



# H2 2023 PRODUCT PORTFOLIO



# Hanwha Group

Hanwha will continue to embrace bold challenges for a sustainable tomorrow.

Founded in 1952, Hanwha continues to grow by quickly anticipating and responding to rapidly changing business environments with a balanced business portfolio that includes aerospace, energy & materials, finance and retail & services. As of 2021, we are the seventh largest business enterprise in South Korea and a Fortune Global 500 company.

Hanwha has become a global leader in a number of industries thanks to its culture of innovation, focused on breakthrough technologies, and sound financial structures.

Sales  
2021

**69.3** KRW  
Trillion

Years of History  
Founded in 1952

**70**

Domestic affiliates  
As of end of June 2022

**93**

Business Enterprise in  
South Korea

Total asset basis, as of end of 2021

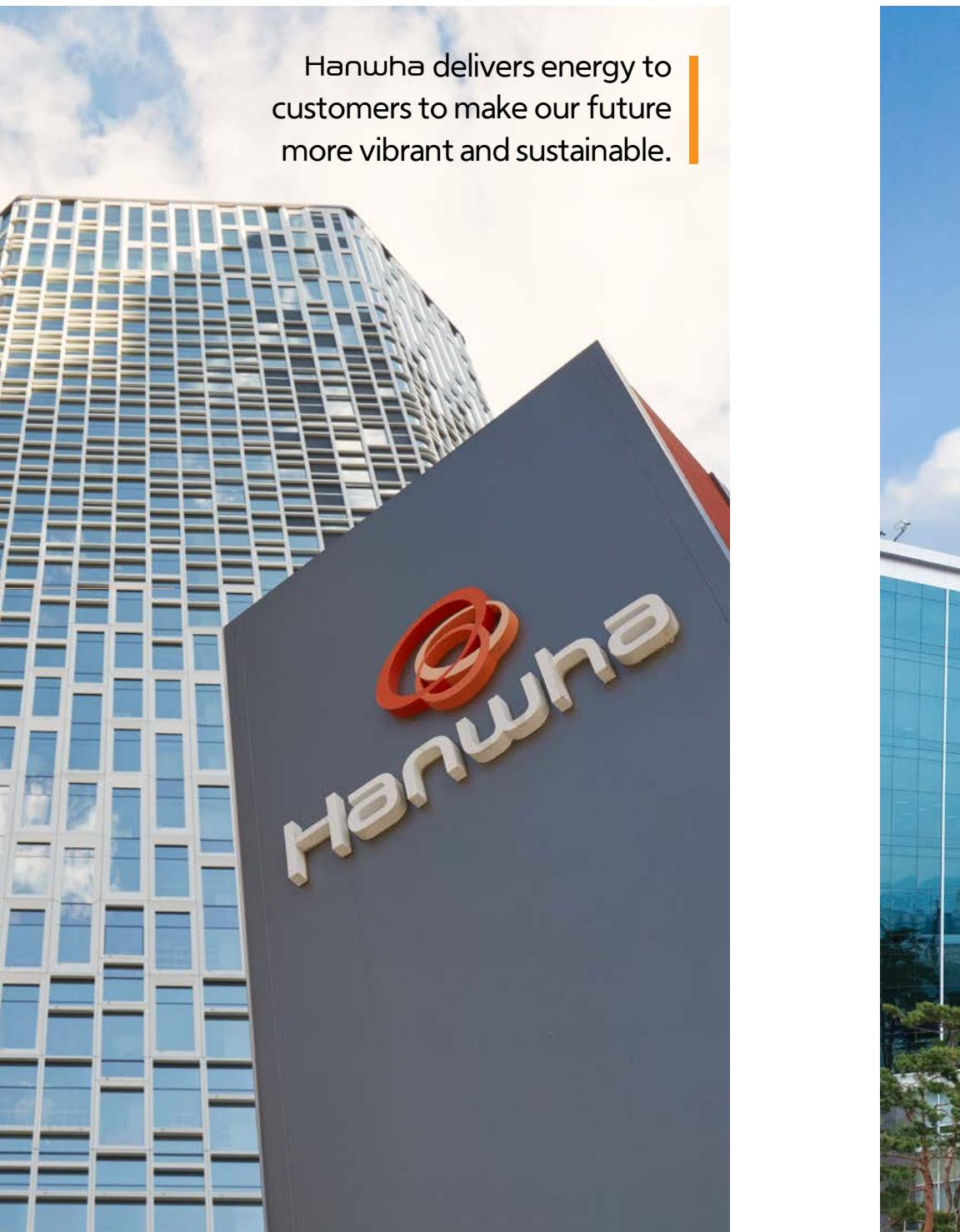
**TOP 7**

Ranking on Fortune  
Global 500 in 2022

**306**

Global Networks  
As of end of 2021

**616**



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



## Global vision solution provider

Over the past 30 years, we have established ourselves as a global video security specialist with world-class optical design, manufacturing, and image processing technology.

We have been ensuring safety and peace of mind around the world and across society with outstanding products and solutions and industry-leading cyber security.

Our growth and innovation started with our customers' needs. This began with their desire to improve safety and security, now evolving to answer wider business opportunities and challenges. Ultimately, all our solutions enable our customers to reach their goals.

Our investment in innovation and continually pushing the boundaries of what's possible in video is core to our competitiveness. Ensuring we leap ahead in vision solutions.

## History

- 2023.03 – Changed company name to 'Hanwha Vision'
  - Declared a leap toward being a vision solution provider
  - Launched IP audio system
- 2022
  - Launched the X AI camera series
- 2021
  - Launched AI NVR and AI integrated solution
  - Developed AI-based infectious disease response solutions
- 2020
  - 30th anniversary of the video security business
  - Launched the P AI camera series
  - Launched Wisenet 7 SoC, a camera series with Wisenet 7 SoC acquired UL CAP (UL Cybersecurity Assurance Program)
- 2019
  - UK Government official cybersecurity certification
  - Acquired 'Secure by Default'
  - Launched the world's first 55x IR PTZ camera
- 2018
  - Established Hanwha Techwin Vietnam manufacturing corporation
- 2017
  - Wisenet 5 SoC and X camera series launched
  - Acquired CES, a UK Government cyber security certification
- 2016
  - Establishment of Hanwha Techwin Middle East FZE
- 2015
  - Launched Hanwha Techwin
- 2013
  - Wisenet 3 SoC and camera series with Wisenet 3 SoC are launched
- 2012
  - Launched the world's first 37x IR PTZ camera
- 2009
  - Establishment of Hanwha Techwin Tianjin and Shanghai
- 2008
  - Launched the world's first 37x PTZ camera
- 2005
  - Developed advanced intruder automatic location tracking system
- 2004
  - Developed Winner 3 Analog ISP chip
- 2001
  - Establishment of Hanwha Techwin Europe
- 1997
  - Launched the world's best ultra-low illumination video surveillance camera
- 1993
  - Developed Korea's first Auto Iris lens for CCTV
- 1990
  - Started video surveillance business, establishment of Hanwha Techwin America

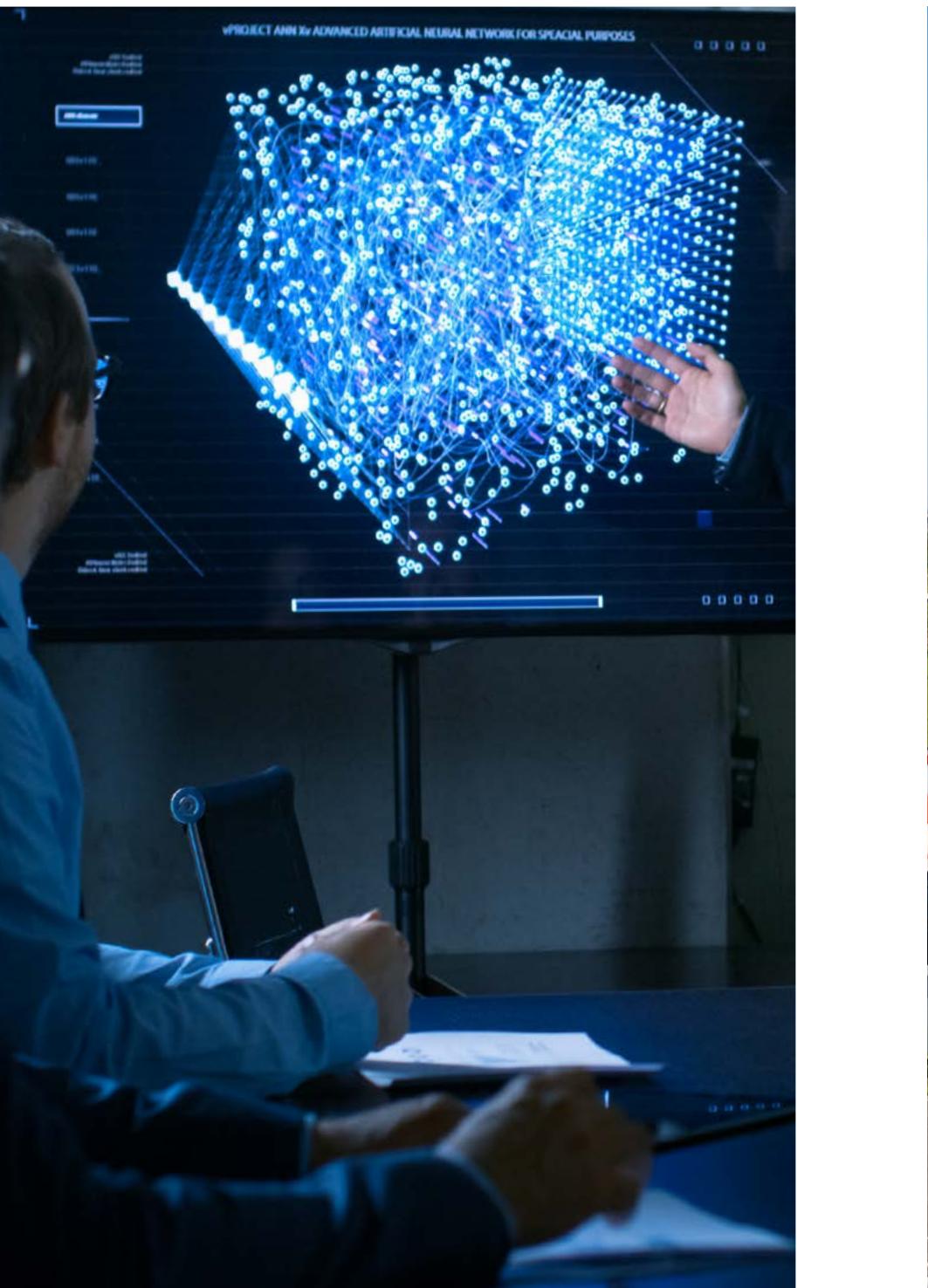
## R&D power

The R&D headquarters, located in Pangyo Techno Valley, Gyeonggi-do, is the central axis of Hanwha Vision's global R&D. Here, we develop and test various vision technology solutions before rolling them out commercially.

In 2022 Hanwha Vision established an Innovation Center in the US, with the remit of developing key technologies of the future, such as AI and cloud. Eventually we see these becoming two of Hanwha Vision's core competencies.

Alongside these efforts, we have established a global AI R&D organisation across our headquarters, the US R&D Centre, and our AI data lab. This secures our AI full stack capabilities, from AI strategy to data processing, commercialisation, and future development.

This accelerates our R&D to give Hanwha Vision sustainable competitiveness in an ever-changing market.



To ensure 24/7 reliability of our products, we introduced smart manufacturing systems.



## High-tech Powered in Vietnam

Hanwha Vision's manufacturing subsidiary in Vietnam (HVS) was established in 2018 in order to expand its global production capability as well as to strengthen cost competitiveness. Through automation and smart systems, Hanwha Vision has built sophisticated and fast-moving manufacturing lines producing all its product line-ups including cameras and storage devices. All products produced in HVS go through a reliable manufacturing and quality assurance process and are sold globally, these products represent 85% of Hanwha Vision's total sales.

## End-to-end Cybersecurity

Hanwha Vision 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 Vision 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 Vision Private Device Certification Root CA
- UL CAP, TPM 2.0 (FIPS 140-2)
- 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))

※ Please ask your local representative for UL CAP, TPM 2.0 applied products



# Next level Cybersecurity



## Q series AI Camera

Affordable cameras series with built-in AI

Increased accuracy of video analytics through people and vehicle detection

- AI based object detection (Person, Vehicle)
- WiseNRII, SSNRV, WiseStreamIII

### Q series AI

QNV-C9083R, QNV-C8083R,  
QNO-C9083R, QNO-C8083R,  
QNV-C8011R, QNV-C8012,  
QNV-C9011R



# X series AI camera

## X Plus·X Core lineup

### AI-Enhanced X series Cameras

- Object detection
- Edge-based business intelligence
- Improved image quality
- Next level cybersecurity
- User convenience
- Reinforced durability

Featuring Hanwha's advanced artificial intelligence (AI) and deep-learning technologies, the new X series cameras offer industry-leading AI-based object detection for false alarm reduction, AI-enhanced image quality and edge-based business intelligence.

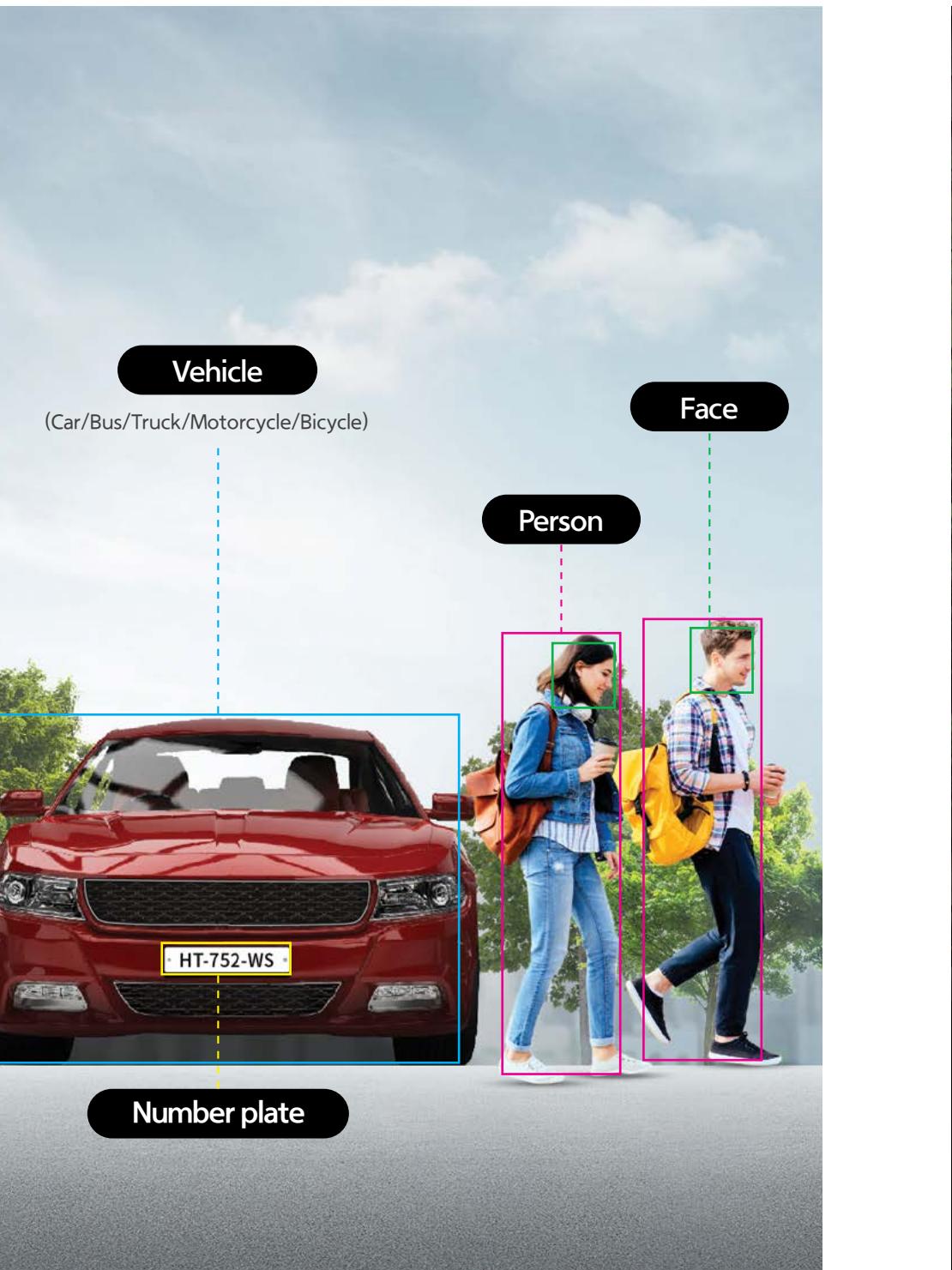
#### X PLUS

XNO-9083R/8083R/6083R  
XNV-9083R/8093R/8083R/6083R  
XND-9083RV/8093RV/8083RV/6083RV  
XNB-9003/8003/6003



#### X Core

XNO-C9083R/C8083R/C7083R/C6083R  
XNV-C9083R/C8083R/C7083R/C6083R  
XND-C9083RV/C8083RV/C7083RV/C6083RV



# P series AI Camera & NVR

### Precise Object Detection & Classification with AI

- Person
- Face
- Vehicle
- License plate
- Gender
- Age range
- Colour of clothing
- Face mask
- Glasses/Hat/Bag
- Vehicle time and colour

Equipped with a powerful artificial intelligence (AI) engine that detects and classifies people and vehicles in real time, P series AI cameras are designed to accurately capture the unique attributes of objects such as faces and number 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 2MP)

PNO-A9081R/A6081R, PNV-A9081R/A6081R, PND-A9081RV/A6081RV, PND-A9081RF/A6081RF, PNB-A9001/A6001

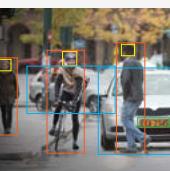
\* See more on P25



#### AI NVR Series

PRN-6405DB4/6405B4, PRN-3200B4/3200B2/1600B2

\* See more on P80



#### AI Cameras

Detect and classify objects real-time



VMS Plug-in for improved AI search

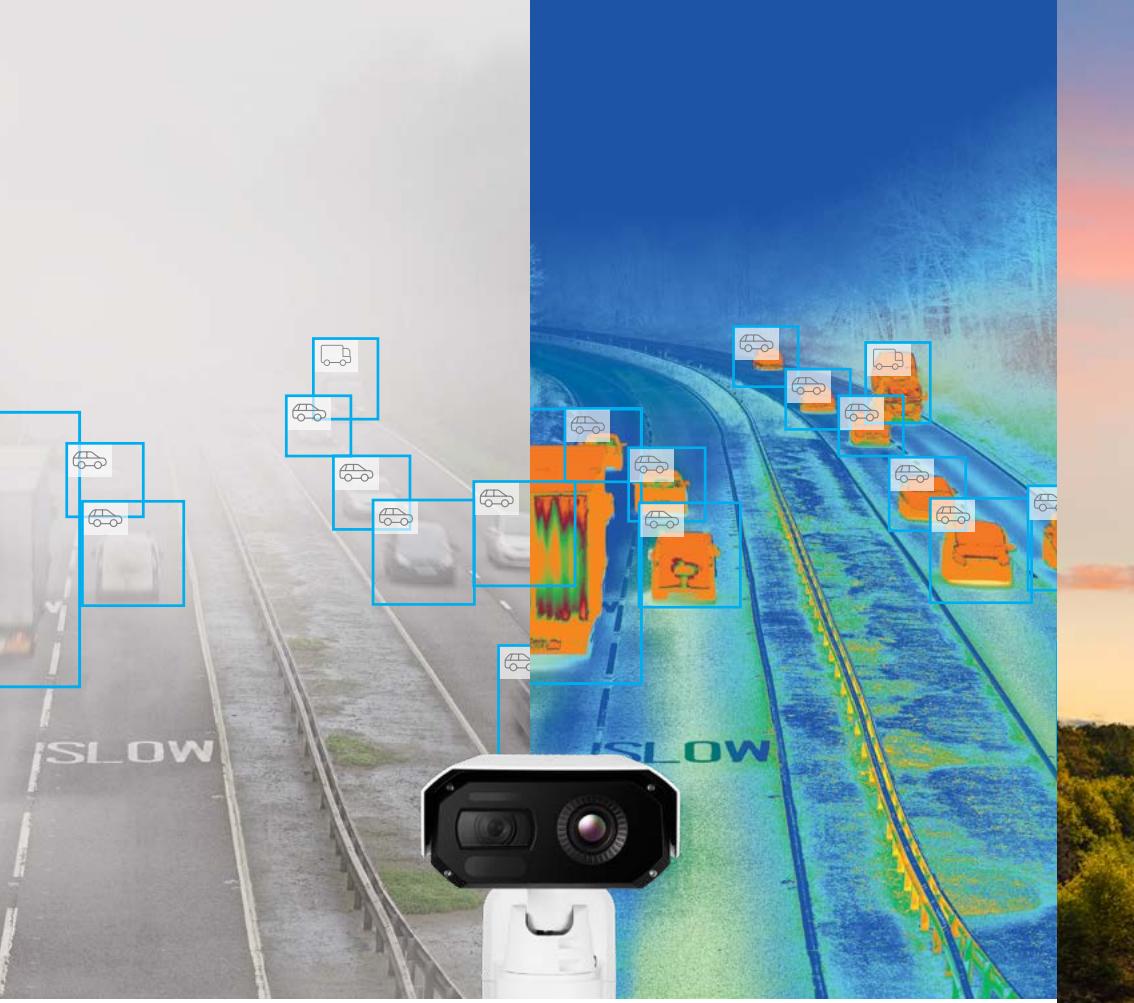


#### AI Search

Quickly search based on attributes



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



## Bi-spectrum AI Thermal Camera

TNM-C4960TD/4950TD/4940TD

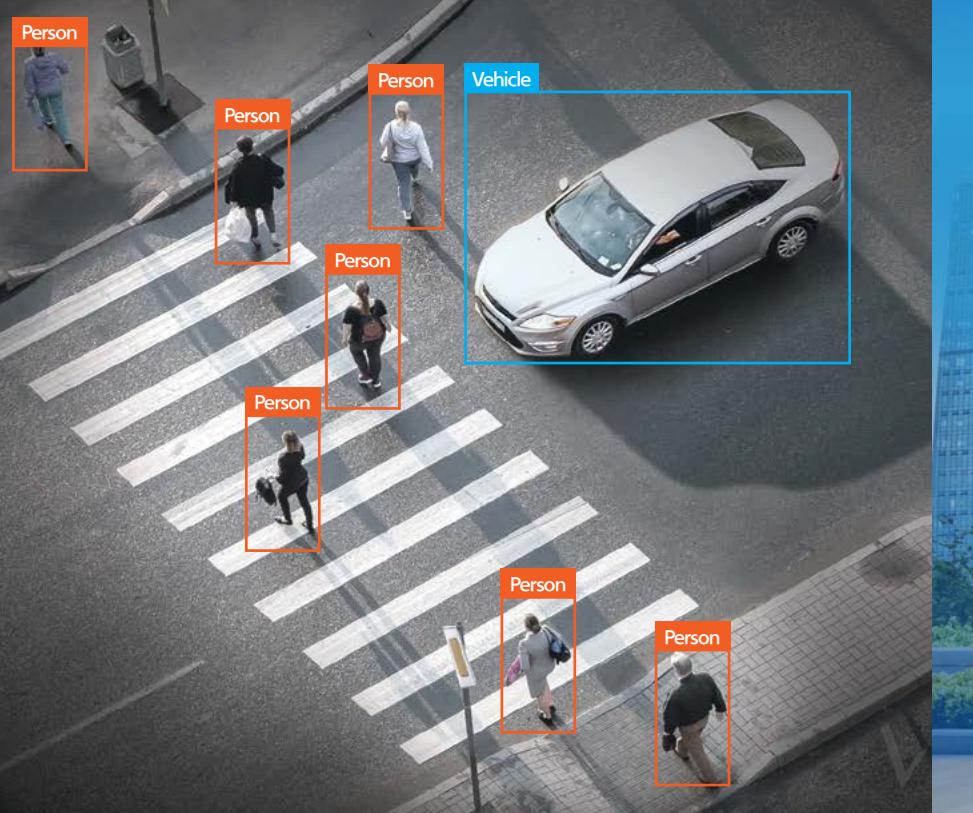
### Accurate AI-based object detection on the edge

- Ideal for traffic monitoring with accurate AI-based object detection and classification including Person, Vehicle (car/truck/bus/bicycle/motorcycle) and Licence Plate
- Intelligent traffic video analytics - stopped vehicle, wrong direction, traffic jam detection and vehicle counting
- Bi-spectrum multi-channel : VGA thermal & 8MP visible sensor
- 3 camera models to suit different fields of view
- NEMA TS2 (2.2.8, 2.2.9) Traffic Control Applications Standard compliant



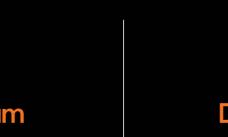
## Road AI High Speed Camera

Intelligent edge-based ANPR with  
Make, Model, Colour & Type analytics



Meet our **specialized** cameras  
equipped with powerful **AI**

Select the best fit camera for your special safety needs



Bi-Spectrum



TNM-C4940TD,C 4950TD, C4960TD



Dual Lens



PNM-C12083RVD, C7083RVD



XNP-C6403R

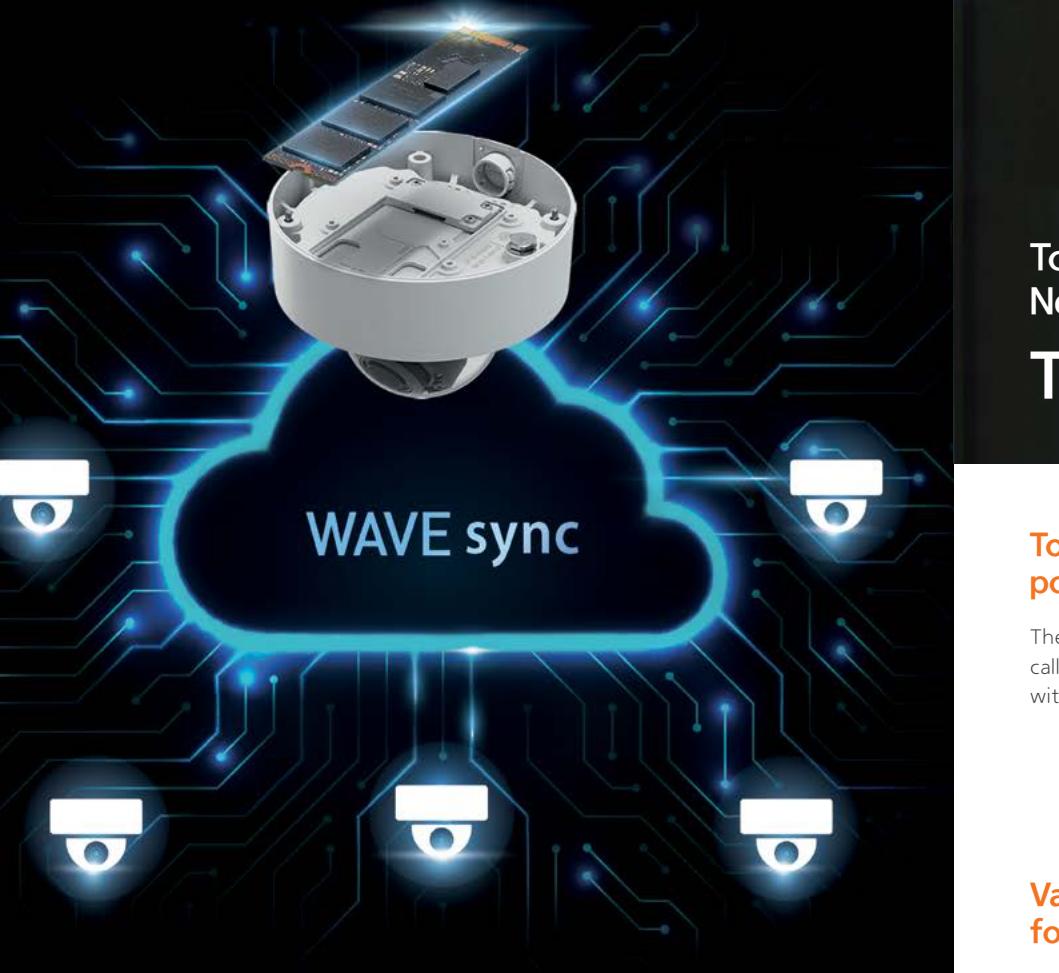


### AI-based object classification and improved auto-tracking function

- Enhanced operational efficiency with AI
- Upgraded object auto tracking performance
- AI based enhanced image quality  
– WiseNRII, Prefer shutter, WiseStreamIII
- Image quality for night vision (IR 200m)
- Easy installation



## SolidEDGE: Serverless VMS On the Edge



- Edge-based VMS recording solution
- Cloud video management
- Supports up to 5 additional cameras



Touchless  
Network Intercom Station  
**TID-600R**

### Touchless call as an essential post COVID-19 protocol

The ToF sensor of TID-600R allows touchless call, where users simply present their palm within 6 inches of the station to initiate a call.



### Various mounting options for a greater versatility

With multiple mounting options, covers and skin, it fits perfectly with its surroundings.



## INTEGRITY

Acting with integrity in everything we do, as individuals and employees



## DEDICATION

Dedicated to our company, customers, and one another to achieve great goals



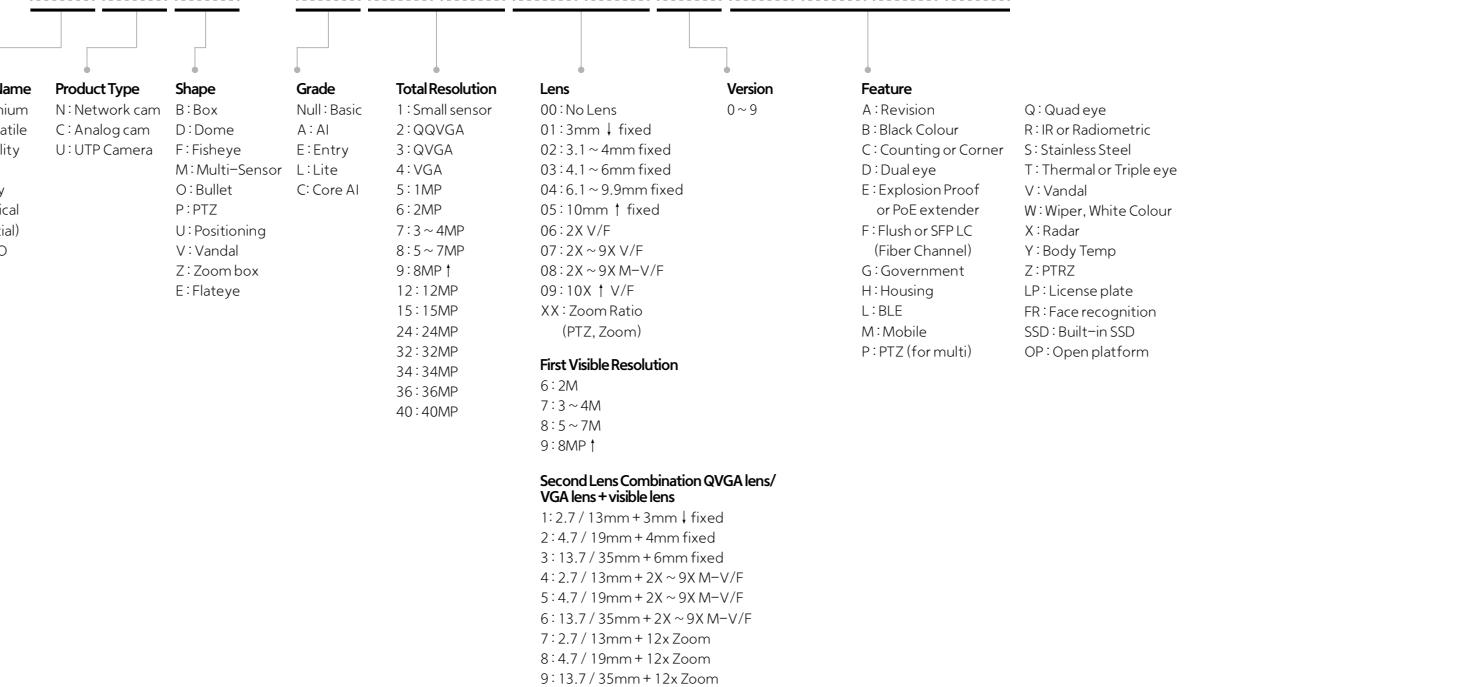
## CHALLENGE

In the pursuit of excellence through change and innovation

## PRODUCT NAMING RULE

Camera

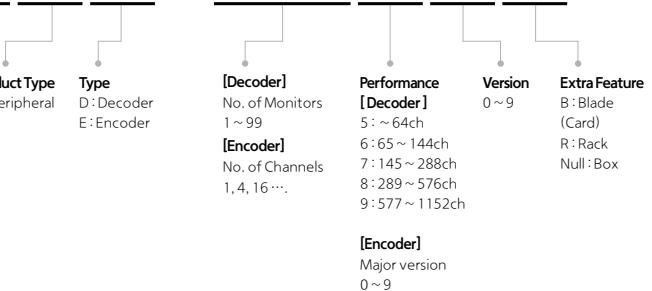
**P N M - C 3 4 0 8 3 R V Q P**



## PRODUCT NAMING RULE

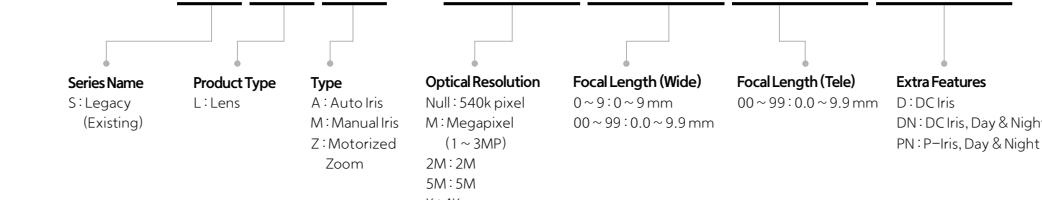
Decoder/Encoder

**S P D - 1 6 0 0 R**



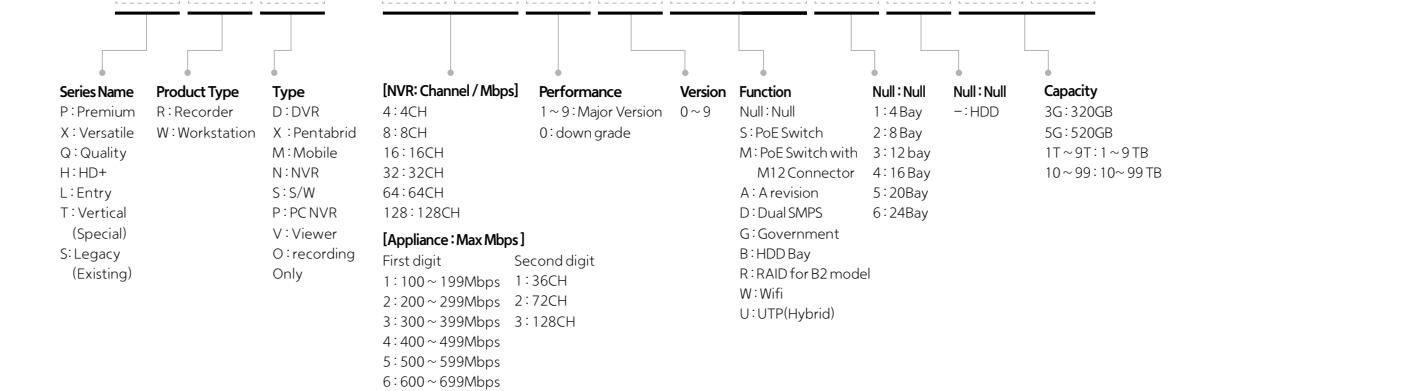
Lens: CS Mount

**S L A - M 8 5 5 0 D N**



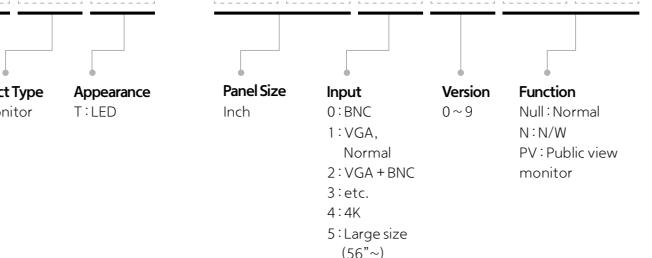
Recorder

**P R N - 6 4 1 0 D B 4 - 1 0**



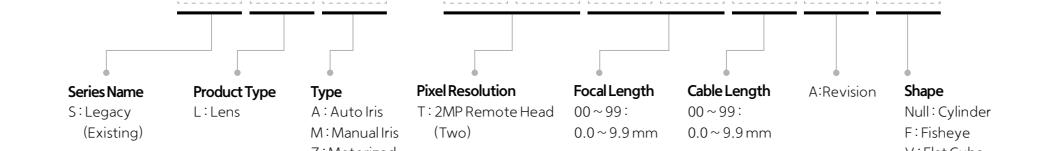
Monitor

**S M T - 4 9 3 3**



Lens: Remote Head

**S L A - T 4 6 8 0 V**



**NETWORK****Camera**

AI Cameras  
X series  
P series  
Q series  
T series

**NVR**

Encoder / Decoder  
VMS

**ANALOG****Camera**

DVR

**PERIPHERAL**

Monitor  
Controller  
Lens

**ACCESSORY**

Wisenet Toolbox Plus

# AI Camera

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NETWORK



**XNO-9083R**  
4K AI IR Bullet Camera



**XNV-9083R**  
4K AI IR Vandal Dome Camera



**XNV-9083RZ**  
4K AI IR Vandal Dome Camera



**XND-9083RV**  
4K AI IR Dome Camera



**XNB-9003**  
4K AI Box Camera

ANALOG

Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.2, 1/30sec) 0Lux (IR LED on)	Colour: 0.04Lux (F1.2, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.2, 1/30sec) BW: 0.003Lux (F1.1, 1/30sec) 0Lux (IR LED on)
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
Focal Length	4.4~9.3mm (2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	—
Angular Field of View	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 138° (Wide) ~ 54° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	—
Pan / Tilt / Rotate	—	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 350° / 0° ~ 85° / 0° ~ 340°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	—
IR Viewable Length	WiselR 50m (164.04ft)	WiselR 50m (164.04ft)	15m (49.21ft) 30m (98.43ft) based on scene	WiselR 50m (164.04ft)	—
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
Digital Image Stabilisation	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)
<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)					
<b>Analytics</b> <b>Support Detection</b> <b>Shot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)					
Business Intelligence	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
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	—	2 configurable I/O ports, DC 12V output (Max. 50mA)	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/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	8MP / 30fps	8MP / 30fps	4K / 30fps	8MP / 30fps	8MP / 30fps
WiseStream	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
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 M/SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T M/SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50°C ~ +60°C (~-58°F ~ +140°F) NEMA TS-2: 74°C * Start up should be done at above -30°C less than 95%RH (non-condensing) Humidity control / w GORE vent	-50°C ~ +55°C (~-58°F ~ +131°F) * Maximum temperature: +60°C (intermittent) NEMA TS-2: 74°C * Start up should be done at above -30°C less than 95%RH (non-condensing) Humidity control / w GORE vent	-50°C ~ +50°C (~-13°F ~ +122°F) +74°C (165°F) (Max) based on NEMA TS-2(2.27) * Start up should be done at above -30°C 0~95%RH (non-condensing) Humidity control / w GORE vent	-25°C ~ 50°C (~-13°F ~ +122°F) * Maximum temperature: +55°C (intermittent) less than 95% RH (non-condensing) Humidity control / w GORE vent	-10 °C ~ 55 °C (~-14°F ~ +131°F) less than 95% RH (non-condensing) Humidity control / w GORE vent
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP52/IK10	—
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W Power redundancy failover
Dimensions (WxHxD) / Weight	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19lb)	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 880g (1.94lb)

PERIPHERAL

ACCESSORY

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# AI Camera

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NETWORK



**XNV-8093R**  
6MP AI IR Vandal Dome Camera



**XND-8093RV**  
6MP AI IR Dome Camera



**XNO-8083R**  
6MP AI IR Bullet Camera



**XNV-8083R**  
6MP AI IR Vandal Dome Camera



**XNV-8083RZ**  
6MP AI IR Vandal Dome Camera

Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Colour: 0.06Lux (F1.7, 1/30sec)	Colour: 0.06Lux (F1.7, 1/30sec, 30IRE)	Colour: 0.04Lux (F1.3, 1/30sec)	Colour: 0.04Lux (F1.2, 1/30sec)	Colour: 0.03Lux (F1.1, 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	10.9~29mm (2.7x) motorized varifocal	10.9~29mm (2.7x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal
Angular Field of View	H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele)	H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 138° (Wide) ~ 54° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 350° / 0° ~ 85° / 0° ~ 340°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	WiselR 70m (229.66ft)	WiselR 70m (229.66ft)	WiselR 50m (164.04ft)	WiselR 50m (164.04ft)	WiselR 50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
Digital Image Stabilisation	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)
<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)					
<b>Analytics</b> <b>Support Detection</b> <b>Shot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)					
Business Intelligence	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
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	—	2 configurable I/O ports, DC 12V output (Max. 50mA)	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/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	4K/30fps	8MP / 30fps	6MP/30fps
WiseStream	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI			

# AI Camera

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NETWORK



**X Plus**  
XNV-8083Z  
6MP AI Vandal Dome Camera



**X Plus**  
XND-8083RV  
6MP AI IR Dome Camera



**X Plus**  
XNB-8003  
6MP AI Box Camera



**X Plus**  
XNO-6123R  
2MP AI IR Bullet Camera



**X Plus**  
XNO-6083R  
2MP AI IR Bullet Camera

# AI Camera

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NETWORK



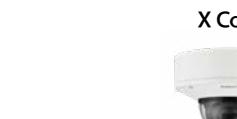
**X Plus**  
XNV-6123R  
2MP AI IR Vandal Dome Camera



**X Plus**  
XNV-6083R  
2MP AI IR Vandal Dome Camera



**X Plus**  
XND-6083RV  
2MP AI IR Vandal Dome Camera



**X Plus**  
XNB-6003  
2MP AI Box Camera



**X Core**  
XNO-C9083R  
4K AI IR Bullet Camera

ANALOG

PERIPHERAL

ACCESSORY

	<b>X Plus</b> XNV-8083Z 6MP AI Vandal Dome Camera	<b>X Plus</b> XND-8083RV 6MP AI IR Dome Camera	<b>X Plus</b> XNB-8003 6MP AI Box Camera	<b>X Plus</b> XNO-6123R 2MP AI IR Bullet Camera	<b>X Plus</b> XNO-6083R 2MP AI IR Bullet Camera
<b>Imaging Device</b>	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" CMOS	1/2.8" progressive CMOS
<b>Min. Illumination</b>	Colour: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (IR LED on)	Colour: 0.03Lux (F1.2, 1/30sec, 30IRE) BW: 0.003Lux (F1.2, 1/30sec, 30IRE)	Colour: 0.01Lux (F1.6, 1/30sec, 30IRE) BW: 0Lux (IR LED on), 30/25fps	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) BW: 0Lux (IR LED on), 30/25fps
<b>Video Output</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	CVBS: 1.0 Vp-p, Micro USB Type B
<b>Focal Length</b>	4.4~9.3mm(2.1x) motorized varifocal	4.4~9.3mm (2.1x) motorized varifocal	—	5.2~62.4mm (12x) zoom	2.8~12mm (4.3x) motorized varifocal
<b>Angular Field of View</b>	H: 113° (Wide)~47° (Tele) V: 58° (Wide)~26° (Tele) D: 138° (Wide)~54° (Tele)	H: 112.1° (Wide)~47.5° (Tele) V: 58° (Wide)~26.6° (Tele) D: 137.5° (Wide)~54.6° (Tele)	—	H: 55° (Wide)~5° (Tele) V: 35° (Wide)~3° (Tele) D: 62° (Wide)~6° (Tele)	H: 119.5° (Wide)~27.9° (Tele) V: 62.8° (Wide)~15.7° (Tele) D: 142.1° (Wide)~32° (Tele)
<b>Pan / Tilt / Rotate</b>	0° ~350° / 0° ~85° / 0° ~340°	0° ~360° / -45° ~85° / 0° ~355°	—	—	—
<b>IR Viewable Length</b>	—	WiseIR 50m (164.04ft)	—	WiseIR 50m (164.04ft)	WiseIR 50m (164.04ft)
<b>Day &amp; Night</b>	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
<b>Wide Dynamic Range</b>	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (150dB)
<b>Digital Noise Reduction</b>	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
<b>Digital Image Stabilisation</b>	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)
<b>Analytics</b>	<p><b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)</p> <p><b>Support Detection</b> <b>Shot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p>				
<b>Business Intelligence</b>	—	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
<b>Alarm I/O</b>	—	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)
<b>Audio I/O</b>	—	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) / Line out	Selectable (mic in/line in) / Line out
<b>Video Compression</b>	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
<b>Resolution / Max. Frame Rate</b>	6MP/30fps	6MP/30fps	6MP/30fps	2MP / 120fps	2MP/120fps
<b>WiseStream</b>	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)
<b>Streaming</b>	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support
<b>Edge Storage</b>	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
<b>Application Programming Interface</b>	ONVIF Profile S/G/T MUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T MUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T MUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T MUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T MUNAPI (HTTP API) Wisenet open platform
<b>Operating Temperature</b>	-50°C ~ +55°C (-58°F ~ +131°F) +74°C (165°F) (Max) based on NEMA TS-2 (2.2.7) * Start up should be done at above -30°C 0~95%RH (non-condensing) Humidity control / w AIR vent	-25°C ~ 50°C (-13°F ~ +122°F) * Maximum temperature: +55°C (intermittent) less than 95% RH (non-condensing) Humidity control / w GORE vent	-10°C ~ 55°C (-14°F ~ +131°F) less than 95% RH (non-condensing) Humidity control / w GORE vent	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH (Non-condensing) * Start up should be done at above -30°C less than 95% RH (non-condensing) Maximum Temperature based on NEMA-TS 2 (2.2.7): +74°C (+165°F) Humidity control / w GORE vent	-50°C ~ +60°C (-58°F ~ +140°F) NEMA TS-2: 74°C * Start up should be done at above -30°C less than 95% RH (non-condensing) Humidity control / w GORE vent
<b>Certification</b>	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP52/IK10	—	IP66/67, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66/IP67, NEMA4X, IK10
<b>Power Consumption</b>	PoE+: Max 17.0W, typical 12.1W	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover
<b>Dimensions (WxHxD) / Weight</b>	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W81 x H67 x D165mm (W3.19" x 2.64" x 6.48") 880g (1.94 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.3kg (5.07 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.2kg (4.85 lb)

	<b>X Plus</b> XNV-6123R 2MP AI IR Vandal Dome Camera	<b>X Plus</b> XNV-6083R 2MP AI IR Vandal Dome Camera	<b>X Plus</b> XND-6083RV 2MP AI IR Vandal Dome Camera	<b>X Plus</b> XNB-6003 2MP AI Box Camera	<b>X Core</b> XNO-C9083R 4K AI IR Bullet Camera
<b>Imaging Device</b>	1/2.8" CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/1.8" progressive CMOS
<b>Min. Illumination</b>	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) BW: 0Lux (IR LED on), 30/25fps	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) BW: 0Lux (IR LED on), 30/25fps	Colour: 0.007Lux (F1.2, 1/30sec, 30IRE) BW: 0.0007Lux (F1.2, 1/30sec, 30IRE), 30/25fps	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)
<b>Video Output</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	Micro USB Type B
<b>Focal Length</b>	5.2~62.4mm (12x) zoom	2.8~12mm (4.3x) motorized varifocal	2.8~12mm (4.3x) motorized varifocal	—	4.4~9.3mm (2.1x) motorized varifocal
<b>Angular Field of View</b>	H: 119.5° (Wide)~27.9° (Tele) V: 62.8° (Wide)~15.7° (Tele) D: 142.1° (Wide)~32° (Tele)	H: 119.5° (Wide)~27.9° (Tele) V: 62.8° (Wide)~15.7° (Tele) D: 142.1° (Wide)~32° (Tele)	H: 112.1° (Wide)~27.9° (Tele) V: 62.8° (Wide)~15.7° (Tele) D: 142.1° (Wide)~32° (Tele)	H: 112.1° (Wide)~27.9° (Tele) V: 62.8° (Wide)~15.7° (Tele) D: 142.1° (Wide)~32° (Tele)	H: 112.1° (Wide)~47.5° (Tele) V: 58° (Wide)~26.6° (Tele) D: 137.5° (Wide)~54.6° (Tele)
<b>Pan / Tilt / Rotate</b>	0° ~360° / -45° ~80° / 0° ~355°	0° ~360° / -45° ~80° / 0° ~355°	0° ~360° / -45° ~80° / 0° ~355°	—	—
<b>IR Viewable Length</b>	WiseIR 90m (295.28ft)	WiseIR 50m (164.04ft)	WiseIR 50m (164.04ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)
<b>Day &amp; Night</b>	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
<b>Wide Dynamic Range</b>	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (120dB)
<b>Digital Noise Reduction</b>	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
<b>Digital Image Stabilisation</b>	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)
<b>Analytics</b>	<p><b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)</p> <p><b>Support Detection</b> <b>Shot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p>				
<b>Business Intelligence</b>	—	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



**XNV-C9083R**  
4K AI IR Vandal Dome Camera



**XND-C9083RV**  
4K AI IR Dome Camera



**XNO-C8083R**  
6MP AI IR Bullet Camera



**XNV-C8083R**  
6MP AI IR Vandal Dome Camera



**XND-C8083RV**  
6MP AI Dome Camera



**XNO-C7083R**  
4MP AI IR Bullet Camera



**XNV-C7083R**  
4MP AI IR Vandal Dome Camera



**XND-C7083RV**  
4MP AI IR Dome Camera

Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)
Video Output	Micro USB Type B			
Focal Length	4.4~9.3mm (2.1x) motorized varifocal			
Angular Field of View	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)	H: 112.1° (Wide) ~ 47.5° (Tele) V: 58° (Wide) ~ 26.6° (Tele) D: 137.5° (Wide) ~ 54.6° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	-	0° ~ 360° / -45° ~ 75° / 0° ~ 355°
IR Viewable Length	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilisation	Support (built-in gyro sensor)			

**Classified object type:** Person/Face/Vehicle/License plate  
**Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle)  
**Support Detection**: Shot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)  
**Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)

Business Intelligence	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
Alarm I/O	2 configurable I/O ports			
Audio I/O	Selectable (mic in/line in) / Line out			
Video Compression	H.265 / H.264, MJPEG			
Resolution / Max. Frame Rate	8MP / 30fps	8MP / 30fps	6MP / 30fps	6MP / 30fps

WiseStream	WiseStream II, WiseStream III (Based on AI engine)	WiseStream II, WiseStream III (Based on AI engine)	WiseStream II, WiseStream III (Based on AI engine)	WiseStream II, WiseStream III (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support

Edge Storage	micro SD/SDHC/SDXC 1slot 512GB			
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

Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Maximum temperature : +60°C (intermittent) * Start up should be done at above -20°C NEMA TS-2: 74°C 0~95%RH (non-condensing) Humidity control w/ GORE vent	-10°C ~ 50°C (14°F ~ +122°F) * Maximum temperature : +55°C (intermittent) 0~95% RH (non-condensing) Humidity control w/ GORE vent	-40°C ~ +55°C (-40°F ~ +131°F) * Maximum temperature : +60°C (intermittent) * Start up should be done at above -20°C NEMA TS-2: 74°C 0~95%RH (non-condensing) Humidity control w/ GORE vent	-40°C ~ +55°C (-40°F ~ +131°F) * Maximum temperature : +60°C (intermittent) * Start up should be done at above -20°C NEMA TS-2: 74°C 0~95%RH (non-condensing) Humidity control w/ GORE vent
Certification	IP66/IP67/NEMA4X, IK10	IP52, IK08	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10
Power Consumption	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W

Dimensions (WxHxD) / Weight	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.2lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98lb)	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.2lb)

Imaging Device	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS
Min. Illumination	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)
Video Output	Micro USB Type B			
Focal Length	4.4~9.3mm (2.1x) motorized varifocal	2.8~10mm (3.6x) motorized varifocal	2.8~10mm (3.6x) motorized varifocal	2.8~10mm (3.6x) motorized varifocal
Angular Field of View	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	-	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	0° ~ 360° / -45° ~ 75° / 0° ~ 355°
IR Viewable Length	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)	WiselR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V	WiseNR II (Based on AI engine), SSNR V
Digital Image Stabilisation	Support (built-in gyro sensor)			

**Classified object type:** Person/Face/Vehicle/License plate  
**Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle)  
**Support Detection**: Shot Analytics events based on AI engine: Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)  
**Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)

Business Intelligence	Based on AI engine : People counting, Queue management
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# AI Camera

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NETWORK



**XNO-C6083R**  
2MP AI IR Bullet Camera



**XNV-C6083R**  
2MP AI IR Vandal Dome Camera



**XND-C6083RV**  
2MP AI Dome Camera



**XNF-9013RV**  
12MP AI IR Fisheye Camera

ANALOG

PERIPHERAL

ACCESSORY

	<b>X Core</b>	<b>X Core</b>	<b>X Core</b>	
<b>Imaging Device</b>	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.3" 12MP CMOS
<b>Min. Illumination</b>	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)	Colour: 0.39 Lux (F2.2, 1/30sec) B/W: 0Lux (IR LED on)
<b>Video Output</b>	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
<b>Focal Length</b>	2.8~12mm (4.3x) motorized varifocal  H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	2.8~12mm (4.3x) motorized varifocal  H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	2.8~12mm (4.3x) motorized varifocal  H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	1.08mm fixed focal  H: 187° / V: 187° / D: 187°
<b>Pan / Tilt / Rotate</b>	-	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	0° ~ 360° / -45° ~ 75° / 0° ~ 355°	Lens Rotation
<b>IR Viewable Length</b>	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR, PoE: 8m (26.25ft)
<b>Day &amp; Night</b>	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
<b>Wide Dynamic Range</b>	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (120dB)
<b>Digital Noise Reduction</b>	WiseNRII(Based on AI engine), SSNR V	WiseNRII(Based on AI engine), SSNR V	WiseNRII(Based on AI engine), SSNR V	WiseNRII(Based on AI engine), SSNR V
<b>Digital Image Stabilisation</b>	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	-
<b>Analytics</b>	<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Support DetectionShot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Support DetectionShot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)
<b>Business Intelligence</b>	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
<b>Alarm I/O</b>	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
<b>Audio I/O</b>	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
<b>Video Compression</b>	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
<b>Resolution / Max. Frame Rate</b>	2MP / 60fps	2MP / 60fps	2MP / 60fps	3008 x 3008 / 30fps
<b>WiseStream</b>	WiseStreamII WiseStreamIII (Based on AI engine)	WiseStreamII WiseStreamIII (Based on AI engine)	WiseStreamII WiseStreamIII (Based on AI engine)	WiseStreamII WiseStreamIII (Based on AI engine)
<b>Streaming</b>	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 5 virtual channel support
<b>Edge Storage</b>	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 2slots 1TB (512GBx2)
<b>Application Programming Interface</b>	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 M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T M SUNAPI (HTTP API) Wisenet open platform
<b>Operating Temperature</b>	-40°F ~ +55°F (-40°C ~ +131°F)  * Maximum temperature : +60°C (intermittent) * Start up should be done at above -20°F NEMA TS-2: 74°F 0~95%RH (non-condensing) Humidity control / w GORE vent	-40°F ~ +55°F (-40°C ~ +131°F)  * Maximum temperature : +60°C (intermittent) * Start up should be done at above -20°C NEMA TS-2: 74°C 0~95%RH (non-condensing) Humidity control / w GORE vent	-10°C ~ 50°C (14°F ~ +122°F)  * Maximum temperature : +55°C (intermittent) 0~95% RH (non-condensing) Humidity control / w GORE vent	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH POE+ Mode 55°C (Hysteresis 5°C)
<b>Certification</b>	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP52, IK08	IP66, IK10, NEMA4X
<b>Power Consumption</b>	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 9.4W, 12VDC: Max 12.9W, typical 9.0W / PoE+: Max 23.0W, typical 9.4W, 12VDC: Max 22.0W, typical 9.0W
<b>Dimensions (WxHxD) / Weight</b>	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.20lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98lb)	Ø160 x 72mm (Ø6.23" x 2.84") 1.17kg (2.58lb)

# AI Camera

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**XNP-C6403**  
2MP 40x AI PTZ Camera



**XNP-C6403R**  
2MP 40x AI PTZ Camera with built-in wiper



**XNP-C6403RW**  
2MP 40x AI PTZ Camera with built-in wiper



**XNP-C8253**  
6MP 25x AI PTZ Camera



**XNP-C8253R**  
6MP 25x AI PTZ Camera

	<b>PTZ PLUS</b>	<b>PTZ PLUS</b>	<b>PTZ PLUS</b>	<b>PTZ PLUS</b>
<b>Imaging Device</b>	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
<b>Min. Illumination</b>	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec)
<b>Video Output</b>	-	-	-	-
<b>Focal Length</b>	4.25~170mm(40x) zoom (digital 32x, total 1280x zoom)	4.25~170mm(40x) zoom (digital 32x, total 1280x zoom)	4.25~170mm(40x) zoom (digital 32x, total 800x zoom)	5~125mm(25x) zoom (digital 32x, total 800x zoom)
<b>Angular Field of View</b>	H: 65.66° (Wide)~1.88° (Tele) / V: 39.4° (Wide)~1.09° (Tele)	H: 65.66° (Wide)~1.88° (Tele) / V: 39.4° (Wide)~1.09° (Tele)	H: 57.42° (Wide)~2.71° (Tele) / V: 33.54° (Wide)~1.55° (Tele)	H: 57.42° (Wide)~2.71° (Tele) / V: 33.54° (Wide)~1.55° (Tele)
<b>Pan / Tilt / Rotate</b>	360° Endless / 110° (-20° ~ 90°) / -	360° Endless / 110° (-20° ~ 90°) / -	360° Endless / 110° (-20° ~ 90°) / -	360° Endless / 110° (-20° ~ 90°) / -
<b>IR Viewable Length</b>	-	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR
<b>Day &amp; Night</b>	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule
<b>Wide Dynamic Range</b>	Extreme WDR(150dB)	Extreme WDR(150dB)	Extreme WDR(120dB)	Extreme WDR(120dB)
<b>Digital Noise Reduction</b>	SSNRV	SSNRV	SSNRV	SSNRV
<b>Digital Image Stabilisation</b>	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
<b>Analytics</b>	<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Support DetectionShot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Support DetectionShot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle) <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)
<b>Business Intelligence</b>	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
<b>Alarm I/O</b>	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
<b>Audio I/O</b>	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
<b>Video Compression</b>	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
<b>Resolution / Max. Frame Rate</b>	2MP / 60fps	2MP / 60fps	2MP / 60fps	6MP / 30fps
<b>WiseStream</b>	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
<b>Streaming</b>	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
<b>Edge Storage</b>	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB
<b>Application Programming Interface</b>	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 M SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/G/T M SUNAPI(HTTP API) Wisenet open platform
<b>Operating Temperature</b>	-40°C ~ +50°C (-40°F ~ +122°F) / * Maximum temperature : +55°C (intermittent) * Start up should be done at above -20°C NEMA TS-2: 74°C 0~95%RH (non-condensing) Humidity control / w GORE vent	-10°C ~ 50°C (14°F ~ +122°F) / * Maximum temperature : +55°C (intermittent) 0~95% RH (non-condensing) Humidity control / w GORE vent	-40°C ~ +60°C (-40°F ~ +140°F) / Less than 95% RH POE+ Mode 55°C (Hysteresis 5°C)	-40°C ~ +50°C C(-40°F ~ +122°F) / +74°C (+165°F) (MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30°C 0~95% RH(Non-condensing)
<b>Certification</b>	IP66, IK10, NEMA4X, NEMA-TS2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS2(2.2.8, 2.2.9)
<b>Power Consumption</b>	Typical 24W, Max 25.5W	Typical 24W, Max 40W	Typical 24W, Max 46W	Typical 24W, Max 40W
<b>Dimensions (WxHxD) / Weight</b>	Ø158x293.3mm(6.22x11.55") / 3.2Kg(7.05lb)	Ø158x293.3mm(6.22x11.55") / 3.2Kg(7.05lb)	Ø184.9x318.8mm(7.28x12.55") / 5.6kg (12.34lb)	Ø158x293.3mm(6.22x11.55") / 3.2Kg(7.05lb)
<b>Additional Features</b>	-	-	-	-

NETWORK

ANALOG

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# AI Camera

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NETWORK



**XNP-C8303RW**  
6MP 30x AI PTZ Camera  
with built-in wiper



**XNP-C9253**  
8MP 25x AI PTZ Camera



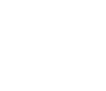
**XNP-C9253R**  
8MP 25x AI PTZ Camera



**XNP-C9303RW**  
8MP 30x AI PTZ Camera  
with built-in wiper



**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

ANALOG

PERIPHERAL

ACCESSORY

	PTZ PLUS	PTZ PLUS	PTZ PLUS	PTZ PLUS
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0.01Lux(F1.6, 1/30sec)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)	Colour: 0.1Lux(F1.6, 1/30sec) BW: 0Lux(IR LED On)
Video Output	-	-	-	-
Focal Length	5~150mm(30x) zoom (digital 32x, total 960x zoom)	5~125mm(25x) zoom (digital 32x, total 800x zoom)	5~125mm(25x) zoom (digital 32x, total 800x zoom)	5~150mm(30x) zoom (digital 32x, total 960x zoom)
Angular Field of View	H: 57.42° (Wide)~2.19° (Tele) / V: 33.54° (Wide)~1.25° (Tele)	H: 57.42° (Wide)~2.71° (Tele) / V: 33.54° (Wide)~1.55° (Tele)	H: 57.42° (Wide)~2.19° (Tele) / V: 33.54° (Wide)~1.25° (Tele)	H: 57.42° (Wide)~45.5° (Tele) V: 53.6° (Wide)~25.5° (Tele) D: 120.7° (Wide)~52.3° (Tele)
Pan / Tilt / Rotate	360° Endless / 110° (-20° ~90° )/-	360° Endless / 110° (-20° ~90° )/-	360° Endless / 110° (-20° ~90° )/-	360° Endless / 110° (-20° ~90° )/-
IR Viewable Length	200m(656.17ft), Wise IR	-	200m(656.17ft), Wise IR	200m(656.17ft), Wise IR
Day & Night	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule	Auto(ICR)/Colour/BW/Schedule
Wide Dynamic Range	Extreme WDR(120dB)	extreme WDR(120dB)	extreme WDR(120dB)	extreme WDR(120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support(built-in gyro sensor)
Analytics	<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Vehicle(Type:car/bus/truck/motorcycle/bicycle) Support DetectionShot Analytics events based on AI engine - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Analytics events - Defocus detection, Motion detection, Tampering, Fog detection, Shock detection, Virtual area(Appear/Disappear) * Audio detection, Sound classification(with NWI/O Box)			
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265/H.264:Main/Baseline/High, MJPEG	H.265/H.264:Main/Baseline/High, MJPEG	H.265/H.264:Main/Baseline/High, MUPEG	H.265/H.264:Main/Baseline/High, MUPEG
Resolution / Max. Frame Rate	6MP / 30fps	8MP / 30fps	8MP / 30fps	8MP / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB	Micro SD/SDHC/SDXC 2slot 1TB
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
Operating Temperature	-40° C~+55° C(-40° F~+131° F) / +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~95% RH(Non-condensing)	-40° C~+55° C(-40° F~+131° F) / +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~95% RH(Non-condensing)	-40° C~+55° C(-40° F~+131° F) / +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~95% RH(Non-condensing)	-40° C~+55° C(-40° F~+131° F) / +74° C(+165° F)(MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 0~95% RH(Non-condensing)
Certification	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)
Power Consumption	Typical 26W, Max 46W	Typical 24W, Max 25.5W	Typical 24W, Max 40W	Typical 26W, Max 46W
Dimensions (WxHxD) / Weight	ø 184.9x318.8mm(7.28x12.55") / 5.6kg (12.34lb)	ø 158x293.3mm(6.22x11.55") / 3.2kg(7.05lb)	ø 158x293.3mm(6.22x11.55") / 3.2kg(7.05lb)	ø 184.9x318.8mm(7.28x12.55") / 5.6kg (12.34lb)
Additional Features	-	-	-	-

# AI Camera

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NETWORK

	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	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 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	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV
Digital Image Stabilisation	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	<b>Classified object type:</b> Person/Face/Vehicle/License plate <b>Attributes:</b> Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle and Colour) Support Bestshot per object Analytics events based on AI engine *(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection Analytics events - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)				
Business Intelligence	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 : 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 III (Based on AI engine)	WiseStream II WiseStream III (Based on AI engine)	WiseStream II WiseStream III (Based on AI engine)	WiseStream II WiseStream III (Based on AI engine)	WiseStream II WiseStream III (Based on AI engine)
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	-40°C~+55°C (-40°F~+131°F) * Start up above -10°C	-25°C~+50°C (-13°F~+122°F)	-25°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 20W, typical 17W 12VDC: Max 18W, typical 16W	PoE+: Max 20W, typical 17W 12VDC: Max 18.7W, typical 15W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 16.5W, typical 12.5W 12VDC: Max 13.5W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø 91 x 368.6mm (Ø 3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.9kg (4.19lb)	Ø 160 x 125mm (Ø 6.3" x 4.92") 1.6kg (3.53lb)	Ø 205 x 163mm (Ø 8.07" x 6.42") 1.95kg (4.30lb)	W 73.1 x H 66.6 x D 147.8mm 700g (1.54lb)
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)



**PNB-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



**PNO-A9081RLP**  
4K AI LPR IR Bullet Camera



**PNV-A9081RLP**  
4K AI LPR IR Vandal Dome Camera



**PNB-A9001LP**  
4K AI LPR Box Camera

Imaging Device	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS
Min. Illumination	Colour: 0.008Lux (F1.3) BW: 0Lux (IR LED on)	Colour: 0.008Lux (F1.3) BW: 0Lux (IR LED on)	Colour: 0.008Lux (F1.3) BW: 0Lux (IR LED on)	Colour: 0.007Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B			
Focal Length	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	–	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)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	WiseNRII(Based on AI engine), SSNR			
Digital Image Stabilisation	Support (built-in gyro sensor)			

**Classified object type :** Person/Face/Vehicle/License plate  
**Attributes :** Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle/bicycle and Colour)  
**Support Bestshot per object Analytics events based on AI engine** – Object detection, Virtual line\*(Crossing/Direction), Virtual area \*(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection

**Analytics events** – Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)

Business Intelligence	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
Alarm I/O	1/1	1/1	1/1	1/1
Audio I/O	Line in / Line out			
Video Compression	H.265 / H.264, MJPEG			
Resolution / Max. Frame Rate	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps
WiseStream	WiseStreamII/WiseStreamIII (Based on AI engine)			
Streaming	Up to 3 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/G/T/M 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 20W, typical 17W 12VDC: Max 18W, typical 16W	PoE+: Max 20W, typical 17W 12VDC: Max 18W, typical 15W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 16.5W, typical 12.5W 12VDC: Max 13.5W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53lb)	Ø205 x 163mm (Ø8.07" x 4.92") 1.95kg (4.30lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 1.9kg (4.19lb)
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)

Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.2, 1/30sec) BW: 0.003Lux (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
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: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	–	–	–
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	–	–	–
Digital Noise Reduction	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	Stabilisation Support (built-in gyro sensor)	Stabilisation Support (built-in gyro sensor)	Stabilisation Support (built-in gyro sensor)

**Classified object type :** Person/Face/Vehicle/License plate  
**Attributes :** Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle/bicycle and Colour)  
**Support Bestshot per object Analytics events based on AI engine** – Object detection, Virtual line\*(Crossing/Direction), Virtual area \*(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection

**Analytics events** – Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)

Business Intelligence	–	–	–
Alarm I/O	1/1	1/1	1/1
Audio I/O	Selectable (mic in/line in/built-in mic) / 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
Resolution / Max. Frame Rate	8MP / 30fps	8MP / 30fps	8MP / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	Pre-installed with 32GB micro SD to support 10,000 LPR images	Pre-installed with 32GB micro SD to support 10,000 LPR images	Pre-installed with 32GB micro SD to support 10,000 LPR images
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

Solution	Community Traffic Observation	Parking Application	Community Traffic Observation	Parking Application	City Traffic
Speed Description	Moderate Speed	Low speed	Moderate Speed	Low speed	Regular Speed
Lane Coverage	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	Up to 2 lanes
Speed limit	Up to 70kmh (45mph)	Up to 70kmh (45mph)	Up to 40kmh (25mph)	Up to 40kmh (25mph)	Up to 100kmh (65mph)
Min. Forward Distance	12m (38ft)	10m (33ft)	12m (38ft)	10m (33ft)	16m (52ft)
Max. Forward Distance	12m (40ft)	13m (45ft)	12m (40ft)	13m (45ft)	36m (120ft)
Max. Horizontal Angle	25°	30°	25°	30°	25°
Max. Vertical Angle	25°	30°	25°	30	



**PNM-C12083RVD**  
6MP x 2CH AI Multi-directional Camera



**PNM-C7083RVD**  
2MP x 2CH AI Multi-directional Camera



**PNM-C9022RV**  
2MP x 4CH AI Multi-directional Camera

## NETWORK

Imaging Device	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 4CH	
Min. Illumination	Colour: 0.16Lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.035Lux (F2.2, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.1Lux (F2.0, 1/30sec) BW: 0.01Lux (F2.0, 1/30sec), 0Lux (IR LED on)	
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	
Focal Length	3.54 ~ 6.69mm (1.9x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal per CH	2.8mm fixed focal (x4)	
Angular Field of View	H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele)	H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele)	H: 209° , V: 60°	
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 78° / 0° ~ 180°	0° ~ 355° / 0° ~ 78° / 0° ~ 180°	0° ~ 360° / 0° ~ 65° / -	
IR Viewable Length	25m (82ft)	25m (82ft)	20m (65.62ft)	
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	
Digital Noise Reduction	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV	WiseNR II(Based on AI engine), SSNRV	
Digital Image Stabilisation	-	-	-	
Analytics	<p><b>Classified object type:</b> Person/Face/Vehicle/License plate  <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)  <b>Support Bestshot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)  <b>Analytics events*:</b> Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear)  * Support Audio detection, Sound classification via optional SPM-4210I/O box</p>	<p><b>Classified object type:</b> Person/Face/Vehicle/License plate  <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)  <b>Support Bestshot Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)  <b>Analytics events*:</b> Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear)</p>	<p><b>Analytics events based on AI engine (NPU):</b>  Object detection (Person/Face/Vehicle/car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtualline/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam  <b>Analytics events:</b> Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection  <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear</p>	<p><b>Analytics events based on AI engine (NPU):</b>  Object detection (Person/Face/Vehicle/car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtualline/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam  <b>Analytics events:</b> Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection  <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear</p>
Business Intelligence	-	-	-	
Alarm I/O	* Support Alarm via optional SPM-4210I/O box	* Support Alarm via optional SPM-4210I/O box	2 configurable I/O ports	
Audio I/O	* Audio in/out via optional SPM-4210I/O box	* Audio in/out via optional SPM-4210I/O box	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	6MP / 15fps	2MP / 30fps	2MP / 20fps	
WiseStream	WiseStream II, WiseStream III (Based on AI engine)	WiseStream II, WiseStream III (Based on AI engine)	WiseStream II, WiseStream III (Based on AI engine)	
Streaming	Unicast (10 users) / Multicast, 5 profiles per channel	Unicast (10 users) / Multicast, 5 profiles per channel	Unicast (10 users) / Multicast, 3 profiles per channel	
Edge Storage	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Open platform	ONVIF Profile S/T SUNAPI (HTTP API) Open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / 0 ~ 95% RH (non-condensing)	
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10	IEC/EN 63000, IEC/EN 60529 IP66, IEC/EN 62262 IK10, NEMA 250 type 4X"	
Power Consumption	PoE+: Max 21W, typical 16.5W	PoE+: Max 20W, typical 15.5W	PoE+: Max 24.5W, typical 11.3W 12VDC: Max 22.0W, typical 10.4W Power redundancy failover	
Dimensions (WxHxD) / Weight	W 215 x H 135 x D 93.2mm (8.46" x 5.31" x 3.67") 1.33kg (2.93lb)	W 215 x H 135 x D 93.2mm (8.46" x 5.31" x 3.67") 1.33kg (2.93lb)	Ø253 x 170mm (Ø9.96" x 6.69") 2.9kg (6.39lb)	
Additional Features	-	-	-	



**TNM-C4960TD**  
Bi-spectrum AI Thermal Camera



**TNM-C4950TD**  
Bi-spectrum AI Thermal Camera

## NETWORK

Imaging Device	Thermal	Visible	Thermal	Visible
Min. Illumination	Uncooled micro bolometer	1/1.8" CMOS	Uncooled micro bolometer	1/1.8" CMOS
Video Output	-	Colour: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)	-	Colour: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)
Focal Length	25mm fixed focal	10.9~29mm (2.6x) motorized varifocal	13.5mm fixed focal	10.9~29mm (2.6x) motorized varifocal
Angular Field of View	H: 17.4° / V: 13.1° / D: 21.6°	H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele)	H: 31.9° / V: 24.2° / D: 39.5°	H: 42° (Wide) ~ 15° (Tele) V: 22.8° (Wide) ~ 8.4° (Tele) D: 48.7° (Wide) ~ 17.1° (Tele)
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	Auto (ICR)	-	Auto (ICR)
Wide Dynamic Range	-	WDR (120dB)	-	WDR (120dB)
Digital Noise Reduction	-	SSNR V, WiseNR II	-	SSNR V, WiseNR II
Digital Image Stabilisation	-	Support (built-in gyro sensor)	-	Support (built-in gyro sensor)
Analytics	<p><b>Analytics events:</b>  Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection</p>	<p><b>Analytics events:</b>  Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection</p>	<p><b>Analytics events:</b>  Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection</p>	<p><b>Analytics events based on AI engine (NPU):</b>  Object detection (Person/Face/Vehicle/car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtualline/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam  <b>Analytics events:</b> Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection  <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear</p>
Business Intelligence	-	-	-	-
Alarm I/O	-	4 configurable I/O ports	-	4 configurable I/O ports
Audio I/O	-	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
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	3840 x 2160 / 30fps	640 x 480 (can be scaled up to 1280 x 960) / 30fps	3840 x 2160 / 30fps
WiseStream	WiseStream II	WiseStream III	WiseStream II	WiseStream III
Streaming	-	Up to 3 profiles	-	Up to 3 profiles
Edge Storage	-	micro SD/SDHC/SDXC 2slots 512GB	-	micro SD/SDHC/SDXC 2slots 512GB
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform (visible channel only)	ONVIF Profile S/T, SUNAPI (HTTP API) Wisenet open platform (visible channel only)	ONVIF Profile S/T, SUNAPI (HTTP API) Wisenet open platform (visible channel only)	ONVIF Profile S/T, SUNAPI (HTTP API) Wisenet open platform (visible channel only)
Operating Temperature	-40°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -30°C less than 95% RH (non-condensing)	-40°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -30°C less than 95% RH (non-condensing)	-40°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -30°C less than 95% RH (non-condensing)	-40°C ~ +60°C (-58°F ~ +140°F) * Start up should be done at above -30°C less than 95% RH (non-condensing)
Certification	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)
Power Consumption	PoE+: Max 23.5W 12VDC: Max 19.5W			
Dimensions (WxHxD) / Weight	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)

## PERIPHERAL

## ACCESSORY



**TNM-C4940TD**  
Bi-spectrum AI Thermal Camera



**TNV-C7013RC**  
AI Corner Mount Camera



**TNB-9000**  
8K Box Camera



**TNM-C4940TD**  
Bi-spectrum AI Thermal Camera



**TNV-C7013RC**  
AI Corner Mount Camera



**TNB-9000**  
8K Box Camera



**TNM-C4940TD**  
Bi-spectrum AI Thermal Camera



**TNV-C7013RC**  
AI Corner Mount Camera



**TNB-9000**  
8K Box Camera



**TNM-C4940TD**  
Bi-spectrum AI Thermal Camera



**TNV-C7013RC**  
AI Corner Mount Camera



**TNB-9000**  
8K Box Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



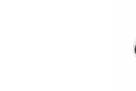
**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



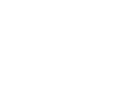
**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
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**QNV-C9083R**  
8MP IR Vandal Dome Camera



**QNO-C9083R**  
8MP IR Bullet Camera



**QNV-C8083R**  
5MP IR Vandal Dome Camera



**QNO-C8083R**  
5MP IR Bullet Camera



## NETWORK



**QNV-C8011R**  
5MP IR Vandal Dome Camera



**QNV-C8012**  
5MP Vandal Dome Camera



**QNV-C9011R**  
8MP IR Vandal Dome Camera



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



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



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



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



**XNB-9002**  
4K Box Camera

## ANALOG

## PERIPHERAL

## ACCESSORY

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.03Lux (F1.6, 1/30sec) BW: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux (F2.0, 1/30sec) BW: 0.005Lux (F2.0, 1/30sec, 30IRE)	Colour: 0.03Lux (F1.6, 1/30sec) BW: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Output	USB: Micro USB Type B, 1280x720 for installation	USB: Micro USB Type B, 1280x720 for installation	USB: Micro USB Type B, 1280x720 for installation
Focal Length	3.0mm fixed focal	2.4mm fixed focal	3.0mm fixed focal
Angular Field of View	H: 100° / V: 73° / D: 129°	H: 123° / V: 91° / D: 159°	H: 108° / V: 59° / D: 127°
Pan / Tilt / Rotate	0° ~350° / -35° ~70° / 0° ~355°	0° ~350° / -35° ~70° / 0° ~355°	0° ~350° / -35° ~70° / 0° ~355°
IR Viewable Length	20m(65.62ft)	—	20m(65.62ft)
Day & Night	Auto(ICR)	Auto(ICR)	Auto(ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNRV, WiseNR II (Based on AI engine)	SSNRV, WiseNR II (Based on AI engine)	SSNRV, WiseNR II (Based on AI engine)
Digital Image Stabilisation	—	—	—

**Classified object type:** Person/Vehicle  
**Attributes:** Vehicle(Type:car/bus/truck/motorcycle/bicycle)  
Support DetectionShot  
Analytics events based on AI engine  
— Motion detection\*, Object detection, Virtual line\*(Crossing/Direction), Virtual area\* (Loitering/Intrusion/Enter/Exit)  
Analytics events  
— Defocus detection, Tampering, Virtual area(Appear/Disappear)  
\* Some of the video analytics only works with people and vehicle detection

Analytics	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap
Business Intelligence	—	—	—
Alarm I/O	—	—	—
Audio I/O	—	—	—
Video Compression	H.265/H.264: Main/High, MJPEG	H.265/H.264: Main/High, MJPEG	H.265/H.264: Main/High, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	8MP / 30fps
WiseStream	WiseStreamIII (Based on AI engine)	WiseStreamIII (Based on AI engine)	WiseStreamIII (Based on AI engine)
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)	Unicast(20 users) / Multicast Multiple streaming(Up to 5 profiles)
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot 256GB
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/G/T/M SUNAPI(HTTP API)
Operating Temperature	-40° C~+55° C(-40° F ~+131° F) / 0~95% RH * Start up should be done at above -30° C Humidity control / w Air vapor control	-40° C~+55° C(-40° F ~+131° F) / 0~95% RH * Start up should be done at above -30° C Humidity control / w Air vapor control	-40° C~+55° C(-40° F ~+131° F) / 0~95% RH * Start up should be done at above -30° C Humidity control / w Air vapor control
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE: Max 8.5W, typical 4.9W	PoE: Max 7W, typical 4.9W	PoE: Max 8.5W, typical 4.9W
Dimensions (WxHxD) / Weight	ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb)	ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb)	ø 110x77mm(ø 4.33x3.03"), 522g(1.15lb)
Additional Features	Analytics, Network disconnect	Analytics, Network disconnect	Analytics, Network disconnect

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	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	—
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (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)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	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
Business Intelligence	People counting, Queue management, Heatmap			
Alarm I/O	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/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			
Resolution / Max. Frame Rate	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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/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)
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 9W 24VAC: Max 13.5W, typical 8.9W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9W 24VAC: Max 13.5W, typical 8.9W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø 91 x 368.6mm (Ø 3.58" x 14.51") 2.2kg (4.85lb)	Ø 180 x 163mm (Ø 7.09" x 6.42") 1.9kg (4.18lb)	Ø 205 x 163mm (Ø 8.07" x 6.42") 1.95kg (4.29lb)	Ø 160 x 125mm (Ø 6.3" x 4.92") 1.6kg (3.52lb)
Additional Features	UL CAP, Secure by Default			

## NETWORK

## ANALOG

## PERIPHERAL

## ACCESSORY

					
	XNO-8082R 6MP IR Bullet Camera	XNV-8082R 6MP IR Vandal Dome Camera	XND-8082RF 6MP IR Dome Camera	XND-8082RV 6MP IR Dome Camera	XNB-8002 6MP 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	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 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° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (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	extremeWDR	extremeWDR	extremeWDR	extremeWDR	extremeWDR
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	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				
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/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	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
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 10.7W 12VDC: Max 11.5W, typical 9W 24VAC: Max 13.5W, typical 11W	PoE: Max 12.95W, typical 10.7W 12VDC: Max 11.5W, typical 9W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø 91 x 368.6mm (Ø 3.58" x 14.51") 2.2kg (4.85lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.9kg (4.18lb)	Ø 205 x 163mm (Ø 8.07" x 6.42") 1.95kg (4.29lb)	Ø 160 x 125mm (Ø 6.3" x 4.92") 1.6kg (3.52lb)	W 81 x H 67 x D 165mm (3.19" x 2.64" x 6.48") 880g (1.94lb)
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

					
	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	1/1.8" CMOS	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS
Min. Illumination	Colour: 0.07Lux (F1.3, 1/30sec) B/W: 0Lux (IR LED)	Colour: 0.07Lux (F1.3, 1/30sec) B/W: 0Lux (IR LED)	Colour: 0.015Lux (F1.4, 1/30sec) B/W: 0Lux (IR LED)	Colour: 0.015Lux (F1.4, 1/30sec) B/W: 0Lux (IR LED)	Colour: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2)
Video Output	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° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (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° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 102.5° (Wide) ~ 38.7° (Tele) V: 74.2° (Wide) ~ 29° (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°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
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 Stabilisation	Support (built-in gyro sensor)	Support (Built-in Gyro sensor)			
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Face/upper body 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	Intelligent analytics Audio detection Sound classification 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			
Video Compression	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	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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, 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)	-50°C ~ +60°C (~-58°F ~ +140°F) / Less than 90% RH * Start up should be done at above -35°C
Certification	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10
Power Consumption	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5W (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	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.75kg (3.86lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.45kg (3.20lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.45kg (3.20lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.45kg (3.20lb)	Ø 180 x 125mm (Ø 7.09" x 4.92") 1.45kg (3.20lb)
Additional Features	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	Modular structure, Motorized PTZ, Anti dust

XND-8081FZ 5MP Flush Mount Dome Camera		XND-8081RV 5MP IR Dome Camera		XND-8081RF 5MP IR Flush Mount Dome Camera		XNV-8081Z 5MP Vandal Dome Camera		XNV-8081R 5MP IR Vandal Dome Camera	
Imaging Device	1/1.8" CMOS								
Min. Illumination	Colour: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Colour: 0.07Lux (F1.2) B/W: 0.007Lux (F1.2)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)
Video Output	Micro USB Type B	CVBS 1.0Vp-p, Micro USB Type B	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	Micro USB type B	CVBS 1.0Vp-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	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:102.5° (Wide)~38.7° (Tele) V:74.2° (Wide)~29° (Tele) D:135.5° (Wide)~48.6° (Tele)	H:92.1° (Wide)~38.7° (Tele) V:67.2° (Wide)~29° (Tele) D:119.9° (Wide)~48.6° (Tele)	H:92.1° (Wide)~38.7° (Tele) V:67.2° (Wide)~29° (Tele) D:119.9° (Wide)~48.6° (Tele)	H:102.5° (Wide)~38.7° (Tele) V:74.2° (Wide)~29° (Tele) D:135.5° (Wide)~48.6° (Tele)	H:92.1° (Wide)~38.7° (Tele) V:67.2° (Wide)~29° (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° (Tele)	H:119.5° (Wide)~27.9° (Tele) V:62.8° (Wide)~15.7° (Tele) D:142.1° (Wide)~32° (Tele)	H:119.5° (Wide)~27.9° (Tele) V:62.8° (Wide)~15.7° (Tele) D:142.1° (Wide)~32° (Tele)	H:119.5° (Wide)~27.9° (Tele) V:62.8° (Wide)~15.7° (Tele) D:142.1° (Wide)~32° (Tele)
Pan / Tilt / Rotate	±175° / 0~85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0~85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	-	-	50m (164.04ft)	-	-	50m (164.04ft)
Day & Night	Auto (ICR)								
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNRV								
Digital Image Stabilisation	Support (Built-in Gyro sensor)	Support	Support	Support (Built-in Gyro sensor)					
Analytics	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	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) / 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								
Resolution / Max. Frame Rate	5MP / 30fps	2MP / 60fps	2MP / 60fps	2MP / 60fps					
WiseStream	WiseStreamII								
Streaming	Up to 10 Profiles								
Edge Storage	micro SD/SDHC/SDXC								
Application Programming Interface	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)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°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, Plenum rate	IP52, IK10	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate	IP52, IK10
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	PoE: Max 12.95W 12VDC: Max 11.7W 24VAC: Max 14.9W	PoE: Max 7W 12VDC: Max 5.4W	PoE: Max 10W 12VDC: Max 8.5W	PoE: Max 12.95W 12VDC: Max 10.8W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.1") 1.85kg (4.08lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.1") 1.8kg (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") 1.75kg (3.86lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)
Additional Features	Modular structure, Motorized PTRZ, Antidust	Modular structure, Antidust	Modular structure, Antidust	Modular structure, Motorized PTRZ	Modular structure	Modular structure, Antidust	Modular structure, Antidust	Modular structure, Motorized PTRZ, Antidust	Modular design, Antidust

XND-6081V 2MP Dome Camera		XND-6081F 2MP Flush Mount Dome Camera		XND-6081VZ 2MP Dome Camera		XND-6081FZ 2MP Flush Mount Dome Camera		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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)
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	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	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	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° (Tele)	H:119.5° (Wide)~27.9° (Tele) V:62.8° (Wide)~15.7° (Tele) D:142.1° (Wide)~32° (Tele)	H:119.5° (Wide)~27.9° (Tele) V:62.8° (Wide)~15.7° (Tele) D:142.1° (Wide)~32° (Tele)	H:119.5° (Wide)~27.9° (Tele) V					



XND-6081RF  
2MP Flush Mount IR Dome Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS
Min. Illumination	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IRLED on)	Colour : 0.015 lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 0.015Lux (F1.4) BW : 0Lux (IRLED)	Colour : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 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 1.0 Vp-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° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (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	-
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 Stabilisation	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			
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			
Video Compression	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	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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			
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)	-50°C ~ +60°C (-58°F ~ +140°F) * Start up above -35°C (-31°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 7W 12VDC : Max 5.4W 24VAC : Max 7.1W	PoE : Max 8.5W 12VDC : Max 7.5W 24VAC : Max 8.5W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.1") 1.8kg (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)	W 73.1 x H 66.6 x D 147.8mm (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

NV-6081Z  
andal Dome Camera

XNV-6081R  
IP IR Vandal Dome Camera

XNB-  
5MP Bo

-8000  
Box Camera

NETWORK

ANALOG

PERIPHERAL

ACCESSORY

XNO-8020R/  
5MP IR Bul

'8030R/8040R  
bullet Camera



-8080R/8080RV  
IR Dome Camera



## D-8020R/8030R/8040R 5MP IR Dome Camera



XND-8020F  
5MP Flush Mount Dome Camera

	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
	Colour: 0.07Lux (F1.3) B/W: 0Lux (IRLED on)	Colour: 0.16Lux (F1.6) B/W: 0Lux (IRLED on)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IRLED on)	Colour: 0.16Lux (F1.6) B/W: 0Lux (IRLED on)	Colour: 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)
	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 1.0Vp-p, Micro USB type B	Micro USB type B
	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
	H: 100.2° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (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° (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°
	-	-	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°
	50m (164.04ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)	-
	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
	120dB	120dB	120dB	120dB	-
	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
n	Support	Support	Support	Support (Built-in Gyro sensor)	Support
	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
	-	People counting, Queue management, Heatmap	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
	1 / 1	1 / 1	1 / 1	1 / 1	-
	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 / -
Rate	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
	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
ing	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
	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°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)
	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IK08	IK08	-
	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
	Ø91 x 368.6mm (Ø3.5" 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)
	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

NETWORK					NETWORK				
ANALOG		ANALOG		XNF-9010RV/9010RVM 12MP IR Fisheye Camera	XNF-9010RS 12MP Stainless IR Fisheye Camera		XNF-8010R/8010RV/8010RVM 6MP IR Fisheye Camera		XNB-6005 2MP Box Camera (extraLUX)
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/2.3" 12MP CMOS	Imaging Device	1/2.3" 12MP CMOS	1/1.8" CMOS	1/2" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Colour: 0.07Lux (F1.3) B/W: 0Lux (IR LED on)	Colour: 0.16Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.39Lux (F2.2) B/W: 0Lux (IR LED on)	Min. Illumination	Colour: 0.39Lux (F2.2, 1/30sec) B/W: 0Lux (IR LED on)	Colour: 0.1Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.006Lux (F1.2) B/W: 0.0006Lux (F1.2)	Colour: 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	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 1.0Vpp, 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	Focal Length	1.08mm fixed focal	1.6mm fixed	-	-
Angular Field of View	H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (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°	Angular Field of View	H: 187° / V: 187° / D: 187°	H: 192° / V: 192° / D: 192°	-	-
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	-	Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	30m (98.43ft)	10m (32.8ft), Wise IR	IR Viewable Length	9m (29.53ft), Wise IR	15m (49.21ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	extremeWDR (120dB)	Wide Dynamic Range	extremeWDR (120dB)	120dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	Support	Support	Support (Built-in Gyro sensor)	-	Digital Image Stabilisation	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	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	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	Business Intelligence	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	2 configured I/O	Alarm I/O	2 configured 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	Selectable (mic in/line in), Built-in mic / Line out	Audio I/O	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	Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MUPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	3008 x 3008 / 30fps	Resolution / Max. Frame Rate	3008 x 3008 / 30fps	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	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	Edge Storage	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, SUNAPI Wisenet open platform	ONVIF profile S/G/T SUNAPI (HTTP API) Wisenet open platform	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, SUNAPI, 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	Operating Temperature	-40°C ~ +50°C (-40°F ~ +122°F) / Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R)	-10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010RV/8010RVM)	-10°C ~ +55°C (+14°F ~ +131°F)
Certification	IP67, IP66, NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IP67, IK10	IP66, IK10, NEMA4X, EN50155 class T3 (XNF-9010RVM only)	Certification	IP66, IP67, IP6K9K, NEMA4X, IK10, IK10+ (it can resist impacts of 40 joules), NSF/ANSI Standard 169 - Special Purpose Food Equipment and Devices.	IP66, IK10 (XNF-8010RV/8010RVM)	-	-
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 9W 12VDC: Max 8W	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	Power Consumption	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	PoE: Max 12.95W, 12VDC: Max 12W (XNF-8010RV/8010RVM)	PoE: Max 8.5W 12VDC: Max 8W 24VAC: Max 9W	PoE: Max 7.5W 12VDC: Max 6.5W 24VAC: Max 8W
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 (Ø6.42" x 3.84") 615g (1.36lb)	Ø160 x 72mm (Ø6.38" x 2.83") 1.1kg (2.43lb)	Dimensions (WxHxD) / Weight	Ø146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R)	Ø167.9 x 72.1mm (Ø6.61" x 2.83") 2.98kg (6.57lb)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Various mode support (Original, Double panorama, Single panorama, Quad view) M12 Connector (XNF-9010RVM)	Additional Features	Various mode support (Original, Double panorama, Single panorama, Quad view)	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarping	Handover, Hallway View	Handover, Hallway View

ANALOG					PERIPHERAL					ACCESSORY								
NETWORK		XNB-6001 2MP Remote Head Camera		SLA-T4680/T4680V 2MP lens for XNB-6001	SLA-T2480/T2480V 2MP lens for XNB-6001		SLA-T1080FA 2MP lens for XNB-6001		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	1/2.8" CMOS	1/2.8" CMOS	–	–	–	–	1/2.8" CMOS	1/2.8" CMOS	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS			
Min. Illumination	–	Colour: 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	Colour: 0.45Lux (F2.0) B/W: 0.45Lux (F2.0)	Colour: 0.03Lux (F1.6)	–	–	–	–	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.004Lux (F0.94) B/W: 0Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.03ux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03ux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.055lux (F2.0) (XNO-6010R) Colour: 0.015lux (F1.4) (XNO-6020R) B/W: 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	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	CVBS 1.0Vp-p, Micro USB type B				
Focal Length	–	4.6mm Pinhole	2.4mm fixed	1.6mm fisheye	–	–	–	–	5.2~62.4mm (Optical 12x)	4.1~16.4mm (Optical 4x)	2.8~12mm (4.3x) motorized varifocal	3.2~10mm (3.1x) motorized varifocal	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)				
Angular Field of View	–	H: 73° / V: 39° / D: 85°	H: 138° / V: 73° / D: 168°	H: 187° / V: 113.9°	–	–	–	–	H: 54.58° (Wide) ~ 5.3° (Tele) V: 32.19° (Wide) ~ 3° (Tele) D: 61.4° (Wide) ~ 6.06° (Tele)	H: 109° (Wide) ~ 26.2° (Tele) V: 54° (Wide) ~ 14.8° (Tele) D: 116° (Wide) ~ 30° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 139° / V: 73° / D: 167° (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)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)				
Day & Night	–	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	–	–	–	–	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)				
Wide Dynamic Range	120dB	–	–	–	–	–	–	–	150dB	150dB	150dB	120dB	150dB	150dB				
Digital Noise Reduction	SSNRV	–	–	–	–	–	–	–	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV				
Digital Image Stabilisation	Support	–	–	–	–	–	–	–	Support	Support	Support	Support	Support	Support				
Analytics	Intelligent analytics Audio detection	–	–	–	–	–	–	–	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	Intelligent analytics Audio detection Sound classification				
Business Intelligence	People counting, Queue management, Heatmap	–	–	–	–	–	–	–	–	–	–	–	–	–				
Alarm I/O	1 / 1	–	–	–	–	–	–	–	–	–	–	–	–	–				
Audio I/O	Selectable (mic in/line in) / Line out	–	–	–	–	–	–	–	1 / 1	1 / 1	1 / 1	–	–	1 / 1				
Video Compression	H.265 / H.264, MJPEG	–	–	–	–	–	–	–	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				
Resolution / Max. Frame Rate	2MP / 60fps	–	–	–	–	–	–	–	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG				
WiseStream	WiseStreamII	–	–	–	–	–	–	–	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII				
Streaming	Up to 10 Profiles	–	–	–	–	–	–	–	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles				
Edge Storage	SD/SDHC/SDXC	–	–	–	–	–	–	–	micro SD/SDHC/SDXC	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, 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	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)	-10°C ~ +55°C (+14°F ~ +131°F)	–	–	–	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)	-40°C ~ +55°C (-40°F ~ +131°F)	-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	IP67, IP66, NEMA 4X, IK10	IP66, IK10	IP67, IP66, NEMA 4X, IK10					
Power Consumption	PoE: Max 6W 12VDC: Max 6.5W	–	–	–	–	–	–	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	PoE: Max 9.7W 12VDC: Max 8.8W					
Dimensions (WxHxD) / Weight	W 131.1 x H 28 x D 86mm (5.16" x 1.1" x 3.39") 245g (0.54lb)	Ø 24 x 42mm (Ø 0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68lb) (SLA-T4680) 30 x 20.2 x 45mm (1.18" x 0.8" x 1.77") (Lens) 8m (314.96") (Cable) 321g (0.71lb) (SLA-T4680V)	Ø 24 x 49.8mm (Ø 0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70lb) (SLA-T2480) 30 x 27.9 x 45mm (1.18" x 0.1" x 1.77") (Lens) 8m (314.96") (Cable) 328g (0.72lb) (SLA-T2480V)	Ø 35 x 68.9mm (Ø 1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71lb)	Ø 91 x 368.6mm (Ø 3.58" x 14.51") 2.18kg (4.81lb)	Ø 91 x 368.6mm (Ø 3.58" x 15.3") 2.35kg (5.18lb)	Ø 91 x 322.9mm (Ø 3.58" x 12.71") 1.29kg (4.25lb)	Ø 70 x 301.5mm (Ø 2.76" x 11.87") (XNO-6010R) Ø 70 x 296mm (Ø 2.76" 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	Handover, Hallway View	Handover, Hallway View					



NETWORK ANALOG						NETWORK ANALOG					
 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		 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		 XNV-6085 2MP Vandal Dome Camera (extraLUX)					
Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2" CMOS
Min. Illumination	Colour: 0.004Lux (F0.94) B/W: 0.0004Lux (F0.94)	Colour: 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0.01Lux (F1.6)	Min. Illumination	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.03Lux (F1.6), B/W: 0.003Lux (F1.6) (XNV-6120) Colour: 0.03Lux (F1.6), B/W: 0Lux (IR LED on) (XNV-6120R)	Colour: 0.004Lux (F0.94) B/W: 0.0004Lux (F0.94)
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	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	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	Focal Length	4mm fixed	2.8mm fixed	2.4mm fixed	5.2~62.4mm (Optical 12x)	4.1~16.4mm (Optical 4x)
Angular Field of View	H: 100° (Wide) ~ 26.2° (Tele) V: 54° (Wide) ~ 14.8° (Tele) D: 116° (Wide) ~ 30° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	Angular Field of View	H: 88.6° / V: 47.5° / D: 104.8°	H: 112° / V: 62° / D: 130°	H: 139° / V: 73° / D: 167°	H: 54.58° (Wide) ~ 5.3° (Tele) V: 32.19° (Wide) ~ 3° (Tele) D: 61.4° (Wide) ~ 6.06° (Tele)	H: 100° (Wide) ~ 26.2° (Tele) V: 54° (Wide) ~ 14.8° (Tele) D: 116° (Wide) ~ 30° (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°	Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	0° ~ 354° / 0° ~ 75° / 0° ~ 355°	± 175° / ± 73° / ± 175°
IR Viewable Length	-	-	30m (98.43ft)	30m (98.42ft)	-	IR Viewable Length	30m (98.43ft)	-	-	70m (229.66ft) (XNV-6120R)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Day & Night	Auto (ICR)	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	150dB	150dB	120dB	120dB	Wide Dynamic Range	150dB	-	150dB	150dB	150dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	Support (Built-in Gyro sensor)	Support	Support	Support	Support	Digital Image Stabilisation	Support	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	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	Intelligent analytics	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	-	-	-	-	-	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	-	-	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), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	-	-	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	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	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	Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 5 Profiles	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	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	micro 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/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	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)	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)	-40°C ~ +55°C (-40°F ~ +131°F) * Start up above -35°C (-31°F)
Certification	IK08	IK08	IK08	IK08	IK08	Certification	IK08	-	IK08	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10
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	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. 12.1W 12VDC: Max 11.1W 24VAC: Max 13.5W
Dimensions (WxHxD) / Weight	Ø160 x 140mm (Ø6.3" x 5.51") 1.1kg (2.43lb) (XND-6085) 1.25kg (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-6080R) 690g (1.52lb) (XND-6080RV)	Ø140.8 x 113mm (Ø5.54" x 4.45") 675g (1.49lb)	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") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)	Ø160 x 128.5mm (Ø6.3" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)	Ø160 x 140mm (Ø6.3" x 5.51") 1.4kg (3.09lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Defog, Hallway View	Defog, Hallway View	Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

ANALOG						NETWORK							
	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-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 Vandal Dome Camera	XNV-6011 2MP Vandal Dome Camera	XNV-6010 2MP 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		1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS		
Min. Illumination	Colour: 0.015Lux (F1.4) B/W: 0.015Lux (F1.4)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0.01Lux (F1.6)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)		Colour: 0.04Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.015Lux (F1.4) B/W: 0Lux (IR LED on)	Colour: 0.04Lux (F2.0) B/W: 0.04Lux (F2.0)	Colour: 0.04Lux (F2.0) B/W: 0.04Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)		
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		Micro USB Type B	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	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	3.2~10mm (3.1x) motorized varifocal		3.6mm fixed	4mm fixed	2.8mm fixed	2.8mm fixed	2.4mm fixed		
Angular Field of View	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (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°	H: 112° / V: 62° / D: 130°	H: 139° / V: 73° / D: 167°	
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°		± 5° / 0° ~ 67° / ± 90°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	± 5° / ± 10° / ± 90°	0° ~ 353° / 0° ~ 59° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	
IR Viewable Length	–	50m (164.04ft)	50m (164.04ft)	–	30m (98.43ft)		15m (49.21ft)	30m (98.43ft)	–	–	–	–	
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)		Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	
Wide Dynamic Range	150dB	150dB	150dB	120dB	120dB		150dB	150dB	150dB	150dB	150dB	150dB	
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV		SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	SSNRV	
Digital Image Stabilisation	Support	Support	Support	Support	Support		Support (Built-in Gyro sensor)	Support	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		Intelligent analytics Audio detection Sound classification (w/ external MIC)	Intelligent analytics Audio detection Sound classification	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	
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	–	–	–	–	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	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		H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps		2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII		WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 5 Profiles		Up to 10 Profiles	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		micro SD/SDHC/SDXC	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, 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	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)	-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)		-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)	-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, IP66, NEMA4X, IK10	IP67/ IP66/NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IK10	IP66, IK10		IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X	IP66, IK10, NEMA4X	IP67, IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP67, IP66, IK10	
Power Consumption	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	PoE: Max 11W		PoE: Max 6.7W	PoE: Max 7.2W	PoE: Max 6.5W	PoE: Max 6.5W	PoE: Max 6W 12V DC: Max 5.5W	PoE: Max 6W 12V DC: Max 5.5W	
Dimensions (WxHxD) / Weight	Ø 160 x 118.5mm (Ø 6.3" x 4.67") 985g (2.17lb)	Ø 160 x 118.5mm (Ø 6.3" x 4.67") 995g (2.19lb)	Ø 160 x 120.5mm (Ø 6.38" x 4.74") 2.8kg (6.17lb)	Ø 160 x 118.5mm (Ø 6.3" x 4.67") 940g (2.11lb)	Ø 160 x 118.5mm (Ø 6.3" x 4.67") 940g (2.07lb)		W98.9 x H52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø120 x 97.5mm (Ø 4.72" x 3.84") 615g (1.36lb)	W103.7 x H72.3 x D 126.8mm (3.89" x 2.85" x 4.99") 478g (1.04lb)	W98.9 x H52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø112.8 x 63.7mm (Ø 4.44" x 2.51") 420g (0.93lb)	Ø120 x 97.5mm (Ø 4.72" x 3.84") 625g (1.38lb)	Ø120 x 97.5mm (Ø 4.72" x 3.84") 625g (1.38lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View		M12 Connector (XNV-6022RM) Handover, Hallway View	Handover, Hallway View	M12 Connector (XNV-6012M) Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	



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



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



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



**XNP-9250R**  
4K 25x IR PTZ Camera



**XNP-8250R**  
6MP 25x IR PTZ Camera



**XNP-6400R**  
2MP 40x PTZ Camera



**XNP-9250**  
4K 25x PTZ Camera



**XNP-8250**  
6MP 25x PTZ Camera



**XNP-6400**  
2MP 40x PTZ Camera

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	-	-	-
Focal Length	5~150mm (30x) zoom	5~150mm (30x) zoom	4.25~170mm (40x) zoom
Angular Field of View	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: 39.4° (Wide) ~ 1.09° (Tele)
Pan / Tilt / Rotate	360° Endless / 110° (-20°~90°) / -	360° Endless / 110° (-20°~90°) / -	360° Endless / 110° (-20°~90°) / -
IR Viewable Length	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR
Day & Night	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule
Wide Dynamic Range	extremeWDR(120dB)	extremeWDR(120dB)	extremeWDR(150dB)
Digital Noise Reduction	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics *Audio detection, Sound classification (with NWI/O Box: SPM-4210)	Intelligent analytics *Audio detection, Sound classification (with NWI/O Box: SPM-4210)	Intelligent analytics *Audio detection, Sound classification (with NWI/O Box: SPM-4210)
Business Intelligence	-	-	-
Alarm I/O	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)
Audio I/O	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)
Video Compression	H.265/H.264,MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	6MP / 30fps	2MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	Normal: -40°C ~ +55°C (-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7): +74°C (+165°F) *Start up should be done at above -30°C Less than 95% RH (Non-condensing)	Normal: -40°C ~ +55°C (-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7): +74°C (+165°F) *Start up should be done at above -30°C Less than 95% RH (Non-condensing)	Normal: -40°C ~ +55°C (-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7): +74°C (+165°F) *Start up should be done at above -30°C Less than 95% RH (Non-condensing)
Certification	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)
Power Consumption	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W
Dimensions (WxHxD) / Weight	Ø 184.9 x 318.8mm (Ø 7.28" x 12.55") 5.4kg(11.9lb)	Ø 184.9 x 318.8mm (Ø 7.28" x 12.55") 5.4kg(11.9lb)	Ø 184.9 x 318.8mm (Ø 7.28" x 12.55") 5.4kg(11.9lb)
Additional Features	1 Terminal & Cable, Upgraded preset accuracy, object auto tracking, Target lock tracking Included SFP slot in HPoE injector		

Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	
Min. Illumination	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (IR LED On)	
Video Output	-	-	-	-	
Focal Length	5~125mm (25x) zoom	5~125mm (25x) zoom	4.25~170mm (40x) zoom	5~125mm (25x) zoom	
Angular Field of View	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) V: 39.4° (Wide) ~ 1.09° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	
Pan / Tilt / Rotate	360° Endless / 110° (-20°~90°) / -				
IR Viewable Length	200m (656.17ft), Wise IR				
Day & Night	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule	Auto (ICR)/Colour/BW/Schedule	
Wide Dynamic Range	extremeWDR(120dB)	extremeWDR(120dB)	extremeWDR(150dB)	extremeWDR(120dB)	
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV	
Digital Image Stabilisation	Support (built-in gyro sensor)				
Analytics	Intelligent analytics * Audio detection, Sound classification (with NWI/O Box : SPM-4210)	Intelligent analytics * Audio detection, Sound classification (with NWI/O Box : SPM-4210)	Intelligent analytics * Audio detection, Sound classification (with NWI/O Box : SPM-4210)	Intelligent analytics * Audio detection, Sound classification (with NWI/O Box : SPM-4210)	
Business Intelligence	-	-	-	-	
Alarm I/O	Compatible with NWI/O Box (Optional)				
Audio I/O	Compatible with NWI/O Box (Optional)				
Video Compression	H.265 / H.264, MJPEG				
Resolution / Max. Frame Rate	4K / 30fps	6MP / 30fps	2MP / 60fps	4K / 30fps	
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	
Streaming	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/G, SUNAPI, Wisenet open platform				
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / +74°C (+165°F)(MAX) * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / +74°C (+165°F)(MAX) * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / +74°C (+165°F)(MAX) * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +55°C (-40°F ~ +131°F) / +74°C (+165°F)(MAX) * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	
Certification	IP66, IK10, NEMA4X, NEMA TS-2 (2.2.8, 2.2.9)				
Power Consumption	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	PoE+ (IEEE802.3at, Class4): Typical 20W, Max 25W	
Dimensions (WxHxD) / Weight	Ø 158 x 293.3mm (Ø 6.22" x 11.55") 3.2kg (7.05lb)	Ø 158 x 293.3mm (Ø 6.22" x 11.55") 3.2kg (7.05lb)	Ø 158 x 293.3mm (Ø 6.22" x 11.55") 3.2kg (7.05lb)	Ø 158 x 293.3mm (Ø 6.22" x 11.55") 3.2kg (7.05lb)	
Additional Features	1 Terminal & Cable, Upgraded preset accuracy, object auto tracking, Target lock tracking Included SFP slot in HPoE injector			1 Terminal & Cable, Upgraded preset accuracy, 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-6120H**  
2MP 12x PTZ Camera

**XNP-6040H**  
2MP 4.3x PTZ Camera

**XNP-6320A**  
2MP 32x Zoom Camera

**XNZ-L6320A**  
2MP 32x Zoom Camera

**PNV-A6081R-E2T**  
2MP Camera with built-in 2TB Rugged SSD

**PNV-A6081R-E1T**  
2MP Camera with built-in 1TB Rugged SSD

Imaging Device	1/2.8" CMOS	Min. Illumination	Colour: 0.02Lux (F1.6) B/W: 0Lux (IR LED on)	Video Output	CVBS 1.0 Vp-p	Focal Length	4.75~261.4mm (55x) zoom	Angular Field of View	H: 58.6° (Wide) ~ 1.23° (Tele) V: 34.8° (Wide) ~ 0.71° (Tele)	Pan / Tilt / Rotate	360° Endless / 95° (-5°~90°) / -	IR Viewable Length	500m (1,640.42ft)	Day & Night	Auto (ICR)	Wide Dynamic Range	120dB	Digital Noise Reduction	SSNRV	Digital Image Stabilisation	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 / 2	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	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII																	
Streaming	Up to 10 Profiles	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles																	
Edge Storage	micro SD/SDHC/C/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 (HTTP API) Wisenet open platform	ONVIF profile S/G, 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 (PoE Mode)	-50°C ~ +55°C (~122°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)																	
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10																	
Power Consumption	HPoE: 60W 24VAC: Max 92W	24VAC: Max 90W	PoE, 12VDC: Max 12W	PoE: Max 9.6W 12VDC: Max 8.6W																	
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	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	Defog, Auto tracking	Defog, Auto tracking																	

Imaging Device	1/2.8" 2MP CMOS	Min. Illumination	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Video Output	CVBS 1.0 Vp-p, Micro USB Type B	Focal Length	6~222mm (37x) zoom	Angular Field of View	H: 54.58° (Wide) ~ 5.3° (Tele) V: 32.19° (Wide) ~ 3° (Tele)	Pan / Tilt / Rotate	360° Endless / 190° (-5°~185°) / -	IR Viewable Length	350m (1,148.29ft)	Day & Night	Auto (ICR)	Wide Dynamic Range	150dB	Digital Noise Reduction	SSNRV	Digital Image Stabilisation	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 / 2	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	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII																	
Streaming	Up to 10 Profiles	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles																	
Edge Storage	micro SD/SDHC/C/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 (HTTP API) Wisenet open platform	ONVIF profile S/G, 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 (PoE Mode)	-50°C ~ +55°C (~122°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F)																	
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10																	
Power Consumption	HPoE: 60W 24VAC: Max 92W	24VAC: Max 90W	PoE, 12VDC: Max 12W	PoE: Max 9.6W 12VDC: Max 8.6W																	
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	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	Defog, Auto tracking	Defog, Auto tracking																	

Imaging Device	1/2.8" CMOS	Min. Illumination	Colour: 0.08Lux (F1.3, 1/30sec, 30IRE) BW: 0.0008Lux (F1.3, 1/30sec, 30IRE), 0Lux (IR LED on), 30/25fps	Video Output	CVBS 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation	Focal Length	4.44~142.6mm (Optical 32X) (digital 32x, total 1024x zoom)	Angular Field of View	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	IR Viewable Length	4.38~9.33mm (2.13x) motorized varifocal	Day & Night	Auto (ICR)	Wide Dynamic Range	120dB	Digital Noise Reduction	SSNRV	Digital Image Stabilisation	Support
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	1 / 2	1 / 2	1 / 1	1 / 1																	



**PNM-9031RV**  
15MP 192° IR Panoramic Camera

	<b>PNM-9031RV</b> 15MP 192° IR Panoramic Camera	<b>PNM-9022V</b> 8.3MP 180° /209° Panoramic Camera	<b>PNM-9085RQZ1</b> 5MP x 4CH IR PTRZ Multi-directional Camera	<b>PNM-9084RQZ1</b> 2MP x 4CH IR PTRZ Multi-directional Camera
Imaging Device	1/2.8" 5MP CMOS (x4)	1/2.8" 4CH	1/1.8" 5MP CMOS x 4CH	1/2.8" CMOS x 4CH
Min. Illumination	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.3Lux (F1.6) Colour: 0.03Lux (F1.6)	Colour: 0.11lux (F1.92, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.05lux (F1.6,30IRE) BW: 0Lux (IR LED on)
Video Output	Micro USB Type B	Micro USB Type B	—	—
Focal Length	4.3mm Fixed	2.8mm fixed focal	4.13 ~ 9.4mm (2.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H: 196° / V: 64° (Min distance 5m) H: 197° / V: 64° (Max distance 100m)	H: 209° / V: 83.3°	H: 87.58° (Wide) ~ 37.34° (Tele) V: 64.58° (Wide) ~ 28.04° (Tele) D: 112.46° (Wide) ~ 46.85° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)
Pan / Tilt / Rotate	0° ~ 355° / 0° ~ 60° / —	0° ~ 355° / 0° ~ 60° / —	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°
IR Viewable Length	20m (65.62ft)	—	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (120dB)	120dB	120dB
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV
Digital Image Stabilisation	—	—	Support	Support
Analytics	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	Heatmap	Heatmap	—	—
Alarm I/O	2 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in)	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, MUPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	15MP / 20fps	8.3MP / 30fps	8MP / 60Hz	8MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 3 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB (256Gb x2)	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 4slot 256GB (each CH)	micro SD/SDHC/SDXC 4slot 256GB (each CH)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Startup should be above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +60°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Maximum temperature: +60°C (intermittent)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE+: Max 23.5W, Typical 18W 12VDC: Max 20.5W, Typical 16W	PoE+: Max 18W, Typical 10.4W 12VDC: Max 16W, Typical 9W	PoE: Max. 4.5 W, Typical 33.7 W 12VDC: Max. 42 W, Typical 32 W	PoE: Max. 42 W, Typical 30 W 12VDC: Max. 38 W, Typical 28.2 W
Dimensions (WxHxD) / Weight	Ø253 x 170mm 2.6kg (4.7lb)	Ø253 x 165mm Ø9.96" x 6.5" 3.2kg (7.1lb)	Ø315 x 145.9mm Ø12.4" x 5.74" 5.2 kg (11.5lb)	Ø315 x 145.9 mm Ø12.4" x 5.74" 5.2 kg (11.5lb)
Additional Features	—	4CH Stitching	Motorized PTRZ	Motorized PTRZ



**PNM-9084QZ1**  
2MP x 4CH PTRZ Multi-directional Camera

	<b>PNM-9084QZ1</b> 2MP x 4CH PTRZ Multi-directional Camera	<b>PNM-8082VT</b> 2MP x 3CH Multi-directional Camera	<b>PNM-12082RVD</b> 6MP x 2CH Multi-directional Camera	<b>PNM-7082RVD</b> 2MP x 2CH Multi-directional Camera
Imaging Device	1/2.8" CMOS x 4CH	1/2.8" CMOS 3CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH
Min. Illumination	Colour: 0.04lux (F2.2, 1/30sec) BW: 0.004lux (F2.2, 1/30sec)	Colour: 0.16lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.035lux (F2.2, 1/30sec, 30IRE) BW: 0lux (IR LED on)	Colour: 0.035lux (F2.2, 1/30sec, 30IRE) BW: 0lux (IR LED on)
Video Output	—	CVBS: 1.0 Vp-p	micro USB Type B	micro USB Type B
Focal Length	3~6mm (2x) motorized varifocal	3~6mm (2x) motorized varifocal	3.54 ~ 6.69mm (1.9x) motorized varifocal	3~6mm (2x) motorized varifocal
Angular Field of View	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)	H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele)	H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele)
Pan / Tilt / Rotate	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°	0 ~ 355° / 0 ~ 78° / 0 ~ 180°	0 ~ 355° / 0 ~ 78° / 0 ~ 180°
IR Viewable Length	—	—	25m (82ft)	25m (82ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNRV	SSNRV	WiseNR, SSNRV	WiseNR, SSNRV
Digital Image Stabilisation	Support	Support	—	—
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Analytics events* : Defocus detection, Motion detection, Tampering, Virtual line (Crossing/Direction), Virtual area (Loitering/Enter/Exit) * Support Audio detection, Sound classification via optional SPM-4210I/O box
Business Intelligence	Heatmap	Heatmap	—	—
Alarm I/O	2 / 1	1 / 1	—	—
Audio I/O	Selectable (mic in/line in)	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	* Support Alarm via optional SPM-4210I/O box
Video Compression	H.265 / H.264, MUPEG	H.265 / H.264, MUPEG	H.265 / H.264, MUPEG	* Support Alarm via optional SPM-4210I/O box
Resolution / Max. Frame Rate	15MP / 20fps	8.3MP / 30fps	8MP / 60fps	* Audio in/out via optional SPM-4210I/O box
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	H.265 / H.264, MUPEG
Streaming	Up to 3 profiles	Up to 10 profiles	Up to 10 profiles	2MP / 30fps
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB (256Gb x2)	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 4slot 256GB (each CH)	micro SD/SDHC/SDXC 1slot Max. 512GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) * Startup should be above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +60°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Maximum temperature: +60°C (intermittent)	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH (Non-condensing)
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X, IK10
Power Consumption	PoE+: Max 23.5W, Typical 18W 12VDC: Max 20.5W, Typical 16W	PoE+: Max 18W, Typical 10.4W 12VDC: Max 16W, Typical 9W	PoE: Max. 4.5 W, Typical 33.7 W 12VDC: Max. 42 W, Typical 32 W	PoE+: Max 16.5W, Typical 8.2W
Dimensions (WxHxD) / Weight	Ø253 x 170mm 2.6kg (4.7lb)	Ø253 x 165mm Ø9.96" x 6.5" 3.2kg (7.1lb)	Ø315 x 145.9mm Ø12.4" x 5.74" 5.2 kg (11.5lb)	Ø251 x 116.5mm 3kg (6.6lb)
Additional Features	—	Motorized PTRZ	3CHMulti-directional	—



**PNM-9000QB**  
2MP x 4CH Remote Head Camera      **XNB-6002**  
2MP x 4CH Remote Head Camera      **SLA-T4680A/T4680VA**  
2MP lens for PNM-9000QB      **SLA-T2480A/T2480VA**  
2MP lens for PNM-9000QB      **SLA-T1080FA**  
2MP lens for PNM-9000QB

	<b>PNM-9000QB</b> 2MP x 4CH Remote Head Camera	<b>XNB-6002</b> 2MP x 4CH Remote Head Camera	<b>SLA-T4680A/T4680VA</b> 2MP lens for PNM-9000QB	<b>SLA-T2480A/T2480VA</b> 2MP lens for PNM-9000QB	<b>SLA-T1080FA</b> 2MP lens for PNM-9000QB
Imaging Device	-	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	-	Colour: 0.06Lux (F2.5)	Colour: 0.045Lux (F2.0)	Colour: 0.03Lux (F1.6)
Video Output	HDMI (1920x1080, Quad view support)	CVBS 1.0 Vp-p, Micro USB type B	-	-	-
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)	Auto (electrical)	-	-	-
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (120dB)	-	-	-
Digital Noise Reduction	SSNRV	SSNRV, WiseNR	-	-	-
Digital Image Stabilisation	Support	Support (Built-in Gyro sensor)	-	-	-
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Analytic events - Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Face detection, Virtual areal Loitering/Intrusion/Enter/Exit/Appear/Disappear, Virtual line(Crossing/Direction)	-	-	-
Business Intelligence	-	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	1 / 1	1 / 1	-	-	-
Audio I/O	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	-	-	-
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 60fps	-	-	-
WiseStream	WiseStreamII	WiseStreamII	-	-	-
Streaming	Up to 10 profiles	Up to 10 Profiles	-	-	-
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot Max. 1TB	-	-	-
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	-	-	-
Operating Temperature	-10°C ~ +45°C (-40°F ~ +113°F) / Less than 95% RH (Non condensing)	-10°C ~ +55°C (+14°F ~ +131°F) / 0 ~ 90% RH (non-condensing)	-	-	-
Certification	-	-	-	-	-
Power Consumption	PoE: Max 22W, Typical 16.70W DC: Max 19W, Typical: 14W	PoE: Max 10.5W, typical 7.4W 12VDC: Max 8.6W, typical 5.8W Power redundancy failover	-	-	-
Dimensions (WxHxD) / Weight	W 200 x H 37 x D 146mm (7.87" x 1.46" x 5.75") 715g (1.58lb)	W 131.1 x H 33.5 x D 86mm (5.16" x 1.32" x 3.39") 420g	Ø 24 x L49.8mm, 310g (SLA-T4680A) W 30 x H 27.9 x D 45mm, 321g (SLA-T4680VA)	Ø 24 x L49.8mm, 318g (SLA-T2480A) W 30 x H 27.9 x D 45mm, 328g (SLA-T2480VA)	Ø 35 x L68.9mm, 430g (0.95lb) W 35 x H 27.9 x D 45mm, 340g (0.95lb)
Additional Features	Optional pinhole/fixed lens	compatible lens: SLA-T1080FA, SLA-T2480A, SLA-T2480VA, SLA-T4680A, SLA-T4680VA	-	-	-

	<b>PNM-9322VQP</b> 2MP/5MP x 4CH + 2MP 32 x PTZ	<b>SLA-5M7000P</b> 5MP lens for PNM-9322VQP	<b>SLA-5M4600P</b> 5MP lens for PNM-9322VQP	<b>SLA-5M3700P</b> 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	depending on lens	Colour: 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)	Colour: 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)	Colour: 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	depending 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 Stabilisation	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	WiseStreamII	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S G/T, 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	Ø 367.8 x 335.7mm (Ø 14.48" x 13.22") 7.05kg (16.1lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08lb)	Ø 35.5 x 35.9 mm (Ø 1.39" x 1.41") 35g (0.08lb)
Additional Features	Exchangeable 4ea 2MP / 5MP lens modules, Hallway view, Defog	-	-	-

NETWORK	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		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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	Imaging Device	-	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Colour : 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Min. Illumination	-	Colour : 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)	Colour : 0.16Lux (F1.6) B/W: 0.16Lux (F1.6)				
Video Output	-	-	-	-	-	Video Output	CVBS 1.0 Vp-p (Multi)	-	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	12mm fixed	Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm 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°	H: 135.4° / V: 71.2° / D: 161.6°	H: 26.3° / V: 14.9° / D: 30°	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° / +10° ~ +95° / ± 180°	±90° / +22° ~ +84° / ± 180°	±90° / +26° ~ +80° / ± 180°	±90° / +52° ~ +56° / ± 180°	±90° / +10° ~ +97° / ± 180°	Pan / Tilt / Rotate	-	±90° / 40° ~ 89° / ± 180°	±90° / 50° ~ 80° / ± 180°	±90° / 59° ~ 66° / ± 180°
IR Viewable Length	-	-	-	-	-	IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)				
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	Wide Dynamic Range	2MP 150dB, 5MP 120dB	120dB	120dB	120dB
Digital Noise Reduction	-	-	-	-	-	Digital Noise Reduction	SSNRV	-	-	-
Digital Image Stabilisation	-	-	-	-	-	Digital Image Stabilisation	Support	-	-	-
Analytics	-	-	-	-	-	Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-
Business Intelligence	-	-	-	-	-	Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-	-	Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-	-	Audio I/O	-	-	-	-
Video Compression	-	-	-	-	-	Video Compression	H.265 / H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	-	-	-	-	-	Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	-	-	-
WiseStream	-	-	-	-	-	WiseStream	WiseStreamII	-	-	-
Streaming	-	-	-	-	-	Streaming	Up to 10 profiles	-	-	-
Edge Storage	-	-	-	-	-	Edge Storage	micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	-	-	-	-	-	Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	-	-	-
Operating Temperature	-	-	-	-	-	Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH	-	-	-
Certification	-	-	-	-	-	Certification	IP66, IK10	-	-	-
Power Consumption	-	-	-	-	-	Power Consumption	Max 25.5W	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Dimensions (WxHxD) / Weight	Ø253 x 130mm (Ø9.96" x 5.11") 3kg (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	-	-	-	-	-	Additional Features	Degog	-	-	-

ANALOG					PERIPHERAL					NETWORK						
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		QNO-8080R 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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	
Min. Illumination	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F2.0) B/W: 0.055Lux (F2.0)	Colour: 0.055Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.15Lux (F2.0) 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	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	–	3.2~10mm (3.1x) motorized varifocal	4.0mm fixed	2.8mm fixed	3.2~10mm (3.1x) motorized varifocal	4.0mm fixed	–	–	–	–	–	
Angular Field of View	H: 50.4° / V: 28.8° / D: 58.1° ± 90° / 30° ~ 89° / ± 180°	H: 94.8° / V: 49.3° / D: 114.3° ± 90° / 37° ~ 89° / ± 180°	H: 107.4° / V: 62.2° / D: 122° ± 90° / 40° ~ 89° / ± 180°	H: 135.4° / V: 71.2° / D: 161.6° ± 90° / 62° ~ 180°	–	H: 100.3° (Wide) ~ 31.2° (Tele) V: 72.3° (Wide) ~ 23.5° (Tele) D: 133.1° (Wide) ~ 38.8° (Tele)	H: 79.8° / V: 58.1° / D: 105.9° H: 104.7° / V: 76.5° / D: 136°	H: 100.3° (Wide) ~ 31.2° (Tele) V: 72.3° (Wide) ~ 23.5° (Tele) D: 133.1° (Wide) ~ 38.8° (Tele)	H: 100.3° (Wide) ~ 31.2° (Tele) V: 72.3° (Wide) ~ 23.5° (Tele) D: 133.1° (Wide) ~ 38.8° (Tele)	H: 100.3° (Wide) ~ 31.2° (Tele) V: 72.3° (Wide) ~ 23.5° (Tele) D: 133.1° (Wide) ~ 38.8° (Tele)	H: 79.8° / V: 58.1° / D: 105.9° H: 104.7° / V: 76.5° / D: 136°	–	–	–	–	–
Pan/Tilt/ Rotate	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
IR Viewable Length	–	–	–	–	–	–	30m (98.43ft)	25m (82.02ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB	120dB	120dB	120dB	120dB	120dB	120dB	120dB	120dB	120dB	120dB	
Digital Noise Reduction	–	–	–	–	–	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	SSNR	
Digital Image Stabilisation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	
Analytics	–	–	–	–	–	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent 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	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	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	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	
WiseStream	–	–	–	–	–	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	
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	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	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, open platform	ONVIF profile S/G/T, SUNAPI, open platform	ONVIF profile S/G/T, SUNAPI, open platform	ONVIF profile S/G/T, SUNAPI, open platform	ONVIF profile S/G/T, SUNAPI, open platform	ONVIF profile S/G/T, SUNAPI, open platform		
Operating Temperature	–	–	–	–	–	–30°C ~ +55°C (* Start up above -20°C (-4°F))	–30°C ~ +55°C (* Start up above -20°C (-4°F))	–30°C ~ +55°C (* Start up above -20°C (-4°F))	–30°C ~ +55°C (* Start up above -20°C (-4°F))	–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 ~ +50°C (+14°F ~ +122°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 8.9W, typical 6.6W	PoE: Max 8.9W, typical 6.6W	PoE: Max 6.8W, typical 5W	PoE: Max 6.8W, typical 5W	PoE: Max 6.8W, typical 5W	PoE: Max 6.8W, typical 5W		
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)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.19kg (2.624lb)	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)	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)	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)		
Additional Features	–	–	–	–	–	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View	



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



**QND-8021**  
5MP Dome Camera



**QND-8011**  
5MP Dome Camera



**QNV-8080R**  
5MP IR Vandal Dome Camera



**QNV-8020R**  
5MP IR Vandal Dome Camera



**QNV-8010R**  
5MP IR Vandal Dome Camera



**QNB-8002**  
5MP Box Camera



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

NETWORK ANALOG						NETWORK ANALOG					
											
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS	Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS
Min. Illumination	Colour: 0.1Lux (F1.6, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.15Lux (F1.6, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Min. Illumination	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.1Lux (F1.6, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	Video Output	CVBS 1.0 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	4mm fixed focal	2.8mm fixed focal	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) manual varifocal	Focal Length	4mm fixed	2.8mm fixed	3.2~10mm (3.1x) motorized varifocal	4mm fixed focal	2.8mm fixed focal
Angular Field of View	H: 98.6° (Wide) ~ 30.8° (Tele) V: 52.3° (Wide) ~ 17.3° (Tele) D: 115.7° (Wide) ~ 35.3° (Tele)	H: 78.2° V: 41.2° D: 92°	H: 107.5° V: 59.7° D: 122°	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	Angular Field of View	H: 87.6° / V: 46.4° / D: 104.5°	H: 113.74° / V: 61.5° / D: 134.45°	H: 98.6° (Wide) ~ 30.8° (Tele) V: 52.3° (Wide) ~ 17.3° (Tele) D: 115.7° (Wide) ~ 35.3° (Tele)	H: 78.2° V: 41.2° D: 92°	H: 107.5° V: 59.7° D: 122°
Pan / Tilt / Rotate	-	-	-	-	-	Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	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)	Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB	Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR	Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilisation	-	-	-	-	-	Digital Image Stabilisation	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-	Business Intelligence	-	-	-	-	-
Alarm I/O	1/1	1/1	1/1	1/1	1/1	Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Line in / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	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	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	4MP / 30fps	4MP / 30fps	4MP / 30fps	2MP / 30fps	2MP / 30fps	Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	4MP / 30fps	4MP / 30fps	4MP / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	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 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	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 (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above	-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)	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) / Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10	Certification	IP66, IK10	IP66, IK10	-	-	-
Power Consumption	PoE: Max 11.4W, typical 8W 12VDC: Max 9.6W, typical 7W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	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	Power Consumption	PoE: Max 7W, typical 5.2W 12VDC: Max 6.1W, typical 4.5W	PoE: Max 7W, typical 5.2W 12VDC: Max 7.6W, typical 5.4W	PoE: Max 8.6W, typical 6.3W 12VDC: Max 6.1W, typical 4.5W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	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)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Hallway View	Hallway View	Additional Features	Hallway View	Hallway View	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line

	<b>QND-6082R/6082R1 2MP IR Dome Camera</b>	<b>QND-6072R/6072R1 2MP IR Dome Camera</b>	<b>QND-6022R/6022R1 2MP IR Dome Camera</b>	<b>QND-6012R/6012R1 2MP IR Dome Camera</b>
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour : 0.03Lux (F1.6) B/W : 0Lux (IRLED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IRLED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IRLED on)	Colour : 0.03Lux (F2.0) B/W : 0Lux (IRLED on)
Video Output	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	3.2~10mm (3.1x) manual varifocal	4mm fixed	2.8mm fixed
Angular Field of View	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 87.6° / V: 46.4° / D: 104.5°	H: 113.74° / V: 61.5° / D: 134.45°
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)	20m(65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilisation	–	–	–	–
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	Buit-in mic	–	Buit-in mic	–
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 / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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
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
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 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	PoE: Max 7.4W, typical 6W 12VDC: Max 6.4W, typical 5.1W
Dimensions (WxHxD) / Weight	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)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View



	<b>QND-6021 2MP Dome Camera</b>	<b>QND-6011 2MP Dome Camera</b>	<b>QNV-7082R 4MP IR Vandal Dome Camera</b>
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/3" CMOS
Min. Illumination	Colour : 0.03Lux (F1.6)	Colour : 0.03Lux (F2.0)	Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IRLED On)
Video Output	Micro HDMI	Micro HDMI	CVBS 1.0 Vp-p
Focal Length	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: 98.6° (Wide) ~ 30.8° (Tele) V: 52.3° (Wide) ~ 17.3° (Tele) D: 115.7° (Wide) ~ 35.3° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	–	–	30m (98.42ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR
Digital Image Stabilisation	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting	People counting	–
Alarm I/O	–	–	1 / 1
Audio I/O	–	–	Line in / –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	4MP / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	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 1slot 128GB
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 (HTTP API)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-40°C ~ +55°C (~40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above
Certification	IP42, IK08	IP42, IK08	IP66, IK10
Power Consumption	PoE: Max 4.8W, typical 2.8W	PoE: Max 4.8W, typical 2.8W	PoE: Max 11.4W, typical 8.5W 12VDC: Max 9.6W, typical 7.2W
Dimensions (WxHxD) / Weight	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	Super compact design, Hallway View	Super compact design, Hallway View	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line

	<b>QNV-7022R</b> 4MP IR Vandal Dome Camera	<b>QNV-7012R</b> 4MP IR Vandal Dome Camera	<b>QNV-6082R/6082R1</b> 2MP IR Vandal Dome Camera	<b>QNV-6072R/6072R1</b> 2MP IR Vandal Dome Camera
Imaging Device	1/3" CMOS	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.15Lux (F1.6, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.15Lux (F2.0, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	4mm fixed focal	2.8mm fixed focal	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) manual varifocal
Angular Field of View	H: 78.2° / V: 41.2° / D: 92°	H: 78.2° / V: 41.2° / D: 92°	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (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	25m (82.02ft)	20m (65.62ft)	30m (98.42ft)	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilisation	-	-	-	-
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) / -
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	4MP / 30fps	4MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStreamIII	WiseStreamIII	WiseStreamIII	WiseStreamIII
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above	-40°C ~ +55°C (-40°F ~ +131°F) / Less than 95% RH * Start up should be done at -30°C or above	-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, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W	PoE: Max 7.7W, typical 6W 12VDC: Max 6.5W	PoE: Max 7.7W, typical 6W 12VDC: Max 6.5W
Dimensions (WxHxD) / Weight	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)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Hallway View	Hallway View

	<b>QNV-6022R/6022R1</b> 2MP IR Vandal Dome Camera	<b>QNV-6012R/6012R1</b> 2MP IR Vandal Dome Camera	<b>QNV-6024RM</b> 2MP IR Flat Camera	<b>QNP-6320</b> 2MP 32x PTZ Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Colour: 0.03Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.03Lux (F2.0) B/W: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	-
Focal Length	4mm fixed	2.8mm fixed	3.6mm fixed	4.44~142.6mm (32x) zoom
Angular Field of View	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°	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.30° (Tele)
Pan / Tilt / Rotate	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	25m (82.02ft)	20m (65.62ft)	15m (49.21ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNRV
Digital Image Stabilisation	-	-	-	Support (built-in gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection
Business Intelligence	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	4 / 2
Audio I/O	Selectable (mic in/line in) / -	Selectable (mic in/line in) / -	Selectable (Built-in mic) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MUPEG	H.265 / H.264, MUPEG	H.265 / H.264, MUPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 256GB
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 (HTTP API), 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)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH
Certification	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X	-
Power Consumption	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	Max. 14.5W, Typ. 12W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)	W98.9 x H52 x D100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75 lb)
Additional Features	Hallway View	Hallway View	M12 connector, Hallway View	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection

NETWORK					NETWORK				
ANALOG									
	QNP-6320R 2MP 32x IR PTZ Camera	QNP-6320H 2MP 32x PTZ Camera	QNP-6250 2MP 25x PTZ Camera	QNP-6250R 2MP 25x IR PTZ Camera					
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS					
Min. Illumination	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)					
Video Output	-	-	-	-					
Focal Length	4.44~142.6mm (32x) zoom	4.44~142.6mm (32x) zoom	4.44~111mm (25x) zoom	4.44~111mm (25x) zoom					
Angular Field of View	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66° (Wide) ~ 2.99° (Tele) V: 38.08° (Wide) ~ 1.68° (Tele)	H: 64.66° (Wide) ~ 2.99° (Tele) V: 38.08° (Wide) ~ 1.68° (Tele)					
Pan / Tilt / Rotate	-	-	-	-					
IR Viewable Length	100m (328.08ft)	-	-	-					
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)					
Wide Dynamic Range	120dB	120dB	120dB	120dB					
Digital Noise Reduction	SSNRV	SSNRV	SSNRV	SSNRV					
Digital Image Stabilisation	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)					
Analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection (with NWI/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection (with NWI/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection (with NWI/O Box)					
Business Intelligence	-	-	-	-					
Alarm I/O	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)	4 / 2	Compatible with NWI/O Box (Optional)					
Audio I/O	Compatible with NWI/O Box (Optional)	Compatible with NWI/O Box (Optional)	Selectable (mic in/line in) / Line out	Compatible with NWI/O Box (Optional)					
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MUPEG	H.265 / H.264, MJPEG					
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps					
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII					
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles					
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 1slot 256GB					
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					
Operating Temperature	Normal : -35°C ~ +55°C (-31°F ~ +131°F) / * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	Normal : -35°C ~ +55°C (-31°F ~ +131°F) / * Start up should be done at above -30°C Less than 95% RH (Non-condensing)	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 95% RH	Normal : -35°C ~ +55°C (-31°F ~ +131°F) / * Start up should be done at above -30°C Less than 95% RH (Non-condensing)					
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	-	IP66, IK10, NEMA4X					
Power Consumption	Max. 25.5W, Typ. 14.7W	Max. 23W, Typ. 14W	Max. 14.5W, Typ. 12W	Max. 25.5W, Typ. 14.7W					
Dimensions (WxHxD) / Weight	Ø158 x 293.3mm 3.1kg (6.83lb)	Ø204.3 x 265mm (Ø8.04" x 10.43") 2.7kg (5.95lb)	Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75lb)	Ø158 x 293.3mm 3.1kg (6.83lb)					

TNM-3620TDY  
Temperature Detection Thermal CameraTNV-7011RC  
3MP Corner Mount CameraTNV-8011C  
5MP Corner Mount CameraTNO-6322ER  
2MP Explosion-proof CameraTNU-6322E  
2MP Explosion-proof CameraTNU-6322ER  
2MP Explosion-proof IR CameraTNU-6321  
2MP Positioning PTZ CameraTNO-L3030T  
QVGA Thermal CameraTNO-6322ER  
2MP Explosion-proof CameraTNU-6322E  
2MP Explosion-proof CameraTNU-6322ER  
2MP Explosion-proof IR CameraTNU-6321  
2MP Positioning PTZ CameraTNO-L3030T  
QVGA Thermal Camera

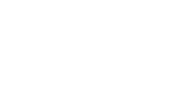
NETWORK ANALOG						NETWORK ANALOG					
	TNO-L4030T VGA H.265 Thermal Camera	TNO-L4030TR VGA Thermal Radiometric Camera	TNU-4041T / 4051T VGA Thermal Positioning Camera	TNO-4051T VGA Thermal Bullet Camera	TNO-4050T VGA Thermal Bullet Camera		TNO-4041T VGA Thermal Bullet Camera	TNO-4041TR VGA Radiometric Thermal Bullet Camera	TNO-4040T VGA Thermal Bullet Camera	TNO-4040TR VGA Radiometric Thermal Bullet Camera	TNO-4030T VGA Thermal Bullet Camera
Imaging Device	Uncooled micro bolometer	Uncooled micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Imaging Device	Uncooled Micro bolometer				
Min. Illumination	-	-	-	-	-	Min. Illumination	-	-	-	-	-
Video Output	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p, Micro USB Type B	Video Output	CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p, Micro USB Type B			
Focal Length	13mm fixed focal	13mm fixed focal	19mm / 35mm fixed	35mm fixed	35mm fixed	Focal Length	19mm fixed	19mm fixed	19mm fixed	19mm fixed	13mm fixed
Angular Field of View	H: 48.6° / V: 36.4° / D: 61.6°	H: 48.6° / V: 36.4° / D: 61.6°	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°	Angular Field of View	H: 32° / V: 24.3° / D: 39.2°	H: 32° / V: 24.3° / D: 39.2°	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°
Pan / Tilt / Rotate	-	-	360° Endless / -90° ~ 40° / -	-	-	Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-	IR Viewable Length	-	-	-	-	-
Day & Night	-	-	-	-	-	Day & Night	-	-	-	-	-
Wide Dynamic Range	-	-	-	-	-	Wide Dynamic Range	-	-	-	-	-
Digital Noise Reduction	-	-	-	-	-	Digital Noise Reduction	-	-	-	-	-
Digital Image Stabilisation	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)	Digital Image Stabilisation	Support (Built-in Gyro sensor)				
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature detection, Sound classification, Shock 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	Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection				
Business Intelligence	-	-	-	-	-	Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 1	1 / 2	1 / 2	Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in)	Selectable (mic in/line in)	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Audio I/O	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	Video Compression	H.265 / H.264, MJPEG				
Resolution / Max. Frame Rate	640 x 480 / 8fps	640 x 480 / 8fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	Resolution / Max. Frame Rate	640 x 480 / 30fps				
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Streaming	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	Edge Storage	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, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform				
Operating Temperature	-40°C to +60°C (-40°F to +140°F) 90% RH	-40° C ~ +60° C (-40° F ~ +140° F) Less than 90% RH	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	-40°C ~ +60°C (-40°F ~ +140°F)	Operating Temperature	-40°C ~ +60°C (-40°F ~ +140°F)				
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, NEMA 4X, IK10	IP66, NEMA 4X	IP66, NEMA 4X	Certification	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	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	Power Consumption	PoE: Max 10W 12VDC: Max 9W 24VAC: Max 10.5W				
Dimensions (WxHxD) / Weight	Φ101.97x401.8mm (4.01x15.82") 3.124g (6.89lb)	Φ101.97x401.8mm (4.01x15.82") 3.124g (6.89lb)	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") 2.5kg (5.51lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0lb)	Dimensions (WxHxD) / Weight	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.5kg (5.51lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (6.89lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 3.12kg (7.0lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (6.89lb)
Additional Features	Motion detection, Handover, Tampering, Loitering	Motion detection, Handover, Tampering, Loitering, Temperature detection	Various colour palettes	Various colour palettes PT type	Various colour palettes	Additional Features	Various colour palettes PT type	Various colour palettes Spot temperature reading PT type	Various colour palettes	Various colour palettes Spot temperature reading	Various colour palettes



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



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



**TNO-3020T**  
QVGA Thermal Bullet Camera



**TNO-3030T**  
QVGA Thermal Bullet Camera



**TNO-3040T**  
QVGA Thermal Bullet Camera



**TNO-3050T**  
QVGA Thermal Bullet Camera



**TID-600R**  
2MP Network Intercom Station



**TNO-7180RLP**  
High-speed License Plate Capture Camera

	<b>TNO-4030TR</b> VGA Radiometric Thermal Bullet Camera	<b>TNO-3010T</b> QVGA Thermal Bullet Camera	<b>TNO-3020T</b> QVGA Thermal Bullet Camera	<b>TNO-3030T</b> QVGA Thermal Bullet Camera
Imaging Device	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
Focal Length	13mm fixed	2.7mm fixed focal	4.7mm fixed focal	13.7mm fixed focal
Angular Field of View	H: 48.6° / V: 36.4° / D: 61.6°	H: 92° / V: 65.5° / D: 125.7°	H: 50° / V: 36.4° / D: 65.3°	H: 16° / V: 12° / D: 20°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	-	-	-
Wide Dynamic Range	-	-	-	-
Digital Noise Reduction	-	-	-	-
Digital Image Stabilisation	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
Business Intelligence	-	-	-	-
Alarm I/O	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
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	640 x 480 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	microSD/SDHC/SDXC	microSD/SDHC/SDXC	microSD/SDHC/SDXC	microSD/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
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)
Certification	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. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W
Dimensions (WxHxD) / Weight	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12kg (6.89lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)
Additional Features	Various colour palettes Spot temperature reading	Various colour palettes	Various colour palettes	Various colour palettes

	<b>TNO-3040T</b> QVGA Thermal Bullet Camera	<b>TNO-3050T</b> QVGA Thermal Bullet Camera	<b>TID-600R</b> 2MP Network Intercom Station	<b>TNO-7180RLP</b> High-speed License Plate Capture Camera
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	1/2.8" CMOS	TNO-7180RLP
Min. Illumination	-	-	Colour: 0.018lux (F1.6, 1/30sec) BW: 0 Lux (IR LED On)	Colour 0.1 Lux (1/30sec, gain 48dB)
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	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation
Focal Length	19mm fixed focal	35mm fixed focal	1.6mm fixed focal	6.8~120mm(18x) motorized varifocal
Angular Field of View	H: 11.5° / V: 8.7° / D: 14.4°	H: 6.3° / V: 4.7° / D: 7.8°	H: 180° / V: 114° / D: 180°	H: 54.5 ° (Wide)~3.4 ° (Tele), V: 42.3 ° (Wide)~2.5 ° (Tele)
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	5m	WiseIR 50m (164ft)
Day & Night	-	-	Auto (ICR)	Auto(ICR)
Wide Dynamic Range	-	-	WDR (150dB)	-
Digital Noise Reduction	-	-	SSNRV	SSNRV
Digital Image Stabilisation	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	not support
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification	Analytics events – Motion detection, Tampering, Virtual line(Crossing/Direction), Virtual Area(Loitering/Intrusion/Enter/Exit, Appear/Disappear)
Business Intelligence	-	-	-	-
Alarm I/O	1 / 2	1 / 2	Input 2ea / Output 1ea, Relay out 1ea (12VDC Max. 550mA with 2A adapter) Tampering switch, Touchless call	4 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) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264: Main/Baseline/High, MJPEG
Resolution / Max. Frame Rate	320 x 240 / 30fps	320 x 240 / 30fps	2MP / 60fps	3MP / 60fps
WiseStream	WiseStreamII	WiseStreamII	WiseStreamII	WiseStreamII
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Unicast(20 users) / Multicast Multiple streaming (Up to 10 profiles)
Edge Storage	microSD/SDHC/SDXC	microSD/SDHC/SDXC	microSD/SDHC/SDXC 1slot 256GB	Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled)
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(HTTP API) Wisenet open platform v3.60
Operating Temperature	-40°C ~ +55°C (~40°F ~ +131°F)	-40°C ~ +60°C (~40°F ~ +140°F)	-30°C ~ +55°C (~22°F ~ +131°F)	Normal: -40° C~+55° (~40° F~+131° F)/ Intermittent: -40° C~+60° C (~40° F~+140° F)
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X	Cold start: -40° C Less than 95% RH Maximum Temperature based on NEMA-TS 2(2.2.7): +74° C(+165° F) Less than 95% RH(Non-condensing)
Power Consumption	PoE: Max 8.7W, typical 7.5W 12VDC: Max 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W	PoE: Max 8.7W, typical 7.5W 12VDC: Max 7.8W, typical 6.7W 24VAC: Max. 9.2W, typical 8W	ONVIF Profile S/G/T, SUNAPI(HTTP API) Wisenet open platform
Dimensions (WxHxD) / Weight	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	W 49 x H 165 x D 48mm (1.93" x 6.5" x 1.89") 490g (1.08lb)	W186.9 x D293.7 x H259.3 (mm) / 4.8kg (10.5lb)
Additional Features	Various colour palettes	Various colour palettes	SIP, Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification	-

# High performance NVR

**High resolution and great efficiency.  
Quick and precise search enabled by  
Hanwha Vision NVR**

Hanwha Vision's 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.



## Monitor all sub channels without registering them all

With the new Virtual Channel View, user can register only 1 main channel for recording and monitor sub channels without registering them to the NVR. In other words, no need to record every sub channel that needs to be simply streamed for live monitoring.

**Registered channel**  
Recording and monitoring

CAMERA A  
Channel #01

Using 1 channel on NVR  
(can monitor up to 4CH)

**Unregistered channel**  
Monitoring sub channels without recording

CAMERA A  
Channel #02      CAMERA A  
Channel #03      CAMERA A  
Channel #04

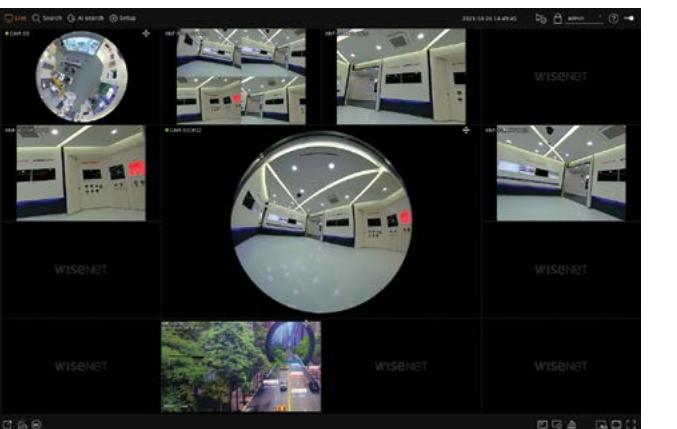


## Installation Wizard for easy auto recognition and setup

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.

## Design your own monitoring channels with the Dynamic layout

Dynamic layout allows users to freely customize the channel display. Set the best channel display and create the most intuitive monitoring environment.



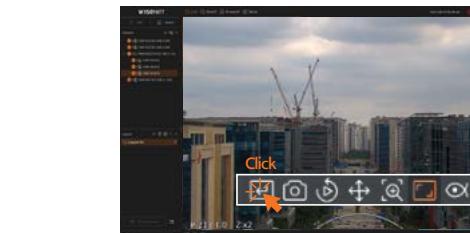
## Code your own event action with SUNAPI command and Integrate with the Software Key

Users can code their own event action using SUNAPI commands and integrate it with the Software Key. Then, a simple click on the Software Key appears on the channel display will run the event action. Customized codes run separately.

- 1 Code event action\* and integrate with the Software key

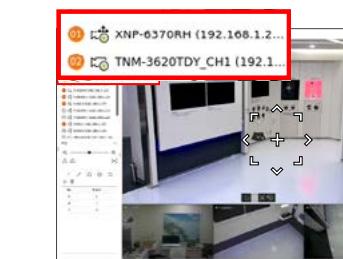
\* Simple focus, Day&Night (ICR), Alarm Out, etc.

- 2 Click the Software key to initiate the event action



## 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.

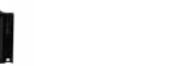


Live monitoring and PTZ control



Bookmark setup and event search

<b>NETWORK</b>							
							
<b>PRN-6405DB4 64CHAINVR</b>		<b>PRN-6405B4 64CHAINVR</b>		<b>PRN-3205B4 32CHAINVR</b>			
<b>PRN-3205B2 32CHAINVR</b>		<b>PRN-3205B2 32CHAINVR</b>		<b>PRN-1605B2 16CHAINVR</b>			
<b>OS</b>	Linux	Linux	Linux	Linux	Linux		
<b>Supported Compression</b>	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG		
<b>Max. Recording Bit Rate</b>	400Mbps	400Mbps	400Mbps	400Mbps	250Mbps		
<b>Max # of Cameras</b>	64CH	64CH	32CH	32CH	16CH		
<b>Network Camera Resolution</b>	32MP ~ CIF						
<b>HDD Slot</b>	Up to 16 SATA (Max. 160TB)	Up to 16 SATA (Max. 160TB)	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB, Non-RAID mode)	Up to 8 SATA (Max. 80TB, Non-RAID mode)		
<b>Record Mode</b>	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	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark		
<b>Event Trigger</b>	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event		
<b>Event Action</b>	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown		
<b>External Storage</b>	iSCSI	iSCSI	iSCSI	iSCSI storage	iSCSI storage		
<b>RAID</b>	RAID 5/6						
<b>Hot Swap</b>	Yes	Yes	Yes	Yes	Yes		
<b>Network Viewer Software</b>	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS		
<b>Local Monitor</b>	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)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)		
<b>Network Camera Protocol</b>	SUNAPI, ONVIF						
<b>Power Input</b>	100~240 VAC ± 10%, 50/60Hz (Dual SMPS)	100~240 VAC ± 10%, 50/60Hz	100~240 VAC ± 10% 50/60Hz	100~240 VAC ± 10%; 50/60Hz, 2.1A	100~240 VAC ± 10%; 50/60Hz, 2.1A		
<b>Power Consumption</b>	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 205W (With 10TB HDDs 8EA)	Max. 205W (With 10TB HDDs 8EA)		
<b>PoE Budget</b>	–	–	–	–	–		
<b>Additional Features</b>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Face – with Wisenet AI camera, Vehicle, Liscence plate)</li> <li>• N+1 failover supported</li> <li>• PTZ camera configuration and control</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Face – with Wisenet AI camera, Vehicle, Liscence plate)</li> <li>• N+1 failover supported</li> <li>• PTZ camera configuration and control</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Face – with Wisenet AI camera, Vehicle, Liscence plate)</li> <li>• N+1 failover supported</li> <li>• PTZ camera configuration and control</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• LPR search (English, Numbers)</li> <li>• AI search attribute (Person, Face – with Wisenet AI camera, Vehicle, Liscence plate)</li> <li>• N+1 failover supported</li> <li>• PTZ camera configuration and control</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> <li>• Fisheye dewarping</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> <li>• Fisheye dewarping</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Fisheye dewarping</li> </ul>

<b>NETWORK</b>					
					
<b>XRN-6410DB4/6410B4 64CH NVR</b>		<b>XRN-6410RB2 64CH NVR</b>	<b>XRN-6410B2 64CH NVR</b>	<b>XRN-3210B4 32CHNVR</b>	
<b>OS</b>	Linux	Linux	Linux	Linux	Linux
<b>Supported Compression</b>	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream			
<b>Max. Recording Bit Rate</b>	400Mbps	400Mbps	400Mbps	400Mbps	400Mbps
<b>Max # of Cameras</b>	64CH	64CH	64CH	32CH	32CH
<b>Network Camera Resolution</b>	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF
<b>HDD Slot</b>	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)	Up to 16 SATA (Max. 160TB)	
<b>Record Mode</b>	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	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark
<b>Event Trigger</b>	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
<b>Event Action</b>	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
<b>External Storage</b>	iSCSI	iSCSI	iSCSI	iSCSI	iSCSI
<b>RAID</b>	RAID 5/6	RAID 5/6	RAID 5/6	–	RAID 5/6
<b>Hot Swap</b>	Yes	Yes	Yes	–	Yes
<b>Network Viewer Software</b>	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS
<b>Local Monitor</b>	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)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
<b>Network Camera Protocol</b>	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
<b>Power Input</b>	100~240 VAC ± 10%; 50/60Hz, 2.7A (Dual SMPS / XRN-6410B4)	100~240 VAC ± 10%; 50/60Hz	100~240 VAC ± 10%; 50/60Hz	100~240 VAC ± 10%; 50/60Hz	100~240 VAC ± 10%; 50/60Hz, 2.7A
<b>Power Consumption</b>	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 205W (8 HDD)	Max. 138W (8 HDD)	Max. 265W (16 HDD)
<b>PoE Budget</b>	–	–	–	–	–
<b>Additional Features</b>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Dual SMPS (6410B4)</li> <li>• Dynamic layout</li> <li>• Virtual channel view</li> <li>• Fisheye dewarping</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras</li> <li>• PTZ camera configuration and control</li> <li>• Fisheye dewarping</li> </ul>

NETWORK				NETWORK			
ANALOG		ANALOG		PERIPHERAL		PERIPHERAL	
ACCESORY						ACCESORY	
XRN-3210RB2 32CH NVR		XRN-3210B2 32CH NVR		XRN-1620SB1 16CH NVR		XRN-1620B2 16CH NVR	
OS	Linux	Linux	Linux	Linux		Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream			H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG
Max. Recording Bit Rate	400Mbps	400Mbps	140Mbps			100Mbps	100Mbps
Max # of Cameras	32CH	32CH	16CH			8CH	8CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF			32MP ~ CIF	12MP ~ CIF
HDD Slot	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)	Up to 4 SATA (Max. 24TB)			Up to 2 SATA (Max. 12TB)	Up to 2 SATA (Max. 20TB)
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)			Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post)	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, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event			Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown			e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
External Storage	iSCSI	iSCSI	–			–	–
RAID	RAID 5/6	–	–			–	–
Hot Swap	Yes	–	–			SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS			SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support 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)			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			SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100~240 VAC ± 10%, 50/60Hz	100~240 VAC ± 10%, 50/60Hz	100~240 VAC ± 10%, 50/60Hz			100~240 VAC ± 10%, 50/60Hz	100~240 VAC ± 10%, 50/60Hz
Power Consumption	Max. 160W (8 HDD)	Max. 138W (8 HDD)	Max. 310W			Max. 160W	Max 165W (2HDD, PoE On)
PoE Budget	–	–	200W			–	100W
Additional Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> <li>• Fisheye dewarping</li> </ul>	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> <li>• Fisheye dewarping</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul>			<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul>
Additional Features	<ul style="list-style-type: none"> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> <li>• Fisheye dewarping</li> </ul>		<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul>			<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• AI search (BestShot, Attribute)           <ul style="list-style-type: none"> <li>– When integrated with Wisenet AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul>	



**QRN-1630S**  
16CH NVR



**QRN-830S**  
8CH NVR



**QRN-430S**  
4CH NVR



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



**TRM-410S**  
4CH Mobile 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	128Mbps	Max. 80Mbps	40Mbps
Max # of Cameras	16CH	8CH	4CH
Network Camera Resolution	8MP ~ CIF	8MP ~ CIF	8MP ~ CIF
HDD Slot	Up to 2SATA (Max. 20TB)	Up to 1SATA (Max. 6TB)	Up to 1SATA (Max. 6TB)
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, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User 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, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	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, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3rd party VMS
Local Monitor	HDMI1: 3840 x 2160(30Hz), HDMI2: 1920 x 1080(60Hz)	HDMI: 3840 x 2160 (30Hz)	HDMI 1 (Up to 4K)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%; 50/60Hz	54VDC / 1.55A	100 ~ 240 VAC ± 10%; 50/60Hz
Power Consumption	Max. 200W (2HDD, PoE ON)	Max 84W (1HDD, PoE ON)	Max 52W (1HDD, PoE On)
PoE Budget	130W	65W	35W
Additional Features	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• PTZ camera configuration and control</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• PTZ camera configuration and control</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>	<ul style="list-style-type: none"> <li>• PoE supported</li> <li>• N+1 failover supported</li> <li>• ARB (Auto Recovery Backup) redundancy supported</li> <li>• PTZ camera configuration and control</li> <li>• Easy configuration (Setup Wizard, P2P (QR Code))</li> </ul>

OS	Linux	Linux	
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	
Max. Recording Bit Rate	80Mbps	50Mbps	
Max # of Cameras	8 (8 PoE, RJ-45)	4 (4 PoE, RJ-45)	
HDD Slot	Up to 2SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)	Up to 2SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)	
RAID	RAID 1	–	
Hot Swap	Yes (RAID 1)	–	
Network Viewer Software	Wisenet TMS, WebViewer, Wisenet Mobile	Wisenet TMS, WebViewer, Wisenet Mobile	
Local Monitor	HDMI, VGA	HDMI, VGA	
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	
Additional Features	<ul style="list-style-type: none"> <li>• GPS supported</li> <li>• Wi-fi supported</li> <li>• Standards approval for transportation (EN50155)</li> <li>• Wide operating temperature range -25°C to +55°C (-13°F to +13°F)</li> </ul>		

# Viewer

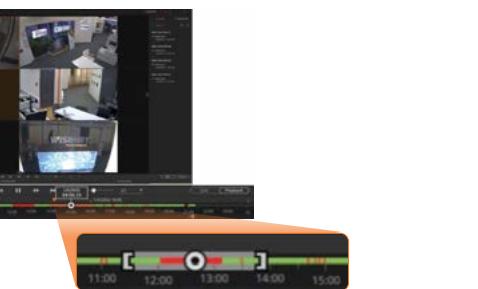
Costless yet powerful NVR·DVR Management Software



## Effective monitoring with essential features



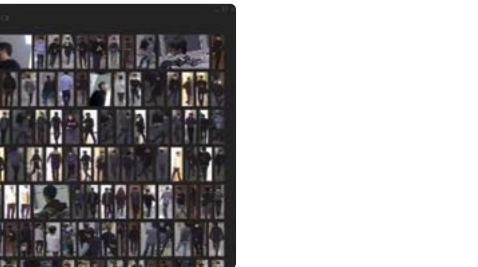
**Customizable** channel layout & Timeline



Easy monitoring with **Fisheye Dewarping**



Intelligent monitoring powered by **AI Search**



## Encoder



**SPE-1630**  
16CH Encoder



**SPE-420**  
4CH Encoder

Max. # of Cameras	16	4
Supported Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Max. Resolution	5MP / 4MP / 1080p / 720p / WD1 / 4CIF / CIF	5MP / 4MP / 1080p / 720p / WD1 / 4CIF / CIF
Max. Frame Rate per Channel	5MP : 12fps / CH, 4MP : 15fps / CH, 1080p / 720p / WD1 / 4CIF / CIF : 30fps / CH(N), 25fps / CH(P)	5MP : 12fps / CH, 4MP : 15fps / CH, 1080p / 720p / WD1 / 4CIF / CIF : 30fps / CH(N), 25fps / CH(P)
Bi-Directional Audio	Support	Support
RS-485	Support	Support
Alarm I/O	4 / 1	4 / 2
Application Programming Interface	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Power	MAX: 20W (12V, 1.67A)	MAX: 5W (PoE & 12VDC)

## Decoder



**SPD-152**  
1 Monitor Decoder

Video Out	HDMI (2ea)
Resolution	HDMI#1 up to 4K, HDMI#2 up to 1080p
Display	Max. 64ch decoding Decoding performance : 8M@60fps, 2M@360fps
Power	Dual Power : 12VDC, PoE (IEEE802.3af)
Additional Features	Multi adapter for monitor back mount (VESA)

# WISENET WAVE

## Wisenet WAVE v5 Open video platform

### Intuitive and easy to use

- An intuitive ‘drag & drop’ tool makes it extremely easy for operators to set up a display of live and recorded images on a single screen or video wall, with customisable layouts and sizes.
- A virtual PTZ which, with just simple clicks of a mouse, enables operators to zoom in to see close up detail of any suspicious activity.
- Motion detection and video analytics support can be configured to generate alerts when user defined incidents occur.
- A wide range of smart, keyword, calendar and time-slice search options facilitate rapid retrieval of recorded video.
- Perpetual licence, no recurring fees.

**Hanwha Vision** offers an entry level VMS called SSM and for sophisticated Enterprise level VMS projects, the company integrates with leading technology partners. Wisenet WAVE has been launched to answer the needs of projects in the middle ground with an emphasis on simplified user experience.

### SUNAPI INTEGRATION

**Hanwha Vision** has launched Wisenet WAVE with full SUNAPI integration for WISENET cameras and recorders.

Full SUNAPI driver has been rigorously tested with Wisenet P, X, and Q series cameras resulting in:

- Video/Audio Streaming
- PTZ / AI cameras/ Network Intercom (TID-600)/ Parking Guidance Camera (TNF-9010)
- Event - MD, Alarm
- Edge recording



### Hanwha Vision specific features

#### NVR monitoring, search & playback; and deep camera integration with:

- Advanced Object Search
- Web Page Proxy via Servers
- Two-Factor Authentication (2FA)
- Resource Grouping
- Audio Mapping
- Desktop Client Automatic Updates
- Encrypted Archives
- Server Web Admin Interface Redesign
- More Secured Connections

### An operating system to suit your needs.

Wisenet WAVE has applications for all major operating systems so our users are not limited by what device or operating system they choose to use on their desktops, mobile devices, rack mount servers, or even low-powered embedded devices.



**Cloud**: A cloud-based service that enables simple, centralised remote access and insight into any Wisenet WAVE system.

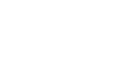
**Desktop**: A rich media player designed to view and manage a single Wisenet WAVE system video and events while on-the-go.

**Mobile**: A mobile app designed for viewing Wisenet WAVE system video and events while on-the-go.

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

Supported Browsers	Desktop OS Support	Mobile OS Support	Server OS Support
Google Chrome	Microsoft Windows	Google Android	Microsoft Windows
Mozilla Firefox	Ubuntu Linux	Apple iOS	Ubuntu Linux
Opera/Opera Neon	Apple / Mac OSX		
Microsoft Edge			
Apple Safari			

	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	HCD-7010RA/20RA/30RA QHD IR Dome Camera	HCV-7070RA QHD IR Vandal Dome Camera
Imaging Device	1/3" CMOS	1/3" CMOS	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	2560 x 1440	2560 x 1440
Min. Illumination	Colour: 0.16Lux (F1.2) B/W: 0.009Lux (F1.2)	Colour: 0.16Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W: 0Lux (IR LED on)	Colour: 0.16Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.26Lux (F1.8) (HCD-7010RA) 0.27Lux (F2.0) (HCD-7020RA/7030RA) B/W: 0Lux (IR LED on)	Colour: 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	2.8mm fixed (HCD-7010RA) 4.0mm fixed (HCD-7020RA) 6.0mm fixed (HCD-7030RA)	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)	H: 107.48° / V: 59.67° / D: 122.01° (HCD-7010RA) H: 78.22° / V: 41.21° / D: 87.91° (HCD-7020RA) H: 49.02° / V: 27.61° / D: 55.6° (HCD-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°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 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)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	–	MD Output 1	–	MD Output 1
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)	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 ~ +13°F) * Start up above -10°C (+14°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-10°C ~ +55°C (+14°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	–	IP66, IK10	IP66, IK10	–	–	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	W 59.6 x H 68.4 x D 92.7mm (2.35" x 2.69" x 3.65") 186g (0.41lb)	Ø 78 x 259.8mm (Ø 3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø 70 x 246mm (Ø 2.76" x 9.69") (Without sunshield) 670g (1.48lb)	Ø 119.8 x 98.5mm (Ø 4.72" x 3.88") 320g (0.71lb)	Ø 110.1 x 86.1mm (Ø 4.33" x 3.39") 240g (0.53lb)	Ø 137 x 106.1mm (Ø 5.39" x 4.18") 715g (1.58lb)
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)	Video Transmission up to 500m (5C2V Coaxial Cable)

NETWORK ANALOG						NETWORK ANALOG					
											
Imaging Device	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	Imaging Device	1/2.8" CMOS				
Resolution	2560 x 1440	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	Resolution	1920 x 1080				
Min. Illumination	Colour: 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W: 0Lux (IR LED on)	Colour: 0.09Lux (F1.2) B/W: 0.009Lux (F1.2)	Colour: 0.09Lux (F1.2) B/W: 0.009Lux (F1.2)	Colour: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Min. Illumination	Colour: 0.17Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.17Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.27Lux (F2.0) B/W: 0.17 Lux (F2.0)	Colour: 0.11Lux (F1.6) B/W: 0Lux (IR LED on)
Focal Length	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	–	–	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) varifocal	Focal Length	4mm fixed (F1.6)	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)
Angular Field of View	H: 107.4° / 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)	–	–	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)	Angular Field of View	H: 87.6° / V: 46.4° / D: 104.5°	H: 110.2° (Wide) ~ 32° (Tele) V: 55.4° (Wide) ~ 18° (Tele) D: 128.4° (Wide) ~ 36.6° (Tele)	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)
Pan/Tilt/Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	–	–	–	–	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) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	–	–	30m (98.43ft)	30m (98.43ft)	IR Viewable Length	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)	–	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Day & Night	Auto (ICR)				
Backlight Compensation	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)	Backlight Compensation	WDR (120dB)				
Digital Noise Reduction	2D DNR	SSNRIV	SSNRIV	SSNRIV	SSNRIV	Digital Noise Reduction	SSNRIV	SSNRIV	SSNRIV	SSNRIV	SSNRIV
Motion detection	Support	Support	Support	Support	Support	Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	4 Zones	8 Zones	8 Zones	8 Zones	Privacy Masking	8 Zones				
Alarm I/O	–	0 / 1, External D/N 1	0 / 1, External D/N 1	MD Output 1	MD Output 1	Alarm I/O	–	MD Output 1	–	–	MD Output 1
Protocol	AHD: ACP (AHD Coax Protocol), CVBS: Pelco-C (Coaxitron)	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	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	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	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	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), CVBS: Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
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)	-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)	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)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -10°C (+14°F)
Certification	IP66, IK10	–	–	IP66, IK10	IP66, IK10	Certification	IP66	–	–	–	IP66, IK10
Power Consumption	12VDC: Max 5W	12VDC & 24VAC: Max 6W	12VDC & 24VAC: Max 3.5W	12VDC & 24VAC: Max 5.8W	12VDC & 24VAC: Max 6W	Power Consumption	12VDC: Max 5.4W	12VDC & 24VAC: Max 5.8W (HCD-6080R) 12VDC & 24VAC: Max 4.2W (HCD-6070R)	12VDC: Max 5.4W	12VDC: Max 3.6W	12VDC & 24VAC: Max 5.8W (HCV-6080R) 12VDC & 24VAC: Max 4.2W (HCV-6070R)
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12lb)	W130.9 x H73.1 x D67.2mm (5.15" x 2.88" x 2.65") 287g (0.63lb)	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) 948g (2.09lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Dimensions (WxHxD) / Weight	Ø58.6 x 165.2mm (Ø2.31" x 6.5") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)	Ø119.8 x 98.5mm (Ø4.33" x 3.93") (Without sunshield) 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)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) (HCV-6080R) 715g (1.58lb) (HCV-6070R)
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)	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)

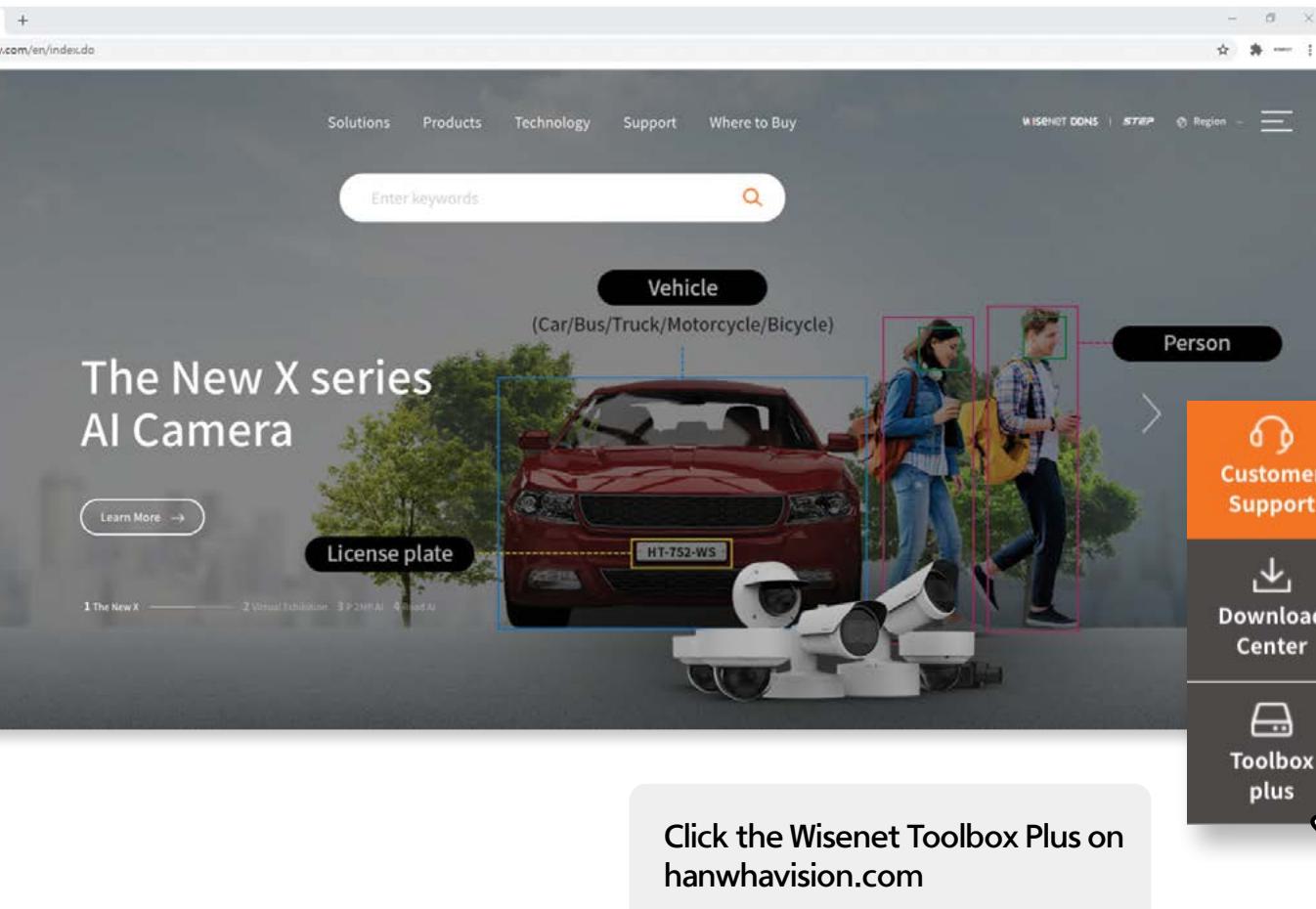
					
<b>NETWORK</b>	<b>HRX-1635</b> 16CH 8MP Pentabrid Recorder	<b>HRX-1634</b> 16CH 8MP Pentabrid Recorder	<b>HRX-835</b> 8CH 8MP Pentabrid Recorder	<b>HRX-435</b> 4CH 8MP Pentabrid Recorder	<b>HRX-434</b> 4CH 8MP Pentabrid Recorder
OS	Linux	Linux	Linux	Linux	Linux
Compression	H.264, H.265, MJPEG				
Signal 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	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)	Analog 4CH, N/W Camera 6CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)
Record Rate	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)	SATA 4ea (Max 24TB)	Up to 2 SATA (Max 12TB)	Up to 1 SATA (Max 6TB)
Viewer Software	SSM, Webviewer, Wisenet Viewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, WebViewer, Wisenet Viewer, SmartViewer, Wisenet Mobile	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA
Audio In/Out	16 / 1	4 / 1	8 / 1	4 / 1	1 / 1
Alarm In/Out	16 / 4	16 / 4	8 / 4	4 / 2	4 / 1
N/W Camera Support	SUNAPI, ONVIF				
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (3ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)

**LED Monitor**

	<b>SMT-4343</b> 43" LED Monitor	<b>SMT-3240</b> 32" LED Monitor	<b>SMT-3234</b> 32" LED Monitor	<b>SMT-2431</b> 24" LED Monitor	<b>SMT-2212</b> 22" LED Monitor	<b>SMT-1935</b> 19" LED Monitor	<b>SMT-3230PV</b> 32" PVM - built-in 2MP camera	<b>SMT-2730PV</b> 27" PVM - built-in 2MP camera	<b>SMT-1030PV</b> 10" PVM - built-in 2MP camera
Screen Size	43"	32"	32"	24"	22"	19"	32"	27"	10.1"
Max. Resolution	3840x2160	3840x2160	1920x1080	1920x1080	1920x1080	1280x1024	1920x1080	1920x1080	1024x600
Brightness	300 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>	300 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>	250 cd/m <sup>2</sup>	400cd/m <sup>2</sup>	300cd/m <sup>2</sup>	500cd/m <sup>2</sup>
Contrast Ratio	1000:1	1000:1	2250:1	4000:1	3000:1	1000:1	4000:1	1000:1	500:1
Aspect Ratio	16:9	16:9	16:9	16:9	16:9	4:3	16:9	16:9	16:9
Viewing Angle(H/V)	178° /178°	178° /178°	178° /178°	178° /178°	178° /178°	170° /160°			
Response Time	8.5ms	14ms	8ms	14ms	6.5ms	5ms	8ms	14ms	20ms
Interface	HDMI(1), DP(1)	HDMI 2.0(1), DP1.2(1)	HDMI(1), VGA(1), DVI(1), BNC(1)	HDMI(1), VGA(1)	HDMI(1), VGA(1), BNC(2)				
Audio In/Out	-/1	-/1	-/1	-/-	-/-	2/-			
Built-in Speakers	Yes	Yes	Yes	-	-	Yes			
VESA Mount(mm)	100*100/400*200	100*100	100*100	100*100	100*100	100*100			
Power	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	DC 12V 5A	100V ~ 240V AC	DC12V 5.1A	DC12V 2.5A	DC12V 2.5A	DC12V 1A, PoE 48V 0.28A
Stand	Optional	Yes	Optional	Yes	Yes	Yes			
Tempered Glass Screen	-	-	-	-	-	Yes			
Additional Features	Remote Controller	-	Remote Controller	-	-	-			

**Controller**

<b>Features</b>	<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>• 3D joystick control</li> <li>• Quick and easy installation</li> <li>• Detachable Joystick / Jog shuttle 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 by CMS (SSM, Wisenet)</li> <li>• Built-in 3 Axis Twist Zoom Joystick</li> <li>• 3D joystick control</li> <li>• Built-in Jog Shuttle</li> <li>• 16 x 2 Character LCD Display</li> <li>• Hall-effect 3 Axis</li> </ul>	<ul style="list-style-type: none"> <li>• Control up to 255 PTZ Cameras / DVRs</li> <li>• Multi Protocols Supports</li> <li>• OSD Menu, 3D Joystick Control</li> <li>• RS-485 and RS-422 Interface</li> </ul>
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## Lens

Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F.No	Angle of View	Operation			Dimensions WxHxD (mm/inch)	Weight (g/lb)
										Iris	Focus	Zoom		
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°				W 46 x H 60 x D 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17lb)
SLA-M2890DN		CS	1 / 2.8"	3Megapixel						DC	Manual	Manual		84g (0.19lb)
SLA-M2890PN					2.8~9mm (0.11"~0.35")	7.5~15.9mm (0.3"~0.63")	3.2	1.2	134.2°~42.7°			P-Iris	W 45 x H 51.5 x D 54.3mm (1.77" x 2.03" x 2.14")	82.1g (0.18lb)

**Choose product you are interested in**

**Select region and language**

**When you add cameras, they will be added on My Project**

**Accessories Selector**

**Accessory Selector pops up. All compatible accessories are shown**

**By selecting different accessories from the drop down options, the simulation will show a profile of the installation.**

**Click the Acc to find compatible accessories**

**WM Wall mounts**

**PM Pole mounts**

**LM Parapet mounts**

**CM Ceiling mounts**

**CM Corner mounts**

**NETWORK**

**ANALOG**

**PERIPHERAL**

**ACCESSORY**

**NETWORK**

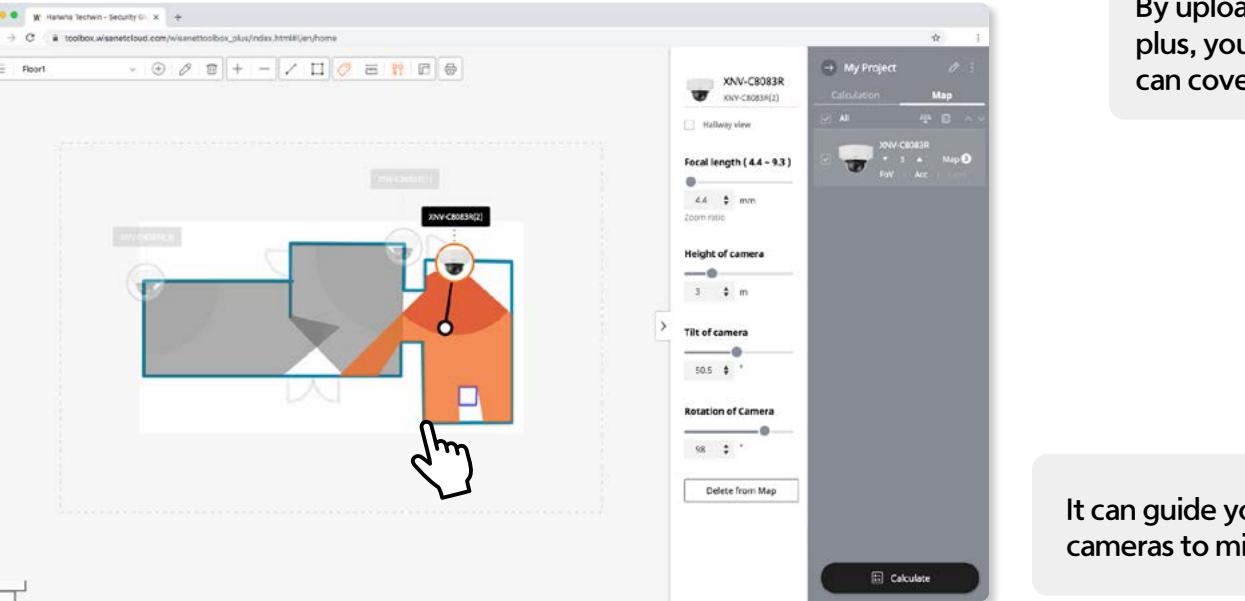
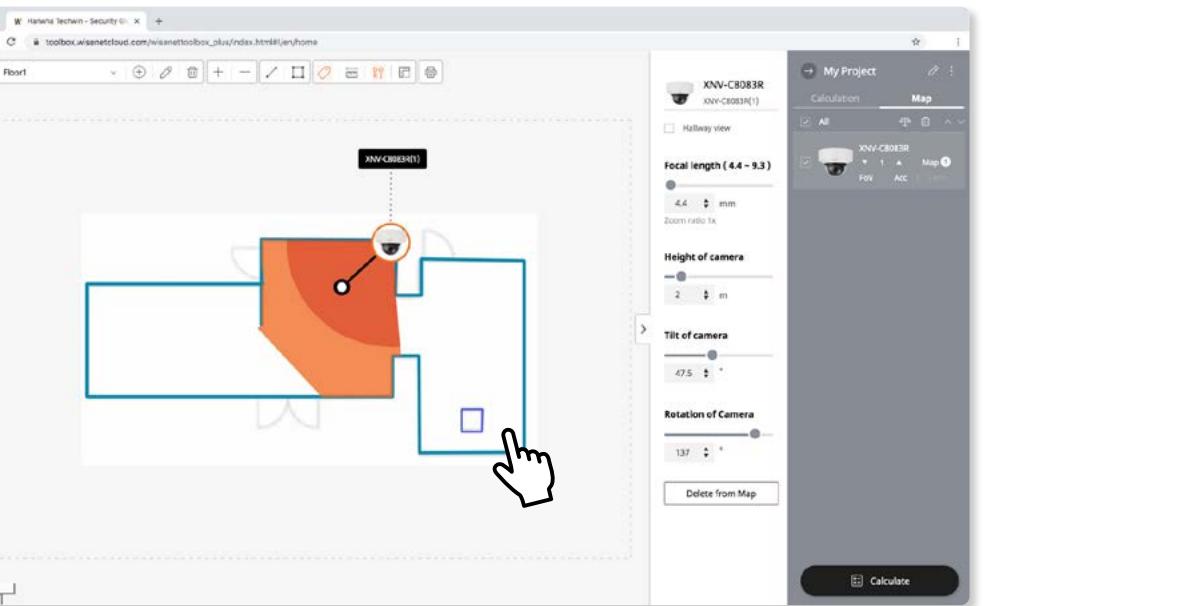
**ANALOG**

**PERIPHERAL**

**ACCESSORY**

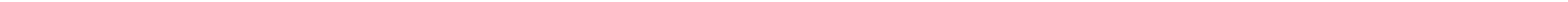
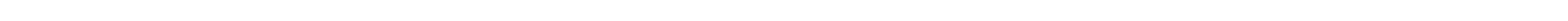
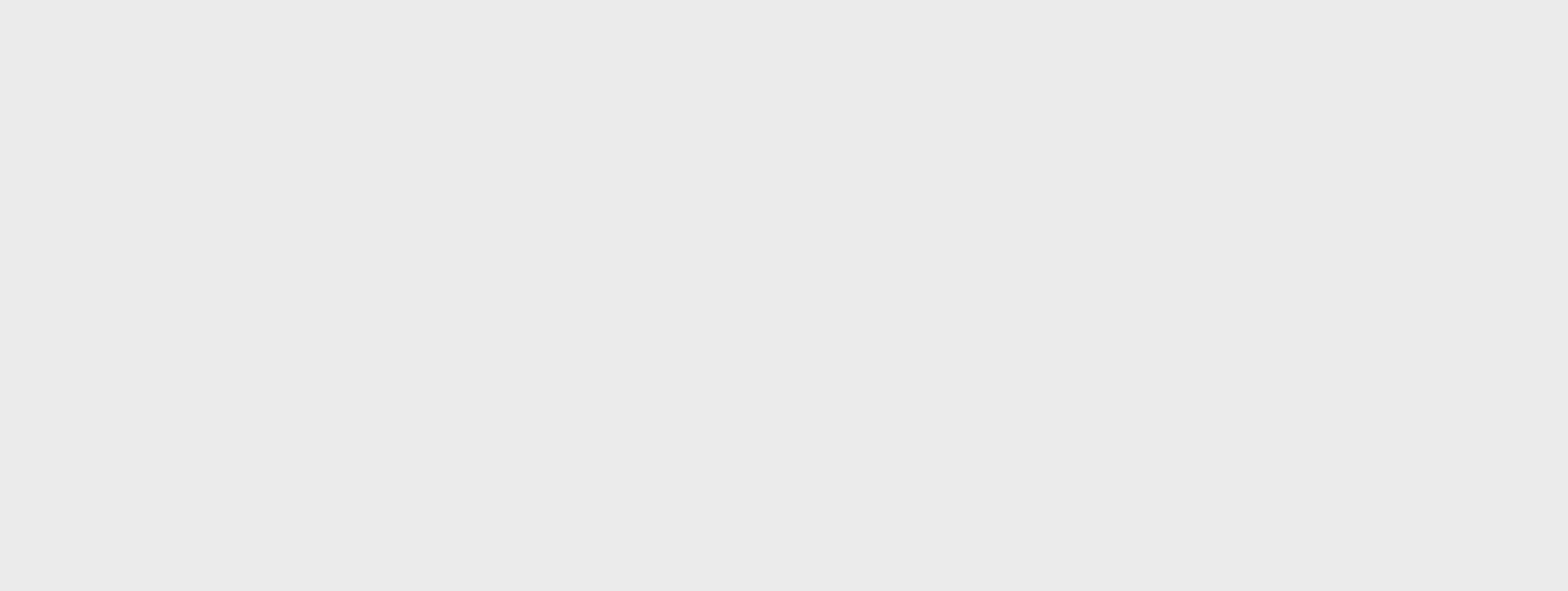
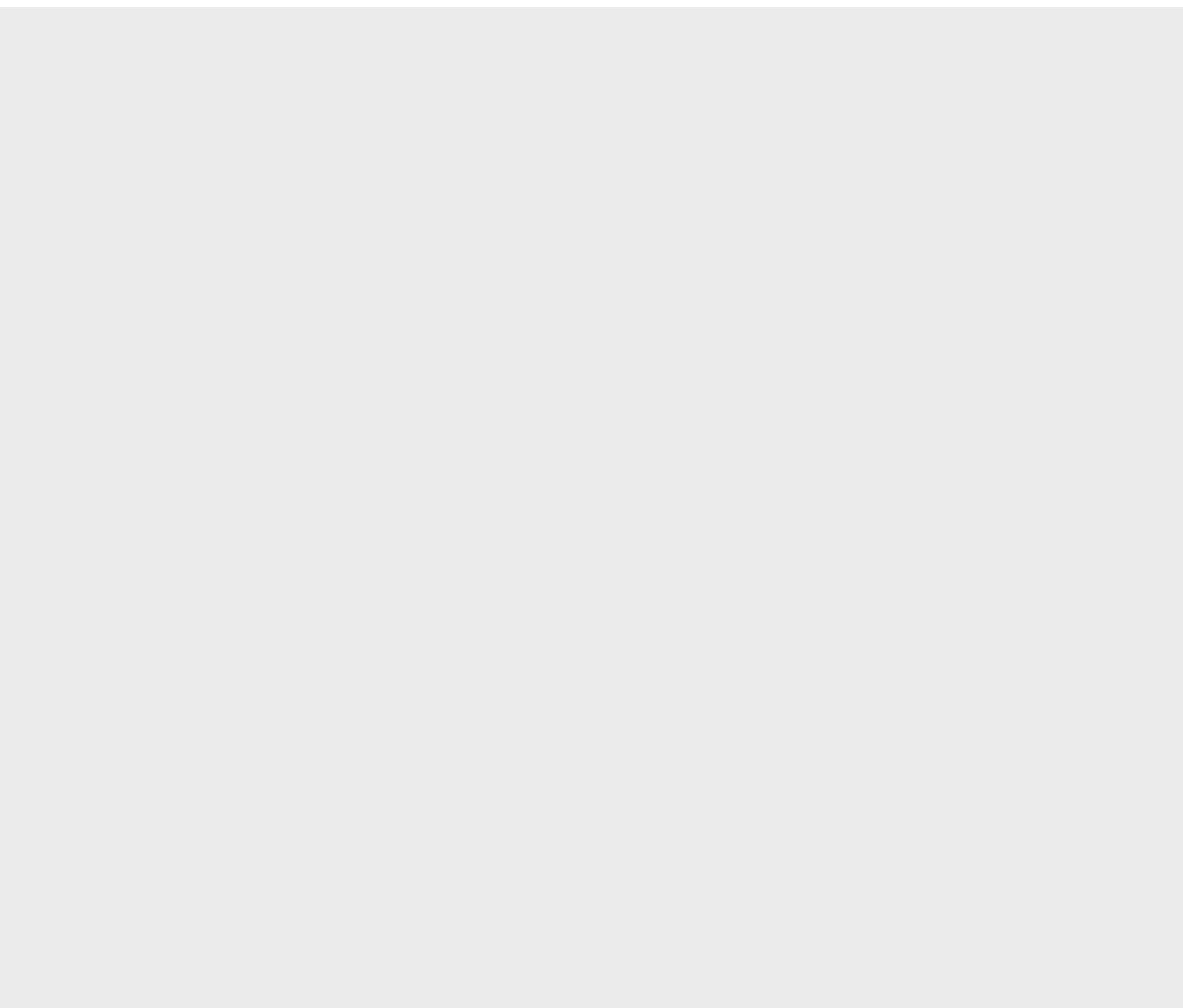
## Newly updated in Toolbox Plus: Simulate on the map

To find the best place to install cameras  
and provide the necessary coverage,  
Toolbox Plus has the mapping feature.



By uploading your map to Toolbox plus, you can test how much cameras can cover in your own space.

It can guide you on how to compose and install cameras to minimize blind spots in advance.



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#### Global Networks

Hanwha Vision America

Hanwha Vision Europe

Hanwha Vision Middle East FZE

Hanwha Vision Oceania

Hanwha Vision Singapore Branch

Hanwha Vision Hanoi / Ho Chi Minh Office

Scan this QR code to see  
details of global network



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