

# LINE

1Q-2Q 2021

# UP



**WISENET**



# Hanwha Group

Founded in 1952, Hanwha is a FORTUNE Global 500 company and the 7th largest business group in Korea, comprising of 76 domestic affiliates and 351 global networks around the world.

Hanwha's business area included span aerospace & mechatronics, chemicals & materials, solar energy, finance, service & leisure, and construction. By integrating its growing number of affiliate enterprises worldwide, Hanwha is harnessing the power of sustainable, quality growth to continually increase the value we bring to customers.

## Products & Services

### Aerospace & Mechatronics

Hanwha Corporation  
(Machinery / Explosives)

Hanwha Aerospace

Hanwha Techwin

Hanwha Systems

Hanwha Defense

Hanwha Power Systems

Hanwha Precision Machinery

### Solar Energy

Hanwha Q CELLS

Hanwha Energy

Hanwha Solar Power

### Services & Leisure

Hanwha Hotels & Resorts

Hanwha Galleria

Hanwha Galleria Timeworld

Hanwha 63 City

Hanwha Station Development

### Chemicals & Materials

Hanwha Chemical

Hanwha Total Petrochemical

Hanwha Advanced Materials

Hanwha General Chemical

Yeochun NCC

### Finance

Hanwha Investment & Securities

Hanwha Life

Hanwha General Insurance

Hanwha Asset Management

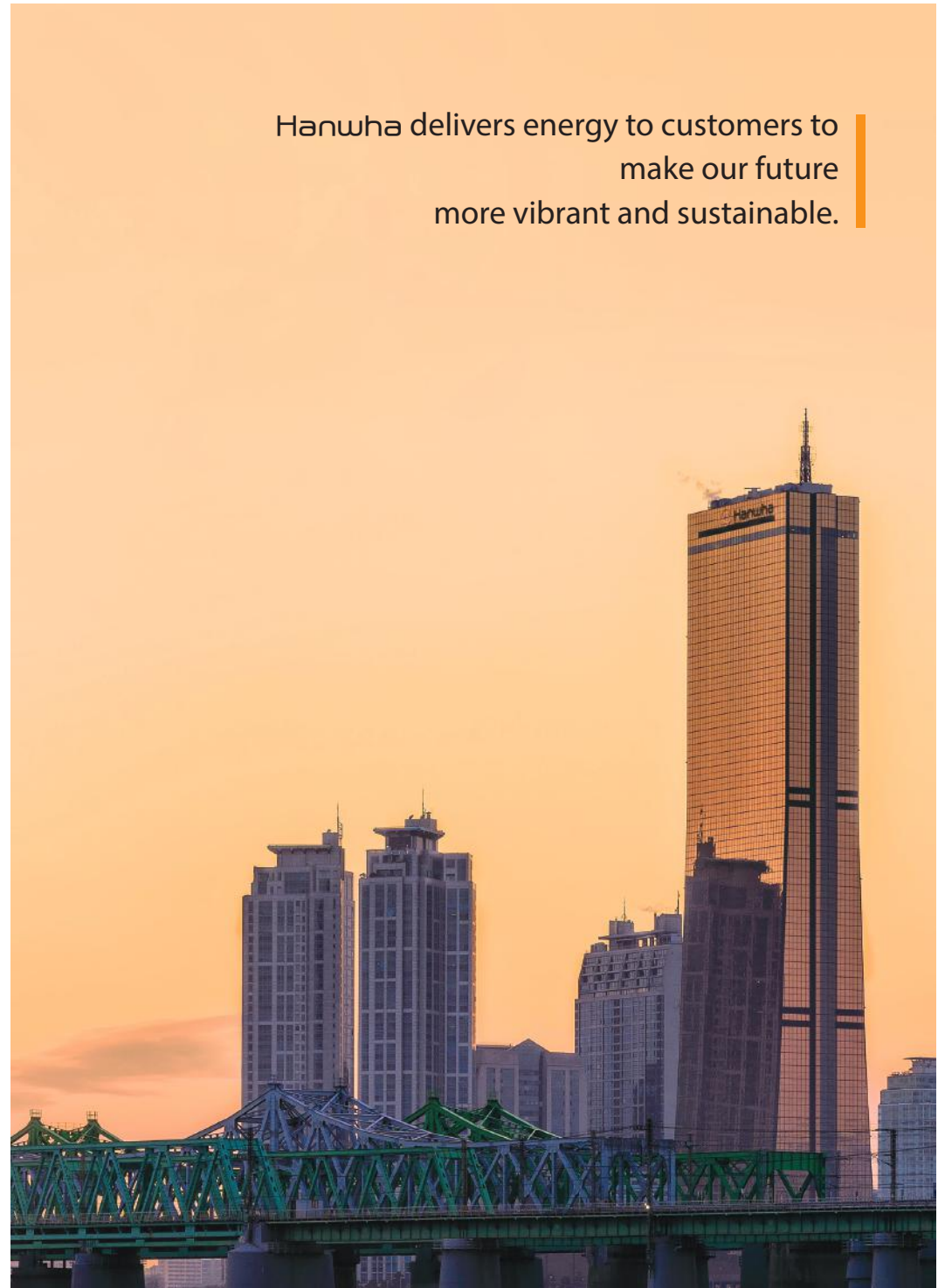
Hanwha Savings Bank

### Construction

Hanwha Engineering & Construction

Hanwha City Development

Hanwha delivers energy to customers to  
make our future  
more vibrant and sustainable.



Hanwha Techwin brings you  
security solutions  
that deliver values beyond safety.



A leading global security company, Hanwha Techwin has built its professional expertise in the video surveillance business through its world-leading optical, manufacturing and image processing technologies, accumulated over 30 years since our first launch of a surveillance camera in 1990.

As the world welcomes the 4th Industrial Revolution, we are leading the market by taking advantage of next-generation technologies, such as Deep Learning, Artificial Intelligence (AI) and Business Intelligence (BI). We are also able to offer solutions tailored to meet the requirements of various vertical markets. By offering cybersecurity that customers can trust and rely on, we are growing as a total security solution company which provides high satisfaction and value, as well as real-life practical benefits.

Hanwha Techwin will continuously strengthen its development and marketing investments in the security business to drive future growth.

## History

### 2012 ~ Current

- 2020 - Hanwha Techwin's 30th anniversary, Wisenet7 SoC launched
- 2019 - Acquired Cybersecurity certification 'Secure by Default' from UK government
- 2018 - Hanwha Techwin Vietnam manufacturing subsidiary established
- 2017 - Winner of IF Design Award, Red Dot Design Award
- 2017 - Wisenet V SoC and Wisenet X camera series launched
- 2015 - Hanwha Techwin is formed by strategic acquisition by Hanwha Group
- 2015 - Winner of Red Dot Design Award
- 2015 - Wisenet Lite series launched
- 2013 - Wisenet III SoC and camera series launched
- 2012 - Winner of Red Dot Design, CES Innovation Award
- 2012 - World's first 37X IR PTZ camera launched

### 1990 ~ 2011

- 2011 - B2C business began
- 2009 - Hanwha Techwin Tianjin and Shanghai subsidiaries established
- 2008 - Korea's first 37X optical AF PTZ camera launched
- 2004 - WinnerIII analog ISP chip developed
- 2001 - Hanwha Techwin Europe subsidiary established
- 1997 - World-class ultra low-light surveillance camera launched
- 1993 - Korea's first auto-iris lens for CCTV cameras developed
- 1990 - Video surveillance business established



## Engineered in Korea

Hanwha Techwin's R&D(Research and Development) Center, is located in Pangyo Techno Valley, Gyeonggi-do, South Korea. The large R&D complex, which is focused on state-of-the-art technology and innovation, is also a home to many other of Korea's world leading companies. In the middle of the R&D hub, Hanwha Techwin is developing a variety of advanced technologies helping to drive the global video surveillance industry toward the future.

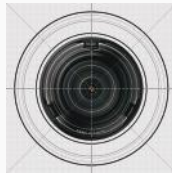
### Core Technologies

Based on long-established optical and image-processing technologies, Hanwha Techwin has competitive edge not only in optical lenses but also in SoC cameras chipset development.

As technologies become more advanced and security solutions are leveraged across all areas of life, the role of security goes beyond just monitoring. It is now being utilized in many other ways in order to fulfill the growing market demand for built-in analytics capabilities and intelligent functionality. In order to provide agile response to such trend, Hanwha Techwin will strive to achieve technological advancement by developing deep-learning and AI solutions.

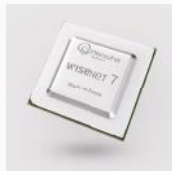
#### 01. Optical design technology

Based on world class optical and image processing technologies, Wisenet provides high precision and resolution cameras.



#### 02. SoC design technology

Outstanding level of SoC (System on Chip) design capabilities evident in our Wisenet SoC are also equipped with diverse analytics technologies.



#### 03. Intelligent Analytics technology

Hanwha Techwin provides exclusive solutions for intelligent analytics thanks to its unique analytics algorithms.



Based on its solid core technologies, Hanwha Techwin strengthens its competitive edge for the future by harnessing innovative technologies.



To ensure  
24/7 reliability of our products,  
we added smart manufacturing system  
to our top technologies.



## High-tech Powered in Vietnam

Hanwha Techwin's manufacturing subsidiary in Vietnam (HTSV) has been in operation since 2018 in order to expand its global production capability as well as to strengthen cost competitiveness. Through automation and smart systems, Hanwha Techwin has built sophisticated and fast-moving manufacturing lines producing all its product line-ups including cameras and storage devices. All products produced in HTSV go through a reliable manufacturing and quality assurance process and sold globally, these products represent 75% of Hanwha Techwin's total sales.



## End-to-end Cybersecurity

Hanwha Techwin offers cybersecurity with the industry's highest levels of cybersecurity policy with secure boot/OS/storage, a signed firmware/open platform app, secure JTAG and more.

Hanwha Techwin established its own device certificate issuing system to embed certificates into the product not only in the development progress but also in the manufacturing progress.



- Hanwha Techwin Private Device Certification Root CA
- UL CAP, Secure by Default certified
- Secure Boot, Secure Storage, Secure OS
- Secure Open Platform
- S-CERT : Security Computer Emergency Response Team  
Please contact S-CERT by e-mail ([secure.cctv@hanwha.com](mailto:secure.cctv@hanwha.com))

※ UL CAP certified products: XNO-9082R, XNV-9082R, XND-9082RF, XND-9082RV, XNB-9002  
XNO-8082R, XNV-8082R, XND-8082RF, XND-8082RV, XNB-8002

# Next level of Cybersecurity



# Innovating with excellence

# WISeNET 7



## Innovation in Image Quality

- extreme WDR (Up to 150dB)
- Enhanced Noise Reduction technology
- LDC (Lens Distortion Correction)
- Multi-directional camera support with single license(Up to 4ch)

## Innovation in Cybersecurity

- Hanwha Techwin Device Certificate System (Root CA)
- UL CAP, Secure by Default certificate
- Secure Boot, Secure OS, Secure Storage



New Generation PTZ

# WISeNET PTZ PLUS

## Clearer image with Wisenet IR

- Monitor and Identify objects with optical 40x, 30x, 25x Zoom
- Up to 200 meters with Wise IR
- Enhanced Preset Accuracy  $\pm 0.1^\circ$   
Quick Pan, Tilt correction (within 1 second)
- Easy and Safe Installation with Compact Design and Lighter Camera
- AI Deep learning based Object Auto Tracking  
(Optional Target-Lock Tracking with right click)



\* 4K XNP-9300RW, XNP-9250R, XNP-9250  
 \* 6MP XNP-8300RW, XNP-8250R, XNP-8250  
 \* 2MP XNP-6400RW, XNP-6400R, XNP-6400



# WISENET P series AI Camera & NVR

Precise Object Detection & Classification with AI

Person

Face

Vehicle

License plate

Equipped with a powerful artificial intelligence (AI) engine that detects and classifies people and vehicles in real time, Wisenet P series AI cameras are designed to accurately capture the unique attributes of objects such as faces and license plates, whilst reducing false alarms caused by waving trees, video noise, and even shadows. It enables operators to quickly and efficiently search for specific events or objects with defined attributes.



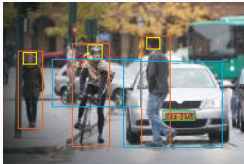
**AI Camera Series** 4K  
PNO-A9081R, PNV-A9081R,  
PND-A9081RV/A9081RF,  
PNB-A9001  
\* See more at P32



**AI NVR Series**  
PRN-6410DB4/6410B4,  
PRN-3210B4/3210B2/1610B2  
\* See more at P60

## Wisenet AI Camera

Detect and classify objects real-time



VMS Plug-in for improved AI search

\* Person, face, vehicle, license plate

## Wisenet AI Search

Quickly search based on attributes



\* AI plug-ins offer seamless integration with VMS from Milestone and Genetec





## Identification

**Visible image**  
2MP 4mm fixed focal  
(H: 87.6°, V: 46.4°)



**Thermal image**  
QVGA 4.7mm fixed focal  
(H: 50.0°, V: 36.4°)

## Detection

Temperature detection thermal camera



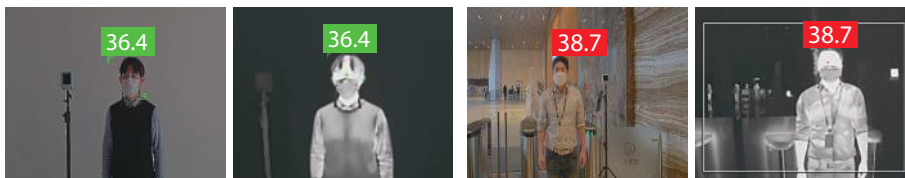
# Complete COVID-19 Solution



Link to COVID-19 Solution

## TNM-3620TDY

- Bi-spectrum : QVGA thermal & 2MP visible sensor
- Built-in 4.7mm fixed lens (thermal), 4mm fixed lens (visible)
- AI based face detection
- Temperature OSD
- MicroSD 1slot, PoE+/12VDC
- Two temperature detection modes
  - Estimated Body Temperature Mode : 30~45°C (86~113°F) / ±0.5°C (±0.3°C with blackbody)
  - Normal Radiometric mode : -20~130°C (-4~266°F) / ±5°C (≤100°C), ±20%(>100°C)



\* Designed and Engineered in Korea/ Manufactured in Korea & Vietnam

## Face Mask Detection

Protect staff and visitors by identifying uncovered or partially exposed faces with Hanwha Techwin's edge-based AI cameras.

- **High accuracy with AI cameras** (Detection accuracy is not affected by hats, glasses or head scarves)
- **Plug-and-play system, no dedicated analytic server required** (Edge-based feature)
- **Instant alarm** (Customizable audio alarm)

## Occupancy Monitoring Application

Keep your customers and employees safe while remaining compliant with the government's Social Distancing guidelines.



- When the building occupancy reaches the preset limit  
A screen at the entrance turns to red, indicating customers to wait until someone leaves a building.

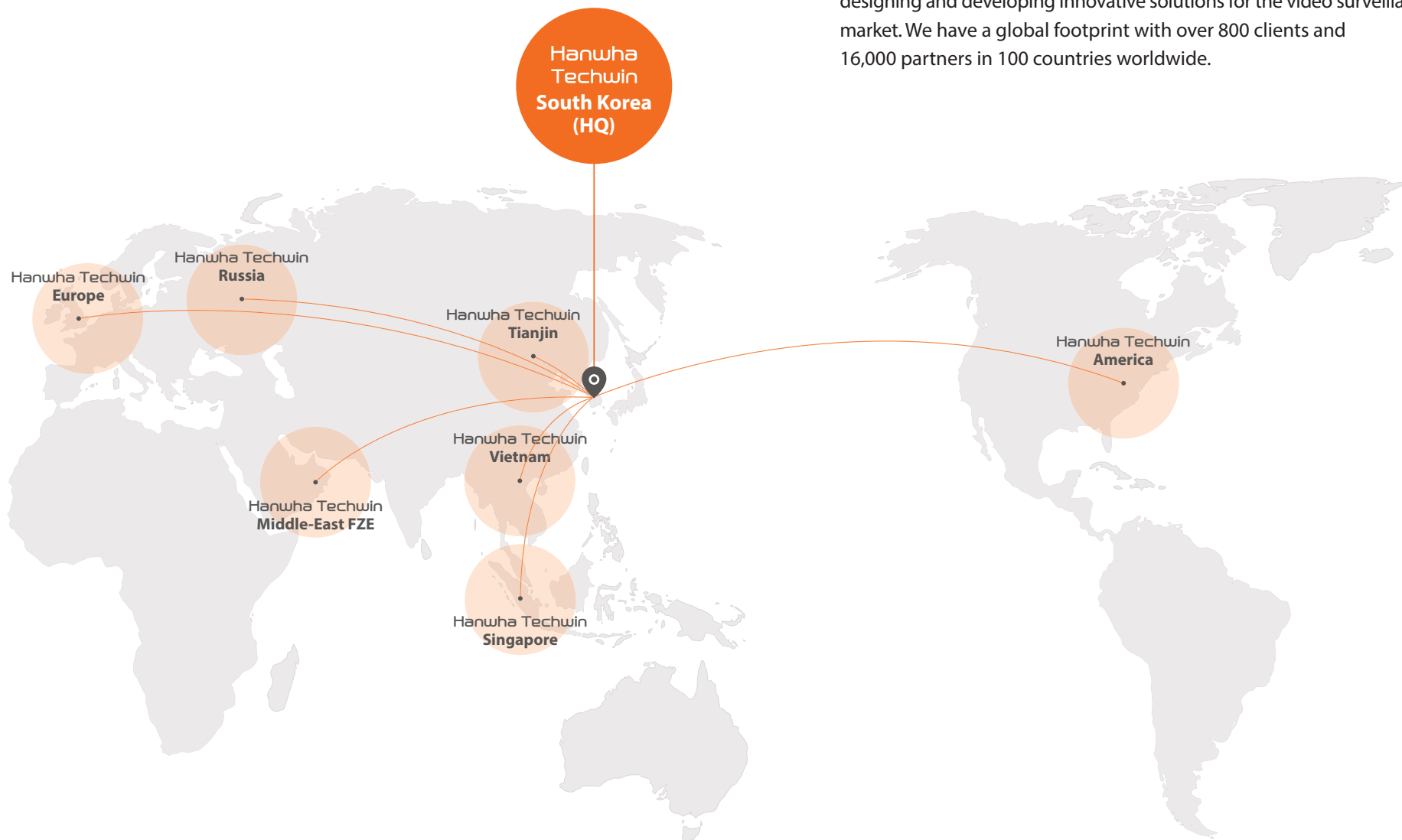


- When the building occupancy is below the preset limit  
A screen at the entrance turns to green, allowing customers to enter a building.



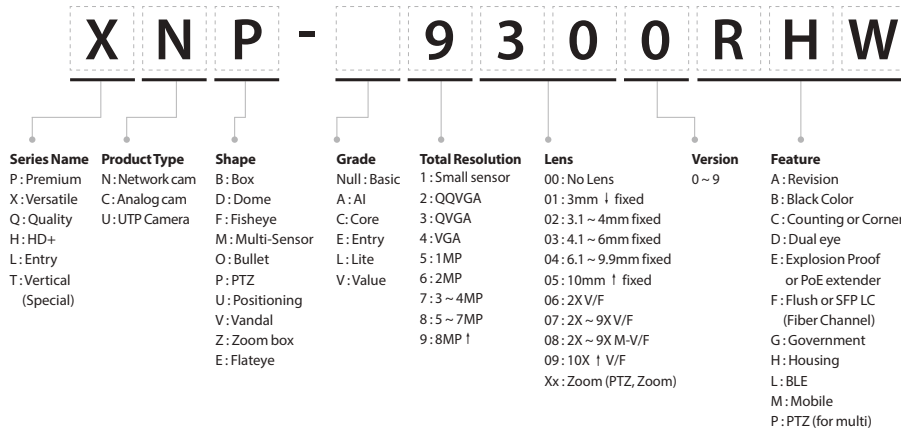
## Hanwha Techwin Global network

Hanwha Techwin is a Korean company with a long legacy of designing and developing innovative solutions for the video surveillance market. We have a global footprint with over 800 clients and 16,000 partners in 100 countries worldwide.

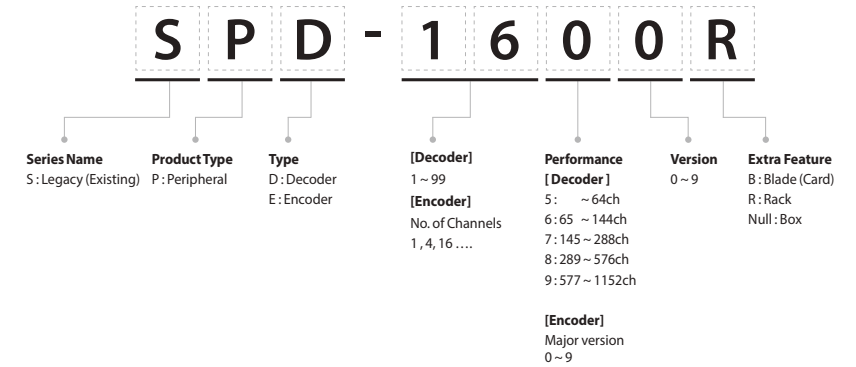




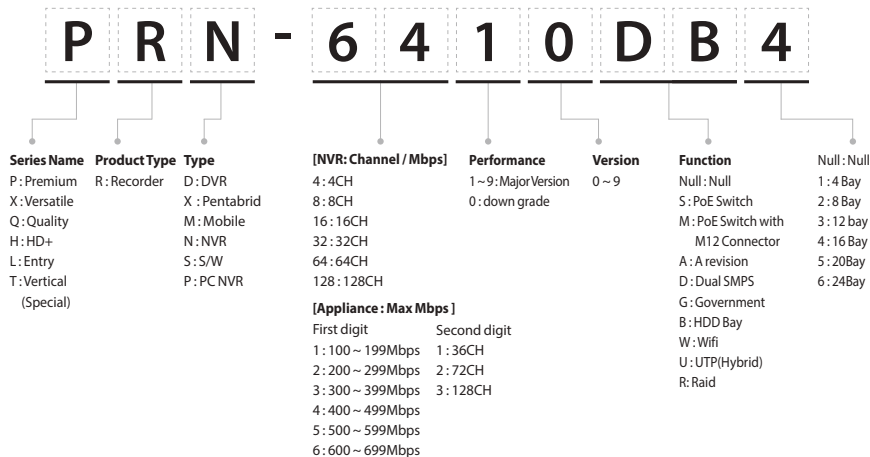
## Camera



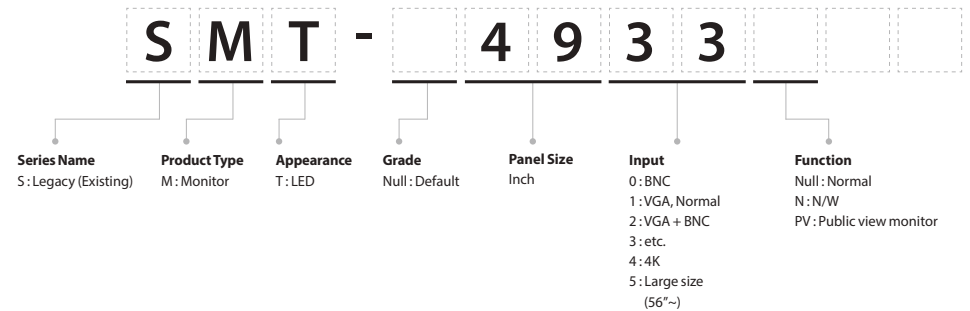
## Decoder/Encoder



## Recorder



## Monitor



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### NETWORK

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#### Camera

Wisenet X series

Wisenet P series

Wisenet Q series

Wisenet T series

#### NVR

Wisenet X / P / Q / T series

#### Encoder / Decoder / Storage

#### Software

#### Access Control

### ANALOG

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#### Camera

Wisenet HD+ series

#### DVR

Wisenet HD+ series

### PERIPHERAL

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#### Monitor

#### Controller

#### Lens

### ACCESSORY

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#### Wisenet Toolbox





**X PLUS**  
**XNO-9082R**  
4K IR Bullet Camera



**X PLUS**  
**XNV-9082R**  
4K IR Vandal Dome Camera



**X PLUS**  
**XND-9082RF**  
4K IR Dome Camera



**X PLUS**  
**XND-9082RV**  
4K IR Dome Camera



**XNB-9002**  
4K Box Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	-
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) / V: 62.0° (Wide) ~ 22.5° (Tele) / D: 133.0° (Wide) ~ 46.3° (Tele)	-
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extreme WDR (120dB)	extreme WDR (120dB)	extreme WDR (120dB)	extreme WDR (120dB)	extreme WDR (120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) Supply voltage: 2.5VDC (4mA), Input impedance: 2K Ohm
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50°C~+60°C (-58°F~+140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C~+60°C (-58°F~+140°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 95% RH (non condensing)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH (non condensing)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	-
Power Consumption	PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W	PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 0.88kg
Additional Features	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default



**X PLUS**  
**XNO-8082R**  
6MP IR Bullet Camera



**X PLUS**  
**XNV-8082R**  
6MP IR Vandal Dome Camera



**X PLUS**  
**XND-8082RF**  
6MP IR Dome Camera



**X PLUS**  
**XND-8082RV**  
6MP IR Dome Camera



**XNB-8002**  
6MP Box Camera

	XNO-8082R	XNV-8082R	XND-8082RF	XND-8082RV	XNB-8002
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	-
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Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extreme WDR	extreme WDR	extreme WDR	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
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Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
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Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	-
Power Consumption	PoE: Max 12.95W, typical 10.5W 12VDC: Max 12.5W, typical 9.4W 24VAC: Max 14.5W, typical 11.2W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W 24VAC: Max 13.5W, typical 11.0W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9.0W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.6kg (3.52lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 0.88kg
Additional Features	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default





**X PLUS**  
**XNV-8081RE**  
5MP IR Vandal Dome Camera



**X PLUS**  
**XND-8081REV**  
5MP IR Dome Camera



**X PLUS**  
**XNV-6081RE**  
2MP IR Vandal Dome Camera



**X PLUS**  
**XND-6081REV**  
2MP IR Dome Camera



**X PLUS**  
**XND-8081VZ**  
5MP Dome Camera

	XNV-8081RE 5MP IR Vandal Dome Camera	XND-8081REV 5MP IR Dome Camera	XNV-6081RE 2MP IR Vandal Dome Camera	XND-6081REV 2MP IR Dome Camera	XND-8081VZ 5MP Dome Camera
Imaging Device	1/18" CMOS	1/18" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/18" CMOS
Min. Illumination	Color: 0.07Lux (F1.3, 1/30sec) BW: 0Lux (IR LED)	Color: 0.07Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.015Lux (F1.4, 1/30sec) BW: 0Lux (IR LED)	Color: 0.015Lux (F1.4, 1/30sec) BW: 0Lux (IR LED)	Color: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.6 ~ 9.4mm (2.6x) motorized varifocal
Angular Field of View	H: 92.1° (Wide) ~ 38.7° (Tele) / V: 67.2° (Wide) ~ 29.0° (Tele) / D: 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1° (Wide) ~ 38.7° (Tele) / V: 67.2° (Wide) ~ 29.0° (Tele) / D: 119.9° (Wide) ~ 48.6° (Tele)	H: 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: 102.5° (Wide) ~ 38.7° (Tele) / V: 74.2° (Wide) ~ 29.0° (Tele) / D: 135.5° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0° ~ 85° / ±175° (Remote)
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	150dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	2MP / 60fps	2MP / 60fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH * Start up should be done at above -35°C	-25°C ~ +60°C (-13°F ~ +140°F) Less than 90% RH	-50°C ~ +60°C (-58°F ~ +140°F) / Less than 90% RH * Start up should be done at above -35°C	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 90% RH	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10
Power Consumption	Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5 W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	PoE: Max 11W 12VDC: Max 9W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (Ø7.09" x 4.92") 1.75kg (3.86lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.75kg (3.86lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)
Additional Features	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	Modular structure, Motorized PTRZ, Anti dust

X PLUS



**XND-8081FZ**  
SMP Flush Mount Dome Camera

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**XND-8081RV**  
SMP IR Dome Camera

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**XND-8081RF**  
SMP IR Flush Mount Dome Camera

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**XNV-8081Z**  
SMP Vandal Dome Camera

X PLUS



**XNV-8081R**  
SMP IR Vandal Dome Camera

	XND-8081FZ SMP Flush Mount Dome Camera	XND-8081RV SMP IR Dome Camera	XND-8081RF SMP IR Flush Mount Dome Camera	XNV-8081Z SMP Vandal Dome Camera	XNV-8081R SMP IR Vandal Dome Camera
Imaging Device	1/18" CMOS	1/18" CMOS	1/18" CMOS	1/18" CMOS	1/18" CMOS
Min. Illumination	Color: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2)	Color: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Color: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Color: 0.07 Lux (F1.2) B/W: 0.007 Lux (F1.2)	Color: 0.07Lux (F1.3) BW: 0Lux (IR LED)
Video Output	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB type B
Focal Length	3.6 ~ 9.4mm (2.6x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.6~9.4mm (2.6x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal
Angular Field of View	H: 102.5°(Wide) ~ 38.7°(Tele) / V: 74.2°(Wide) ~ 29.0°(Tele) / D: 135.5°(Wide) ~ 48.6°(Tele)	H: 92.1°(Wide) ~ 38.7°(Tele) / V: 67.2°(Wide) ~ 29.0°(Tele) / D: 119.9°(Wide) ~ 48.6°(Tele)	H: 92.1°(Wide) ~ 38.7°(Tele) / V: 67.2°(Wide) ~ 29.0°(Tele) / D: 119.9°(Wide) ~ 48.6°(Tele)	H: 102.5°(Wide) ~ 38.7°(Tele) / V: 74.2°(Wide) ~ 29.0°(Tele) / D: 135.5°(Wide) ~ 48.6°(Tele)	H: 92.1°(Wide) ~ 38.7°(Tele) / V: 67.2°(Wide) ~ 29.0°(Tele) / D: 119.9°(Wide) ~ 48.6°(Tele)
Pan / Tilt / Rotate	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) /Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) /Line out	Selectable (mic in/line in) /Line out	Selectable (mic in/line in) / ine out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F) / Less than 90% RH	-25°C ~ +60°C (-13°F ~ +140°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)
Certification	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE: Max 11W 12VDC: Max 9W	PoE: Max 12.95W 12VDC: Max 11.7W	PoE: Max 12.95W 12VDC: Max 11.7W	PoE: Max 12.3W 12VDC: Max 10W 24VAC: Max 12.3W	PoE: Max 12.95W 12VDC: Max 11.7W 24VAC: Max 14.9W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)
Additional Features	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ	Modular structure



**X PLUS**  
**XND-6081V**  
2MP Dome Camera



**X PLUS**  
**XND-6081F**  
2MP Flush Mount Dome Camera



**X PLUS**  
**XND-6081VZ**  
2MP Dome Camera



**X PLUS**  
**XND-6081FZ**  
2MP Flush Mount Dome Camera



**X PLUS**  
**XND-6081RV**  
2MP IR Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0 ~ 85° / ±175° (Remote)	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	-	-	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic /Line out	Selectable (mic in/line in) /Line out	Selectable (mic in/line in), Built-in mic /Line out	Selectable (mic in/line in) /Line out	Selectable (mic in/line in), Built-in mic /Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)	-25°C ~ +60°C (-13°F ~ +140°F)
Certification	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate	IP52, IK10
Power Consumption	PoE : Max 7.0W 12VDC : Max 5.40W	PoE : Max 7.0W 12VDC : Max 5.40W	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 12.95W 12VDC : Max 10.8W
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.10") 1.85kg (4.08lb)	Ø160 x 125mm (Ø6.30" x 4.92") 1.45kg (3.2lb)
Additional Features	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular design, Anti dust



X PLUS



**XND-6081RF**

2MP Flush Mount IR Dome Camera

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**XNV-6081Z**

2MP Vandal Dome Camera

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**XNV-6081R**

2MP IR Vandal Dome Camera

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**XNV-6081**

2MP Vandal Dome Camera



**XNB-8000**

5MP Box Camera

	XND-6081RF	XNV-6081Z	XNV-6081R	XNV-6081	XNB-8000
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/18" CMOS
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.015 lux (F1.4) B/W : 0.0015 Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED)	Color : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB Type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	-
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	-
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0° ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	-
IR Viewable Length	50m (164.04ft)	-	50m (164.04ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-25°C ~ +60°C (-13°F ~ +140°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	-
Power Consumption	PoE : Max 12.95W 12VDC : Max 10.8W	PoE : Max 11W 12VDC : Max 9.5W 24VAC : Max 11W	PoE : Max 12.95W 12VDC : Max 10.8W 24VAC : Max 13.3W	PoE : Max 7.0W 12VDC : Max 5.4W 24VAC : Max 7.1W	PoE : Max 8.50W 12VDC : Max 7.50W 24VAC : Max 8.50W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.10") 1.80kg (3.97lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.45kg (3.20lb)	W73.1 x H66.6 x D147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)
Additional Features	Modular design, Anti dust	Modular structure, Motorized PTRZ	Modular structure	Modular structure	Handover, Hallway View



**XNO-8080R**  
5MP IR Bullet Camera



**XNO-8020R/8030R/8040R**  
5MP IR Bullet Camera



**XND-8080R/8080RV**  
5MP IR Dome Camera



**XND-8020R/8030R/8040R**  
5MP IR Dome Camera



**XND-8020F**  
5MP Flush Mount Dome Camera

	XNO-8080R 5MP IR Bullet Camera	XNO-8020R/8030R/8040R 5MP IR Bullet Camera	XND-8080R/8080RV 5MP IR Dome Camera	XND-8020R/8030R/8040R 5MP IR Dome Camera	XND-8020F 5MP Flush Mount Dome Camera
Imaging Device	1/18" CMOS	1/18" CMOS	1/18" CMOS	1/18" CMOS	1/18" CMOS
Min. Illumination	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB Type B	CVBS 1.0Vp-p, Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B
Focal Length	3.7 ~ 9.4mm (2.5x) motorized varifocal	3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R)	3.9 ~ 9.4m (2.4x) motorized varifocal	3.7mm fixed (XND-8020R) 4.6mm fixed (XND-8030R) 7.0mm fixed (XND-8040R)	3.7mm fixed
Angular Field of View	H : 100.2°(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° (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)	H : 97.5°/V : 71.9°/D : 126.2°
Pan / Tilt / Rotate	-	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0°~355°/0°~47°/0°~353°
IR Viewable Length	50m (164.04ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	-
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	People counting, Queue management, Heatmap	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IK08	IK08	-
Power Consumption	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 10.3W 12VDC : Max 9.3W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø6.3" x 4.67") 2.18kg (4.81lb)	Ø70 x 296mm (Ø2.76" x 11.65") 1.22kg (2.69lb)	Ø140.8 x 113mm (Ø5.54" x 4.45") 628g (1.38lb) (XND-8080R) 732g (1.61lb) (XND-8080RV)	Ø110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129.1mm (Ø3.89" x 5.08") 275g (0.61lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View



**XNV-8080R**

5MP IR Vandal Dome Camera



**XNV-8080RSA**

5MP Stainless IR Vandal Dome Camera



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

5MP IR Vandal Dome Camera



**XNF-9010RV/9010RVM**

12MP IR Fisheye Camera



**XNF-9010RS**

12MP Stainless IR Fisheye Camera

	XNV-8080R	XNV-8080RSA	XNV-8020R/8030R/8040R	XNF-9010RV/9010RVM	XNF-9010RS
Imaging Device	1/18" CMOS	1/18" CMOS	1/18" CMOS	1/2.3" 12MP CMOS	1/2.3" 12MP CMOS
Min. Illumination	Color: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Color: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Color: 0.16Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.39 Lux (F2.2) BW: 0Lux(IR LED on)	Color: 0.39 Lux (F2.2, 1/30sec) BW: 0Lux(IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS : 1.0Vp-p, Micro USB Type B	CVBS : 1.0Vp-p, Micro USB Type B
Focal Length	3.9~9.4mm (2.4x) motorized varifocal	3.9~9.4mm (2.4x) motorized varifocal	3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R)	1.08mm fixed focal	1.08mm fixed focal
Angular Field of View	H: 92.1° (Wide) ~ 38.7° (Tele) / V: 67.2° (Wide) ~ 29.0° (Tele) / D: 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1° (Wide) ~ 38.7° (Tele) / V: 67.2° (Wide) ~ 29.0° (Tele) / D: 119.9° (Wide) ~ 48.6° (Tele)	H: 97.5°/V: 71.9°/D: 126.2° (XNV-8020R) H: 77.9°/V: 57.9°/D: 98.7° (XNV-8030R) H: 50.7°/V: 37.8°/D: 63.8° (XNV-8040R)	H: 187° / V: 187° / D: 187°	H: 187° / V: 187° / D: 187°
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	-	-
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	30m (98.43ft)	10m (32.8ft), Wise IR	9m (29.53ft), Wise IR
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support (Built-in Gyro sensor)	-	-
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	2 configured I / O	2 configured I/O
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable(mic in/line in), Built-in mic / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	3008 x 3008 / 30fps	3008 x 3008 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
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)	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH	-40°C ~ +50°C (-40°F ~ +122°F) / Less than 95% RH
Certification	IP67, IP66, NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IP67, IK10	IP66, IK10, NEMA4X, EN50155 class T3 (XNF-9010RVM only)	IP66, IP67, IP6K9K, NEMA4X, IK10, IK10+ (TBD) NSF (Food safety) (TBD)
Power Consumption	PoE: Max 12.95W 12VDC: Max 11.5W 24VAC: Max 14W	PoE: Max 12.95W 12VDC: Max 11.5W 24VAC: Max 14W	PoE: Max 9.00W 12VDC: Max 8.00W	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W
Dimensions (WxHxD) / Weight	Ø160 x 118.5mm (Ø6.3" x 4.67") 1.01kg (2.23lb)	Ø160 X 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	Ø160 x 72mm (Ø6.38" x 2.83") 1100g (2.43lb)	Ø167.9 x 72.1mm (Ø6.61" x 2.838") 2.980g (6.57lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Various mode support (Original view, Double/ Single panorama, Quad view, Single view) M12 Connector (XNF-9010RVM)	Various mode support (Original view, Double/ Single panorama, Quad view, Single view)





**XNF-8010R/8010RV/8010RVM**  
6MP IR Fisheye Camera



**XNZ-6320**  
2MP 32x Zoom Camera



**XNZ-L6320**  
2MP 32x Zoom Camera



**XNB-6005**  
2MP Box Camera (extraLUX)



**XNB-6000**  
2MP Box Camera

Imaging Device	1/18" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Color : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Color : 0.006Lux (F1.2) B/W : 0.0006Lux (F1.2)	Color : 0.01Lux (F1.2) B/W : 0.001Lux (F1.2)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Focal Length	1.6mm fixed	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom	-	-
Angular Field of View	H : 192° / V : 192° / D : 192°	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)	-	-
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	15m (49.21ft)	-	-	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	150dB	120dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	-	-	-	-
Alarm I/O	1 / 1	1 / 2	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R) -40°C ~ +55°C (-40°F ~ +131°F) (XNF-8010RV/8010RVM)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IK10 (XNF-8010RV/8010RVM)	-	-	-	-
Power Consumption	PoE : Max 12W, 12VDC : Max 11W (XNF-8010R) PoE : Max 12.95W, 12VDC : Max 12W (XNF-8010RV/8010RVM)	PoE : Max 7W 12VDC : Max 6.7W	PoE : Max 6.8W 12VDC : Max 5.2W	PoE : Max 8.5W 12VDC : Max 8W 24VAC : Max 9W	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W
Dimensions (WxHxD) / Weight	Ø146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73lb) (XNF-8010RV) 790g (1.74lb) (XNF-8010RVM)	W96 x H76 x D143.5mm (3.78" x 2.99" x 5.65") 578g (1.274lb)	W72 x H63.9 x D135.4mm (2.83" x 2.52" x 5.33") 480g (1.06lb)	W73.1 x H 66.6 x D147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)	W73.1 x H66.6 x D147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)
Additional Features	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarping	Defog, SFP Slot	Defog	Handover, Hallway View	Handover, Hallway View



**XNB-6001**

2MP Remote Head Camera



**SLA-T4680A/T4680V**

2MP lens for XNB-6001



**SLA-T2480A/T2480V**

2MP lens for XNB-6001



**SLA-T1080FA**

2MP lens for XNB-6001

Imaging Device	-	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	-	Color : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	Color: 0.45Lux (F2.0) B/W: 0.45Lux (F2.0)	Color : 0.03Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	-	-	-
Focal Length	-	4.6mm Pinhole	2.4mm fixed	1.6mm fisheye
Angular Field of View	-	H: 73° / V: 39° / D: 85°	H: 138° / V: 73° / D: 168°	H: 187° / V: 113.9°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	-	-	-
Digital Noise Reduction	SSNR V	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Intelligent analytics Audio detection	-	-	-
Business Intelligence	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	1 / 1	-	-	-
Audio I/O	Selectable (mic in/line in) / Line out	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	-	-	-
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)
Certification	-	-	-	-
Power Consumption	PoE : Max 6W 12VDC : Max 6.5W	-	-	-
Dimensions (WxHxD) / Weight	W131.1 x H28 x D86mm (5.16" x 1.10" x 3.39") 245g (0.54lb)	Ø24 x 42mm (Ø0.94" x 1.65") (Lens) 8m (314.96") (Cable)310g (0.68lb) (SLA-T4680A) 30 x 20.2 x 45mm (1.18" x 0.80" x 1.77") (Lens) 8m (314.96") (Cable)321g (0.71lb) (SLA-T4680VA)	Ø24 x 49.8mm (Ø0.94" x 1.96") (Lens) 8m (314.96") (Cable)318g (0.70lb) (SLA-T2480A) 30 x 27.9 x 45mm (1.18" x 0.10" x 1.77") (Lens) 8m (314.96") (Cable)328g (0.72lb) (SLA-T2480V)	Ø35 x 68.9mm (Ø1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71lb)
Additional Features	Handover, Hallway View	-	-	-



**XNO-6120R**  
2MP IR Bullet Camera



**XNO-6085R**  
2MP IR Bullet Camera (extraLUX)



**XNO-6080R**  
2MP IR Bullet Camera



**XNO-L6080R**  
2MP IR Bullet Camera



**XNO-6010R/6020R**  
2MP IR Bullet Camera

Imaging Device	1/2.8" CMOS	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.055lux (F2.0) (XNO-6010R) Color : 0.015Lux (F1.4) (XNO-6020R) B/W : 0 Lux (IR LED On)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)
Angular Field of View	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)	H : 139.0° / V : 73.0° / D : 167.0° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)	30m (98.42ft)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	120dB	150dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	-	-	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	-	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
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
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP66, IK10	IP67, IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 12.95W	PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W	PoE : Max. 11W	PoE : Max 9.7W 12VDC : Max 8.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.58" x 14.51") 2.18kg (4.81lb)	Ø91 x 388.6mm (Ø3.58" x 15.30") 2.35kg (5.18lb)	Ø91 x 368.6mm (Ø3.58" x 14.51") 2.18kg (4.81lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29kg (4.25lb)	Ø70 x 301.5mm (Ø2.76" x 11.87") (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") (XNO-6020R) 1.22kg (2.69lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View





**XND-6085/6085V**  
2MP Dome Camera (extraLUX)



**XND-6080/6080V**  
2MP Dome Camera



**XND-6080R/6080RV**  
2MP IR Dome Camera



**XND-L6080R/L6080RV**  
2MP IR Dome Camera



**XND-L6080V**  
2MP Dome Camera

Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.1~16.4mm (Optical 4x)	2.8~12mm (4.3x) motorized varifocal	2.8~12mm (4.3x) motorized varifocal	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) motorized varifocal
Angular Field of View	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 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)
Pan / Tilt / Rotate	±175° / ±73° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	-	30m (98.43ft)	30m (98.42ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	150dB	150dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	-	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 5 Profiles
Edge Storage	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IK08	IK08	IK08	IK08	IK08
Power Consumption	PoE : Max 10.2W 12VDC : Max 8.6W	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 8W	PoE : Max 6W
Dimensions (WxHxD) / Weight	Ø160 x 140mm (Ø6.30" x 5.51") 1.10 kg (2.43lb) (XND-6085) 1.25 kg (2.76lb) (XND-6085V)	Ø140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V)	Ø140.8 x 113mm (Ø5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV)	Ø140.8 x 113mm (Ø5.54" x 4.45") 580g (1.28lb) (XND-L6080R) 690g (1.52lb) (XND-L6080RV)	Ø140.8 x 113mm (Ø5.54" x 4.45") 675g (1.49lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Defog, Hallway View	Defog, Hallway View



**XND-6020R**  
2MP IR Dome Camera



**XND-6011F**  
2MP Flush Mount Dome Camera



**XND-6010**  
2MP Dome Camera



**XNV-6120/6120R**  
2MP Vandal / IR Vandal Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color: 0.03Lux (F1.6), B/W: 0.003Lux (F1.6) (XNV-6120) Color: 0.03Lux (F1.6), B/W: 0Lux (IR LED on) (XNV-6120R)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4mm fixed	2.8mm fixed	2.4mm fixed	5.2 ~ 62.4mm (Optical 12x)
Angular Field of View	H : 88.6° / V : 47.5° / D : 104.8°	H : 112° / V : 62° / D : 130°	H : 139.0° / V : 73.0° / D : 167.0°	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele) / D : 61.40° (Wide) ~ 6.06° (Tele)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	-	-	70m (229.66ft) (XNV-6120R)
Day & Night	Auto (ICR)	Auto (Electrical)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	-	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-
Alarm I/O	1 / 1	-	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / -	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
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)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)
Certification	IK08	-	IK08	IP67, IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max. 7.8W, 12V DC : Max 7W, 24V AC : Max. 8.2W (XNV-6120) PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W (XNV-6120R)
Dimensions (WxHxD) / Weight	Ø110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61lb)	Ø140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb)	Ø160 x 128.5mm (Ø6.30" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View



**XNV-6085**

2MP Vandal Dome Camera (extraLUX)



**XNV-6080**

2MP Vandal Dome Camera



**XNV-6080R**

2MP IR Vandal Dome Camera



**XNV-6080RSA**

2MP Stainless IR Vandal Dome Camera



**XNV-L6080**

2MP Vandal Dome Camera

	XNV-6085	XNV-6080	XNV-6080R	XNV-6080RSA	XNV-L6080
Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Color : 0.015Lux (F1.4) B/W : 0.015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.1 ~ 16.4mm (Optical 4x)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 100° (Wide) ~ 26.2° (Tele) / V : 54° (Wide) ~ 14.8° (Tele) / D : 116° (Wide) ~ 30.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)
Pan / Tilt / Rotate	±175° / ±73° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	-	50m (164.04ft)	50m (164.04ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNR	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles
Edge Storage	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
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)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IK10
Power Consumption	PoE : Max 12.1W 12VDC : Max 11.1W 24VAC : Max 13.5W	PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 8W
Dimensions (WxHxD) / Weight	Ø160 x 140mm (Ø6.30" x 5.51") 1.40kg (3.09lb)	Ø160 x 118.5mm (Ø6.30" x 4.67") 985g (2.17lb)	Ø160 x 118.5mm (Ø6.30" x 4.67") 995g (2.19lb)	Ø160 x 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb)	Ø160 x 118.5mm (Ø6.3" x 4.67") 940g (2.1lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View



**XNV-L6080R**  
2MP IR Vandal Dome Camera



**XNV-6022R/6022RM**  
2MP Mobile IR Flat Camera



**XNV-6020R**  
2MP IR Vandal Dome Camera



**XNV-6013M**  
2MP Mobile Camera



**XNV-6012M/6012**  
2MP Mobile Flat Camera

	XNV-L6080R 2MP IR Vandal Dome Camera	XNV-6022R/6022RM 2MP Mobile IR Flat Camera	XNV-6020R 2MP IR Vandal Dome Camera	XNV-6013M 2MP Mobile Camera	XNV-6012M/6012 2MP Mobile Flat Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.04Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Color : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	Micro USB type B
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.6mm fixed	4mm fixed	2.8mm fixed	2.4mm fixed
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 : 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°	H : 135.4° / V : 71.2° / D : 161.6°
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / 0° ~ 67° / ±90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	±5° / ±10° / ±90°	±5° / 0° ~ 67° / ±90°
IR Viewable Length	30m (98.43ft)	15m (49.21ft)	30m (98.43ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics Audio detection Sound classification (w/ external MIC)	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification (w/ external MIC)
Business Intelligence	-	-	People counting, Queue management, Heatmap	-	-
Alarm I/O	-	-	1 / 1	-	-
Audio I/O	-	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/ SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-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)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP66, IK10	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE : Max 11W	PoE : Max 6.70W	PoE : Max 9W 12V DC : Max 8W	PoE : Max 7.20W	PoE : Max 6.50W
Dimensions (WxHxD) / Weight	Ø160 x 118.5mm (Ø6.30" x 4.67") 940g (2.07lb)	W98.9 x H52 x D100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	W103.7 x H72.3 x D126.8mm (4.08" x 2.85" x 4.99") 478g (1.04lb)	W98.9 x H52 x D100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)
Additional Features	Handover, Hallway View	M12 Connector (XNV-6022RM) Handover, Hallway View	Handover, Hallway View	M12 Connector Handover, Hallway View	M12 Connector (XNV-6012M) Handover, Hallway View





**XNV-6011**  
2MP Vandal Dome Camera



**XNV-6010**  
2MP Vandal Dome Camera



**XNP-9300RW**  
4K 30x Wiper + IR PRTZ Camera



**XNP-8300RW**  
6MP 30x Wiper + IR PTZ Camera



**XNP-6400RW**  
2MP 40x Wiper + IR PTZ Camera

	XNV-6011	XNV-6010	XNP-9300RW	XNP-8300RW	XNP-6400RW
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.0055Lux (F2.0)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	-	-	-
Focal Length	2.8mm fixed	2.4mm fixed	5~150mm (30x) zoom	5~150mm (30x) zoom	4.25~170mm (40x) zoom
Angular Field of View	H: 112° / V: 62° / D: 130°	H: 139.0° / V: 73.0° / D: 167.0°	H: 57.42° (Wide) ~ 2.19° (Tele) / V: 33.54° (Wide) ~ 1.25° (Tele)	H: 57.42° (Wide) ~ 2.19° (Tele) / V: 33.54° (Wide) ~ 1.25° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) / V: 39.40° (Wide) ~ 1.09° (Tele)
Pan / Tilt / Rotate	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	360° Endless / -20° ~ 90° / -	360° Endless / -20° ~ 90° / -	360° Endless / -5° ~ 90° / -
IR Viewable Length	-	-	200m (656.17ft)	200m (656.17ft)	200m (656.17ft)
Day & Night	Auto (Electrical)	Auto (ICR)	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule
Wide Dynamic Range	150dB	150dB	extreme WDR	extreme WDR	extreme WDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics Audio detection, Sound classification	Intelligent analytics, *Audio detection, Sound classification (with NW I/O Box : SPM-4210)	Intelligent analytics, *Audio detection, Sound classification (with NW I/O Box : SPM-4210)	Intelligent analytics, *Audio detection, Sound classification (with NW I/O Box : SPM-4210)
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	-	1 / 1	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Audio I/O	-	Selectable (mic in/line in) / Line out	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265/H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	4K / 30fps	6MP / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
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)	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2 (2.2.7): +74°C (+165°F)	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2 (2.2.7): +74°C (+165°F)	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) Maximum Temperature based on NEMA-TS 2 (2.2.7): +74°C (+165°F)
Certification	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP66, IK10 (Camera body only), NEMA4X	IP66, IK10 (Camera body only), NEMA4X	IP66, IK10 (Camera body only), NEMA4X
Power Consumption	PoE : Max 6.50W	PoE : Max 6W 12V DC : Max 5.5W	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W
Dimensions (WxHxD) / Weight	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 420g (0.93lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 625g (1.38lb)	Ø184.9 x 318.8mm (Ø7.28" x 12.55") 5.4kg	Ø184.9 x 318.8mm (Ø7.28" x 12.55") 5.4kg	Ø184.9 x 318.8mm (Ø7.28" x 12.55") 5.4kg
Additional Features	Handover, Hallway View	Handover, Hallway View	1 Terminal & Cable, Upgraded preset accuracy, built-in wiper, Deep learning based object auto tracking, Target lock tracking Included SFP slot in HPoE injector	1 Terminal & Cable, Upgraded preset accuracy, built-in wiper, Deep learning based object auto tracking, Target lock tracking Included SFP slot in HPoE injector	1 Terminal & Cable, Upgraded preset accuracy, built-in wiper, Deep learning based object auto tracking, Target lock tracking Included SFP slot in HPoE injector





**XNP-6550RH**

2MP 55x IR PTZ Camera



**XNP-6371RH**

2MP 37x IR PTZ Camera



**XNP-6320RH**

2MP 32x IR PTZ Camera



**XNP-6320H/6320**

2MP PTZ Camera

Imaging Device	1/2.8" CMOS	1/2" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.02Lux (F1.6) B/W : 0Lux (IR LED on)	Color: 0.01Lux (F1.5, 1/30sec) BW: 0Lux (IR LED)	Color : 0.05Lux (F1.6) B/W : 0Lux (IR LED On)	Color : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS 1.0 Vp-p, Micro USB Type B
Focal Length	4.75 ~ 261.4mm (55x) zoom	6~222mm (37x) zoom	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (32x) zoom
Angular Field of View	H: 58.6° (Wide) ~ 1.23° (Tele) / V: 34.8° (Wide) ~ 0.71° (Tele)	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)
Pan / Tilt / Rotate	360° Endless / 95° (-5° ~ 90°) / -	-	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 210° (-15° ~ 195°) / -
IR Viewable Length	500m (1,640.42ft)	350m (1,148.29ft)	200m (656.17ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (built-in gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection, Sound classification Shock detection	Intelligent analytics Audio detection, Sound classification Shock detection
Business Intelligence	-	None	-	-
Alarm I/O	4 / 2	4 / 2	4 / 1	4 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +55°C (-122°F ~ +131°F) * Start up above -30°C (HPoE Mode)	-50°C ~ +55°C (-122°F ~ +131°F) / Less than 90% RH	HPoE : -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F ~ +131°F) (XNP-6320H) -10°C ~ +55°C (-14°F ~ +131°F) (XNP-6320)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10 (XNP-6320H) IK10 (With SHP-3701H) (XNP-6320)
Power Consumption	HPoE : 60W 24VAC : Max 92W	24VAC: Max 90W	HPoE : Max 51W, typical 30W 24VAC : Max 83W, typical 30W	PoE+, 24VAC : Max 24W - Heater off 24VAC : Max 65W - Heater on (XNP-6320H) PoE+, 24VAC : Max 20W (XNP-6320)
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	Ø236.9 x 407.7mm (9.33" x 16.05") 7.1kg (15.65 lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 6.8kg (14.99lb)	Ø220 x 293.6mm (Ø8.66" x 11.56") 3.3kg (7.28lb) (XNP-6320H) Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75lb) (XNP-6320)
Additional Features	Defog, Auto tracking	Defog, Auto tracking	Defog, Auto tracking, Direction indicator	Defog, Auto tracking



**XNP-6320HS**

2MP Stainless 32x PTZ Camera



**XNP-6250RH**

2MP 25x IR PTZ Camera



**XNP-6120H**

2MP 12x PTZ Camera



**XNP-6040H**

2MP 4.3x PTZ Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.05Lux (F1.6) B/W : 0.005Lux (F1.6)	Color : 0.05Lux (F1.6) B/W : 0Lux (IR LED On)	Color : 0.03Lux (F1.6) B/W : 0.003Lux (F1.6)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 111mm (25x) zoom	5.2 ~ 62.4mm (12x) zoom	2.8 ~ 12mm (4.3x) zoom
Angular Field of View	H : 61.8° (Wide) ~ 2.19° (Tele) / V : 36.2° (Wide) ~ 1.24° (Tele)	H : 61.8° (Wide) ~ 2.84° (Tele) / V : 36.2° (Wide) ~ 1.60° (Tele)	H : 54.58° (Wide) ~ 5.30° (Tele) / V : 32.19° (Wide) ~ 3.00° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) / V : 62.8° (Wide) ~ 15.7° (Tele) / D : 142.1° (Wide) ~ 32.0° (Tele)
Pan / Tilt / Rotate	360° Endless / 210° (-15° ~ 195°) / -	360° Endless / 95° (-5° ~ 90°) / -	360° Endless / 190° (-5° ~ 185°) / -	0° ~ 355° / 0° ~ 90°
IR Viewable Length	-	200m (656.17ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection, Sound classification Shock detection	Intelligent analytics Audio detection, Sound classification Shock detection	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification
Business Intelligence	-	-	-	-
Alarm I/O	4 / 2	4 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	PoE+ : -35°C ~ +55°C (-31°F ~ +131°F) 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	HPoE : -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C 24VAC : -50°C ~ +55°C (-58°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)
Certification	IP67, IP66, NEMA4X, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	24VAC : Max 65W	HPoE : Max 51W, typical 30W 24VAC : Max 83W, typical 30W	PoE, 12VDC : Max 12W	PoE : Max 9.6W 12VDC : Max 8.6W
Dimensions (WxHxD) / Weight	Ø227 x 296mm (Ø8.94" x 11.65") 5.3kg (11.69lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 6.8kg (14.99lb)	Ø168 x 161.5mm (Ø6.61" x 6.36") 1.9kg (4.19lb)	Ø136.1 x 106.1mm (Ø5.36" x 4.18") 0.78kg (1.72lb)
Additional Features	Defog, Auto tracking	Defog, Auto tracking, Direction indicator	Defog, Auto tracking	Defog, Auto tracking





**PNO-A9081R**  
4K AI IR Bullet Camera



**PNV-A9081R**  
4K AI IR Vandal Dome Camera



**PND-A9081RV**  
4K AI IR Dome Camera



**PND-A9081RF**  
4K AI IR Dome Camera



**PNB-A9001**  
4K AI Box Camera

Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.05Lux(F1.6) BW: 0Lux(IR LED on)	Color: 0.05Lux(F1.6) BW: 0Lux(IR LED on)	Color: 0.05Lux(F1.6) BW: 0Lux(IR LED on)	Color: 0.05Lux(F1.6) BW: 0Lux(IR LED on)	Color: 0.03Lux(F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	-
Angular Field of View	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	H: 101.4°(Wide)~45.5°(Tele) / V: 53.6°(Wide)~25.5°(Tele) / D: 120.7°(Wide)~52.3°(Tele)	-
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1/1	1/1	1/1	1/1	1/1
Audio I/O	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps	8MP/30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -10°C	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -10°C	-25°C ~ +50°C (-13°F ~ +122°F)	-25°C ~ +50°C (-13°F ~ +122°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate	-
Power Consumption	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W	PoE+: Max 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (3.58" x 14.51") (Without sunshield), 2.48kg (5.47lb)	Ø180 x 125mm (7.09" x 4.92") 1.90kg (4.19lb)	Ø160 x 125mm (6.30" x 4.92") 1.60kg (3.53lb)	Ø205 x 163mm (8.07" x 6.42") 1.95kg (4.30lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 0.88kg (1.94lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)



**PNO-A6081R**  
2MP AI IR Bullet Camera



**PNV-A6081R**  
2MP AI IR Vandal Dome Camera



**PND-A6081RV**  
2MP AI IR Dome Camera



**PND-A6081RF**  
2MP AI IR Dome Camera



**PNB-A6001**  
2MP AI Box Camera

Imaging Device	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS
Min. Illumination	Color: 0.008Lux(F1.3) BW: 0Lux(IR LED on)	Color: 0.008Lux(F1.3) BW: 0Lux(IR LED on)	Color: 0.008Lux(F1.3) BW: 0Lux(IR LED on)	Color: 0.008Lux(F1.3) BW: 0Lux(IR LED on)	Color: 0.007Lux(F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal	-
Angular Field of View	H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele)	H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele)	H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele)	H:103.1°(Wide)~44.5°(Tele) / V:54.2°(Wide)~24.9°(Tele) / D:124°(Wide)~51.1°(Tele)	-
Pan / Tilt / Rotate	None	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	0°~360° / -45°~85° / 0°~355°	-
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
Analytics	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification	Object detection(Person/Vehicle/Face/ License plate), Audio detection, Sound classification
Business Intelligence	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine	People counting, Queue management, Heatmap based on AI engine
Alarm I/O	1/1	1/1	1/1	1/1	1/1
Audio I/O	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP/120fps	2MP/120fps	2MP/120fps	2MP/120fps	2MP/120fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C	-25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH	-25°C ~ +50°C (-13°F ~ +122°F) / Less than 90% RH	-10°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10, Plenum rate	-
Power Consumption	PoE+: Max 20.0W, typical 17.00W 12VDC: Max 18.00W, typical 16.00W	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W	PoE+: Max 20.00W, typical 16.00W 12VDC: Max 17.70W, typical 14.00W	PoE+: Max 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W
Dimensions (WxHxD) / Weight	Ø91.0 x 368.6mm (3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180 x 125mm (7.09 x 4.92") 1.90kg (4.19lb)	Ø160 x 125mm (6.30 x 4.92") 1.60kg (3.53lb)	Ø205 x 163mm (8.07" x 4.92") 1.95kg (4.30lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 0.88kg (1.94lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)



**PNP-9200RH**  
4K 20x IR PTZ Camera



**PNM-9030V**  
15MP 180°/220° Panoramic Camera



**PNM-9022V**  
8.3MP 180°/209° Panoramic Camera

Imaging Device	1/2.5" CMOS	1/2.8" 4CH	1/2.8" 4CH
Min. Illumination	Color: 0.1Lux (F1.8) B/W: 0Lux (IR LED on)	Color: 0.15Lux (F2.0) B/W: 0.01Lux (F2.0)	Color: 0.3Lux(F1.6) Color: 0.03Lux(F1.6)
Video Output	CVBS 1.0Vp-p	Micro USB Type B	Micro USB Type B
Focal Length	4.8 ~ 96mm (20x) zoom	4mm fixed	2.8mm fixed focal
Angular Field of View	H: 65.1° (Wide) ~ 3.8° (Tele) / V: 38.4° (Wide) ~ 2.2° (Tele)	[180° mode] H: 180° / V: 70° [220° mode] H: 220° / V: 52°	H: 209°, V: 83.3°
Pan / Tilt / Rotate	360° Endless / 190° (-5° ~ 185°) / -	0° ~ 355° / 0° ~ 60° / -	0° ~ 355° / 0° ~ 60° / -
IR Viewable Length	200m (656.17ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	extreme WDR (120dB)
Digital Noise Reduction	SSNR	SSNR III	SSNR V
Digital Image Stabilization	Support	-	-
Analytics	Intelligent analytics Audio detection	Intelligent analytics Audio detection Sound classification	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection
Business Intelligence	-	Heatmap	Heatmap
Alarm I/O	4 / 2	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Line in / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	12MP / 20fps, 8MP / 30fps	15.5MP / 30fps	8.3MP / 30fps
WiseStream	WiseStream	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 5 or 3 profiles for each CH	Up to 10 profiles
Edge Storage	SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-50°C ~ +55°C (-58°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -30°C (-22°F)	-40°C ~ +60°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Maximum temperature: +60°C (intermittent)
Certification	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X
Power Consumption	24VAC: Max 60.0W / 90.0W - Heater off/on, IR on	PoE+: Max 25.5W 12VDC: Max 21.0W	PoE+: Max 18W, Typical 10.4W 12VDC: Max 16W, Typical 9W
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	Ø253 x 165mm (Ø9.96" x 6.5") 3.2kg (7.1lb)	Ø253 x 165mm (Ø9.96" x 6.5") 3200g
Additional Features	Defog	Defog	4CH Stitching



**PNM-9084RQZ**

2MP x 4CH IR PTRZ Multi-directional Camera



**PNM-9085RQZ**

5MP x 4CH IR PTRZ Multi-directional Camera



**PNM-9084QZ**

2MP x 4CH PTRZ Multi-directional Camera



**PNM-8082VT**

2MP x 3CH Multi-directional Camera

Imaging Device	1/2.8" 4CH	1/18" CH	1/2.8" 4CH	1/2.8" CMOS 3CH
Min. Illumination	Color: 0.05lux (F1.6) BW: 0Lux (IR LED on)	Color: 0.11lux (F1.6) BW: 0Lux (IR LED on)	Color: 0.08lux (F2.2) BW: 0.008lux (F2.2)	Color: 0.04lux(F2.2) BW: 0.004lux(F2.2)
Video Output	-	-	-	CVBS: 1.0Vp-p
Focal Length	3.2~10mm (3.1x) motorized varifocal	4.13~9.4mm (2.3x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal	3~6mm (2x) motorized varifocal
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: 87.58° (Wide) ~ 37.34° (Tele) / V: 64.58° (Wide) ~ 28.04° (Tele) / D: 112.46° (Wide) ~ 46.85° (Tele)	H: 107° (Wide) ~ 56.3° (Tele) / V: 57° (Wide) ~ 31.5° (Tele) / D: 126° (Wide) ~ 64.3° (Tele)	H: 107° (Wide) ~ 56.3° (Tele) / V: 57° (Wide) ~ 31.5° (Tele) / D: 126° (Wide) ~ 64.3° (Tele)
Pan / Tilt / Rotate	0~360° / 30~80° / 0~90°	0~360° / 35~80° / 0~90°	0° ~ 360° / 0° ~ 90° / 0° ~ 90°	0~360° / 0~73° / 0~90°
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	extreme WDR (150dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection	Intelligent analytics Audio detection	Intelligent analytics Audio detection	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line
Business Intelligence	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	5MP / 30fps	2MP / 60fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF profile S/T, SUNAPI, Wisenet Open Platform	ONVIF Profile S/G/T SUNAPI(HTTP API)
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH (Non condensing) *Start up should be above at -35°C
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	Max 42W, typical 28W	Max 45W, typical 32W	HPoE: Max 33W typical 20W	TBD
Dimensions (WxHxD) / Weight	Ø315 x 145.9mm (Ø12.4" x 5.74") 5.2kg (11.46lb)	Ø315 x 145.9mm (Ø12.4" x 5.74") 5.2kg (11.46lb)	Ø251 x 116.5mm (Ø9.88" x 4.59") 3kg (6.6lb)	Ø251 x 116.5mm (Ø9.88" x 4.59") 3kg (6.6lb)
Additional Features	Motorized PTRZ	Motorized PTRZ	Motorized PTRZ, Hallway view, Defog	3CH Multi-directional





**PNM-9000QB**

2MP x 4CH Remote Head Camera



**SLA-T4680A/T4680VA**

2MP lens for PNM-9000QB



**SLA-T2480A/T2480V**

2MP lens for PNM-9000QB



**SLA-T1080FA**

2MP lens for PNM-9000QB

Imaging Device	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Color: 0.06Lux(F2.5)	Color: 0.045Lux(F2.0)	Color: 0.03Lux(F1.6)
Video Output	HDMI(1920x1080, Quad view support)	-	-	-
Focal Length	-	4.6mm fixed focal	2.4mm fixed focal	1.6mm fixed focal
Angular Field of View	-	H: 73° / V: 39° / D: 85°	H: 138° / V: 73° / D: 165°	H: 187° / V: 113.9°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	Auto (electrical)	-	-	-
Wide Dynamic Range	extreme WDR (150dB)	-	-	-
Digital Noise Reduction	SSNR V	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	1 / 1	-	-	-
Audio I/O	Selectable (mic in/line in) / Line out	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	2MP / 30fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 profiles	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	-	-	-
Operating Temperature	-10°C ~ +45°C (-40°F ~ +113°F) / Less than 95% RH (Non condensing)	-	-	-
Certification	-	-	-	-
Power Consumption	PoE : Max 22.00W, Typical 16.70W DC : Max 19.00W, Typical : 14.00W	-	-	-
Dimensions (WxHxD) / Weight	W200 x H37 x D146mm (7.87" x 1.46" x 5.75") 715g (1.58lbs)	Ø24 x L49.8mm, 310g (SLA-T4681) W30 x H27.9 x D45mm, 321g (SLA-T4681V)	Ø24 x L49.8mm, 318g (SLA-T2481) W30 x H27.9 x D45mm, 328g (SLA-T2481V)	Ø35 x L68.9mm 430g
Additional Features	Optional pinhole/fix lens			



**PNM-9322VQP**

2MP/5MP x 4CH + 2MP 32 x PTZ



**SLA-5M7000P**

5MP lens for PNM-9322VQP



**SLA-5M4600P**

5MP lens for PNM-9322VQP



**SLA-5M3700P**

5MP lens for PNM-9322VQP

Imaging Device	1/2.8" CMOS (PTZ)	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	depeding on lens	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	4.44~142.6mm (32x) zoom (PTZ)	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	depeding on lens	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	-	±90° / +12° ~ +93° / ±180°	±90° / +21° ~ +85° / ±180°	±90° / +36° ~ +73° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	2MP 150dB, 5MP 120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	Selectable(mic in/line in) / Line out (PTZ)	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps, 5MP 30fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S SUNAPI(HTTP API)	-	-	-
Operating Temperature	-35°C ~ +55°C (-31°F ~ +131°F) Less than 90% RH	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	HPoE: Max 65W	-	-	-
Dimensions (WxHxD) / Weight	Ø367.8 x 335.7mm (Ø14.48" x 13.22") 7.05kg (16.1 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-



**SLA-2M6000P**  
2MP lens for PNM-9322VQP



**SLA-2M3600P**  
2MP lens for PNM-9322VQP



**SLA-2M2800P**  
2MP lens for PNM-9322VQP



**SLA-2M2400P**  
2MP lens for PNM-9322VQP



**SLA-2M1200P**  
2MP lens for PNM-9322VQP

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	"Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)"
Video Output	-	-	-	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	12mm fixed
Angular Field of View	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°	H : 26.3° / V : 14.9° / D : 30.0°
Pan / Tilt / Rotate	±90° / +10° ~ +95° / ±180°	±90° / +22° ~ +84° / ±180°	±90° / +26° ~ +80° / ±180°	±90° / +52° ~ +56° / ±180°	±90° / +10° ~ +97° / ±180°
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	-	-
Digital Image Stabilization	-	-	-	-	-
Analytics	-	-	-	-	-
Business Intelligence	-	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio I/O	-	-	-	-	-
Video Compression	-	-	-	-	-
Resolution / Max. Frame Rate	-	-	-	-	-
WiseStream	-	-	-	-	-
Streaming	-	-	-	-	-
Edge Storage	-	-	-	-	-
Application Programming Interface	-	-	-	-	-
Operating Temperature	-	-	-	-	-
Certification	-	-	-	-	-
Power Consumption	-	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)
Additional Features	-	-	-	-	-



**PNM-9002VQ**

2MP/5MP x 4CH Multi-directional Camera



**SLA-5M7000Q**

5MP lens for PNM-9002VQ



**SLA-5M4600Q**

5MP lens for PNM-9002VQ



**SLA-5M3700Q**

5MP lens for PNM-9002VQ

Imaging Device	-	1/18" CMOS	1/18" CMOS	1/18" CMOS
Min. Illumination	-	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0Vp-p (Multi)	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	-	±90° / 40° ~ 89° / ±180°	±90° / 50° ~ 80° / ±180°	±90° / 59° ~ 66° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	2MP 150dB, 5MP 120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 profiles	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	-	-	-
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	Max 25.5W	-	-	-
Dimensions (WxHxD) / Weight	Ø253 x 130mm (Ø9.96" x 5.11") 3000g (6.61lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)
Additional Features	Defog	-	-	-





**SLA-2M6000Q**

2MP lens for PNM-9002VQ



**SLA-2M3600Q**

2MP lens for PNM-9002VQ



**SLA-2M2800Q**

2MP lens for PNM-9002VQ



**SLA-2M2400Q**

2MP lens for PNM-9002VQ

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	-	-	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122.0°	H : 135.4° / V : 71.2° / D : 161.6°
Pan / Tilt / Rotate	±90° / 30° ~ 89° / ±180°	±90° / 37° ~ 89° / ±180°	±90° / 40° ~ 89° / ±180°	±90° / 62° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	-	-	-	-
Analytics	-	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	-	-	-	-
Resolution / Max. Frame Rate	-	-	-	-
WiseStream	-	-	-	-
Streaming	-	-	-	-
Edge Storage	-	-	-	-
Application Programming Interface	-	-	-	-
Operating Temperature	-	-	-	-
Certification	-	-	-	-
Power Consumption	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)
Additional Features	-	-	-	-



**PNM-9000VD**

10MP 2CH Multi-directional Camera



**SLA-5M7000D**

5MP lens for PNM-9000VD



**SLA-5M4600D**

5MP lens for PNM-9000VD



**SLA-5M3700D**

5MP lens for PNM-9000VD

Imaging Device	-	1/18" CMOS	1/18" CMOS	1/18" CMOS
Min. Illumination	-	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	-	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR V	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Intelligent analytics	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps	-	-	-
WiseStream	WiseStream II	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S/G, SUNAPI, Wisenet open platform	-	-	-
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F)	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	PoE : 12.95W	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1250g (2.76lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08lb)
Additional Features	Exchangeable 2ea x 5MP lens modules, Hallway view, Defog	-	-	-



**PNM-7002VD**  
4MP x 2CH Multi-directional Camera



**SLA-2M2402D**  
2MP lens for PNM-7002VD



**SLA-2M2802D**  
2MP lens for PNM-7002VD



**SLA-2M3602D**  
2MP lens for PNM-7002VD



**SLA-2M6002D**  
2MP lens for PNM-7002VD

	PNM-7002VD	SLA-2M2402D	SLA-2M2802D	SLA-2M3602D	SLA-2M6002D
Imaging Device	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Color: 0.055Lux(F2.0, 1/30sec) B/W: 0.055Lux(F2.0, 1/30sec)	Color: 0.055Lux(F2.0, 1/30sec) B/W: 0.055Lux(F2.0, 1/30sec)	Color: 0.055Lux(F2.0, 1/30sec) B/W: 0.055Lux(F2.0, 1/30sec)	Color: 0.055Lux(F2.0, 1/30sec) B/W: 0.055Lux(F2.0, 1/30sec)
Video Output	CVBS 1.0 Vp-p (Multi)	-	-	-	-
Focal Length	-	2.4mm fixed focal	2.8mm fixed focal	3.6mm fixed focal	6.0mm fixed focal
Angular Field of View	-	H:135.4° / V:71.2° / D:161.6°	H:107.4° / V:62.2° / D:122.0°	H:94.8° / V: 49.3° / D: 114.3°	H:50.4° / V: 28.8° / D: 58.1°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (Electrical)	-	-	-	-
Wide Dynamic Range	150dB	-	-	-	-
Digital Noise Reduction	SSNR V	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-	-
Business Intelligence	-	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio I/O	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	-	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps	-	-	-	-
WiseStream	WiseStream II	-	-	-	-
Streaming	Up to 10 profiles	-	-	-	-
Edge Storage	Micro SD/SDHC/SDXC	-	-	-	-
Application Programming Interface	ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform	-	-	-	-
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-	-	-	-
Certification	IP66, IK10	-	-	-	-
Power Consumption	Typical: 12.00W, Max: 12.95W	-	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1250g (2.76lb)	Ø35.5 x 35.9mm 30g	Ø35.5 x 35.9mm 30g	Ø35.5 x 35.9mm 30g	Ø35.5 x 35.9mm 30g
Additional Features	Defog	-	-	-	-



**QNO-8080R**  
5MP IR Bullet Camera



**QNO-8030R**  
5MP IR Bullet Camera



**QNO-8020R**  
5MP IR Bullet Camera



**QNO-8010R**  
5MP IR Bullet Camera



**QND-8080R**  
5MP IR Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 0.15 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	6.0mm fixed	4.0mm fixed	2.8mm fixed	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / D : 133.1° (Wide) ~ 38.8° (Tele)	H : 49.4° / V : 37.4° / D : 61.0°	H : 79.8° / V : 58.1° / D : 105.9°	H : 104.7° / V : 76.5° / D : 136.0°	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / D : 133.1° (Wide) ~ 38.8° (Tele)
Pan / Tilt / Rotate	-	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +50°C (+14°F ~ +122°F)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	-
Power Consumption	PoE : Max 9.5W, typical 7.3W	PoE : Max 7.5W, typical 6.1W	PoE : Max 7.5W, typical 6.1W	PoE : Max 7.5W, typical 6.1W	PoE : Max 8.9W, typical 6.6W
Dimensions (WxHxD) / Weight	Ø91 x 322.9mm (Ø3.58" x 12.71") 1190g (2.624lb)	Ø70 x 246mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø70 x 246mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø70 x 246mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø120.3 x 102mm (Ø4.74" x 4.02") 430g (0.948lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



**QND-8030R**  
5MP IR Dome Camera



**QND-8020R**  
5MP IR Dome Camera



**QND-8010R**  
5MP IR Dome Camera



**QND-8021**  
5MP Dome Camera



**QND-8011**  
5MP Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.15Lux (F2.0) B/W: 0Lux (IR LED on)	Color: 0.15Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.15Lux (F2.0) B/W: 0Lux (IR LED on)	Color: 0.15Lux (F1.6)	Color: 0.15Lux (F2.0)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	Micro HDMI	Micro HDMI
Focal Length	6.0mm fixed	4.0mm fixed	2.8mm fixed	4mm fixed	2.8mm fixed
Angular Field of View	H: 49.4° / V: 37.4° / D: 61.0°	H: 79.8° / V: 58.1° / D: 105.9°	H: 104.7° / V: 76.5° / D: 136.0°	H: 80.1° / V: 58.0° / D: 105.8°	H: 104.4° / V: 76.7° / D: 136.1°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	People counting	People counting
Alarm I/O	1 / 1	1 / 1	1 / 1	-	-
Audio I/O	-	-	-	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +50°C (+14°F ~ +122°F)	-10°C ~ +50°C (+14°F ~ +122°F)	-10°C ~ +50°C (+14°F ~ +122°F)	-10°C ~ +40°C (+14°F ~ +104°F)	-10°C ~ +40°C (+14°F ~ +104°F)
Certification	-	-	-	IP42, IK08	IP42, IK08
Power Consumption	PoE: Max 6.8W, typical 5.0W	PoE: Max 6.8W, typical 5.0W	PoE: Max 7.5W, typical 5.8W	PoE: Max 5W, typical 4W	PoE: Max 5W, typical 4W
Dimensions (WxHxD) / Weight	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)
Additional Features	Hallway View	Hallway View	Hallway View	Super compact design, Hallway View	Super compact design, Hallway View





**QNV-8080R**

5MP IR Vandal Dome Camera



**QNV-8030R**

5MP IR Vandal Dome Camera



**QNV-8020R**

5MP IR Vandal Dome Camera



**QNV-8010R**

5MP IR Vandal Dome Camera



**QNB-8002**

5MP Box Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.2)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	6.0mm fixed	4.0mm fixed	2.8mm fixed	-
Angular Field of View	H : 100.3° (Wide) ~ 31.2° (Tele) / V : 72.3° (Wide) ~ 23.5° (Tele) / D : 133.1° (Wide) ~ 38.8° (Tele)	H : 49.4° / V : 37.4° / D : 61.0°	H : 79.8° / V : 58.1° / D : 105.9°	H : 104.7° / V : 76.5° / D : 136.0°	-
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°	-
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	-	-	Line in / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-10°C ~ +55°C (-14°F ~ +131°F)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	-
Power Consumption	PoE : Max 8.9W, typical 6.6W	PoE : Max 7.2W, typical 5.4W	PoE : Max 7.2W, typical 5.4W	PoE : Max 7.5W, typical 5.8W	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W
Dimensions (WxHxD) / Weight	Ø137 x 106.1mm (Ø5.39" x 4.18") 700g (1.543lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	W73.8 x H66.6 x D136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



**QNE-8021R**  
5MP IR Flateye Camera



**QNE-8011R**  
5MP IR Flateye Camera



**QNO-6082R**  
2MP IR Bullet Camera



**QNO-6072R**  
2MP IR Bullet Camera



**QNO-6032R**  
2MP IR Bullet Camera

	QNE-8021R	QNE-8011R	QNO-6082R	QNO-6072R	QNO-6032R
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p
Focal Length	4.0mm fixed	2.8mm fixed	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) manual varifocal	6mm fixed
Angular Field of View	H : 80.1° / V : 58.0° / D : 105.8°	H : 104.4° / V : 76.7° / D : 136.1°	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 : 52.8° / V : 30.3° / D : 60.4°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 75° / 0° ~ 360°	0° ~ 350° / 0° ~ 75° / 0° ~ 360°	-	-	-
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	-	-	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP67, IK10	IP67, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE : Max 7.4W, typical 5.5W	PoE : Max 7.4W, typical 5.5W	PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W, typical 4.8W	PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W, typical 4.8W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W
Dimensions (WxHxD) / Weight	Ø125 x 87.35mm (Ø4.92" x 3.44") 645g (1.422lb)	Ø125 x 87.35mm (Ø4.92" x 3.44") 645g (1.422lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984lb)	Ø70 x 246mm (Ø2.76" x 9.69") 730g (1.609lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



**QNO-6022R**  
2MP IR Bullet Camera



**QNO-6012R**  
2MP IR Bullet Camera



**QND-6082R**  
2MP IR Dome Camera



**QND-6072R**  
2MP IR Dome Camera



**QND-6032R**  
2MP IR Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p
Focal Length	4mm fixed	2.8mm fixed	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) manual varifocal	6mm fixed
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	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 : 52.8° / V : 30.3° / D : 60.4°
Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Built-in mic / -	Built-in mic / -	Built-in mic / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
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)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IK10	IP66, IK10	-	-	-
Power Consumption	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



**QND-6022R**  
2MP IR Dome Camera



**QND-6012R**  
2MP IR Dome Camera



**Q mini**  
**QND-6021**  
2MP Dome Camera



**Q mini**  
**QND-6011**  
2MP Dome Camera



**QNV-6082R**  
2MP IR Vandal Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6)	Color : 0.03Lux (F2.0)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	Micro HDMI	Micro HDMI	CVBS 1.0Vp-p
Focal Length	4mm fixed	2.8mm fixed	4mm fixed	2.8mm fixed	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 109.0° (Wide) ~ 33.2° (Tele) / V : 57.4° (Wide) ~ 18.7° (Tele) / D : 132.0° (Wide) ~ 38.0° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	-	-	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	People counting	People counting	-
Alarm I/O	1 / 1	1 / 1	-	-	1 / 1
Audio I/O	Built-in mic / -	Built-in mic / -	-	-	Selectable (mic in/line in) / -
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
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)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	-	-	IP42, IK08	IP42, IK08	IP66, IK10
Power Consumption	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W	PoE : Max 4.8W, typical 2.8W	PoE : Max 4.8W, typical 2.8W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W
Dimensions (WxHxD) / Weight	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb)	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)
Additional Features	Hallway View	Hallway View	Super compact design, Hallway View	Super compact design, Hallway View	Hallway View



**QNV-6072R**

2MP IR Vandal Dome Camera



**QNV-6032R**

2MP IR Vandal Dome Camera



**QNV-6022R**

2MP IR Vandal Dome Camera



**QNV-6012R**

2MP IR Vandal Dome Camera



**QNV-6024RM**

2MP IR Flat Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p
Focal Length	3.2 ~ 10mm (3.1x) manual varifocal	6mm fixed	4mm fixed	2.8mm fixed	3.6mm fixed
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 : 52.8° / V : 30.3° / D : 60.4°	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 94.8° / V : 49.3° / D : 114.3°
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°	±5°/0-67°/±90°
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	15m (49.21ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	-
Audio I/O	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (Built-in mic) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X
Power Consumption	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 6.7W, typical 5W
Dimensions (WxHxD) / Weight	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	W98.9 x H52 x D100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	M12 connector, Hallway View





**QNV-6023R**  
2MP IR Flat Camera



**QNB-6002**  
2MP Box Camera



**QNP-6230RH**  
2MP 23x IR PTZ Camera



**QNF-9010**  
12MP Fisheye Camera



**QNF-8010**  
6MP Fisheye Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.3" CMOS	1/18" CMOS
Min. Illumination	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.01Lux (F1.2)	Color : 0.05Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.19 Lux (F2.2)	Color : 0.2 Lux (F2.5)
Video Output	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p	CVBS 1.0Vp-p
Focal Length	3.6mm fixed	-	4.44~102.2mm (23x) optical zoom	1.08mm fixed	1.14mm fixed
Angular Field of View	H : 94.8° / V : 49.3° / D : 114.3°	-	H : 61.8° (Wide) ~ 3.08° (Tele) / V : 36.2° (Wide) ~ 1.73° (Tele)	H : 187° / V : 187° / D : 187°	H : 187° / V : 187° / D : 187°
Pan / Tilt / Rotate	±5°/0-67°/±90°	-	-	-	-
IR Viewable Length	15m (49.21ft)	-	100m (328.08ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	-	Support (built-in gyro sensor)	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	People counting, Heatmap	People counting, Heatmap
Alarm I/O	-	1 / 1	4 / 2	-	-
Audio I/O	Line in / -	Line in / Line out	Selectable (mic in/line in) / Line out	-	-
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	9MP / 30fps	4MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 10 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30°C ~ +55°C (-22°F ~ +131°F)	-10°C ~ +55°C (-14°F ~ +131°F)	24VAC : -50°C ~ +55°C (-58°F ~ +131°F) HPoE : -40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C	-10°C ~ +40°C (+14°F ~ +104°F)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP66, IK10, NEMA4X	-	IP66, IK10	-	IP42
Power Consumption	PoE : Max 6.7W, typical 5W	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	24VAC : Max 83W, typical 30W HPoE : Max 51W, typical 30W	PoE : Max 7.5W, typical 6.2W	PoE : Max 6.4W, typical 4.6W
Dimensions (WxHxD) / Weight	W98.9 x H52 x D100mm (3.89" x 2.05" x 3.94") 295g (0.651lb)	W73.8 x H66.6 x D136.2mm (2.91" x 2.62" x 5.36") 320g (0.711lb)	Ø236.9 x 407.7mm (9.33" x 16.05") 6.8kg (14.99lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 370g (0.821lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 320g (0.7051lb)
Additional Features	Hallway View	Hallway View	Defog	Panorama view, Business Intelligence	Panorama view, Business Intelligence



**TNB-9000**  
8K Box Camera



**TNV-8010C**  
5MP Corner Mount Camera



**TNV-7010RC**  
3MP Corner Mount Camera



**TNO-6322ER**  
2MP Explosion-proof Camera



**TNU-6322E**  
2MP Explosion-proof Camera

TBD

	TNB-9000	TNV-8010C	TNV-7010RC	TNO-6322ER	TNU-6322E
Imaging Device	43.3mm Full-frame CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Color: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec)	Color: 0.3Lux (F2.0) B/W: 0Lux (IR LED on)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0Lux (IR LED on)	Color: 0.05Lux (F1.6) B/W: 0.005Lux (F1.6)
Video Output	HDMI	CVBS: 1.0 Vp-p/ USB: Micro USB Type B	CVBS 1.0 Vp-p	-	CVBS 1.0 Vp-p, Micro USB type B
Focal Length	-	2.3mm fixed	2.8mm fixed	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (32x) zoom
Angular Field of View	Canon 24mm, H: 57.4° Canon 35mm, H: 42.6° Canon 50mm, H: 30.9° Canon 85mm, H: 19.1° Canon 100mm, H: 16.0° Canon 70-200mm, H: 22.8° ~ 8.0°	H: 131° / V: 93.4° / D: 174°	H: 102° / V: 75° / D: 129°	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)
Pan / Tilt / Rotate	-	-	0° / ±15° / 0°	-	360° Endless / 180° (-90° ~ 90°)
IR Viewable Length	-	-	10m (32.8ft) with 940nm IR LED	70m (229.66ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNRV	SSNR III	SSNRV	SSNRV	SSNRV
Digital Image Stabilization	-	Support	Support	Support	Support
Analytics	Intelligent analytics, Audio detection, Sound classification	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Intelligent analytics, Audio detection, Sound classification, Shock detection	Intelligent analytics, Audio detection	Intelligent analytics, Audio detection
Business Intelligence	-	People counting	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	8K/15fps, 24MP/20fps, 15MP/30fps, 4K/60fps	5MP / 30fps	3MP / 30fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	-	-
Application Programming Interface	ONVIF Profile S/G/T SUNAPI	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	0°C ~ +45°C (32°F ~ +122°F)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Certification	EMC	IP66, IK10	IP66, IP6K9K, IK10+	IP67, IK10, ATEX, IECEx	IP67, IK10, ATEX, IECEx
Power Consumption	PoE: Max 30W, typical 20W 12VDC: Max 26W, typical 18W	PoE: Max 12W 12VDC: Max 11W	PoE: Max 12W 12VDC: Max 11W	24VAC: Max 45W	24VAC: (TBD)
Dimensions (WxHxD) / Weight	W120 x H118.5 x D179mm (4.72" x 4.66" x 7.04") 2.2kg (4.85lb)	W143 x H122 x D73.7mm (5.62" x 4.8" x 2.9") 700g (1.54lb)	W236 x H236 x D126.5mm (9.29" x 9.29" x 4.98") 2.2kg (4.85lb)	W175 x H243.5 x D320mm (6.89" x 9.59" x 12.59") 10.5kg (23.15lb)	(TBD) / (TBD)
Additional Features	Super high resolution, Canon EF mount	Anti ligature design, Invisible IR LED, Hallway View	Anti ligature design, Invisible IR LED, Hallway View	Stainless(SUS316L) housing, Built in wiper	Defog, Stainless(SUS316L) housing, Built in wiper



**TNU-6322ER**  
2MP Explosion-proof IR Camera



**TNU-6320E**  
2MP Explosion-proof PTZ Camera



**TNU-6321**  
2MP Positioning PTZ Camera



**TNM-3620TDY**  
Temperature Detection Thermal Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	Thermal	Visible
				Uncooled micro bolometer	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.6) B/W: 0.005Lux (F1.6)	Color: 0.15Lux (F1.6) B/W: 0.015Lux (F1.6)	Color: 0.05Lux (F1.6, 1/30sec) B/W: 0.005 Lux (F1.6, 1/30sec)	-	Color: 0.05 lux (F1.6, 1/30sec) B/W: 0.005 lux (F1.6, 1/30sec)
Video Output	CVBS 1.0Vp-p, Micro USB type B	-	CVBS: 1.0Vp-p / 75Ω composite, 720x480(N), 720x576(P), for installation	CVBS: 1.0Vp-p, Micro USB Type B	
Focal Length	4.44 ~ 142.6mm (32x) zoom	4.44 ~ 142.6mm (Optical 32x)	4.44~142.6mm (32x) zoom	4.7mm fixed focal	4mm fixed focal
Angular Field of View	H: 61.8° (Wide) ~ 2.19° (Tele) / V: 36.2° (Wide) ~ 1.24° (Tele)	H: 62.8° (Wide) ~ 2.23° (Tele) / V: 36.8° (Wide) ~ 1.26° (Tele)	H: 61.8° (Wide) ~ 2.19° (Tele) / V: 36.2° (Wide) ~ 1.24° (Tele)	H: 50.0°, V: 36.4°, D: 65.3°	H: 87.6°, V: 46.4°, D: 104.5°
Pan / Tilt / Rotate	360° Endless / 180° (-90° ~ 90°)	360° Endless / 180° (-90° ~ 90°) / -	360° Endless / (130°) -90° ~ 40° / -	-	-
IR Viewable Length	200m (656.1ft)	-	200m with SPI-50(Optional)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	-	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	-	extreme WDR (150dB)
Digital Noise Reduction	SSNRV	SSNR III	SSNRV	-	SSNRV
Digital Image Stabilization	Support	Support	Support	Support (built-in gyro sensor)	
Analytics	Intelligent analytics Audio detection	Intelligent analytics	Intelligent analytics	Normal mode : Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection EBT mode : Temperature detection, Blackbody abnormality	
Business Intelligence	-	-	-	-	
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 2	
Audio I/O	Selectable (mic in/line in) / Line out	-	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	
Video Compression	H.265, H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	1280 x 960 / 30fps	1920 x 1080 / 30fps
WiseStream	WiseStream II	-	WiseStream II	WiseStream II	
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 profiles	Up to 6 Profiles	
Edge Storage	-	-	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T, SUNAPI	
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-30°C ~ +60°C (-22°F ~ +140°F)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	EBT mode : +10°C ~ +35°C (+50°F ~ +95°F) / Less than 95% RH Normal mode : -10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH	
Certification	IP67, IK10, ATEX, IECEx	IP67, IK10, CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67, Ex tb IIIC T80°C Db	IP66, Safety (UL, KC-SDOC), EMC (FCC, CE, VCCI, RCM, KC)	-	
Power Consumption	24VAC : (TBD)	24VAC : Max 49W	Max 100W (Heater On), typical 25W (Heater Off)	PoE+: Max. 17.0W, typical 12.5W 12VDC: Max. 14.5W, typical 11.0W	
Dimensions (WxHxD) / Weight	(TBD) / (TBD)	W384 x H402 x D250mm (15.12" x 15.83" x 9.84") 35kg (77.16lb)	W219 x H528.2 x D460mm (8.62" x 20.79" x 18.11") 14kg (30.86lb)	W135 x H75 x D188.5mm (5.31" x 2.95" x 7.42") 1712g (3.77lb)	
Additional Features	Defog, Stainless(SUS316L) housing, Built in wiper	Stainless (SUS316L) housing, Built in wiper	Tampering, Audio detection	Bi-spectrum camera, Two temperature detection mode, Face detection, Blackbody (SPI-35B) is optional	



**TNU-4041T / 4051T**  
VGA Thermal Positioning Camera



**TNO-4051T**  
VGA Thermal Bullet Camera



**TNO-4050T**  
VGA Thermal Bullet Camera



**TNO-4041T**  
VGA Thermal Bullet Camera



**TNO-4041TR**  
VGA Radiometric Thermal Bullet Camera

Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	-	-	-	-	-
Video Output	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p, Micro USB Type B	CVBS : 1.0Vp-p	CVBS : 1.0Vp-p
Focal Length	19mm / 35mm fixed	35mm fixed	35mm fixed	19mm fixed	19mm fixed
Angular Field of View	H : 32° / V : 24.3° / D : 39.2° H : 17.2° / V : 13° / D : 22°	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°
Pan / Tilt / Rotate	360° Endless / -90° ~ 40° / -	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	-	-	-	-	-
Wide Dynamic Range	-	-	-	-	-
Digital Noise Reduction	-	-	-	-	-
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X	IP66, NEMA 4X	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10
Power Consumption	24VAC : Max 84W - Heater On Max 62W - Heater Off	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W
Dimensions (WxHxD) / Weight	W219 x H528 x D335mm (8.62" x 20.79" x 13.19") 11.7kg (25.79lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.501g (5.51 lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.175g (7.0 lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.501g (5.51 lb)	Ø101.97 x 309mm (Ø4.0" x 12.17") 2.452g (5.41lb)
Additional Features	Various color palettes	Various color palettes PT type	Various color palettes	Various color palettes PT type	Various color palettes Spot temperature reading PT type



**TNO-4040T**  
VGA Thermal Bullet Camera



**TNO-4040TR**  
VGA Radiometric Thermal Bullet Camera



**TNO-4030T**  
VGA Thermal Bullet Camera



**TNO-4030TR**  
VGA Radiometric Thermal Bullet Camera



**TNO-3010T**  
QVGA Thermal Bullet Camera

	TNO-4040T VGA Thermal Bullet Camera	TNO-4040TR VGA Radiometric Thermal Bullet Camera	TNO-4030T VGA Thermal Bullet Camera	TNO-4030TR VGA Radiometric Thermal Bullet Camera	TNO-3010T QVGA Thermal Bullet Camera
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	-	-	-	-	-
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B
Focal Length	19mm fixed	19mm fixed	13mm fixed	13mm fixed	2.7mm fixed focal
Angular Field of View	H : 32° / V : 24.3° / D : 39.2°	H : 32° / V : 24.3° / D : 39.2°	H : 48.6° / V : 36.4° / D : 61.6°	H : 48.6° / V : 36.4° / D : 61.6°	H : 92.0° / V : 65.5° / D : 125.7°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	-	-	-	-	-
Wide Dynamic Range	-	-	-	-	-
Digital Noise Reduction	-	-	-	-	-
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	320 x 240 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8.0W
Dimensions (WxHxD) / Weight	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.175g (7.0lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.124g (6.89lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.173g (7.0lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.124g (6.89lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)
Additional Features	Various color palettes	Various color palettes Spot temperature reading	Various color palettes	Various color palettes Spot temperature reading	Various color palettes





**TNO-3020T**

QVGA Thermal Bullet Camera



**TNO-3030T**

QVGA Thermal Bullet Camera



**TNO-3040T**

QVGA Thermal Bullet Camera



**TNO-3050T**

QVGA Thermal Bullet Camera



**TNF-9010**

Parking Guidance Camera

Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	1/2.3" 12MP CMOS	
Min. Illumination	-	-	-	-	Color: 0.39 Lux (F2.2, 1/30sec)	
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P), for Installation	
Focal Length	4.7mm fixed focal	13.7mm fixed focal	19mm fixed focal	35mm fixed focal	1.08mm fixed focal	
Angular Field of View	H:50.0° / V:36.4° / D:65.3°	H:16.0° / V:12.0° / D:20.0°	H:11.5° / V:8.7° / D:14.4°	H:6.3° / V:4.7° / D:7.8°	H:187° / V:187° / D:187°	
Pan / Tilt / Rotate	-	-	-	-	Rotate : +/- 180	
IR Viewable Length	-	-	-	-	-	
Day & Night	-	-	-	-	Auto (Electrical)	
Wide Dynamic Range	-	-	-	-	extremeWDR (120dB)	
Digital Noise Reduction	-	-	-	-	SSNR V	
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	-	
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Parking detection based on AI engine (LED color: Green/Red/Blue/Pink/Yellow/Skyblue/Purple) Analytics events : Defocus detection, Motion detection, Tampering	
Business Intelligence	-	-	-	-	-	
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2	1 / 1	
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	
Video Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	
Resolution / Max. Frame Rate	320 x 240 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps	3008 x 3008 / 30fps	
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	
Edge Storage	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	
Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-10°C ~ +50°C (14°F ~ +122°F) / Less than 95% RH	
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X	-	
Power Consumption	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max 12.95W, typical 10W 12VDC: Max 10W, typical 8.3W
Dimensions (WxHxD) / Weight	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2512g (5.538lb)	Ø158 x 80.5mm (6.22" x 3.17") 1.280g (2.82lb)	
Additional Features	Various color palettes	Various color palettes	Various color palettes	Various color palettes	Parking detection	



**LNO-6070R**  
2MP IR Bullet Camera



**LNO-6010R/6020R/6030R**  
2MP IR Bullet Camera



**LND-6070R**  
2MP IR Dome Camera



**LND-6010R/6020R/6030R**  
2MP IR Dome Camera



**LNV-6070R**  
2MP IR Vandal Dome Camera



**LNV-6010R/6020R/6030R**  
2MP IR Vandal Dome Camera

	LNO-6070R 2MP IR Bullet Camera	LNO-6010R/6020R/6030R 2MP IR Bullet Camera	LND-6070R 2MP IR Dome Camera	LND-6010R/6020R/6030R 2MP IR Dome Camera	LNV-6070R 2MP IR Vandal Dome Camera	LNV-6010R/6020R/6030R 2MP IR Vandal Dome Camera
Imaging Device	1/2.9" CMOS	1/2.9" CMOS	1/2.9" CMOS	1/2.9" CMOS	1/2.9" CMOS	1/2.9" CMOS
Min. Illumination	Color : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.18Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.18Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.095Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.18Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	-	-	-	-	-	-
Focal Length	3.2 ~ 10mm (3.1x) manual varifocal	3mm / 4mm / 6mm fixed	3.2 ~ 10mm (3.1x) manual varifocal	3mm / 4mm / 6mm fixed	3.2 ~ 10mm (3.1x) manual varifocal	3mm / 4mm / 6mm fixed
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 : 102.0° / V : 54.0° / D : 120.0° (LNO-6010R) H : 80.0° / V : 43.0° / D : 94.0° (LNO-6020R) H : 51.0° / V : 29.0° / D : 58.0° (LNO-6030R)	H : 101.6° (Wide) ~ 31.3° (Tele) / V : 54.1° (Wide) ~ 17.8° (Tele) / D : 120.6° (Wide) ~ 36.0° (Tele) /	H : 102.0° / V : 54.0° / D : 120.0° (LND-6010R) H : 80.0° / V : 43.0° / D : 94.0° (LND-6020R) H : 51.0° / V : 29.0° / D : 58.0° (LND-6030R)	H : 101.6° (Wide) ~ 31.3° (Tele) / V : 54.1° (Wide) ~ 17.8° (Tele) / D : 120.6° (Wide) ~ 36.0° (Tele) /	H : 102.0° / V : 54.0° / D : 120.0° (LNV-6010R) H : 80.0° / V : 43.0° / D : 94.0° (LNV-6020R) H : 51.0° / V : 29.0° / D : 58.0° (LNV-6030R)
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°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-	-
Alarm I/O	-	-	-	-	-	-
Audio I/O	-	-	-	-	-	-
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	Micro SD/SDHC	Micro SD/SDHC	Micro SD/SDHC	Micro SD/SDHC	Micro SD/SDHC	Micro SD/SDHC
Application Programming Interface	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
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)
Certification	IP66	IP66	-	-	IP66, IK10	IP66, IK10
Power Consumption	PoE : Max 6.5W	PoE : Max 6.5W	PoE : Max 6.5W	PoE : Max 6.5W	PoE : Max 6.5W	PoE : Max 6.5W
Dimensions (WxHxD) / Weight	Ø78 x 262mm (Ø3.07" x 10.32") 380g (0.84lb)	Ø58.6 x 182mm (Ø2.31" x 7.17") 240g (0.53lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 274g (0.60lb)	Ø110 x 86mm (Ø4.33" x 3.39") 230g (0.51lb)	Ø137.8 x 106.1mm (Ø5.43" x 4.18") 515g (1.16lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 395g (0.87lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View



Established by global leading surveillance companies including Hanwha Techwin, Bosch, Milestone, Pelco, and Vivotek, the Open Security & Safety Alliance (OSSA) is a non-profit, non-stock corporation that brings together like-minded organizations in order to create a framework outlining a common standardized platform for security and safety solutions that is accessible for everyone. With the new hardware (cameras) and applications which fit to the OSSA platform, it aims to serve as a new standard to provide the efficient integration of IoT devices in various fields and the demand for big data utilization in a platform scale.



**ONV-9081R**

Driven by OSSA 4K IR Vandal Dome Camera



**ONO-9081R**

Driven by OSSA 4K IR Vandal Dome Camera

Imaging Device	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal
Angular Field of View	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 121.7° (Wide) ~ 52.3° (Tele)	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 121.7° (Wide) ~ 52.3° (Tele)
Pan / Tilt / Rotate	-	0°~360° / -45°~85° / 0°~355°
IR Viewable Length	40m (131.23ft)	40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Available by downloading applications from the S&ST App Store	Available by downloading applications from the S&ST App Store
Business Intelligence	Available by downloading applications from the S&ST App Store	Available by downloading applications from the S&ST App Store
Audio I/O	To be supported later	To be supported later
Video Compression	H.265, H.264	H.265, H.264
Resolution / Max. Frame Rate	8MP/30fps	8MP/30fps
Streaming	Up to 8 profiles	Up to 8 profiles
Edge Storage	To be supported later	To be supported later
Application Programming Interface	SUNAPI (HTTP API)	SUNAPI (HTTP API)
Operating Temperature	-50°C ~ +50°C (-58°F ~ +122°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C	-50°C ~ +50°C (-58°F ~ +122°F) / Less than 95% RH (non condensing) * Start up should be done at above -30°C
Certification	'IP66/IP67/IP6K9K, IK10, NEMA4X	'IP66/IP67/IP6K9K, IK10, NEMA4X
Power Consumption	PoE+: Max 25.5W, typical 21W 12VDC: Max 23W, typical 19W	PoE+: Max 20.00W, typical 17.00W 12VDC: Max 18.70W, typical 15.00W
Dimensions (WxHxD) / Weight	Ø115 x 373mm (without sunshield) 3.4kg (7.46 lb)	Ø180 x 132mm (Ø7.09" x 5.12") 2.250g (4.96 lb)
Additional Features	Driven by OSSA Supports applications from the S&ST App Store	Driven by OSSA Supports applications from the S&ST App Store

# WISENET NVR

## High resolution and great efficiency. Quick and precise search enabled by Hanwha Techwin NVR

Hanwha Techwin's Wisenet NVR allows recording and streaming of videos in super high resolution and enhanced the efficiency of event and channel management with the new UI. It also offers AI based quick and precise object detection and classification on top of smart search.



### Up to 8K (32MP) high resolution video recording and streaming

Hanwha Techwin's Wisenet NVR can play and record high resolution videos of up to 8K.



### Installation Wizard for easy auto recognition and setup

Local/web based installation wizard with a single UI provides easy and quick auto camera recognition and registration as well as configuration of each channel.



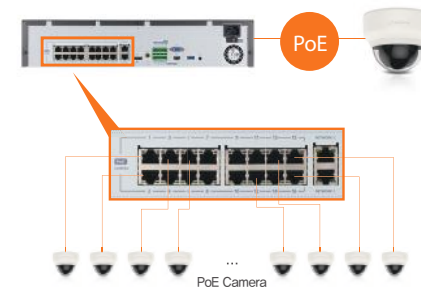
### Easy installation and mobile event push

With QR codes in free Wisenet Mobile application, users can easily connect to video recorders without complex network settings. Event push alarms allow for swift identification and response to events at any time or any place.



### Save cost, install easy PoE embedded NVR

NVR with built-in PoE switches further reduces cost and saves installation time by supplying ample power to cameras directly and detecting products automatically upon integration.



# WISENET AI NVR

## AI enhances accuracy and efficiency

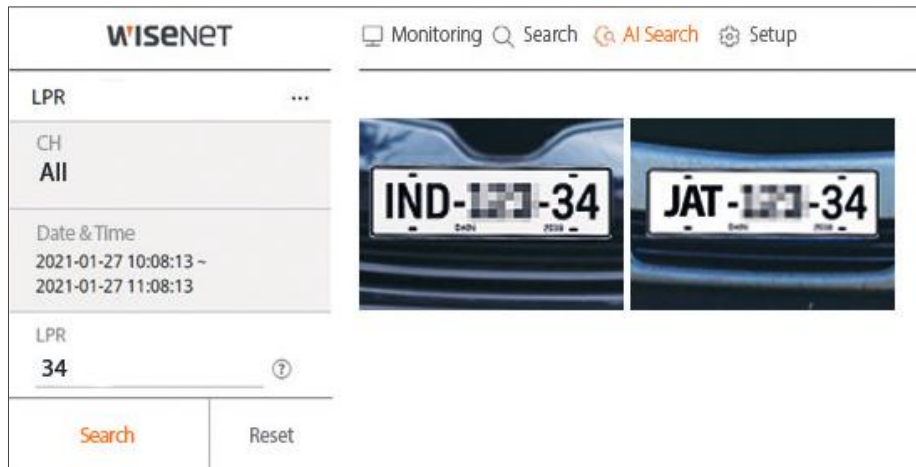
Wisenet AI NVR with AI algorithms provides accurate object detection/classification/search, increasing the efficiency of monitoring operation.



## License Plate Recognition LPR (Search)

Through OCR (Optical Character Recognition) processing, the BestShot images of the license plates are converted into machine-readable text and numbers then stored in the Wisenet AI NVR in the form of digital data together with the images of license plates. Users can easily search license plates by typing in the numbers or characters of the license plate.

\* Attributes : People (Clothing colors for top and bottom/ Wearing or carrying a bag) / Face (Age group, gender, mask/ glasses wearing) when integrated with Wisenet cameras, Vehicle (Types, colors) / License plate (Optical technology converts images into texts for storage, supporting search in text



When managing multi channels, the Wisenet AI NVR greatly improves search efficiency by allowing users to preview images and videos by simply hovering mouse cursor on the timeline. Moreover, users can configure event and alarm for all channels within a single page.



## Live monitoring and bookmarks

With Live Monitoring, users can configure the split mode as desired to view video footage in real time or find information such as system malfunction, overload or recording status for each channel. In the PTZ control mode, users can click arrow keys to move the PTZ in eight directions or zoom in to a certain area for more detailed monitoring. With Bookmark feature, users can designate up to 100 events for easy and quick event search.



Live monitoring and PTZ control

Bookmark setup and event search





**PRN-6410DB4**  
64CH AI NVR



**PRN-6410B4**  
64CH AI NVR



**PRN-4011**  
64CH NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps (RAID 5/6)
Max # of Cameras	64CH	64CH	64CH
Network Camera Resolution	32MP~CIF	32MP~CIF	12MP~CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 16 SATA (Max. 160TB)	Up to 12 SATA (Max. 96TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD), Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD), Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD), Video Analytics, Defocus, Audio)
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	iSCSI	iSCSI	iSCSI
RAID	RAID 5/6	RAID 5/6	RAID 5/6
Hot Swap	Yes	Yes	Yes
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%, 50/60 Hz (Dual SMPS)	100 ~ 240 VAC ±10%, 50/60 Hz	100 ~ 240 VAC ±10%; 50/60 Hz, 3~1.5A (Dual SMPS)
Power Consumption	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 250W (12 HDD)
PoE Budget	-	-	-
Additional Features	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Vehicle, License plate)</li> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Vehicle, License plate)</li> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• WiseStream supported</li> <li>• Dual SMPS</li> </ul>



**PRN-3210B4**  
32CH AI NVR



**PRN-3210B2**  
32CH AI NVR



**PRN-1610B2**  
16CH AI NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	250Mbps
Max # of Cameras	32CH	32CH	16CH AI NVR
Network Camera Resolution	32MP~CIF	32MP~CIF	32MP~CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	iSCSI	iSCSI	iSCSI
RAID	RAID 5/6	RAID 5/6	RAID 5/6
Hot Swap	Yes	Yes	Yes
Network Viewer Software	SSSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10% 50/60 Hz	100 ~ 240 VAC ±10%; 50/60 Hz	100 ~ 240 VAC ±10%, 50/60 Hz
Power Consumption	Max. 265W (16 HDD)	TBD	TBD
PoE Budget	-	-	-
Additional Features	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Vehicle, License plate)</li> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Vehicle, License plate)</li> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Vehicle, License plate)</li> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• PTZ camera configuration and control</li> </ul>



**XRN-6410DB4/6410B4**  
64CH NVR



**XRN-6410RB2**  
64CH AI NVR



**XRN-6410B2**  
64CH AI NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps
Max # of Cameras	64CH	64CH	64CH
Network Camera Resolution	32MP~CIF	32MP~CIF	32MP~CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	iSCSI	iSCSI	iSCSI
RAID	RAID 5/6	RAID 5/6	-
Hot Swap	Yes	Yes	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%; 50/60 Hz, 2.7A (Dual SMPS / XRN-6410B4)	100 ~ 240 VAC ±10%; 50/60 Hz	100 ~ 240 VAC ±10%; 50/60 Hz
Power Consumption	Max. 265W (16 HDD)	TBD	TBD
PoE Budget	-	-	-
Additional Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410DB4)</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410DB4)</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 112CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410DB4)</li> </ul>



**XRN-3210B4**  
32CH NVR



**XRN-3210RB2**  
32CH NVR



**XRN-3210B2**  
32CH NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps
Max # of Cameras	32CH	32CH	32CH
Network Camera Resolution	32MP~CIF	32MP~CIF	32MP~CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	iSCSI	iSCSI	iSCSI
RAID	RAID 5/6	RAID 5/6	-
Hot Swap	Yes	Yes	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%; 50/60 Hz, 2.7A	100 ~ 240 VAC ±10%, 50/60 Hz	100 ~ 240 VAC ±10%, 50/60 Hz
Power Consumption	Max. 265W (16 HDD)	TBD	TBD
PoE Budget	-	-	-
Additional Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 80CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 80CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• Bookmark supported</li> <li>• Simultaneous playback up to 80CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> </ul>



**XRN-3010A**  
64CH NVR



**XRN-2011A**  
32CH NVR



**XRN-2010A**  
32CH NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	300Mbps	256Mbps	256Mbps
Max # of Cameras	64CH	32CH	32CH
Network Camera Resolution	-	8MP~CIF	12MP~CIF
HDD Slot	Up to 8 SATA (Max. 64TB)	Up to 8 SATA (Max. 48TB)	Up to 8 SATA (Max. 48TB)
Record Mode	Normal, Schedule (Continuous/Event), Event (Pre/Post)	Normal, Schedule (Continuous/Event), Event (Pre/Post)	Normal, Schedule (Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	iSCSI	iSCSI	iSCSI
RAID	-	RAID 5	-
Hot Swap	-	Yes	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CG (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS
Local Monitor	Support dual monitor HDMI (Up to 4K), VGA (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%	100 ~ 240 VAC ±10%	100 ~ 240 VAC ±10%
Power Consumption	Max. 99W (6 HDD)	Max. 99W (8 HDD)	Max. 99W (8 HDD)
PoE Budget	-	-	-
Additional Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>



**XRN-1620SB1**  
16CH NVR



**XRN-1620B2**  
16CH NVR



**XRN-1610SA**  
16CH NVR



**XRN-1610A**  
16CH NVR

Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	140Mbps	140Mbps	180Mbps	180Mbps
Max # of Cameras	16CH	16CH	16CH	16CH
Network Camera Resolution	32MP~CIF	32MP~CIF	12MP~CIF	12MP~CIF
HDD Slot	Up to 4 SATA (Max. 24TB)	Up to 8 SATA (Max. 80TB)	Up to 4 SATA (Max. 24TB)	Up to 8 SATA (Max. 48TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule (Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, Bookmark	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	iSCSI, e-SATA	iSCSI, e-SATA
RAID	-	-	-	-
Hot Swap	-	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%, 50/60 Hz	100 ~ 240 VAC ±10%; 50/60 Hz	100 ~ 240 VAC ±10%	100 ~ 240 VAC ±10%
Power Consumption	Max. 310W	Max. 130W	Max. 271.9W (4 HDDs, PoE / PoE+ On) Max. 51.9W (4 HDDs, PoE / PoE+ Off)	Max. 76.3W (8 HDD)
PoE Budget	200W	-	220W	-
Additional Features	<ul style="list-style-type: none"> <li>PoE supported</li> <li>N+1 failover supported</li> <li>Simultaneous playback up to 64CH</li> <li>AI search (BestShot, Attribute)</li> <li>PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>N+1 failover supported</li> <li>Simultaneous playback up to 64CH</li> <li>AI search (BestShot, Attribute)</li> <li>PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>PoE+ Switch embedded</li> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>





**XRN-820S**  
8CH NVR



**XRN-810S**  
8CH NVR



**XRN-410S**  
4CH NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	100Mbps	100Mbps	50Mbps
Max # of Cameras	8CH	8CH	4CH
Network Camera Resolution	32MP~CIF	8MP~CIF	12MP~CIF
HDD Slot	Up to 2 SATA (Max. 12TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Schedule (Continuous/Event), Event (Pre/Post)	Normal, Schedule (Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, Bookmark	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3rd party VM
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%, 50/60 Hz	100 ~ 240 VAC ±10%	54V DC / 1.67A
Power Consumption	Max. 160W	Max. 19W (1 HDD)	Max. 13W (1 HDD)
PoE Budget	100W	100W	50W
Additional Features	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• Simultaneous playback up to 32CH</li> <li>• AI search (BestShot, Attribute)</li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• PoE+ Switch embedded</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• PoE+ Switch embedded</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>



**QNR-1620S**  
16CH NVR



**QNR-1610S**  
16CH NVR



**QNR-820S**  
8CH NVR



**QNR-810S**  
8CH NVR

Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	128Mbps	128Mbps	80Mbps	80Mbps
Max # of Cameras	16CH	16CH	8CH	8CH
Network Camera Resolution	8MP~CIF	8MP~CIF	8MP~CIF	8MP~CIF
HDD Slot	Up to 2 SATA (Max. 12TB)	Up to 2 SATA (Max. 12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Record Mode	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule(Continuous/Event), Event (Pre/Post), Dual track Recording	Normal, Schedule(Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	-	-
RAID	-	-	-	-
Hot Swap	-	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI (Up to 4K), VGA (FHD)	Support dual monitor HDMI (Up to 4K), VGA (FHD)	HDMI 1 (Up to 4K)	HDMI 1 (Up to 4K)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ±10%	100 ~ 240 VAC ±10%	54V DC / 1.67A	54V DC / 1.67A
Power Consumption	Max. 158.2W (2 HDDs, PoE On) Max. 34.6W (2 HDDs, PoE Off)	Max. 158.2W (2 HDDs, PoE On) Max. 34.6W (2 HDDs, PoE Off)	Max. 76.2W (1 HDD, PoE On) Max. 8.1W (1 HDD, PoE Off)	Max. 76.2W (1 HDD, PoE On) Max. 8.1W (1 HDD, PoE Off)
PoE Budget	130W	Max. 100W	Max. 65W	Max. 50W
Additional Features	<ul style="list-style-type: none"> <li>PoE supported</li> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>PoE supported</li> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>PoE supported</li> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>PoE supported</li> <li>ARB (Auto Recovery Backup) redundancy supported</li> <li>Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>



**QNR-810**  
8CH NVR



**QNR-420S**  
4CH NVR



**QNR-410S**  
4CH NVR



**QNR-410**  
4CH NVR

Os	Linux	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	100Mbps	40Mbps	40Mbps	50Mbps
Max # of Cameras	8CH	4CH	4CH	4CH
Network Camera Resolution	8MP~CIF	8MP~CIF	8MP~CIF	8MP~CIF
HDD Slot	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Record Mode	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule(Continuous/Event), Event (Pre/Post), Dual track Recording	Normal, Schedule(Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	-	-
RAID	-	-	-	-
Hot Swap	-	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI (Up to 4K), VGA (FHD)	HDMI 1 (Up to 4K)	HDMI 1 (Up to 4K)	Support dual monitor HDMI (Up to 4K), VGA (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	12VDC / 4A	54VDC / 1.20A	54VDC / 1.20A	12VDC / 4A
Power Consumption	MAX. 9W (1 HDD)	Max. 47W (1 HDD, PoE On) Max. 7.4W (1 HDD, PoE Off)	Max. 47W (1 HDD, PoE On) Max. 7.4W (1 HDD, PoE Off)	MAX. 9W (1 HDD)
PoE Budget	-	35W	Max. 30W	-
Additional Features	<ul style="list-style-type: none"> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>



**LRN-1610S**  
16CH NVR



**LRN-810S**  
8CH NVR



**LRN-410S**  
4CH NVR

Os	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Max. Recording Bit Rate	100Mbps	50Mbps	40Mbps
Max # of Cameras	16CH	8CH	4CH
Network Camera Resolution	5MP ~ CIF	5MP ~ CIF	5MP ~ CIF
HDD Slot	Up to 2 SATA (Max.12TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Record Mode	Normal, Schedule (Continuous/Event), Event (Pre/Post), Dual track Recording	Normal, Schedule(Continuous/Event), Event (Pre/Post)	Normal, Schedule(Continuous/Event), Event (Pre/Post), Dual track Recording
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio)
Event Action	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile Support SDK/CGI(SUNAPI) for integration to 3'rd party VMS
Local Monitor	HDMI 1 (Up to 5MP)	HDMI 1 (Up to 5MP)	HDMI 1 (Up to 5MP)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100~240VAC±10%	54VDC / 1.67A	54VDC / 1.20A
Power Consumption	Max. 158.2W (2 HDDs, PoE On) Max. 34.6W (2 HDDs, PoE Off)	Max. 76.2W (1 HDD, PoE On) Max. 8.1W (1 HDD, PoE Off)	Max. 47W (1 HDD, PoE On) Max. 7.4W (1 HDD, PoE Off)
PoE Budget	Max. 130W	Max. 65W	Max. 35W
Additional Features	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Dual tracking recording</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Dual tracking recording</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> <li>• Dual tracking recording</li> </ul>



**TAW-4000H16**  
Wisenet Transportation Appliance



**TRM-1610M/1610S**  
16CH Mobile NVR



**TRM-810S**  
8CH Mobile NVR



**TRM-410S**  
4CH Mobile NVR

Os	Windows 10 IoT Enterprise	Linux	Linux	Linux
Supported Compression	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream	H.265, H.264, MJPEG, WiseStream
Max. Recording Bit Rate	520Mbps	128Mbps	80Mbps	50Mbps
Max # of Cameras	Max. 128 device/server	16 (4PoE, M12 : TRM-1610M / RJ-45 : TRM-1610S)	8 (8 PoE, RJ-45)	4 (4 PoE, RJ-45)
HDD Slot	16 HDDs(Hot swap), Max. 160TB	Up to 2 SATA (Front-Swap) Max. 4TB (HDD, SSD)	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)
RAID	RAID 0/1/5/6	RAID 1	RAID 1	-
Hot Swap	Yes (RAID 1/5/6)	Yes (RAID 1)	Yes (RAID 1)	-
Network Viewer Software	Wisenet TMS	Wisenet TMS, WebViewer, Wisenet Mobile	Wisenet TMS, WebViewer, Wisenet Mobile	Wisenet TMS, WebViewer, Wisenet Mobile
Local Monitor	VGA, DVI, HDMI	HDMI, VGA	HDMI, VGA	HDMI, VGA
Camera Support	connect with mobile NVRs	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	<ul style="list-style-type: none"> <li>• Provides vehicle's location based on GPS</li> <li>• Automatic Back-up when connecting Wi-Fi</li> <li>• Server clustering(Max. 28 server, Max. 10,000 CH)</li> <li>• Area search</li> <li>• Report(speed, driving hours etc)</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>	<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 -25°C to +55°C (-13°F to +131°F)</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 -25°C to +55°C (-13°F to +131°F)</li> </ul>

## Encoder



**SPE-1610**  
16CH Encoder



**SPE-410**  
4CH Encoder



**SPE-110**  
1CH Encoder

Max. # of Cameras	16	4	1
Supported Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Max. Resolution	4MP/1080p/720p/WD1/4CIF/CIF	4MP/1080p/720p/WD1/4CIF/CIF	4MP/1080p/720p/WD1/4CIF/CIF
Max. Frame Rate per Channel	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)
Bi-Directional Audio	Support	Support	-
RS-485	Support	Support	Support
Alarm I/O	16 / 4	4 / 2	-
SD Card	-	-	-
Application Programming Interface	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Power	12VDC : Max 24W	PoE & 12VDC : Max 9.6W	PoE : Max 4.0W 12VDC : Max 3.6W

## Decoder



**SPD-1660R**  
16 Monitor Decoder



**SPD-260B**  
Monitor Decoder Board for SPD-1660R



**SPD-151**  
48CH Decoder



**SPD-150**  
48CH Decoder

Video Out	HDMI (16ea), VGA (16ea)	HDMI (2ea), VGA (2ea)	HDMI, VGA, BNC	HDMI, VGA, BNC
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	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 / 2x2 / 3x3 / 4x4 / 5x5 / 6x6 (32Ch Only) (VGA) 1 / 2x2 / 3x3 / 4x4 (BNC) 1 Tile merge support	(HDMI) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 25 / 36(32) / 2V / 3V (VGA) 1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V Spilt mode, Hallway View mode (Up to 20 layouts and sequence)
Power	100 ~ 240V AC	-	12V DC, PoE	12V DC, PoE
Additional Features	Monitor merge - 1 x 2, 2 x 1, 2 x 2, 2 x 3, 3 x 2, 2 x 4, 2 x 5, 4 x 2, 3 x 3, 3 x 4, 4 x 3, 4 x 4, 3 x 5, 5 x 3, 5 x 2 SSM, WebViewer supported	Board of SPD-1660R	Up to 49CH, H.265 / H.264 / MJPEG codec, Layout Sequence Support Management using Web-Viewer	Up to 49CH, H.265 / H.264 / MJPEG codec, Layout sequence support

## iSCSI External Storage



**SRB-160S**  
16 Bay iSCSI External Storage

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
Additional Features	Dual SMPS for high reliability



## Ideal choice for integrated monitoring

Wisenet SSM (Smart Security Manager) is a video monitoring software that maximizes the operational efficiency of Wisenet products (Network camera, Encoder, DVR and NVR). Hanuha Techwin provides video surveillance products and also in-house developed Wisenet software to monitor whole systems. It provides seamless system integration and central monitoring with cost effectiveness and reliability.



### Cost Competitiveness

Offer major features of video surveillance in reasonable price

One time licensing cost (No cost for upgrades and maintenance)

High quality VMS features for the price

### High reliability

Superb device compatibility offered as a VMS of device manufacturer

Integrated operation of H/W and S/W for efficient maintenance and management

Dashboard that can monitor device status

### Convenient Operation

A single manufacturer providing unified user experience

Be the first to use the latest device features

Offer various solutions for user environments

## AI video search

Connect Wisenet AI cameras to SSM for various search features adopting AI algorithms.

### • Best Shot search using unique attributes

System operators can utilize SSM's 'AI video search' feature to easily search specific events in the video by designating distinctive attributes of objects such as persons, faces, and vehicles. If a user searches specific attributes such as red motorcycle or a man wearing short pants, the best still cuts (Best Shot) of the classified objects in the video will be retrieved. Best Shots can be used as forensic data for accident investigations, playing back video that includes Best Shots.



**Wisenet SSM search**  
Support quick search using attributes

**Best Shot**  
Object detection & classification (Person, face, vehicle, license plate)

## Parking management solution

Connect ANPR cameras to Wisenet SSM for various parking management features.

### • Vehicle management & event search

Wisenet SSM's parking management solution utilizes ANPR (Automatic number plate recognition) cameras offering real-time parking entrance/exit monitoring. Users can register and manage vehicles without additional parking management software, while simple search feature quickly searches and retrieves vehicle footage.



## Stable monitoring

Wisenet SSM provides safe and stable monitoring environment through Failover.

### • Vehicle management & event search

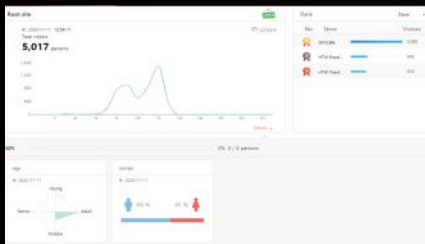
Failover priority (High, medium, never) can be configured for each channel. If a camera is failed, high priority cameras will be failed over at first. Users can record and save important footages without loss of data.



# WISENET Retail Insight

## Business Intelligence for your retail shops

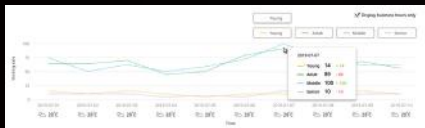
- Advanced BI functions
- User friendly UI (Detail button)
- People counting (age, gender)
- Heatmap (Time-lapse)
- Queue management
- Customizable dashboard and report
- Compatible all Wisenet cameras (applied BI function)



### Age, Gender Analysis

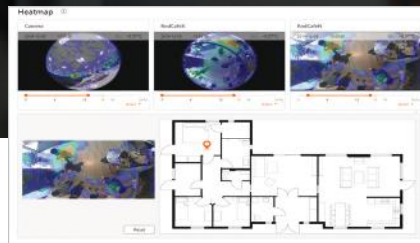
Wisenet Retail Insight not only counts the number of visitors in real time but also offers age & gender analytics, providing insightful information to store owners.

Owners can plan their marketing campaigns according to their customers' gender, age group.



### People counting

Owners can get a glance of visitors trends by daily, weekly, and monthly. This helps owners to effectively manage manpower by knowing the busiest time of the store.



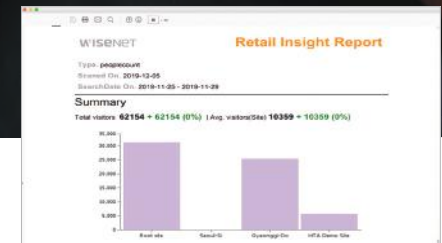
### Heatmap (Time-lapse)

Heatmap feature tracks areas where customers linger in, providing information on popular/unattractive products. Owners can configure the time duration to collect data at certain times.



### Queue management

Queue management is crucial for large retailers. The feature captures long waiting lines in real time and manages the queues in an efficient way, reducing customer complaints.



### Regular automatic report

Wisenet Retail Insight offers reports on a daily, weekly, or monthly basis. Users can configure reports with the units they want, taking full advantage of the vast size of database and gaining information crucial in running retail stores.



## Reader



**R10/R40/RK40 (Elite / Mobile)**  
Card / Keypad Reader



**Signo 20/20K/40/40K**  
Card / Keypad Reader



**U90**  
Long Range UHF Reader



**BioEntry W2**  
Fingerprint / Card Reader

Frequency	13.56Mhz	125KHz/ 13.56Mhz	902 ~ 928 MHz	13.56Mhz
Communication	Wiegand / Clock & Data (RK40/RK40 Elite / RK40 Mobile)	Wiegand/Clock & Data/BLE/NFC	Wiegand	Wiegand
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:MobileID, MIFARE (Classic)/DESFire EV1 CSN	Standard Profile : iClass SE/SEOS, MIFARE (Classic/SIO), HID Prox, Indala, EM4102, MIFARE DESFire EV1/EV2 (CSN/SIO) SEOS Profile : iClass SEOS	UHF Card	iCLASS SE, MIFARE (Classic) / DESFire EV1 CSN
Keypad	Yes (4 x 3) (RK40/RK40 Elite/RK40 Mobile)	-	-	-
Operating Voltage Range	5-16V DC	12V DC	12V DC or 24V DC	12V DC
Operating Temperature	-35°C ~ +65°C (-31°F ~ +150°F)	-35° to 66° C (-31° to 150° F)	-35°C ~ +65°C (-31°F ~ +150°F)	-20°C ~ +50°C (-4°F ~ +122°F)
Ingress Protection	IP55	IP65	IP65	IP67
Impact Protection	-	-	-	IK08
Panel Connection	Pigtail	Pigtail	Pigtail	Pigtail
Color	Black	Black with silver	Black	Dark Gray
OSDP	-	Support	-	-
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



**V2000**  
Distributed Controller



**EH400K**  
PoE Controller



**V1000**  
Centralized Controller



**V100/V200/V300**  
Expansion Reader / Input / Output Module



**X1100**  
Hybrid controller



**X100/X200/X300**  
Expansion Reader / Input / Output Module

Communication Port	Ethernet (10 / 100)	Ethernet (10 / 100)	Ethernet (10 / 100) / RS-485	RS-485	Ethernet (10/100)/ RS-485	RS-485
Reader interface	2ea	1ea	-	2ea (V100)	2ea	2ea/-
Max. expansion board	-	-	32ea	-	32ea	-
Max. card holders	250,000	125,000	250,000	-	250,000	-
Max. Event buffers	99,999	99,999	99,999	-	50,000	-
Input port	2ea	4ea	2ea	4ea / 16ea / 2ea	7ea	7ea/ 19ea/ 3ea
Output port	4ea	2ea	2ea	4ea / 2ea / 12ea	4ea	4ea/ 2ea/ 12ea
Operating Temperature	0°C ~ +50°C (+32°F ~ +122°F)	0°C ~ +50°C (+32°F ~ +122°F)	0°C ~ +50°C (+32°F ~ +122°F)	0°C ~ +50°C (+32°F ~ +122°F)	0°~70°C (32°~158°F)	0°~70°C (32°~158°F)
PoE	-	802.af	-	-	-	-
Color	Gray	Black	Gray	Gray	Gray	Gray
OSDP	-	-	-	-	Yes	Yes

## Standalone



**Face station2**  
Face Recognition Controller

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



**SSA-X300**  
Power Package

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")

## Card



**iCLASS SEOS (Elite)**  
13.56MHz



**Mobile ID**  
Bluetooth/NFC via Mobile device (Android, iOS)



**UHF Card**  
902 - 928 MHz

- Compatible with R10 Elite / R40 Elite/ RK40 Elite
- Encoded by Hanwha Techwin unique format

- Compatible with R10 Elite Mobile/ R40 Elite Mobile/ RK40 Elite Mobile

- Long range card (3~5m)



## Wisenet Access Software 2.0

Wisenet Access Software is access control management software integrated with Wisenet SSM for Total security solution. It is highly scalable up to unlimited doors system and has robust software architecture.

ACS Monitoring



Fire Alarm



Lift Control



### Key Features

- Interlocking**

Control the locking of two or more doors  
If one door is opened or unlocked, the remaining doors refuse access

- Mustering Report**

Provide information of the occupants in the fire grouping area based in Fire event

- Role Based Access**

Configure Role-based rules to provide access to a door (Multiple cards access)

- LDAP integration**

Synchronize Active Directory "Security group" users to have the same "Access Group", "Company", "Department" in WACS

- Lift access control**

Provide Access control for LIFT up to 12floors per output board (V300, X300)

- Guard Tour**

Provide Guard Tour : Sequential, Time Bound types



Configuration

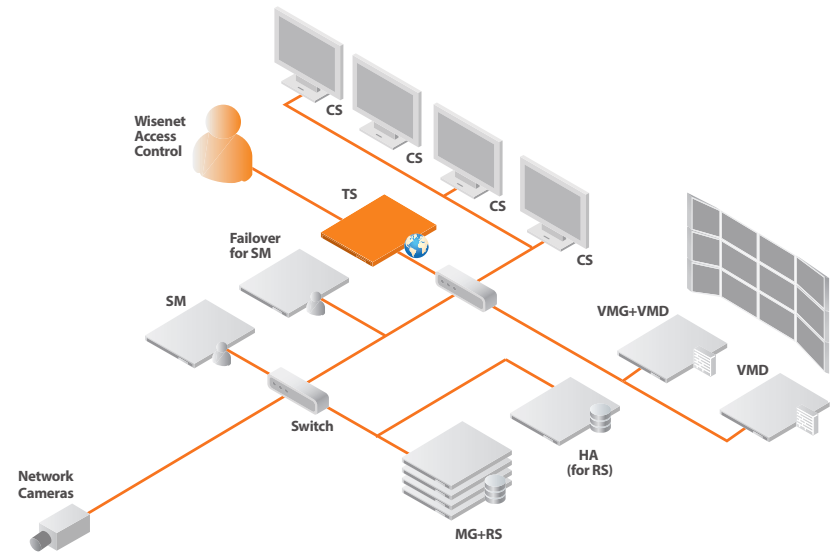


Monitoring



Mustering Report

### Integration with Wisenet SSM 2.0



Access Control	Device auto discovery Cardholder management Batch uploads Card (s) pre-registration Lift Control Role based ACS Device maintenance	Unlimited access groups, Time schedules Interlocking Area / Zone management Biometric readers (FP, Face) Visitor Management Global APB, I/O Guard Tour
Monitoring	Real time access events & alarm monitoring Graphic maps Remote door management (Close / Open) I/O monitoring	Mustering Configure Event Specific Instructions for Operators Event Filtering for Monitoring Control Door Monitoring/ Management permissions per User
Card Design and Printing	Create multiple design templates Auto-fill card holder data from system database Print cards	
Fire Groups	Create fire-groups for each fire sensor input	
Advanced Reporting	Extensive reporting options Export to multiple formats (excel, pdf, word etc.) Meal Count Report	
Video Integration with Wisenet SSM	Seamless Integration with Hanwha Techwin's VMS in event monitoring Review video of the access & alarms events Real-time access & alarms events notification to Wisenet SSM	
Maintenance	User group & user privileges Manual & scheduled database backup Database restore	Data export & import Custom fields Auditing & user activity logs
System	Unlimited doors Very simple and intuitive user interface Highly scalable	



**HCB-7000A**  
QHD Box Camera



**HCO-7070RA**  
QHD IR Bullet Camera



**HCO-7010RA/20RA/30RA**  
QHD IR Bullet Camera



**HCD-7070RA**  
QHD IR Dome Camera

	HCB-7000A QHD Box Camera	HCO-7070RA QHD IR Bullet Camera	HCO-7010RA/20RA/30RA QHD IR Bullet Camera	HCD-7070RA QHD IR Dome Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
Min. Illumination	Color : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	-	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCO-7010R) 4.0mm fixed (HCO-7020R) 6.0mm fixed (HCO-7030R)	3.2 ~ 10mm (3.1x) varifocal
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-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020RA) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030RA)	H : 93.48° (Wide) ~ 29.44° (Tele) / V : 50.47° (Wide) ~ 16.64° (Tele) / D : 112.53° (Wide) ~ 33.7° (Tele)
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 63° / 0° ~ 355°
IR Viewable Length	-	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	-	MD Output 1
Protocol	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)
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)
Certification	-	IP66, IK10	IP66, IK10	-
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5.0W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	W68.4 x H59.6 x D92.7mm (2.69" x 2.35" x 3.65") 186g (0.41lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø70 x 246mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)



**HCD-7010RA/20RA/30RA**  
QHD IR Dome Camera



**HCV-7070RA**  
QHD IR Vandal Dome Camera



**HCV-7010RA/20RA/30RA**  
QHD IR Vandal Dome Camera



**HCB-6001**  
1080p HD Box Camera



**HCB-6000**  
1080p HD Box Camera

	HCD-7010RA/20RA/30RA QHD IR Dome Camera	HCV-7070RA QHD IR Vandal Dome Camera	HCV-7010RA/20RA/30RA QHD IR Vandal Dome Camera	HCB-6001 1080p HD Box Camera	HCB-6000 1080p HD Box Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.26Lux (F1.8) (HCD-7010R) 0.27Lux (F2.0) (HCD-7020R/7030R) B/W: 0Lux (IR LED on)	Color: 0.16Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W: 0Lux (IR LED on)	Color: 0.09Lux (F1.2) B/W: 0.009Lux (F1.2)	Color: 0.09Lux (F1.2) B/W: 0.009Lux (F1.2)
Focal Length	2.8mm fixed (HCD-7010R) 4.0mm fixed (HCD-7020R) 6.0mm fixed (HCD-7030R)	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	-	-
Angular Field of View	H: 107.48° / V: 59.67° / D: 122.01° (HCD-7010R) H: 78.22° / V: 41.21° / D: 87.91° (HCD-7020R) H: 49.01° / V: 27.61° / D: 55.6° (HCD-7030R)	H: 93.48° (Wide) ~ 29.44° (Tele) / V: 50.47° (Wide) ~ 16.64° (Tele) / D: 112.53° (Wide) ~ 33.7° (Tele)	H: 107.48° / V: 59.67° / D: 122.01° (HCV-7010R) H: 78.22° / V: 41.21° / D: 87.91° (HCV-7020R) H: 49.01° / V: 27.61° / D: 55.6° (HCV-7030R)	-	-
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-	-
IR Viewable Length	20m (65.62ft) (HCD-7010R) 25m (82.02ft) (HCD-7020R) 30m (98.43ft) (HCD-7030R)	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	4 Zones	8 Zones
Alarm I/O	-	MD Output 1	-	0 / 1, External D/N 1	0 / 1, External D/N 1
Protocol	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), RS-485: Samsung T/E, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485: Samsung T, Pelco D/P, Panasonic, Bosch, Honeywell, Vicon, GE, AD
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)
Certification	-	IP66, IK10	IP66, IK10	-	-
Power Consumption	12VDC: Max 5.0W	12VDC & 24VAC: Max 5.8W	12VDC: Max 5.0W	12VDC & 24VAC: Max 6W	12VDC & 24VAC: Max 3.5W
Dimensions (WxHxD) / Weight	Ø110.1 x 86.1mm (Ø4.33" x 3.39") 240g (0.53lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.58lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12lb)	W73.1 x H67.2 x D123.9mm (2.88" x 2.65" x 4.88") 287g (0.63lb)	W68.4 x H59.6 x D92.7mm (2.69" x 2.35" x 3.65") 186g (0.41lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)





**HCZ-6321**  
1080P HD Box Camera



**HCZ-6320**  
1080p HD Box Camera



**HCO-6080R**  
1080p HD IR Bullet Camera



**HCO-6070R**  
1080p HD IR Bullet Camera



**HCO-6020R**  
1080p HD IR Bullet Camera

	HCZ-6321 1080P HD Box Camera	HCZ-6320 1080p HD Box Camera	HCO-6080R 1080p HD IR Bullet Camera	HCO-6070R 1080p HD IR Bullet Camera	HCO-6020R 1080p HD IR Bullet Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.2Lux (F1.6) B/W: 0.01Lux (F1.6)	Color: 0.2Lux (F1.6) B/W: 0.01Lux (F1.6)	Color: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.17Lux (F1.6) B/W: 0Lux (IR LED on)
Focal Length	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (Optical 32x)	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)
Angular Field of View	H: 62.8° (Wide) ~ 2.23° (Tele) / V: 36.80° (Wide) ~ 1.26° (Tele)	H: 62.8° (Wide) ~ 2.23° (Tele) / V: 36.80° (Wide) ~ 1.26° (Tele)	H: 110.2° (Wide) ~ 32° (Tele) / V: 55.4° (Wide) ~ 18° (Tele) / D: 128.4° (Wide) ~ 36.6° (Tele)	H: 110.2° (Wide) ~ 32° (Tele) / V: 55.4° (Wide) ~ 18° (Tele) / D: 128.4° (Wide) ~ 36.6° (Tele)	H: 87.6° / V: 46.4° / D: 104.5°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR III	SSNR III	SSNR IV	SSNR IV	SSNR IV
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	12 Zones	12 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	Output 1	-	MD Output 1	MD Output 1	-
Protocol	AHD: ACP (AHD Coax Protocol), RS-485: Samsung-T/E, 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)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	-	-	IP66, IK10	IP66, IK10	IP66
Power Consumption	12VDC: Max 6W	12VDC: Max 6W	12VDC & 24VAC: Max 6.0W	12VDC & 24VAC: Max 6.0W	12VDC: Max 4.2W
Dimensions (WxHxD) / Weight	W71.8 x H63.9 x D137.25mm (2.83" x 2.52" x 5.40") 451g (0.99lb)	W72.0 x H60 x D137mm (2.83" x 2.36" x 5.39") 476g (1.05lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.50") (Without sunshield) 285g (0.62lb)
Additional Features	Defog	Defog	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)



**HCD-6080R/6070R**  
1080p HD IR Dome Camera



**HCD-6020R**  
1080p HD IR Dome Camera



**HCD-6010**  
1080p HD Dome Camera



**HCV-6080R/6070R**  
1080p HD IR Vandal Dome Camera



**HCP-6320HA/6320A**  
1080p HD 32x PTZ Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.17Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.27Lux (F2.0) B/W: 0.017 Lux (F2.0)	Color: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Color: 0.2Lux (F1.6) B/W: 0.01Lux (F1.6)
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal (HCD-6080R) varifocal (HCD-6070R)	4mm fixed (F1.6)	2.8mm fixed (F2.0)	3.2 ~ 10mm (3.1x) motorized varifocal (HCV-6080R) varifocal (HCV-6070R)	4.44 ~ 142.6mm (Optical 32x)
Angular Field of View	H: 110.2° (Wide) ~ 32° (Tele) / V: 55.4° (Wide) ~ 18° (Tele) / D: 128.4° (Wide) ~ 36.6° (Tele)	H: 87.6° / V: 46.4° / D: 104.5°	H: 113.7° / V: 61.5° / D: 134.5°	H: 110.2° (Wide) ~ 32° (Tele) / V: 55.4° (Wide) ~ 18° (Tele) / D: 128.4° (Wide) ~ 36.6° (Tele)	H: 62.8° (Wide) ~ 2.23° (Tele) / V: 36.8° (Wide) ~ 1.26° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	360° Endless / 210° (-15° ~ 195°) / -
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	-	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNR IV	SSNR IV	SSNR IV	SSNR IV	SSNR III
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones	32 Zones
Alarm I/O	MD Output 1	-	-	MD Output 1	4 / 2 (Relay)
Protocol	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD: ACP (AHD Coax Protocol), RS-485: Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE
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)	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6320HA), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6320A)
Certification	-	-	-	IP66, IK10	IP66, IK10 (HCP-6320HA), IK10 (With SHP-3701H) (HCP-6320A)
Power Consumption	12VDC & 24VAC: Max 6.0W (HCD-6080R) 12VDC & 24VAC: Max 4.2W (HCD-6070R)	12VDC: Max 4.2W	12VDC: Max 3.5W	12VDC & 24VAC: Max 4.2W	24VAC: Max 24.0W / 65.0W - Heater off / on (HCP-6320HA) 24VAC: Max 20.0W (HCP-6320A)
Dimensions (WxHxD) / Weight	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71lb)	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) (HCV-6080R) 715g (1.58lb) (HCV-6070R)	Ø220 x 293.6mm (Ø8.66" x 11.56") 3.3kg (7.28lb) (HCP-6320HA) Ø152 x 218mm (Ø5.98" x 8.58") 2.2kg (4.85lb) (HCP-6320A)
Additional Features	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Video transmission up to 500m (5C2V Coaxial Cable)	Fogfog



**HCP-6230H/6230**  
1080p HD 23x PTZ Camera



**SCB-6005**  
1080p HD Box Camera



**SCO-6085R**  
1080p HD IR Bullet Camera



**SCO-6025R**  
1080p HD IR Bullet Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.2Lux (F1.6) B/W : 0.01Lux (F1.6)	Color: 0.04Lux (F1.2, 1/30sec) BW: 0.004Lux (F1.2)	Color: 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)
Focal Length	4.44 ~ 101.2mm (Optical 23x)	-	3.2 ~ 10mm (3.1x) manual varifocal	4mm fixed
Angular Field of View	H : 62.8 °(Wide) ~ 3.14 °(Tele) / V : 36.8 °(Wide) ~ 1.76 °(Tele)	-	H : 110.2° (Wide) ~ 32.0° (Tele) / V : 55.4° (Wide) ~ 18.0° (Tele) / D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°
Pan / Tilt / Rotate	360° Endless / 210° (-15° ~ 195°) / -	-	-	-
IR Viewable Length	-	-	30m (98.42ft)	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	BLC, HLC, DWDR	BLC / HLC / DWDR	BLC, HLC, DWDR
Digital Noise Reduction	SSNR III	SSNR IV	SSNR IV	SSNR IV
Motion detection	Support	Support	Support	Support
Privacy Masking	32 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	4 / 2 (Relay)	0 / 1	0 / 1	0 / 1
Protocol	AHD : ACP (AHD Coax Protocol), RS-485 - Samsung-T/E, Pelco-P/D, Sungjin, Panasonic, Honeywell, AD, Vicon, Bosch, GE	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)
Operating Temperature	-50°C ~ +55°C (-58°F ~ +131°F) (HCP-6230H), -10°C ~ +55°C (+14°F ~ +131°F) (HCP-6230)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH * Start up should be done at above -10°C
Certification	IP66, IK10 (HCP-6230H), IK10 (With SHP-3701H) (HCP-6230)	-	IP66, IK10	IP66
Power Consumption	24VAC : Max. 24.0W / 65.0W - Heater off / on (HCP-6230H) 24VAC : Max 20.0W (HCP-6230)	AC 24V / 0.37A (Max 3.6W) DC 12V / 0.32A (Max 3.5W)	12VDC : Max 5.4W 24VAC : Max 5.4W	DC 12V/0.45A (Max 5.4W)
Dimensions (WxHxD) / Weight	Ø220 x 293.6mm (Ø8.66" x 11.56") 3.3kg (7.28lb) (HCP-6230H) Ø152 x 218mm (Ø5.98" x 8.58") 2.2kg (4.85lb) (HCP-6230)	W68.4 x H59.6 x D92.7mm (2.69" x 2.35" x 3.65") 186g (0.41lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") 887g (1.95lb)	Ø58.6 x 165.2 mm (Ø 2.31" x 6.50") (without sunshield) 279g (0.62lb)
Additional Features	Defog	Defog	Defog	Defog



**SCD-6085R**  
1080p HD IR Dome Camera



**SCD-6025R**  
1080p HD IR Dome Camera



**SCD-6023R**  
1080p HD IR Dome Camera



**SCV-6085R**  
1080p HD IR Vandal Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/3" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.17Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.25Lux (F2.1) B/W: 0Lux (IR LED on)	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)
Focal Length	3.2~10mm (3.1x) varifocal	4mm fixed	4mm fixed	3.2~10mm (3.1x) varifocal
Angular Field of View	H: 110.2°(Wide) ~ 32°(Tele) V: 55.4°(Wide) ~ 18°(Tele) D: 128.4°(Wide) ~ 36.6°(Tele)	H: 87.6° / V: 46.4° / D: 104.5°	H: 80.7° / V: 43.5° / D: 95.8°	H: 110.2°(Wide) ~ 32°(Tele) V: 55.4°(Wide) ~ 18°(Tele) D: 128.4°(Wide) ~ 36.6°(Tele)
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°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC, HLC, DWDR	BLC, HLC, DWDR	BLC / HLC / DWDR	BLC, HLC, DWDR
Digital Noise Reduction	SSNR IV	SSNR IV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	4 Zones	8 Zones
Alarm I/O	0 / 1	0 / 1	-	-
Protocol	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH * Start up should be done at above -10°C
Certification	-	-	-	IP66, IK10
Power Consumption	AC 24V / 0.45A DC 12V / 0.46A	DC 12V/0.45A (Max 5.4W)	12VDC: Max 4.2W	AC 24V / 0.45A DC 12V / 0.46A
Dimensions (WxHxD) / Weight	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g	Ø110 x 86mm (Ø4.33" x 3.39") 227g (0.50lb)	Ø110 x 86mm (Ø4.33" x 3.39") 242g (0.53 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g
Additional Features	Defog	Defog	Defog	Defog



**HRX-1621**  
16CH 8MP Pentabrid Recorder



**HRX-1620**  
16CH 8MP Pentabrid Recorder



**HRX-821**  
8CH 8MP Pentabrid Recorder

OS	Linux	Linux	Linux
Compression	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Inputs	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 8CH, N/W Camera 2CH (up to 10CH)
Record Rate	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
HDD Slot	SATA 8ea(Max 48TB)	SATA 2ea(Max 12TB)	Up to 4 SATA HDDs
Viewer Software	Wisenet SSM WebViewer SmartViewer Wisenet Mobile	Wisenet SSM WebViewer SmartViewer Wisenet Mobile	Wisenet SSM WebViewer SmartViewer Wisenet Mobile
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)
Audio In/Out	16 / 1	4 / 1	8 / 1
Alarm In/Out	16 / 4	16 / 4	8 / 4
N/W Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485/422 USB (2ea)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (3ea)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ea)



**HRX-820**  
8CH 8MP Pentabrid Recorder



**HRX-421**  
4CH 8MP Pentabrid Recorder



**HRX-420**  
4CH 8MP Pentabrid Recorder

OS	Linux	Linux	Linux
Compression	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Inputs	Analog 8CH, N/W Camera 2CH (up to 10CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)	Analog 4CH, N/W Camera 2CH (up to 6CH)
Record Rate	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
HDD Slot	Up to 2 SATA HDDs	Up to 2 SATA HDDs	Up to 1 SATA HDD
Viewer Software	Wisenet SSM WebViewer SmartViewer Wisenet Mobile	SSM WebViewer SmartViewer Wisenet Mobile	SSM WebViewer SmartViewer Wisenet Mobile
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA
Audio In/Out	4 / 1	4 / 1	1 / 1
Alarm In/Out	8 / 4	4 / 2	4 / 1
N/W Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (3ea)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485/422 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)



## LED Monitor



**SMT-4033**  
40" LED Monitor



**SMT-3233**  
32" LED Monitor



**SMT-2233**  
22" LED Monitor



**SMT-1935**  
19" LED Monitor



**SMT-1931**  
19" LED Monitor



**SMT-1914**  
19" LED Monitor

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

## Controller



**SPC-7000**  
System Controller



**SPC-2000**  
Network Controller






**SPC-2010**  
PTZ / DVR System Controller

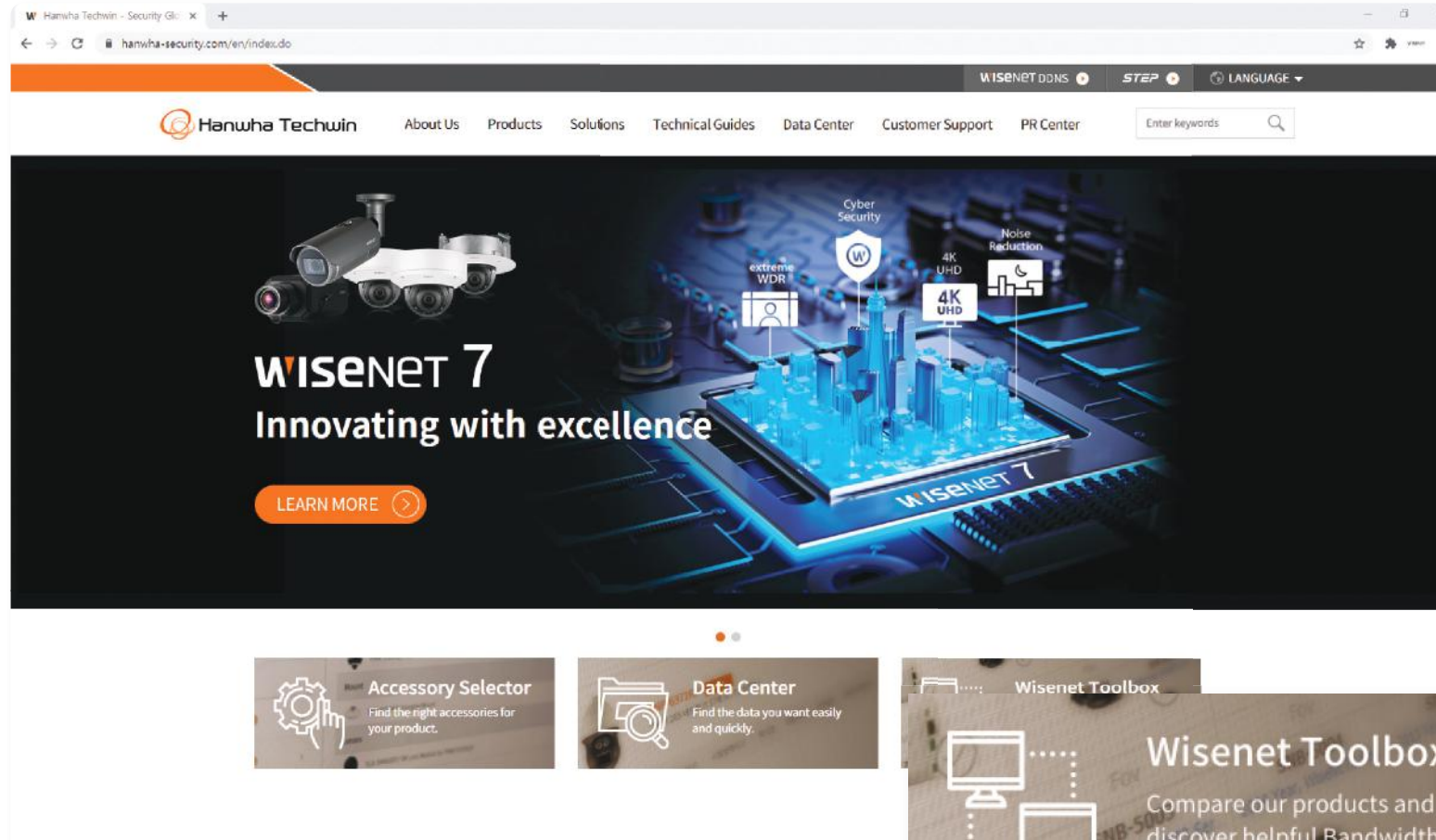


**SPC-1010**  
PTZ Control Keyboard

Features	SPC-7000 System Controller	SPC-2000 Network Controller	SPC-2010 PTZ / DVR System Controller	SPC-1010 PTZ Control Keyboard
	<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>	<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>	<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>	<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

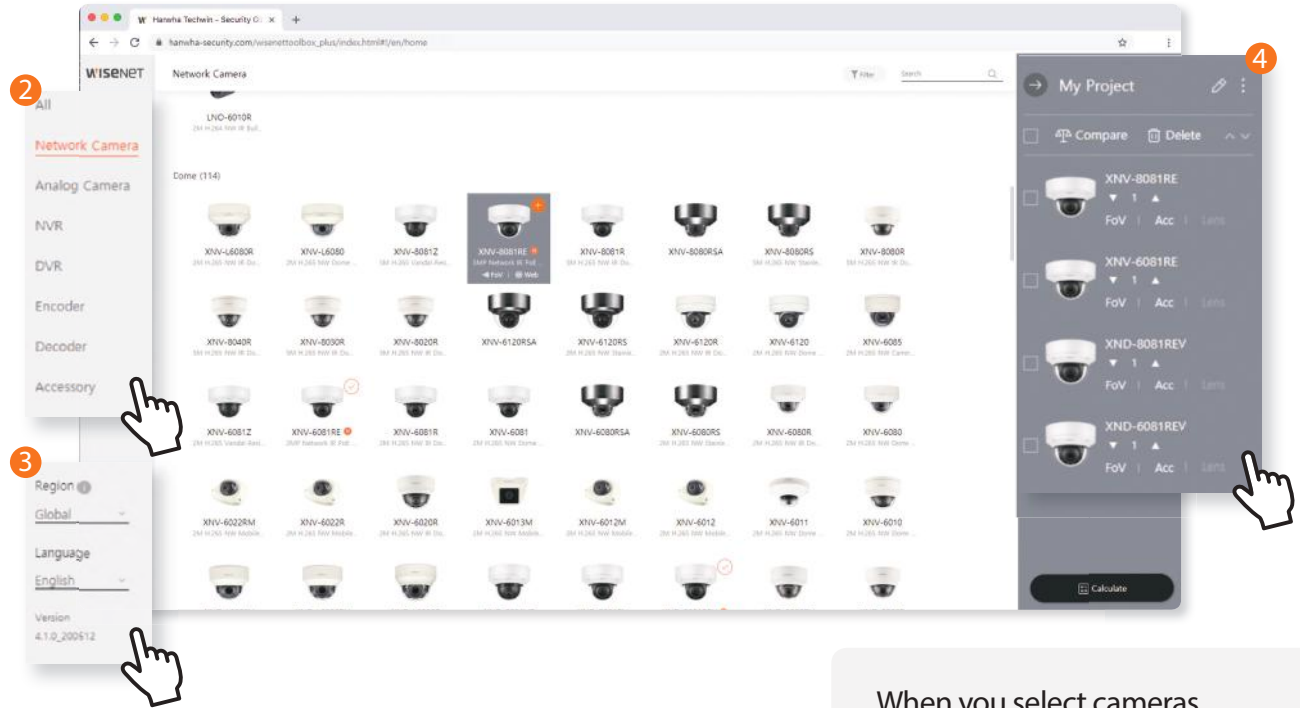
Lens Description	Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F. No	Angle of View	Operation			Dimensions W x H x D (mm / inch)	Weight (g / lb)
											Iris	Focus	Zoom		
	SLA-M8550D					8.5 ~ 50mm (0.33" ~ 1.97")	9.4 ~ 10.7mm (0.37" ~ 0.42")	5.9	F1.6	42.3° ~ 7.5°				46 x 60 x 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17 lb)
	SLA-M2890DN		CS	1 / 2.8"	3Megapixel							DC			
						2.8 ~ 9mm (0.11" ~ 0.35")	7.5 ~ 15.9mm (0.30" ~ 0.63")	3.2	1.2	134.2° ~ 42.7°		Manual	Manual	45.0 x 51.5 x 54.3mm (1.77" x 2.03" x 2.14")	84g (0.19 lb)
	SLA-M2890PN											P-Iris			82.1g (0.18 lb)



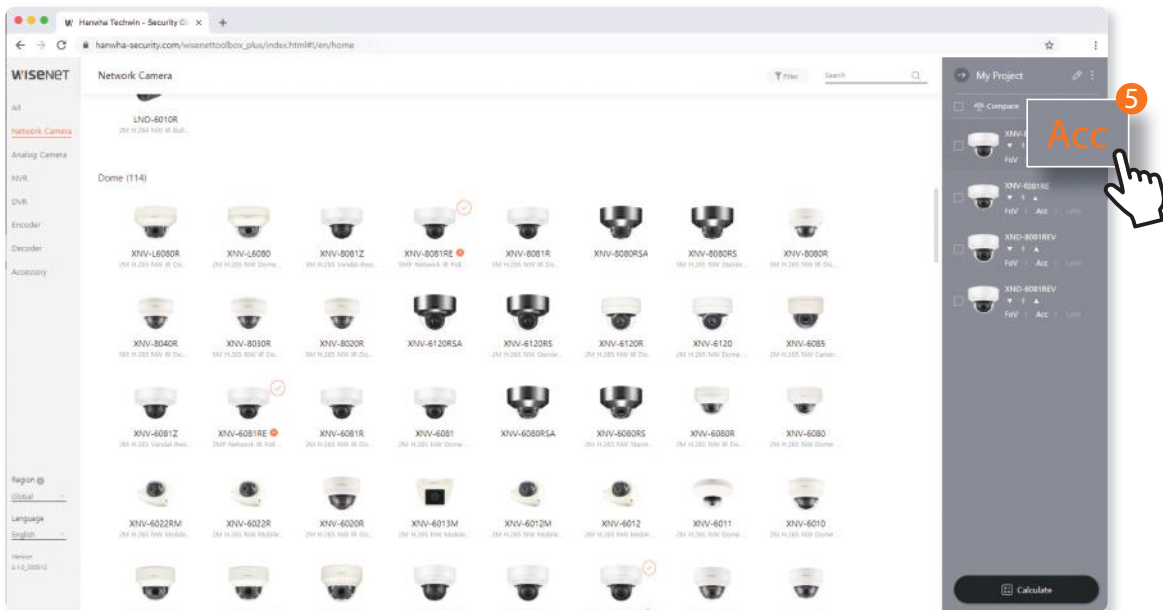
Click the Wisenet Toolbox on Hanwha-security.com

Choose product you are interested in

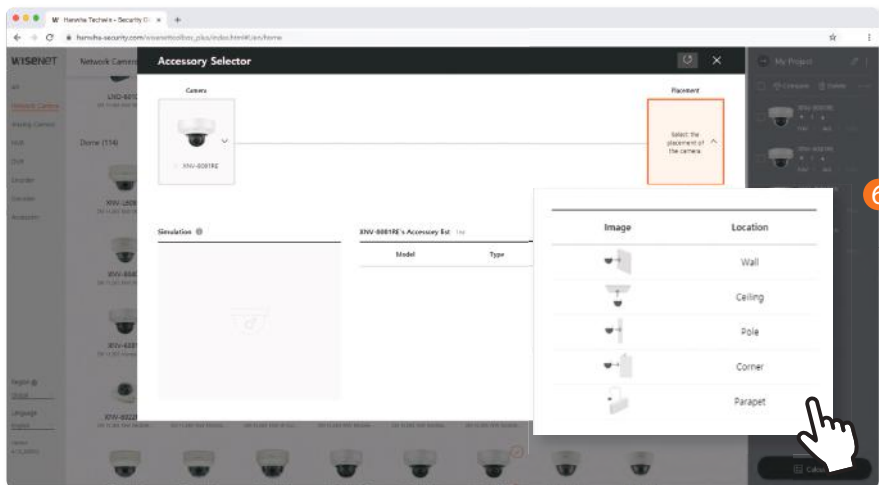
Select region and language  
\* Now only English available



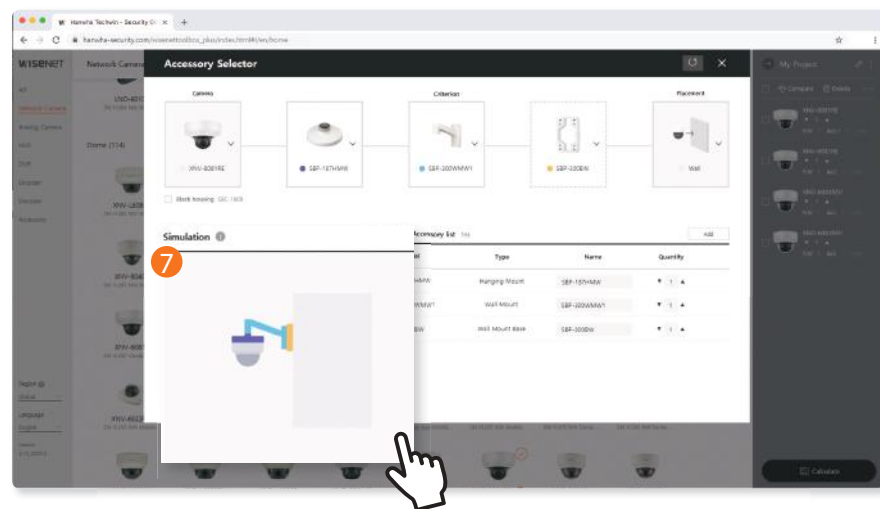
When you select cameras, they will be added on My Project



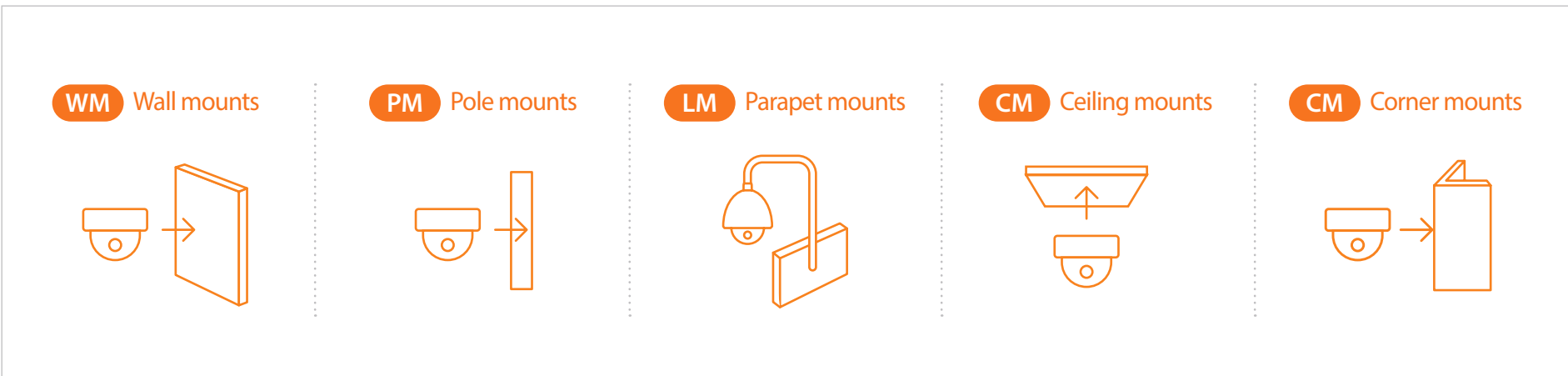
Click the Acc to find compatible accessories



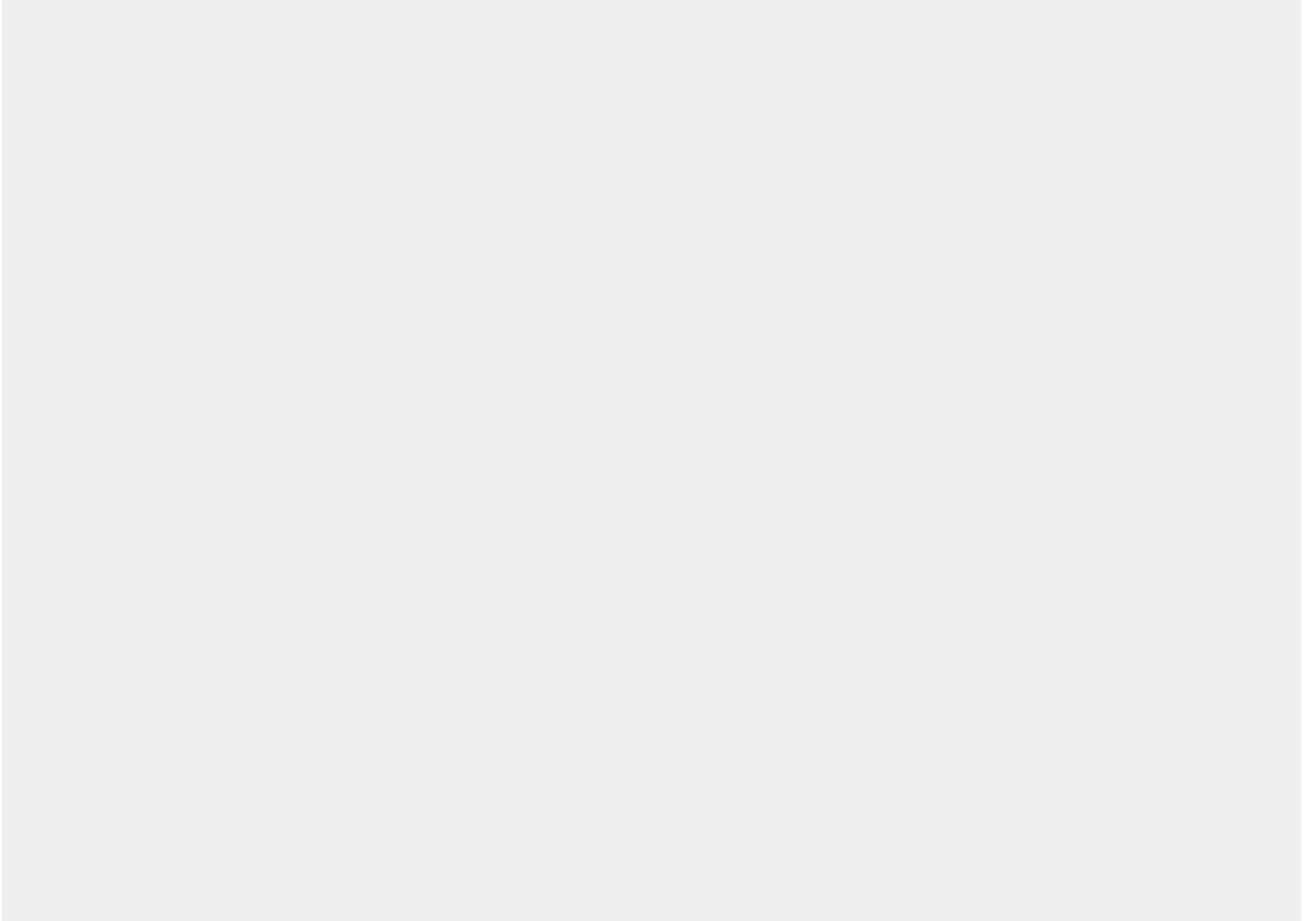
Accessory Selector pops up. All compatible accessories are shown



Choose accessories then the simulation intuitively shows all connected accessories

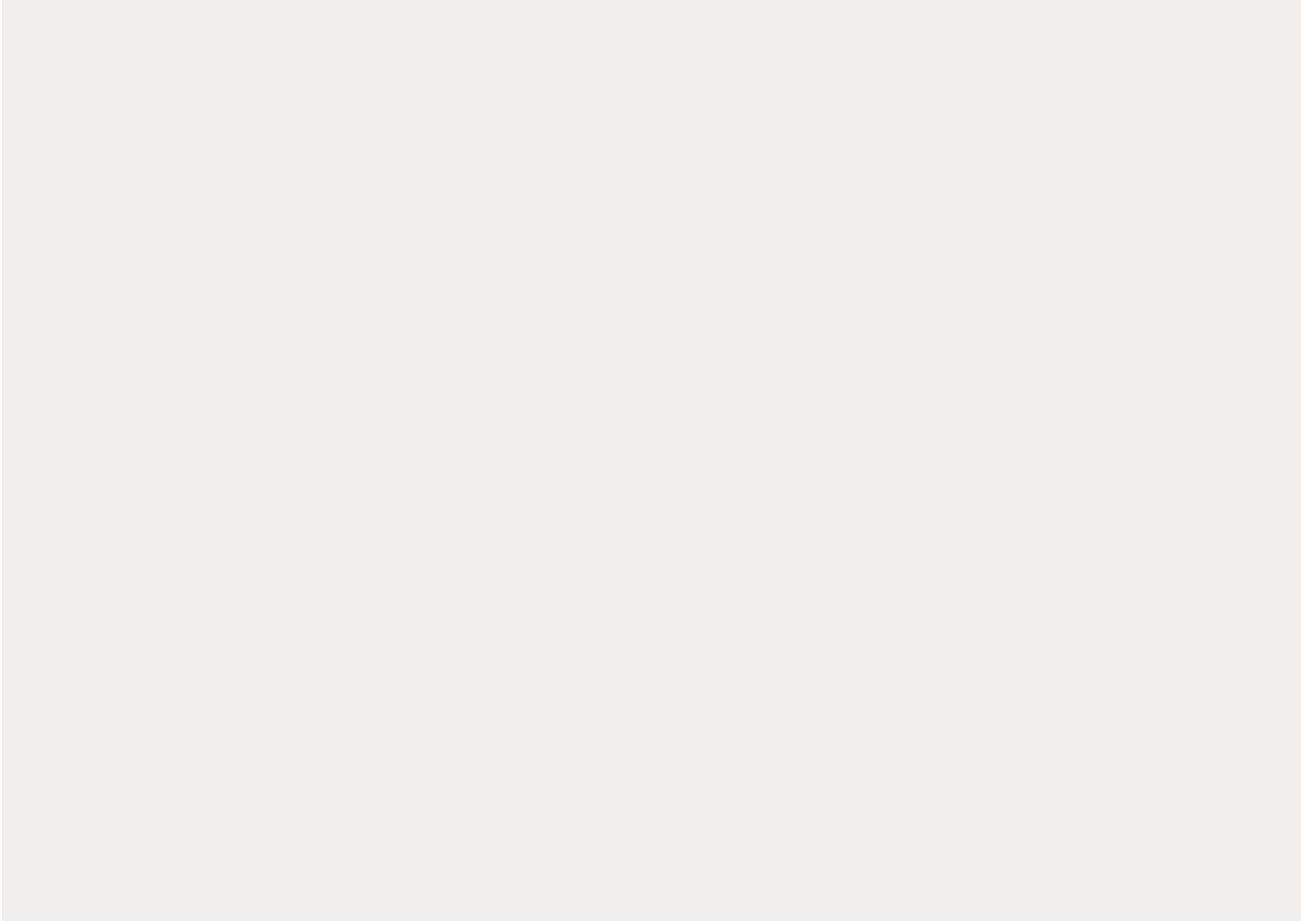


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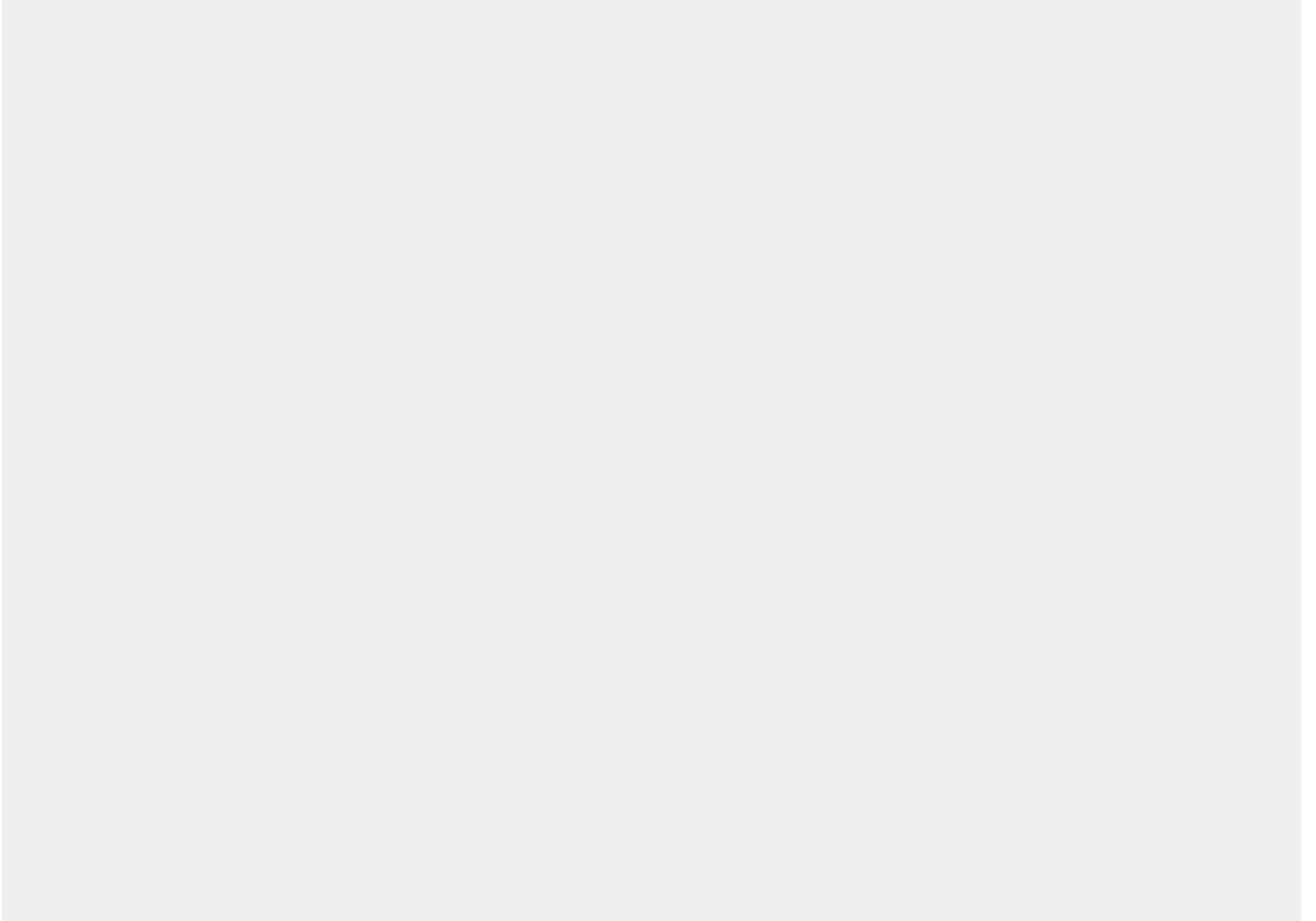




# MEMO



# MEMO



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