-	-	0 / 1
	Communication	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)	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)
FEATURES	Environment Protection	-	IP66, IK10	IP66	-	-	-	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)	-10°C ~ +55°C (+14°F ~ +131°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. 6.0W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max. 4.2W (24V AC & 12V DC)	Max. 4.2W (12V DC)	Max. 2.5w (12V DC)	Max. 4.2W (24V AC & 12V DC)
Dimensions (WxHxD) / Weight	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)	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	Defog	Defog

## DVR



		<b>Wisenet HD+ HRD-1642</b>	<b>Wisenet HD+ HRD-1641</b>	<b>Wisenet HD+ HRD-842</b>	<b>Wisenet HD+ HRD-841</b>	<b>Wisenet HD+ HRD-840</b>	<b>Wisenet HD+ HRD-442</b>	<b>Wisenet HD+ HRD-440</b>
Channel		16CH	16CH	8CH	8CH	8CH	4CH	4CH
OS	Embedded	Linux						
Live	Frame Rate (NTSC / PAL)	480fps / 400fps	480fps / 400fps	240fps / 200fps	240fps / 200fps	240fps / 200fps	120fps / 100fps	120fps / 100fps
Recording	Max. Record Rate / NTSC	240fps@2560 x 1440 480fps@1920 x 1080	240fps@2560 x 1440 480fps@1920 x 1080	120fps@2560 x 1440 240fps@1920 x 1080	120fps@2560 x 1440 240fps@1920 x 1080	120fps@2560 x 1440 240fps@1920 x 1080	60fps@2560 x 1440 120fps@1920 x 1080	60fps@2560 x 1440 120fps@1920 x 1080
	Max. Record Rate / PAL	200fps@2560 x 1440 400fps@1920 x 1080	200fps@2560 x 1440 400fps@1920 x 1080	100fps@2560 x 1440 200fps@1920 x 1080	100fps@2560 x 1440 200fps@1920 x 1080	100fps@2560 x 1440 200fps@1920 x 1080	50fps@2560 x 1440 100fps@1920 x 1080	50fps@2560 x 1440 100fps@1920 x 1080
	Compression	H.264						
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	8CH : AHD, NTSC, PAL TVI, CVI	4CH : AHD, NTSC, PAL HDTV, HDCVI	4CH : AHD, NTSC, PAL TVI, CVI
Audio	Inputs	16CH (Built-in 4CH)	4CH	8CH (Built-in 4CH)	4CH	1CH	4CH	1CH
Storage	Internal HDD	Up to 8 SATA HDDs	Up to 2 SATA HDDs	Up to 4 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDD	Up to 2 SATA HDDs	Up to 1 SATA HDD
	External HDD	Up to 2 Expansion Bays	Up to 1 Expansion Bays	Up to 2 Expansion Bays	Up to 1 Expansion Bays	-	-	-
Monitors	VGA	Yes						
	HDMI	Yes						
	Spot Composite	1CH (BNC)						
Connections	USB	2 ports						
	e-SATA	2 External SATA ports	1 External SATA port	2 External SATA Ports	1 External SATA port	-	-	-
	Mouse	Yes						
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	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	4MP, 1080P, 720P, WD1, 4CIF, CIF	4MP, 1080P, 720P, WD1, 4CIF, CIF
	Monitoring	SSM, WebViewer, SmartViewer, Mobile Viewer						
PTZ Control	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)	NTSC/PAL : Pelco-C (Coaxitron), AHD : ACP (AHD Coax Protocol)
	RS-485 Protocol	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO, GE

# MONITOR / CONTROLLER

## LED Monitor



**SMT-4033**



**SMT-3233**



**SMT-2233**



**SMT-1935**



**SMT-1931**



**SMT-1914**

	<b>SMT-4033</b>	<b>SMT-3233</b>	<b>SMT-2233</b>	<b>SMT-1935</b>	<b>SMT-1931</b>	<b>SMT-1914</b>
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					
Additional Features	Remote Controller	Remote Controller	-	-	-	-

## Controller



**SPC-7000**



**SPC-2000**



**SPC-2010**



**SPC-1010**

Features	Network/Analog Cameras / NVR/DVR / SSM Controller <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>	Network Controller <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>	PTZ / DVR System Controller <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>	PTZ Control Keyboard <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>

# LENS

Lens Description	Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F.No	Angle of View	Operation			Dimensions WxHxD (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°				84.0g (0.19 lb)	
	SLA-M2890PN					2.8 ~ 12mm (0.11" ~ 0.47")	20.2 ~ 8.1mm (0.80" ~ 0.32")	4.2	1.3	133.0° ~ 29.7°	P-Iris	DC	Manual	45.0 x 51.5 x 54.3mm (1.77" x 2.03" x 2.14")	82.1g (0.18 lb)
	SLA-2812DN					2.8 ~ 12mm (0.11" ~ 0.47")	20.2 ~ 8.1mm (0.80" ~ 0.32")	4.2	1.3	133.0° ~ 29.7°	37.5 x 48.0 x 56.0mm (1.48" x 1.89" x 2.20")			71g (0.16 lb)	



# PERIPHERALS



**SBP-122HMW**



**SBP-168HM**



**SBP-329HM/317HM**



**SBP-201HM**



**SBP-300HF/301HF/302HF**



**SBP-300TM1**

Wall Mount	Hanging Mount	Hanging Mount	Hanging Mount	Built-in SFP Install Base for PTZ Cameras	Tilt Mount for 5M Fisheye Cameras
<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with LNV-6010R/6020R/6030R LND-6070R</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with XNP-6120H</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with PNM-9080VQ/9081VQ/7000VD</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with PNM-9020V</li> </ul>	<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 use with SNP-6320H/5430H (SBP-300HF)</li> <li>• Can use with SNP-6321H/5321H/L6233H/L5233H (SBP-301HF)</li> <li>• Can use with PNP-9200RH/XNP-6370RH (SBP-302HF)</li> </ul>	<ul style="list-style-type: none"> <li>• Poly Carbonate</li> <li>• Can be used with PNF-9010R/9010RV/9010RVM XNF-8010R/8010RV/8010RVM XNV-L6080/L6080R SNF-8010/8010VM</li> </ul>



**SBP-160TM**



**SBP-300WM1/300WM**



**SBP-300WMW1**



**SBP-300CM/300LM**



**SBP-300CMW**



**SBP-137WM**

Tilt Mount	Wall Mount	Wall Mount	Ceiling Mount / Parapet Mount	Ceiling Mount	Wall Mount
<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with PNV-9080R XND-6085/6085V XNV-6012/6012R/6080/6080R/6085R/8080R SNV-5084/5084R/6084/6084R/6085R/7084/7084R/8080/8081R SCV-6081R</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum + SECC</li> <li>• Can be used with SBP-300NB/300B/300PM/300KM</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with SBP-300HMW7/122HMW/301HMW2</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum + SECC</li> <li>• Can be used with hanging Mount and outdoor PTZ</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with SBP-300MW1</li> </ul>	<ul style="list-style-type: none"> <li>• Alluminum and Poly Carbonate</li> <li>• Can be used with QNV-6010R/6020R/6030R/6070R/7010R/7020R/7030R/7080R XNV-6010/602/8020R/8030R/8040R HCV-6070R/6080R/7010R/7020R/7030R/7070R/SCV-5082/5082R/5083/5083R/5085/6023R/6083R SNV-L5083R/L6083R</li> </ul>



**SBP-300WM0/120WM**



**SBP-300WMS1/300WMS**



**SBP-390WM**



**SBP-300PM/302PM**



**SBP-300KM/300KMS**



**SBP-300PMS**

Wall Mount	Wall Mount	Wall Mount	Pole Mount	Corner Mount Base	Pole Mount
<ul style="list-style-type: none"> <li>• Poly Carbonate</li> <li>• Can be used with SCD-2060E/2080/2080R/2081/2082/3080/3081/3082/3083/2020/2022/2022R/5020/5030 SND-5061/7061/5011 SUD-5020 (SBP-300WM0)</li> <li>• Plastic</li> <li>• Can be used with QND-7080R/7030R/7020R/7010R/6070R/6030R/6020R/6010R, XND-6010/6020 SND-L6083R/L6014R/L6013R/L6013/L6012/L5083R/L5013 SCD-6083R/6023R/6021/5083R/5083/5082/5080 (SBP-120WM)</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless steel (SUS316L)</li> <li>• Can be used with XNP-6320HS SBP-300HM6</li> </ul>	<ul style="list-style-type: none"> <li>• Aluminum</li> <li>• Can be used with PNM-9081VQ/9080VQ/9020V/ all Wisenet PTZ cameras</li> </ul>	<ul style="list-style-type: none"> <li>• SECC</li> <li>• Can be used with SBP-300B/300WM1/300WM/300LM (SBP-300PM)</li> <li>• Can be used with PNO-9080R/SNO-8081R/SBO-100B1 QNO-7080R/6070R/7010R/7020R/7030R/6010R/6020R/6030R (SBP-302PM)</li> </ul>	<ul style="list-style-type: none"> <li>• SECC</li> <li>• Can be used with SBP-300B/300WM1/300WM/300LM (SBP-300KM)</li> <li>• Stainless Steel 316</li> <li>• Can be used with SBP-300B/300WM1/300WM/300LM (SBP-300KMS)</li> </ul>	<ul style="list-style-type: none"> <li>• Stainless Steel 316</li> <li>• Can be used with SBP-300B/300WM1/300WM/300LM</li> </ul>

# PERIPHERALS


**SBP-300B**

**SBP-300NB**

**SBV-160WC/120WC**

**SBV-136B/158G**

**SBF-100B1/SBO-100B1**

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

Wall Mount Base <ul style="list-style-type: none"><li>• Aluminum + SECC</li><li>• Can be used with SBP-300PM/300KM</li></ul>	Installation Box <ul style="list-style-type: none"><li>• Steel</li><li>• Can be used with SBP-300WM/300WM1/300KM/300PM</li></ul>	Weather Cap <ul style="list-style-type: none"><li>• Alluminum and Poly Carbonate</li><li>• Can be used with PNV-9080R XNV-6080/6080R/L6080/6080R/8080R SCV-6081R/5084R SNV-6084/6084R/6085R/7084/7084R/8080R/8081R (SBV-160WC)</li><li>• Can be used with XNV-6010/6020/8020R/8030R/8040R QNV-6010R/6020R/6030R/7010R/7020R/7030R (SBV-120WC)</li></ul>	Back Box <ul style="list-style-type: none"><li>• Aluminum</li><li>• Can be used with XNP-5040H SCV-5082R/5083R/5083R/5085/6023R/6083R SNV-5083R/L6083R QNV-6070R/7080R (SBV-136B) HCV-6070R/6080R/7010/7020/7030R/7070R</li><li>• Can be used with PNV-9080R XNV-6080/6080R/L6080/6080R/8080R SNV-5084/5084R/6084/6084R/6085R/7084/7084R/8080R/8081R SCV-6081R (SBV-158G)</li></ul>	Back Box <ul style="list-style-type: none"><li>• Aluminum</li><li>• Can be used with PNF-9010R/9010RV/9010RVM SNF-8010/8010VM (SBF-100B1)</li><li>• Can be used with QNO-7080R/6070R/7010R/7020R/7030R/6010R/6020R/6030R SNO-L6083R/L5083R SCO-6083R (SBO-100B1) HCO-7070R/7010R/7020R/7030R/6080R/6070R</li></ul>	Fixed Housing <ul style="list-style-type: none"><li>• Aluminum diecasting construction</li><li>• Fully cable managed bracket</li><li>• Built-in fan &amp; heater</li><li>• Support three cable glands, IP66</li></ul>
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**SHB-4200/4200H**

**STH-200**

**STB-400/4150V**

**SPB-IND5/IND6**

**SPB-IND11/IND81/IND81V**

**SPB-IND12/IND72**

Fixed Housing <ul style="list-style-type: none"><li>• Support two cable glands</li><li>• Built-in fan &amp; heater : SHB-4200H</li></ul>	Fixed Housing <ul style="list-style-type: none"><li>• For fixed camera application</li><li>• Wall/ceiling installations</li><li>• Easy to install side open type</li></ul>	Fixed Mount <ul style="list-style-type: none"><li>• Bracket for STH-500/200</li><li>• Alluminum and Steel material (STB-400)</li><li>• Bracket for box cameras</li><li>• Alluminum and Steel material (STB-4150V)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Poly Carbonate + Poly Carbonate</li><li>• Can be used with SCD-6081R SND-5083/5084/6083/6084/6084R/7084 (SPB-IND5)</li><li>• Can be used with SCD-5080/5082/5083/5083R/6021/6083R SND-6011R SUD-5082 QND-6070R/7080R (SPB-IND6)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Poly Carbonate + Poly Carbonate</li><li>• Can be used with XND-6010/6020/8020R/8030R/8040R (SPB-IND11)</li><li>• Can be used with XND-6080/6080R/L6080R/8080R (SPB-IND81)</li><li>• Can be used with XND-6080V//6080RV/L6080RV/L6080V/8080RV (SPB-IND81V)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Poly Carbonate + Poly Carbonate</li><li>• Can be used with QND-6010R/6020R/6030R/7010R/7020R/7030R (SPB-IND12)</li><li>• Can be used with QND-6070R/7080R (SPB-IND72)</li></ul>
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**SPB-IND83/IND83V**

**SPB-VAN3/VAN4**

**SPB-VAN11/VAN71/VAN81**

**SPB-VAN12/VAN72**

**SPB-PTZ71**

**SPB-PTZ73**

Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with XND-6085 (SPB-IND83)</li><li>• Can be used with XND-6085V (SPB-IND83V)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with PNV-9080R SCV-6081R SNV-5084/5084R/6084/6084R/6085R/7084/7084R/8080R/8081R XNV-6080/6080R/L6080/6080R/8080R (SPB-VAN3)</li><li>• Can be used with SCV-5082/5082R/5083/5083R/5085/6023R/6083R SNV-5083R/L6083R (SPB-VAN4)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with XNV-6010/6020/8020R/8030R/8040R (SPB-VAN11)</li><li>• Can be used with XNV-6120/6120R (SPB-VAN71)</li><li>• Can be used with XNV-6085 (SPB-VAN81)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with QNV-6010R/6020R/6030R/7010R/7020R/7030R (SPB-VAN12)</li><li>• Can be used with QNV-6070R/7080R (SPB-VAN72)</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with XNP-6040H</li></ul>	Smoked Dome Cover <ul style="list-style-type: none"><li>• Aluminium + Poly Carbonate</li><li>• Can be used with XNP-6120H</li></ul>
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# ACCESSORIES CONFIGURATION

## PTZ Cameras

Type	Outdoor PTZ							Indoor PTZ			
Shape	PH1	PH2	PH3	PH4	PH5	PH6	PH7	P1	P2	P3	P4
Color	Ivory										
Model	SCP-2270H/2330H/ 2370H/2370TH/ 3370H/3370TH/ SNP-3301H/3302H/ 3370TH/3371H/ 3371H/ 5200H/5200TH/ 6200H/6200TH	SCP-2250H/2251H/ 2430H/3250H/ 3430H	SCP-3120VH SNP-3120VH	SCP-2271H/2273H/ 2371H/2373H/ 3371H SNP-5300H/5320H/ 5321H/5430H/ 6201H/6320H/ 6321H/L5233H/ L6233H HCP-6320 XNP-6320H/6320HS QNP-6230H	SCP-2370RH SNP-6200RH/6230RH/ L6233RH/6320RH	XNP-6370RH PNP-9200RH	XNP-6120H	SCP-2270/2330/ 2370/3370 SNP-3300A/3301/ 3302/3350/ 3370/3371/ 3750/5200/ 6200	SCP-2250/2251/2430/ 3250/3430	SCP-3120/2120 SNP-3120	SCP-2271/2273/ 2371/2373/ 3371 SNP-5300/5320/ 5321/5430/ 6201/6320/ 6321/L5233/ L6233 HCP-6230/6320A XNP-6320 QNP-6230

## Dome Cameras

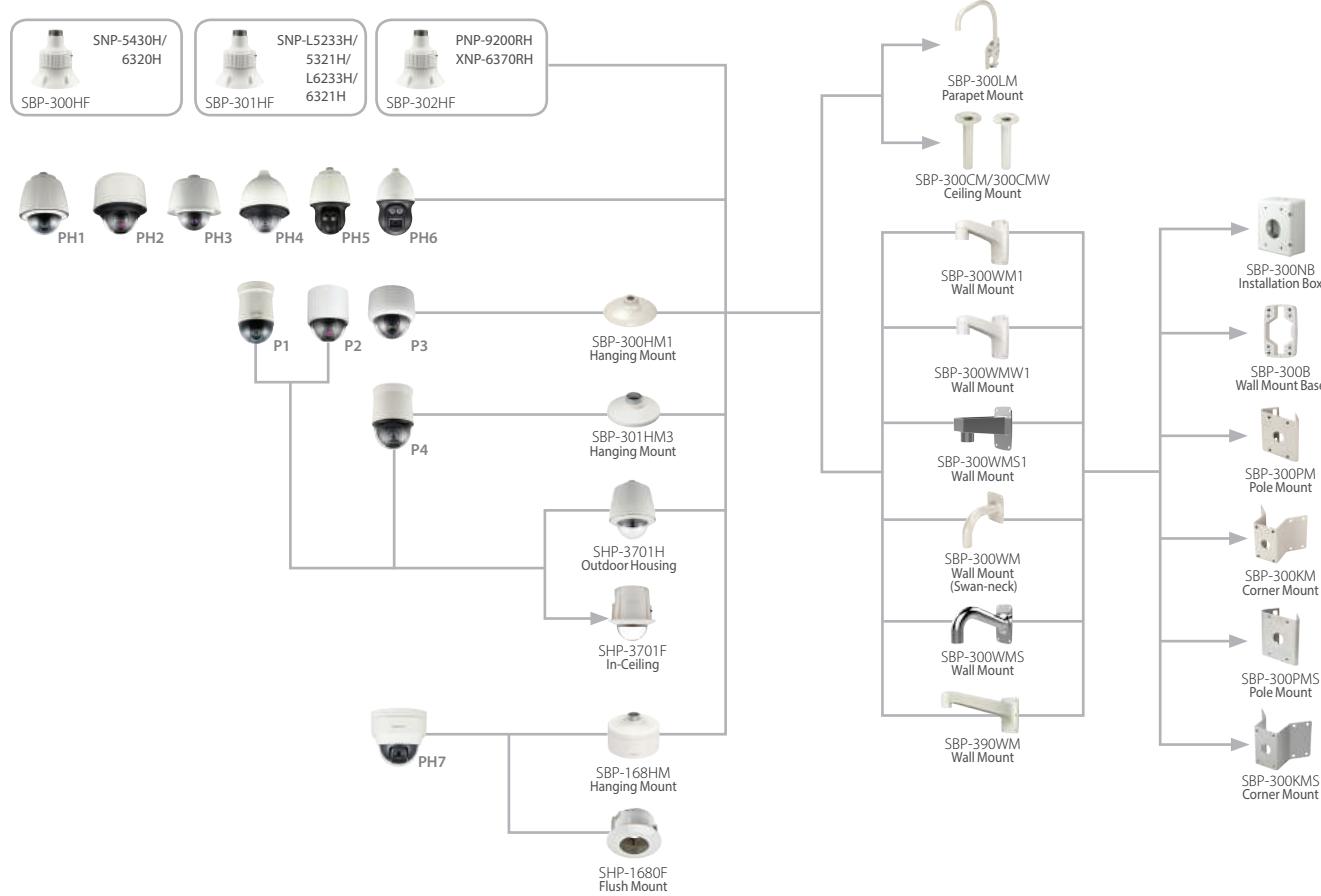
Type	Vandal-Resistant						Indoor Dome					
Shape	V1	V2	V3	V4	V5	V6	D1	D2	D3	D4	D5	D6
Color	Ivory											
Model	SCV-2060/2080/ 3080/3120 SNV-3080/3082/ 3120/5080/ 5080R/7080/ 7080R/7082	SCV-2081/2081R/ 2082R/3081/ 3082/3083 SNV-1080/1080R	PNV-9080R XNV-8080RS/8080R/ 6120RS/6080RS/ 6080R/6080/ L6080R/L6080/ 6085R/6120R 6120 SCV-6081R SNV-5084/5084R/ 6084/6084R/ 6085R/7084/ 7084R/8080/ 8081R	SNV-6013 XNV-6011	QNV-6070R/7080R XNP-6040H SCV-5082/5082R/ 5083/5083R/ 5085/6023R/ 6083R SNV-L5083R/L6083R HCV-6080R/6070R/ 7070R/7030R/ 7020/7010	QNV-6010R/6020R/ 6030R/7010R/ 7020R/7030R XNV-6010/6020/ 8020R/8030R/ 8040R HCV-7010R/7020R/ 7030R	SCD-2060E/2080/ 2080R/2081/ 2082/3080/ 3081/3082/ 3083 SND-1080/5061/ 7061	SCD-2020/2020R/ 2021/2022/ 2022R/2040/ 3081/3082/ 3083 SND-1011/5011/ 7011 SUD-2020/2022/ 5020	SCD-6081R SND-5083/5084/ 5084R/6083/ 6084/6084R/ 7084/7084R	QND-6070R/7080R SND-L5083R/6011R/ L6083R SCD-5080/5081R/ 5082/6021/ 6083R SUD-5082 HCD-6070R/6080R/ 7070R	QND-6010R/6020R/ 6030R/7010R/ 7020R/7030R/ L6083R SCD-6023R SND-L5013/L6012/ L6013/L6013R/ L6014R/ XND-6010/6020R/ 8020R/8030R/ 8040R HCD-7010R/7020R/ 7030R	PND-9080R XND-6080/6080R/ 6080RV/6080V/ L6080R/L6080RV/ L6080V/8080R/ 8080RV

## Fisheye / Panoramic Cameras

Type	Fisheye				Multi Imager	
Shape	F1	F2	FV1	FV2	M1	M2
Color	Ivory					
Model	SNF-7010	SNF-8010	SNF-7010V/ 7010VM	PNF-9010R/ 9010RV/ 9010RVM SNF-8010VM	PNM-9020V HCM-9020VQ	PNM-9081VQ/ 9080VQ

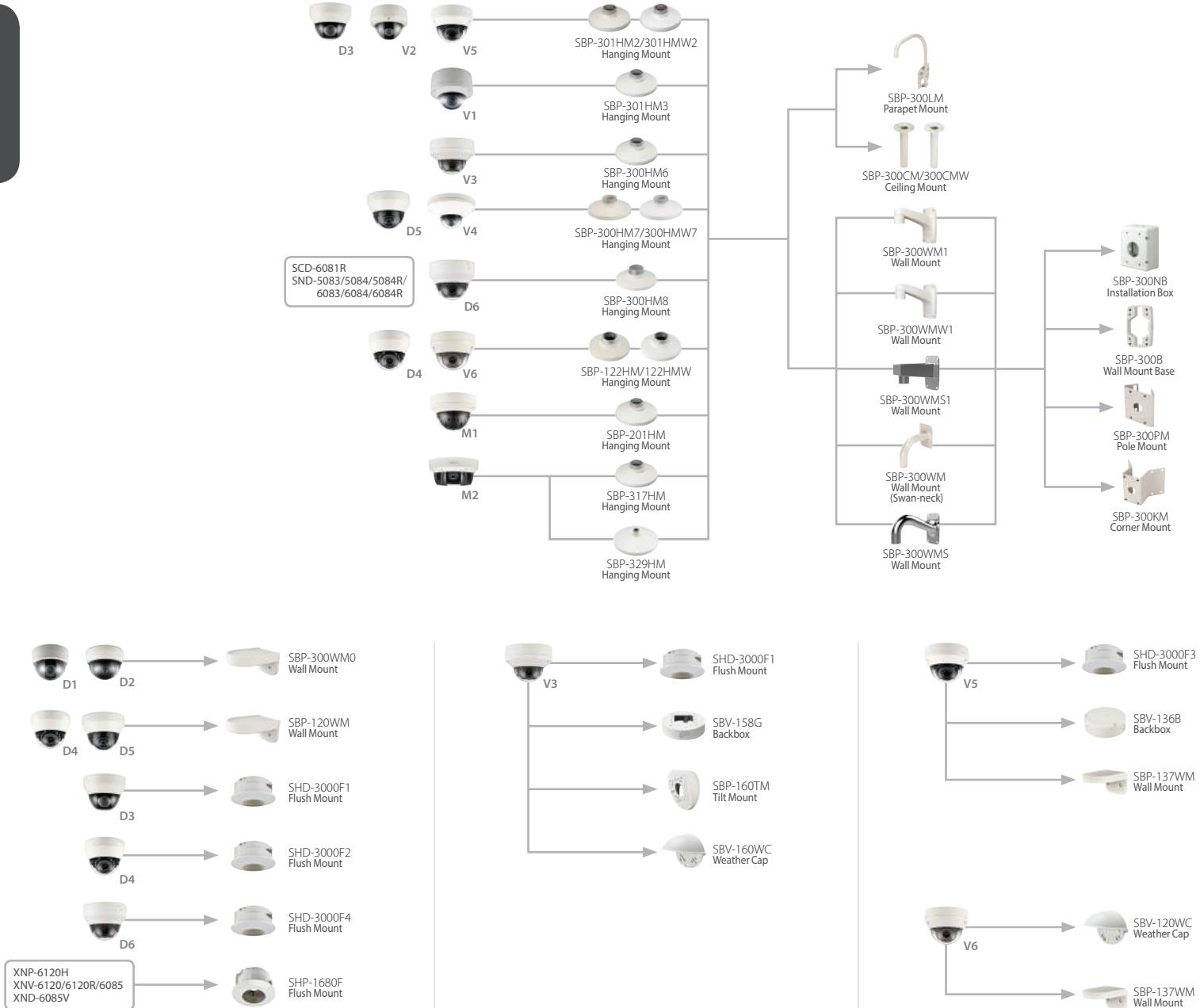
# ACCESSORIES CONFIGURATION

## PTZ ACC



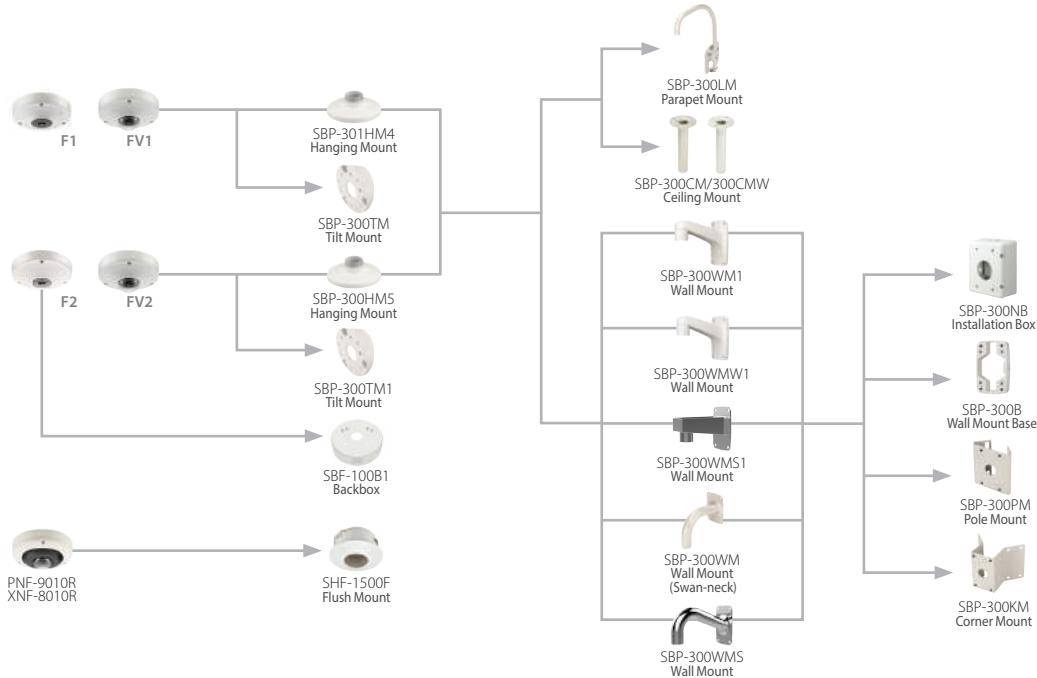
# ACCESSORIES CONFIGURATION

## DOME ACC



# ACCESSORIES CONFIGURATION

## FISHEYE ACC

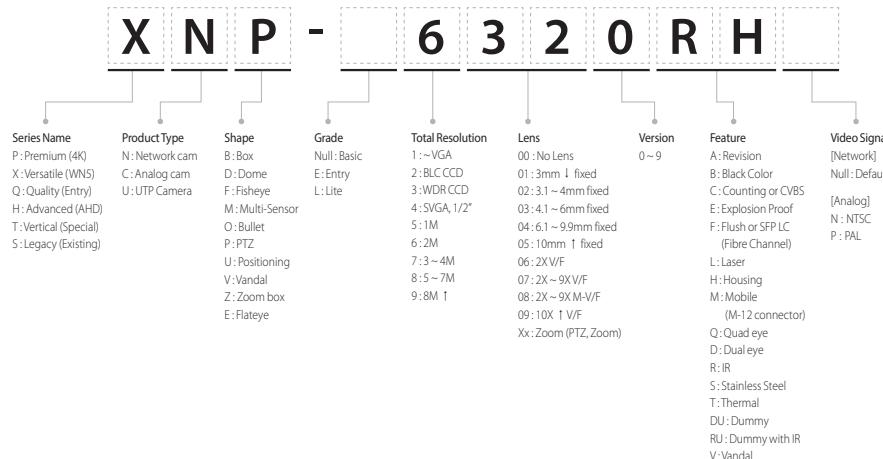


## BULLET ACC

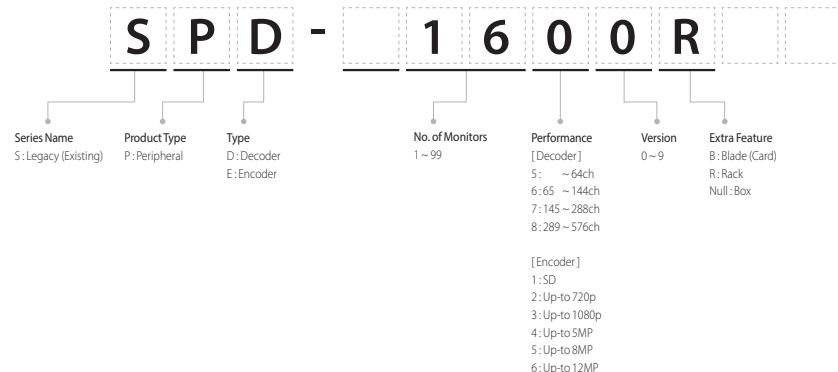


# PRODUCT NAMING RULE

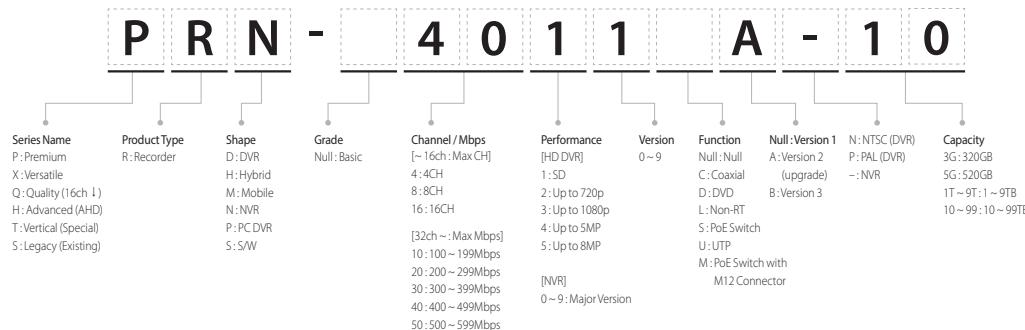
## Camera



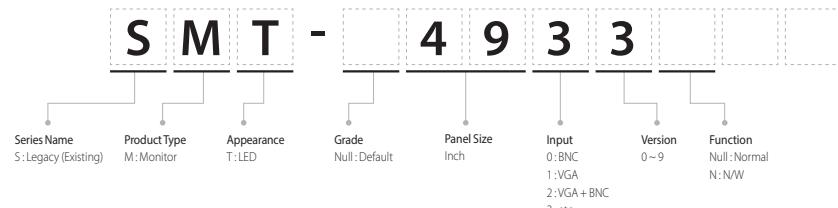
## Decoder/Encoder



## Recorder



## Monitor



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