

2024 H1  
**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 2022, 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 due to its culture of innovation, focused on breakthrough technologies, and sound financial structures.

Sales  
2022

**65.3** USD  
Billions

Years of History  
Founded in 1952

**71**

Domestic affiliates  
As of end of June 2022

**91**

Business Enterprise in  
South Korea

Total asset basis, as of end of 2022

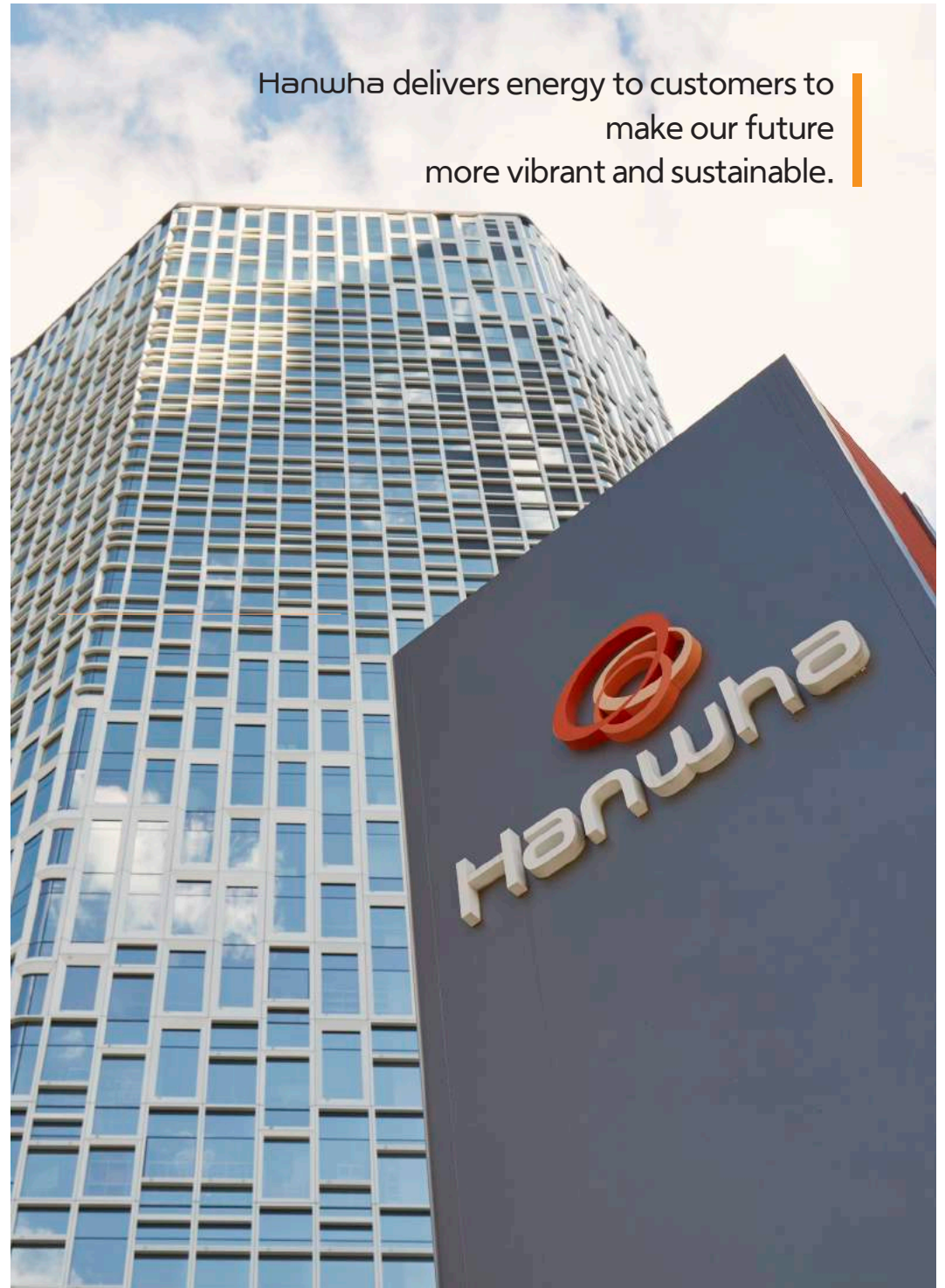
**TOP 7**

Ranking on Fortune  
Global 500 in 2023

**296**

Global Networks  
As of end of 2022

**710**





## Global vision solution provider

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

We have been ensuring safety and happiness around the world and across society with products and solutions with outstanding performance, high reliability, and industry-leading cyber security policies.

For the past 30 years, all of our consideration all started with the customer. Starting with the desire to protect the safety of our customers and what they consider important, we now want to give them answers to their concerns.

We want our solutions to reach the visions of our customers.

We add innovation to our competitiveness, take the first step of challenge, and are now leaping forward as a vision solution provider.

## History

- 2023.03 – Changed company name to 'Hanwha Vision' Announced focus on becoming a vision solution provider
- 2022 – Launched IP audio system
- 2021 – Launched the X AI camera series
  - 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 Winsenet 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

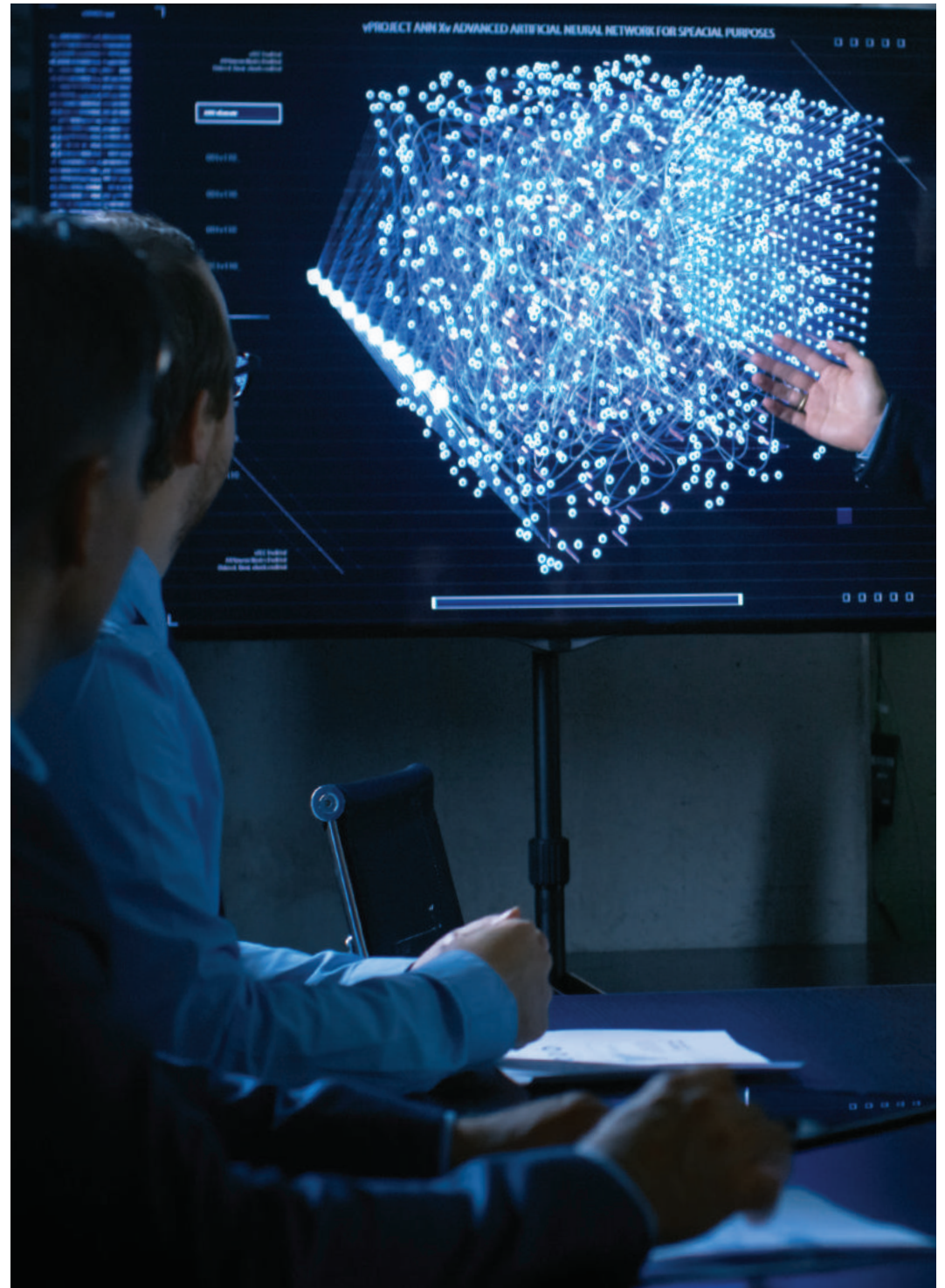


## R&D power

The headquarters R&D Center located in Pangyo Techno Valley, Gyeonggi-do, is the central axis of **Hanwha Vision**'s global R&D. Here, the commercialization of various vision technology-based solutions is being developed, and as overall preliminary research centered around AI and cloud is established, various preceding types of research are being conducted.

In 2022, **Hanwha Vision** established the Innovation Center in the US, a global hub, and is putting effort into developing key element technologies for future business, such as AI and cloud, which will become **Hanwha Vision**'s core competencies.

In particular, we have established a global AI R&D system based on the headquarters, the US R&D Center, and AI data lab, to secure the AI full stack capabilities from the AI strategy establishment to data processing, commercialization, and future element development, thereby accelerating R&D to equip sustainable competitiveness.





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



## High-tech Powered in Vietnam

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







AI based object detection & classification

**Q series AI camera**

Pixel based motion detection

**Non AI camera**

# Q series AI Camera

Expand Q series with built-in AI

Increased accuracy of video analytics through people and vehicle detection

- AI based object detection (Person, Vehicle)
- WiseNR II, SSNR V, WiseStream III

## Q series AI

QNV-C9083R/C8083R,  
QNO-C9083R/C8083R,  
QNV-C8011R/C8012/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 advanced artificial intelligence (AI) and deep-learning technologies, X series AI cameras offer industry-leading AI-based object detection for false alarm reduction analytics, 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

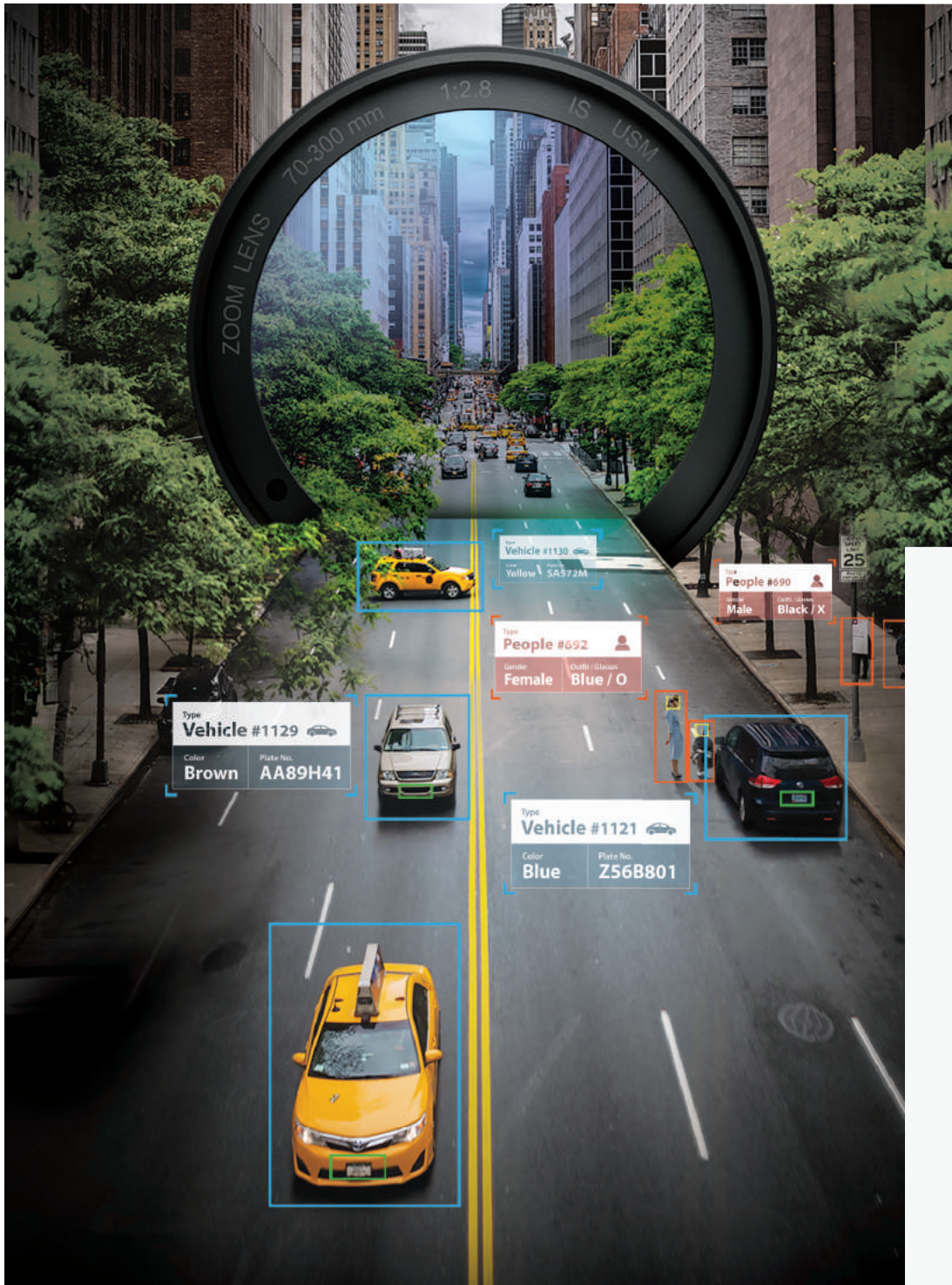
XNO-C9083R/C8083R/C7083R/C6083R

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

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 license plates, whilst reducing false alarms caused by waving trees, video noise, and even shadows. It enables operators to quickly and efficiently search for specific events or objects with defined attributes.



AI Camera Series **4K 2MP**

PNO-A9081R/A6081R, PNV-A9081R/A6081R,  
PND-A9081RV/A6081RV  
PNB-A9001/A9001LP/A6001

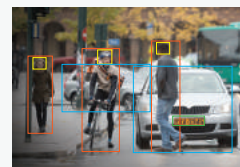


AI NVR Series

PRN-6400DB4/6400B4,  
PRN-3200B4/3200B2/1600B2

## P series AI Cameras

Detect and classify objects real-time



VMS Plug-in for improved AI search

\* Person, face, vehicle, license plate

## AI Search

Quickly search based on attributes

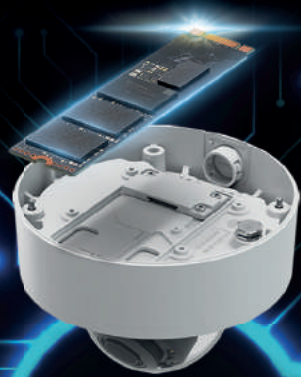


\* AI plug-ins offer seamless integration with VMS from Milestone and Genetec



# SolidEDGE

Serverless solution with built-in SSD drive



WAVE sync

The Next Generation  
Cloud Management  
Security Solution

X series AI PTZ Plus

## 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
  - WiseNR II, Prefer shutter, WiseStream III
- Image quality for night vision (IR 200m)
- Easy installation







4 Channel AI and IR multi-directional camera

**PNM – C32083RVQ**

**PNM – C16083RVQ**

**PNM-C32083RVQ / C16083RVQ**

- 4 channel object detection and classification based on AI engine
- False alarm reduction
- AI based virtual area & line
- Compact size & semi-modular design
- AI based improved noise & motion blur reduction
- AI based bandwidth reduction & advanced LDC
- Next level cybersecurity
- Reinforced durability



5 Channel AI and IR PTRZ multi-directional camera

**PNM-C34404RQPZ**

**PNM-C34404RQPZ**

- 5 channel object detection and classification based on AI engine
- False alarm reduction / New design
- AI based virtual area & line
- PTRZ remote adjustment
- AI based improved noise & motion blur reduction
- AI based bandwidth reduction & advanced LDC
- Alarm/Audio features are available via optional accessory (SPM-4210)
- Next level cybersecurity / Reinforced durability



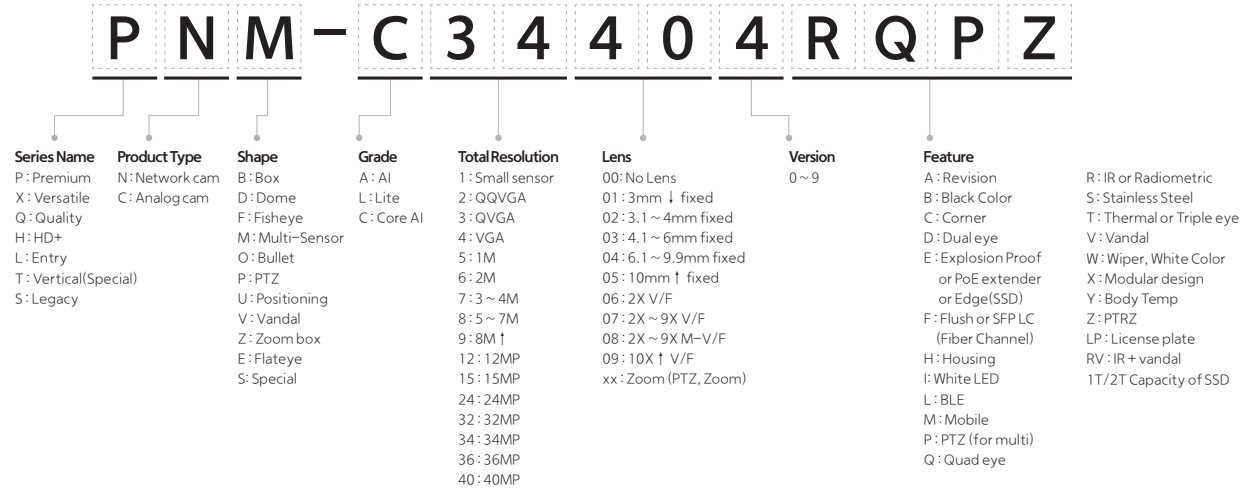
Hanwha Vision is conducting close networking with customers and partners around the world based on global R&D, manufacturing and sales base.



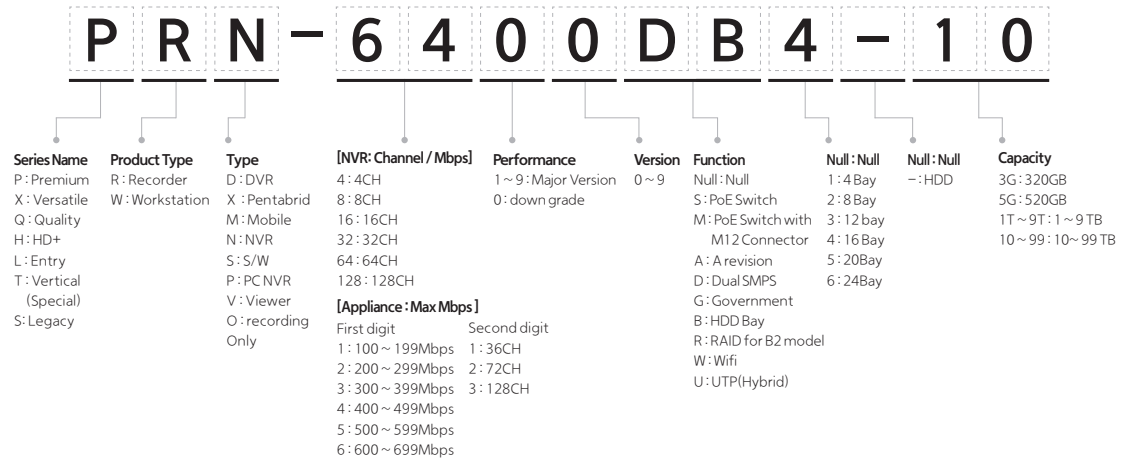


# PRODUCT NAMING RULE

## Camera

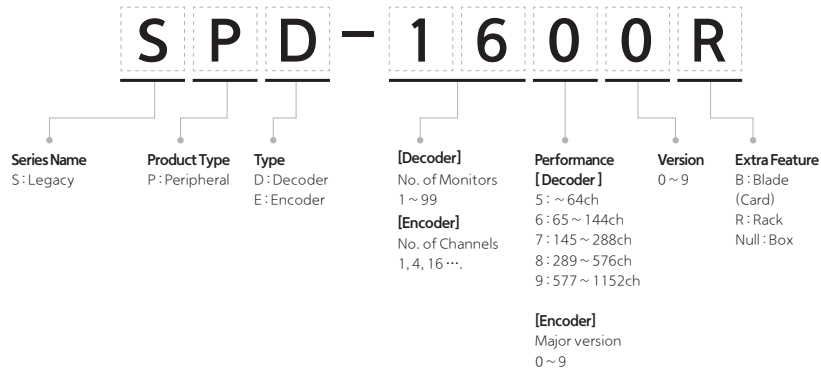


## Recorder

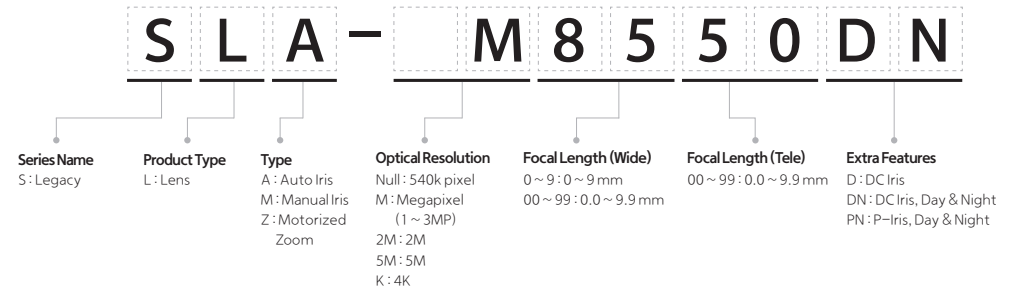


# PRODUCT NAMING RULE

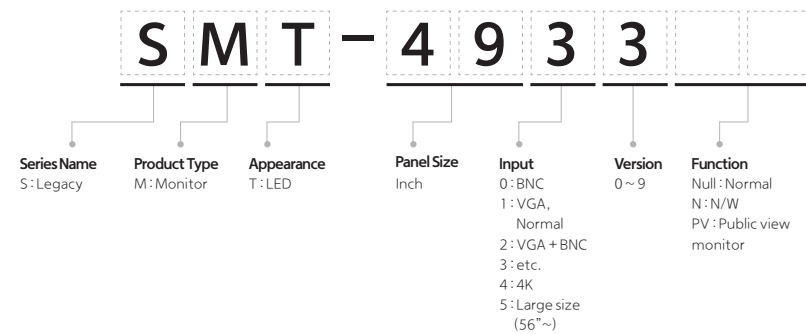
## Decoder/Encoder



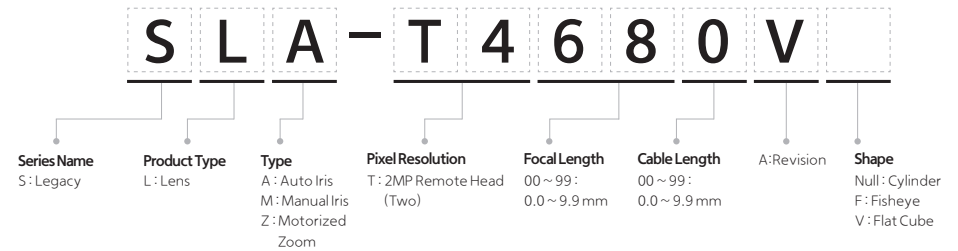
## Lens : CS Mount



## Monitor



## Lens : Remote Head





## NETWORK

---

### Camera

AI Cameras

X series

P series

Q series

T series

L series

### NVR

Encoder / Decoder

### VMS

Access Control

IP Audio Management System

## ANALOG

---

### Camera

### DVR

## PERIPHERAL

---

Monitor

Controller

Lens

## INSTALLATION SOLUTION

---

Toolbox Plus



|                                   |   |  |   |  |  |
|-----------------------------------|---|--|---|--|--|
| Imaging Device                    | 1/1.8" progressive CMOS   |  |   |  |  |
| Resolution / Max. Frame Rate      | 8MP / 30fps   |  |   |  |  |
| Min. Illumination                 | Color: 0.04Lux (F1.3, 1/30sec)<br>BW: 0Lux (IR LED on)  | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)  | Color: 0.03Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0.003Lux (F1.3, 1/30sec, 30IRE),<br>0Lux (IR LED on)   | Color: 0.04Lux (F1.3, 1/30sec)<br>BW: 0Lux (IR LED on)   | Color: 0.03Lux (F1.2, 1/30sec)<br>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   | 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)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)   | H: 113° (Wide) ~ 47° (Tele)<br>V: 58° (Wide) ~ 26° (Tele)<br>D: 138° (Wide) ~ 54° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>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                | WiseIR 50m (164.04ft)   | WiseIR 50m (164.04ft)  | 15m (49.21 ft)<br>30m (98.43ft) based on scene  | WiseIR 50m (164.04ft)  | -  |
| Day & Night                       | Auto (ICR)  |  |   |  |  |
| Wide Dynamic Range                | extremeWDR (120dB)  |  |   |  |  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |  |   |  |  |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |  |   |  |  |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |  |   |  |  |
| Business Intelligence             | Based on AI engine : People counting,<br>Queue management, Heatmap  | Based on AI engine : People counting,<br>Queue management, Heatmap   | Based on AI engine: People counting   | Based on AI engine : People counting,<br>Queue management, Heatmap   | Based on AI engine : People counting,<br>Queue management, Heatmap |
| Alarm I/O                         | 2 configurable I/O ports,<br>DC 12V output (Max. 50mA)  | 2 configurable I/O ports,<br>DC 12V output (Max. 50mA)   | -   | 2 configurable I/O ports,<br>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) /<br>Line out   | Selectable (mic in/line in/built-in mic) /<br>Line out             |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |  |  |
| WiseStream                        | WiseStream II, WiseStream III (Based on AI engine)  |  |   |  |  |
| Streaming                         | Up to 10 profiles, 3 virtual channel support  |  |   |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)   |  |   |  |  |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API) Wisenet open platform  |  |   |  |  |
| Operating Temperature             | -50°C ~ +60°C (-58°F ~ +140°F)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent  | -50°C ~ +55°C (-58°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -50°C ~ +55°C (-58°F ~ +131°F)<br>+74°C (165°F) (Max) based on NEMA TS-2(2.2.7)<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w AIR vent | -25°C ~ +50°C (-13°F ~ +122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent | -10°C ~ +55°C (-14°F ~ +131°F)<br>0~95%RH (non-condensing)         |
| 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<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover  | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   | PoE+: Max 22.5W, typical 12.1W  | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   | PoE: Max 12.95W, typical 9.8W<br>12VDC: Max 19W, typical 9.5W      |
| Dimensions (WxHxD) / Weight       | Ø93.4 x 298.4mm<br>(Ø3.68" x 11.75")<br>2.2kg (4.85 lb)   | Ø180 x 125mm<br>(Ø7.09" x 4.92")<br>1.9kg (4.19 lb)  | Ø180 x 135mm<br>(Ø7.09" x 5.31")<br>2kg (4.41 lb)   | Ø160 x 125mm<br>(Ø6.3" x 4.92")<br>1.6kg (3.53 lb)   | W81 x H67 x D165mm<br>(3.19" x 2.64" x 6.48")<br>880g (1.94 lb)    |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION





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



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



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



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



**X Plus**  
**XNV-8083RZ**  
4K AI IR PTRZ dome camera

|                                   |   |  |  |   |  |
|-----------------------------------|---|--|--|---|--|
| Imaging Device                    | 1/1.8" progressive CMOS   |  |  |   |  |
| Resolution / Max. Frame Rate      | 6MP/30fps   |  |  |   |  |
| Min. Illumination                 | Color: 0.06Lux (F1.7, 1/30sec)<br>BW: 0Lux (IR LED on)  | Color: 0.06Lux (F1.7, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)  | Color: 0.04Lux (F1.3, 1/30sec)<br>BW: 0Lux (IR LED on)   | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.03Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0.003Lux (F1.3, 1/30sec, 30IRE),<br>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                      | 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)<br>V: 22.8° (Wide) ~ 8.4° (Tele)<br>D: 48.7° (Wide) ~ 17.1° (Tele)   | H: 42° (Wide) ~ 15° (Tele)<br>V: 22.8° (Wide) ~ 8.4° (Tele)<br>D: 48.7° (Wide) ~ 17.1° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)   | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 113° (Wide) ~ 47° (Tele)<br>V: 58° (Wide) ~ 26° (Tele)<br>D: 138° (Wide) ~ 54° (Tele)   |
| Pan / Tilt / Rotate               | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | -  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  | 0° ~ 350° / 0° ~ 85° / 0° ~ 340°   |
| IR Viewable Length                | WiseIR 70m (229.66ft)   | WiseIR 70m (229.66ft)  | WiseIR 50m (164.04ft)  | WiseIR 50m (164.04ft)   | 15m (49.21ft), 30m (98.43ft) based on scene  |
| Day & Night                       | Auto (ICR)  |  |  |   |  |
| Wide Dynamic Range                | extremeWDR (120dB)  |  |  |   |  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |  |  |   |  |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |  |  |   |  |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |  |  |   |  |
| 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  |
| 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, DC 12V output (Max. 50mA)   | -  |
| 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  | -  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |  |   |  |
| WiseStream                        | WiseStream II , WiseStream III (Based on AI engine)   |  |  |   |  |
| Streaming                         | Up to 10 profiles, 3 virtual channel support  |  |  |   |  |
| Edge Storage                      | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)   |  |  |   |  |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API) Wisenet open platform  |  |  |   |  |
| Operating Temperature             | -50°C ~ +55°C (-58°F ~ +131°F)<br>* Maximum temperature: +60°C (intermittent)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent   | -25°C ~ +50°C (-13°F ~ +122°F)<br>* Maximum temperature: +55°C (intermittent)<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -50°C ~ +60°C (-58°F ~ +140°F)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -50°C ~ +55°C (-58°F ~ +131°F)<br>* Maximum temperature: +60°C (intermittent)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -50°C ~ +55°C (-58°F ~ +131°F)<br>+74°C (165°F) (Max) based on NEMA TS-2 (2.7)<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w AIR vent |
| Certification                     | IP66, IP67, IP6K9K, NEMA4X, IK 10+  | IP52, IK 10  | IP66, IP67, NEMA4X, IK 10  | IP66, IP67, IP6K9K, NEMA4X, IK 10+  | IP66, IP67, IP6K9K, NEMA4X, IK 10+   |
| Power Consumption                 | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover  | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover  | PoE+: Max 22.5W, typical 12.1W   |
| Dimensions (WxHxD) / Weight       | Ø180 x 125mm<br>(7.09" x 4.92")<br>1.9kg (4.19 lb)  | Ø160 x 125mm<br>(Ø6.3" x 4.92")<br>1.6kg (3.53 lb)   | Ø93.4 x 298.4mm<br>(Ø3.68" x 11.75")<br>2.2kg (4.85 lb)  | Ø180 x 125mm<br>(Ø7.09" x 4.92")<br>1.9kg (4.19 lb)   | Ø180 x 135mm<br>(Ø7.09" x 5.31")<br>2kg (4.41 lb)  |

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

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Imaging Device                    | 1/1.8" progressive CMOS  | 1/1.8" progressive CMOS  | 1/2.8" progressive CMOS  | 1/2.8" progressive CMOS  |
| Resolution / Max. Frame Rate      | 6MP/30fps  | 6MP/30fps  | 2MP / 120fps   | 2MP/120fps   |
| Min. Illumination                 | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)  | Color: 0.03Lux (F1.2, 1/30sec, 30IRE)<br>BW: 0.003Lux (F1.2, 1/30sec, 30IRE) | Color: 0.03Lux (F1.6, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps   | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps   |
| 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   | -  | 5.2~62.4mm (12x) zoom  | 2.8~12mm (4.3x) motorized varifocal  |
| Angular Field of View             | H: 112.1° (Wide)~47.5° (Tele)<br>V: 58° (Wide)~26.6° (Tele)<br>D: 137.5° (Wide)~54.6° (Tele)   | -  | H: 55° (Wide)~5° (Tele)<br>V: 35° (Wide)~3° (Tele)<br>D: 62° (Wide)~6° (Tele)  | H: 119.5° (Wide)~27.9° (Tele)<br>V: 62.8° (Wide)~15.7° (Tele)<br>D: 142.1° (Wide)~32° (Tele)   |
| Pan / Tilt / Rotate               | 0°~360° / -45°~85° / 0°~355°   | -  | -  | -  |
| IR Viewable Length                | WiseIR 50m (164.04ft)  | -  | WiseIR 90m (295.28ft)  | WiseIR 50m (164.04ft)  |
| Day & Night                       | Auto(ICR)  |  |  |  |
| Wide Dynamic Range                | extremeWDR (120dB)   | extremeWDR (120dB)   | extremeWDR (150dB)   | extremeWDR (150dB)   |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V   |  |  |  |
| Digital Image Stabilization       | Support(built-in gyro sensor)  |  |  |  |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |  |  |  |
| 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  |
| Alarm I/O                         | 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)  |
| 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) / Line out   | Selectable (mic in/line in) / Line out   |
| Video Compression                 | H.265/H.264, MJPEG   |  |  |  |
| WiseStream                        | 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  | Up to 10 profiles, 3 virtual channel support   |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)  |  |  |  |
| Application Programming Interface | ONVIF Profile S/G/T/MSUNAPI (HTTP API)<br>Wisenet open platform  |  |  |  |
| Operating Temperature             | -25°C~+50°C (-13°F~+122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent   | -10°C~+55°C (-14°F~+131°F)<br>0~95%RH (non-condensing)                       | -40°C~+60°C (-40°F~+140°F) / 0~95% RH (Non-condensing)<br>* Start up should be done at above -30°C<br>Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74°C (+165°F)<br>Humidity control /w GORE vent | -50°C~+60°C (-58°F~+140°F)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent |
| Certification                     | IP52, IK10   | -  | IP66, IP67, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)   | IP66, IP67, NEMA4X, IK10   |
| Power Consumption                 | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   | PoE: Max 12.95W, typical 9.8W<br>12VDC: Max 19W, typical 9.5W                | PoE+: Max 19.5W, typical 15.5W<br>12VDC: Max 16.5W, typical 13.1W<br>Power redundancy failover   | PoE+: Max 22.5W, typical 17.9W<br>12VDC: Max 20W, typical 15.6W<br>Power redundancy failover   |
| Dimensions (WxHxD) /Weight        | Ø160 x 125mm<br>(Ø6.3" x 4.92")<br>1.6kg (3.53 lb)   | W81 x H67 x D 165mm<br>(Ø3.19" x 2.64" x 6.48")<br>880g (1.94 lb)            | Ø93.4 x 298.4mm<br>(Ø3.68" x 11.75")<br>2.3kg (5.07 lb)  | Ø93.4 x 298.4mm<br>(Ø3.68" x 11.75")<br>2.2kg (4.85 lb)  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION





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



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



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



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

|                                   |   |  |   |  |
|-----------------------------------|---|--|---|--|
| Imaging Device                    | 1/2.8" progressive CMOS   |  |   |  |
| Resolution / Max. Frame Rate      | 2MP / 120fps  |  |   |  |
| Min. Illumination                 | Color: 0.03Lux (F1.6, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps  | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>BW: 0.001Lux (F1.4, 1/30sec, 30IRE), 0Lux (IR LED on), 30/25fps | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps  | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps   |
| 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                      | 5.2 ~ 62.4mm (12x) zoom   | 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: 55° (Wide) ~ 5° (Tele)<br>V: 33° (Wide) ~ 3° (Tele)<br>D: 62° (Wide) ~ 6° (Tele)   | H: 120° (Wide) ~ 27° (Tele)<br>V: 63° (Wide) ~ 15° (Tele)<br>D: 143° (Wide) ~ 32° (Tele)                 | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele)  | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele)   |
| Pan / Tilt / Rotate               | 0° ~ 360° / -45° ~ 80° / 0° ~ 355°  | 0° ~ 350° / 0° ~ 85° / 0° ~ 340°   | 0° ~ 360° / -45° ~ 80° / 0° ~ 355°  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   |
| IR Viewable Length                | WiselR 90m (295.28ft)   | 15m (42.91ft)  | WiselR 50m (164.04ft)   | WiselR 50m (164.04ft)  |
| Day & Night                       | Auto (ICR)  |  |   |  |
| Wide Dynamic Range                | extremeWDR (150dB)  |  |   |  |
| 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 Stabilization       | Support (built-in gyro sensor)  | Support  | Support (built-in gyro sensor)  | Support (built-in gyro sensor)   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |  |   |  |
| Business Intelligence             | -   | Based on AI engine: People counting  | 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)  |
| 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  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |  |
| WiseStream                        | WiseStream II, WiseStream III (Based on AI engine)  |  |   |  |
| Streaming                         | Up to 10 profiles   | Up to 10 profiles  | 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)   |  |   |  |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API)<br>Wisenet open platform   | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API)   | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API)<br>Wisenet open platform   | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API)<br>Wisenet open platform  |
| Operating Temperature             | -40°C ~ +60°C (-40°F ~ +140°F) / 0~95%RH (Non-condensing)<br>* Start up should be done at above -30°C<br>Maximum Temperature based on NEMA-TS 2 (2.2.7): +74°C (+165°F)<br>Humidity control /w GORE vent  | -50°C ~ +55°C (-58°F ~ +131°F)<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)   | -50°C ~ +55°C (-58°F ~ +131°F)<br>* Maximum temperature: +60°C (intermittent)<br>NEMA TS-2: 74°C<br>* Start up should be done at above -30°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -25°C ~ +50°C (-13°F ~ +122°F)<br>* Maximum temperature: +55°C (intermittent)<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent |
| Certification                     | IP66, IP67, IP6K9K, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9), IK10+   | IP66, IP67, IP6K9K, NEMA4X, IK10+  | IP66, IP67, IP6K9K, NEMA4X, IK10+   | IP52, IK10   |
| Power Consumption                 | PoE+: Max 19.5W, typical 15.5W<br>12VDC: Max 16.5W, typical 13.1W<br>Power redundancy failover  | PoE+: Max 22.5W, typical 11.0W   | PoE+: Max 22.5W, typical 11.0W  | PoE+: Max 17.0W, typical 11.0W   |
| Dimensions (WxHxD) / Weight       | Ø 180 x 138mm (Ø 7.09" x 5.43")<br>2.13kg (4.70 lb)   | Ø 180 x 135mm (Ø 7.09 x 5.31")<br>2000g (4.41 lb)  | Ø 180 x 125mm (Ø 7.09 x 4.92")<br>1.9kg (4.19 lb)   | Ø 180 x 135mm (Ø 7.09 x 5.31"),<br>2000g (4.41 lb)   |

**X Plus**

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

**X Core**

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

**X Core**

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

**X Core**

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

**X Core**

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

|                                   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|
| Imaging Device                    | 1/2.8" progressive CMOS   | 1/1.8" progressive CMOS   | 1/1.8" progressive CMOS   | 1/1.8" progressive CMOS   | 1/1.8" progressive CMOS   |
| Resolution / Max. Frame Rate      | 2MP / 120fps  | 8MP / 30fps   | 8MP / 30fps   | 8MP / 30fps   | 6MP / 30fps   |
| Min. Illumination                 | Color: 0.007Lux (F1.2, 1/30sec, 30IRE)<br>B/W: 0.0007Lux (F1.2, 1/30sec, 30IRE),<br>30/25fps  | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.04Lux (F1.3, 1/30sec)<br>BW: 0Lux (IR LED on)  | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)  |
| Video Output                      | CVBS: 1.0 Vp-p, Micro USB Type B  | Micro USB Type B  | Micro USB Type B  | Micro USB Type B  | 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)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  |
| Pan / Tilt / Rotate               | -   | -   | 0° ~ 360° / -45° ~ 75° / 0° ~ 355°  | 0° ~ 360° / -45° ~ 75° / 0° ~ 355°  | -   |
| IR Viewable Length                | -   | WiseIR 40m (131.23ft)   | WiseIR 40m (131.23ft)   | WiseIR 40m (131.23ft)   | WiseIR 40m (131.23ft)   |
| Day & Night                       | Auto (ICR)  |   |   |   |   |
| Wide Dynamic Range                | extremeWDR (150dB)  | extremeWDR (120dB)  | extremeWDR (120dB)  | extremeWDR (120dB)  | extremeWDR (120dB)  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |   |   |   |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |   |   |   |   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)</p> <p><b>Support DetectionShot</b></p> <p><b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |   |   |   |   |
| Business Intelligence             | 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/built-in mic) / Line out   |   |   |   |   |
| Video Compression                 | H.265 / H.264, MJPEG  |   |   |   |   |
| WiseStream                        | WiseStream II, WiseStream III (Based on AI engine)  |   |   |   |   |
| Streaming                         | Up to 10 profiles, 3 virtual channel support  |   |   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)   |   |   |   |   |
| Application Programming Interface | ONVIF Profile S/G/T/MSUNAPI (HTTP API)<br>Wisenet open platform   |   |   |   |   |
| Operating Temperature             | -10°C ~ +55°C (-14°F ~ +131°F)<br>0~95%RH (non-condensing)  | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (Non-condensing)<br>Humidity control /w GORE vent | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -10°C ~ +50°C (14°F ~ +122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent |
| Certification                     | -   | IP66, IP67, NEMA4X, IK10  | IP66, IP67, NEMA4X, IK10  | IP52, IK08  | IP66, IP67, NEMA4X, IK10  |
| Power Consumption                 | PoE: Max 12.95W, typical 9.8W<br>12VDC: Max 19W, typical 9.5W   | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   |
| Dimensions (WxHxD) / Weight       | W81 x H67 x D165mm (3.19" x 2.64" x 6.48")<br>880g (1.94lb)   | Ø93.4 x 276.6mm (Ø3.68" x 10.89")<br>1.64kg (3.62lb)  | Ø160 x 118mm (Ø6.3" x 4.65")<br>1.45kg (3.2lb)  | Ø160 x 118mm (Ø6.3" x 4.65")<br>1.35kg (2.98lb)   | Ø93.4 x 276.6mm (Ø3.68" x 10.89")<br>1.64kg (3.62lb)  |



**X Core**

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

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

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

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

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

|                                   |   |   |   |   |   |
|-----------------------------------|---|---|---|---|---|
| Imaging Device                    | 1/1.8" progressive CMOS   | 1/1.8" progressive CMOS   | 1/2.8" progressive CMOS   | 1/2.8" progressive CMOS   | 1/2.8" progressive CMOS   |
| Resolution / Max. Frame Rate      | 6MP / 30fps   | 6MP / 30fps   | 4MP / 60fps   | 4MP / 60fps   | 4MP / 60fps   |
| Min. Illumination                 | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)  | Color: 0.04Lux (F1.3, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)  | Color: 0.038Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)   | Color: 0.038Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)   | Color: 0.038Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)   |
| Video Output                      | Micro USB Type B  |   |   |   |   |
| Focal Length                      | 4.4~9.3mm (2.1x) motorized varifocal  | 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: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 112.1° (Wide) ~ 47.5° (Tele)<br>V: 58° (Wide) ~ 26.6° (Tele)<br>D: 137.5° (Wide) ~ 54.6° (Tele)  | H: 109.7° (Wide) ~ 30.4° (Tele)<br>V: 60.8° (Wide) ~ 17.8° (Tele)<br>D: 131.3° (Wide) ~ 35.3° (Tele)  | H: 109.7° (Wide) ~ 30.4° (Tele)<br>V: 60.8° (Wide) ~ 17.8° (Tele)<br>D: 131.3° (Wide) ~ 35.3° (Tele)  | H: 109.7° (Wide) ~ 30.4° (Tele)<br>V: 60.8° (Wide) ~ 17.8° (Tele)<br>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°  | 0° ~ 360° / -45° ~ 75° / 0° ~ 355°  |
| IR Viewable Length                | WiseIR 40m (131.23ft)   |   |   |   |   |
| Day & Night                       | Auto (ICR)  |   |   |   |   |
| Wide Dynamic Range                | extremeWDR (120dB)  |   |   |   |   |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |   |   |   |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |   |   |   |   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |   |   |   |   |
| Business Intelligence             | 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  |   |   |   |   |
| WiseStream                        | WiseStream II, WiseStream III (Based on AI engine)  |   |   |   |   |
| Streaming                         | Up to 10 profiles, 3 virtual channel support  |   |   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC 1slot 512GB  |   |   |   |   |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI (HTTP API)<br>Wisenet open platform  |   |   |   |   |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (Non-condensing)<br>Humidity control /w GORE vent   | -10°C ~ +50°C (14°F ~ +122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -10°C ~ +50°C (14°F ~ +122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent |
| Certification                     | IP66, IP67, NEMA4X, IK10  | IP52, IK08  | IP66, IP67, NEMA4X, IK10  | IP66, IP67, NEMA4X, IK10  | IP52, IK08  |
| Power Consumption                 | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   | PoE: Max 12.95W, typical 11.2W<br>12VDC: Max 13.2W, typical 10.8W   | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W   | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W   | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W   |
| Dimensions (WxHxD) / Weight       | Ø160 x 118mm<br>(Ø6.3" x 4.65")<br>1.45kg (3.20lb)  | Ø160 x 118mm<br>(Ø6.3" x 4.65")<br>1.35kg (2.98lb)  | Ø93.4 x 276.6mm<br>(Ø3.68" x 10.89")<br>1.64kg (3.62lb)   | Ø160 x 118mm<br>(Ø6.3" x 4.65")<br>1.45kg (3.20lb)  | Ø160 x 118mm<br>(Ø6.3" x 4.65")<br>1.35kg (2.98lb)  |

### X Core



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

### X Core



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

### X Core



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

### X Plus



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

|                                   |  |   |   |  |
|-----------------------------------|--|---|---|--|
| Imaging Device                    | 1/2.8" progressive CMOS  | 1/2.8" progressive CMOS   | 1/2.8" progressive CMOS   | 1/2.3" 12MP CMOS   |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | 2MP / 60fps   | 2MP / 60fps   | 3008 x 3008 / 30fps  |
| Min. Illumination                 | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)   | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)  | Color: 0.01Lux (F1.4, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on), 30/25fps  | Color: 0.39 Lux (F2.2, 1/30sec)<br>BW: 0Lux(IR LED on)   |
| Video Output                      | 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   | 1.08mm fixed focal   |
| Angular Field of View             | H: 119.5°(Wide) ~ 27.9°(Tele)<br>V: 62.8°(Wide) ~ 15.7°(Tele)<br>D: 142.1°(Wide) ~ 32°(Tele)   | H: 119.5°(Wide) ~ 27.9°(Tele)<br>V: 62.8°(Wide) ~ 15.7°(Tele)<br>D: 142.1°(Wide) ~ 32°(Tele)  | H: 119.5°(Wide) ~ 27.9°(Tele)<br>V: 62.8°(Wide) ~ 15.7°(Tele)<br>D: 142.1°(Wide) ~ 32°(Tele)  | H: 187° / V: 187° / D: 187°  |
| Pan / Tilt / Rotate               | -  | 0° ~ 360° / -45° ~ 75° / 0° ~ 355°  | 0° ~ 360° / -45° ~ 75° / 0° ~ 355°  | Lens Rotation  |
| IR Viewable Length                | WiselR 40m (131.23ft)  | WiselR 40m (131.23ft)   | WiselR 40m (131.23ft)   | Wise IR, PoE : 8m(26.25ft), PoE+ : 13m(42.65ft)  |
| Day & Night                       | Auto (ICR)   |   |   |  |
| Wide Dynamic Range                | extremeWDR (150dB)   | extremeWDR (150dB)  | extremeWDR (150dB)  | extremeWDR (120dB)   |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V   |   |   |  |
| Digital Image Stabilization       | Support (built-in gyro sensor)   | Support (built-in gyro sensor)  | Support (built-in gyro sensor)  | -  |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle (Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |   |   | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)</p> |
| Business Intelligence             | 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   |   |   |  |
| WiseStream                        | 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, 5 virtual channel support   |
| Edge Storage                      | 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)  |
| Application Programming Interface | ONVIF Profile S/G/T/M/SUNAPI (HTTP API)<br>Wisenet open platform   |   |   |  |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°F<br>NEMA TS-2 : 74°F<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent  | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Maximum temperature : +60°C (intermittent)<br>* Start up should be done at above -20°C<br>NEMA TS-2 : 74°C<br>0~95%RH (non-condensing)<br>Humidity control /w GORE vent | -10°C ~ +50°C (14°F ~ +122°F)<br>* Maximum temperature : +55°C (intermittent)<br>0~95% RH (non-condensing)<br>Humidity control /w GORE vent | -40°C ~ +60°C (-40°F ~ +140°F) /<br>0~95% RH<br>POE+ Mode 55°C (Hysteresis 5°C)  |
| Certification                     | IP66, IP67, NEMA4X, IK 10  | IP66, IP67, NEMA4X, IK 10   | IP52, IK08  | IP66, IK 10, NEMA4X  |
| Power Consumption                 | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W  | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W   | PoE: Max 12.95W, typical 10.8W<br>12VDC: Max 12.5W, typical 10W   | PoE: Max 12.95W, typical 9.4W,<br>12VDC: Max 12.9W, typical 9.0W /<br>PoE+: Max 23.0W, typical 9.4W,<br>12VDC: Max 22.0W, typical 9.0W   |
| Dimensions (WxHxD) / Weight       | Ø93.4 x 276.6mm (Ø3.68" x 10.89")<br>1.64kg (3.62lb)   | Ø160 x 118mm (Ø6.3" x 4.65")<br>1.45kg (3.20lb)   | Ø160 x 118mm (Ø6.3" x 4.65")<br>1.35kg (2.98lb)   | Ø160 x 72mm (Ø6.23" x 2.84")<br>1.17kg (2.58lb)  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



AI PTZ Plus



**XNP-C9310R**  
8MP 31x AI PTZ Camera

AI PTZ Plus



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

AI PTZ Plus



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

AI PTZ Plus



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

AI PTZ Plus



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

|                                   |   |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
| Imaging Device                    | 1/1.8" CMOS   | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  |
| Resolution / Max. Frame Rate      | 8MP / 30fps   | 8MP / 30fps  | 8MP / 30fps  | 8MP / 30fps  | 6MP / 30fps  |
| Min. Illumination                 | Color: 0.06Lux(F1.36, 1/30sec, 30IRE)<br>B/W: 0Lux(IR LED on)"  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0.01Lux (F1.6, 1/30sec)   | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  |
| Video Output                      | -   | -  | -  | -  | -  |
| Focal Length                      | 6.91~214.7mm(31x) zoom<br>(digital 32x, total 992x zoom)  | 5~150mm(30x) zoom<br>(digital 32x, total 960x zoom)  | 5~125mm (25x) zoom<br>(digital 32x, total 800x zoom)   | 5~125mm (25x) zoom<br>(digital 32x, total 800x zoom)   | 5~150mm(30x) zoom<br>(digital 32x, total 960x zoom)  |
| Angular Field of View             | H: 60.6° (Wide)~2.59° (Tele)<br>V: 35.1° (Wide)~1.45° (Tele)<br>D: 68.8° (Wide)~2.97° (Tele)  | H: 57.42° (Wide)~2.19° (Tele)<br>V: 33.54° (Wide)~1.25° (Tele)   | H: 57.42° (Wide)~2.71° (Tele)<br>V: 33.54° (Wide)~1.55° (Tele)   | H: 57.42° (Wide)~2.71° (Tele)<br>V: 33.54° (Wide)~1.55° (Tele)   | H: 57.42° (Wide)~2.19° (Tele)<br>V: 33.54° (Wide)~1.25° (Tele)   |
| Pan / Tilt / Rotate               | 0° ~360° / -20° ~90°  |  |  |  |  |
| IR Viewable Length                | WiseIR 250m(820ft)  | WiseIR 200m (656.17ft)   | Wise IR 200m(656.17ft)   | -  | Wise IR 200m(656.17ft)   |
| Day & Night                       | Auto (ICR)/Color/BW/Schedule  |  |  |  |  |
| Wide Dynamic Range                | extremeWDR(120dB)   |  |  |  |  |
| Digital Noise Reduction           | WiseNR II(Based on AI engine), SSSNRV   |  |  |  |  |
| Digital Image Stabilization       | Support(built-in gyro sensor)   |  |  |  |  |
| Analytics                         | <p><b>Classified object type</b> : Person/Face/Vehicle/License plate<br/> <b>Attributes</b> : Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine</b>: Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events</b>: Motion detection, Tampering, Fog detection, Audio detection, Sound classification(with NW I/O Box : SPM-4210), Shock detection, Virtual area(Appear/Disappear)</p> |  |  |  |  |
| Business Intelligence             | -   |  |  |  |  |
| Alarm I/O                         | Compatible with NW I/O Box (Optional: SPM-4210)   |  |  |  |  |
| Audio I/O                         |   |  |  |  |  |
| Video Compression                 | H.265/H.264, MJPEG  |  |  |  |  |
| WiseStream                        | Manual(Sea area), WiseStream II, WiseStream III (Based on AI engine)  |  |  |  |  |
| Streaming                         | Up to 10 profiles   |  |  |  |  |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)  |  |  |  |  |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI(HTTP API)<br>Wisenet open platform   |  |  |  |  |
| Operating Temperature             | Normal: -50°C~-+55°C(-58°F~+131°F) /<br>+74°C(+165°F)(MAX) based on NEMA<br>TS-2(2.2.7)<br>*Start up should be done at above -30°C<br>Less than 95%RH(Non-condensing)   | -40° C~+55° C (-40° F ~+131° F) /<br>+74° C(+165° F) (MAX) based on NEMA-TS 2<br>(2.2.7)<br>* Start up should be done at above -30° C<br>Less than 95%RH(Non-condensing) | -40° C~+55° C (-40° F ~+131° F) /<br>+74° C(+165° F) (MAX) based on NEMA-TS 2<br>(2.2.7)<br>* Start up should be done at above -30° C<br>Less than 95%RH(Non-condensing) | -40° C~+55° C (-40° F ~+131° F) /<br>+74° C(+165° F) (MAX) based on NEMA-TS 2<br>(2.2.7)<br>* Start up should be done at above -30° C<br>Less than 95%RH(Non-condensing) | -40° C~+55° C (-40° F ~+131° F) /<br>+74° C(+165° F) (MAX) based on NEMA-TS 2<br>(2.2.7)<br>* Start up should be done at above -30° C<br>Less than 95%RH(Non-condensing) |
| Certification                     | IP66, IP67, IK 10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)  | IP66, IK 10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)   | IP66, IK 10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)   | IP66, IK 10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)   | IP66, IK 10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)   |
| Power Consumption                 | HPoE: Max 62W, typical 23W  | Typical 26W, Max 46W   | Typical 24W, Max 40W   | Typical 24W, Max 25.5W   | Typical 26W, Max 46W   |
| Dimensions (WxHxD) / Weight       | Ø 188x264.9mm(Ø 7.40x10.47")<br>4,400g (9.7lb)  | Ø 184.9x318.8mm(7.28x12.55")<br>5,600g (12.34lb)   | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)   | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)   | Ø 184.9x318.8mm (7.28x12.55")<br>5,600g (12.34lb)  |
| Additional Features               | Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus  | Upgraded preset accuracy, Object auto tracking, Target lock tracking   | Upgraded preset accuracy, Object auto tracking, Target lock tracking   | Upgraded preset accuracy, Object auto tracking, Target lock tracking   | Upgraded preset accuracy, Object auto tracking, Target lock tracking   |

AI PTZ Plus



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

AI PTZ Plus



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

AI PTZ Plus



**XNP-C7310R**  
4MP 31x AI PTZ Camera

AI PTZ Plus



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

AI PTZ Plus



**XNP-C6403R**  
2MP 40x AI PTZ Camera

AI PTZ Plus



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

|                                   |   |  |  |   |   |   |
|-----------------------------------|---|--|--|---|---|---|
| Imaging Device                    | 1/2.8" CMOS   | 1/2.8" CMOS  | 1/1.8" CMOS  | 1/2.8" CMOS   | 1/2.8" CMOS   | 1/2.8" CMOS   |
| Resolution / Max. Frame Rate      | 6MP / 30fps   | 6MP / 30fps  | 4MP / 60fps  | 2MP / 60fps   | 2MP / 60fps   | 2MP / 60fps   |
| Min. Illumination                 | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)   | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0.01Lux (F1.6, 1/30sec)   | Color: 0.04Lux (F1.36, 1/30sec, 30IRE)<br>B/W: 0Lux (IR LED on)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec)  |
| Video Output                      | -   | -  | -  | -   | -   | -   |
| Focal Length                      | 5~125mm (25x) zoom<br>(digital 32x, total 800x zoom)  | 5~125mm (25x) zoom<br>(digital 32x, total 800x zoom)   | 6.91~214.7mm (31x) zoom (digital<br>32x, total 992x zoom)  | 4.25~170mm (40x) zoom<br>(digital 32x, total 1280x zoom)  | 4.25~170mm (40x) zoom<br>(digital 32x, total 1280x zoom)  | 4.25~170mm (40x) zoom<br>(digital 32x, total 1280x zoom)  |
| Angular Field of View             | H: 57.42° (Wide)~2.71° (Tele)<br>V: 33.54° (Wide)~1.55° (Tele)  | H: 57.42° (Wide)~2.71° (Tele)<br>V: 33.54° (Wide)~1.55° (Tele)   | H: 59.4° (Wide)~2.54° (Tele)<br>V: 35.8° (Wide)~1.49° (Tele)   | H: 65.66° (Wide)~1.88° (Tele)<br>V: 39.4° (Wide)~1.09° (Tele)   | H: 65.66° (Wide)~1.88° (Tele)<br>V: 39.4° (Wide)~1.09° (Tele)   | H: 65.66° (Wide)~1.88° (Tele)<br>V: 39.4° (Wide)~1.09° (Tele)   |
| Pan / Tilt / Rotate               | 0° ~360° / -20° ~90°  |  |  |   |   |   |
| IR Viewable Length                | Wise IR 200m(656.17ft)  | -  | WiseIR 300m(984ft)   | Wise IR 200m (656.17ft)   | Wise IR 200m (656.17ft)   | -   |
| Day & Night                       | Auto (ICR)/Color/BW/Schedule  |  |  |   |   |   |
| Wide Dynamic Range                | extremeWDR (120dB)  | extremeWDR (120dB)   | extremeWDR (120dB)   | extremeWDR (150dB)  | extremeWDR (150dB)  | extremeWDR (150dB)  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |  |  |   |   |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |  |  |   |   |   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support Detection Shot</b><br/> <b>Analytics events based on AI engine:</b> Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events:</b> Motion detection, Tampering, Fog detection, Audio detection, Sound classification(with NW I/O Box: SPM-4210), Shock detection, Virtual area(Appear/Disappear)</p> |  |  |   |   |   |
| Business Intelligence             | -   |  |  |   |   |   |
| Alarm I/O                         | Compatible with NW I/O Box(Optional: SPM-4210)  |  |  |   |   |   |
| Audio I/O                         |   |  |  |   |   |   |
| Video Compression                 | H.265/H.264, MJPEG  |  |  |   |   |   |
| WiseStream                        | Manual (Sea area), WiseStream II, WiseStream III(Based on AI engine)  |  |  |   |   |   |
| Streaming                         | Up to 10 profiles   |  |  |   |   |   |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)  |  |  |   |   |   |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI (HTTP API)<br>Wisenet open platform  |  |  |   |   |   |
| Operating Temperature             | -40° C~+55° C (-40° F~+131° F) /<br>+74° C(+165° F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing)  | -40° C~+55° C (-40° F~+131° F) /<br>+74° C(+165° F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing) | Normal: -50° C~+55° C<br>(-58° F~+131° F) / +74° C(165° F)(MAX)<br>based on NEMA-TS-2(2.2.7)<br>*Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing) | -40° C~+55° C (-40° F~+131° F) /<br>+74° C(+165° F) (MAX)<br>based on NEMA-TS 2(2.2.7)<br>* Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing) | -40° C~+50° C (-40° F~+122° F) /<br>+74° C(+165° F) (MAX)<br>based on NEMA-TS 2(2.2.7)<br>* Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing) | -40° C~+50° C (-40° F~+122° F) /<br>+74° C(+165° F) (MAX)<br>based on NEMA-TS 2(2.2.7)<br>* Start up should be done at above<br>-30° C<br>Less than 95%RH(Non-condensing) |
| Certification                     | IP66, IK10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)   | IP66, IK10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)  | IP66, IP67, IK10, NEMA4X,<br>NEMA-TS 2 (2.2.8, 2.2.9)  | IP66, IK10, NEMA4X,<br>NEMA-TS 2(2.2.8, 2.2.9)  | IP66, IK10, NEMA4X,<br>NEMA-TS 2(2.2.8, 2.2.9)  | IP66, IK10, NEMA4X,<br>NEMA-TS 2(2.2.8, 2.2.9)  |
| Power Consumption                 | Typical 24W, Max 40W  | Typical 24W, Max 25.5W   | HPoE: Max 62W, typical 23W   | Typical 26W, Max 46W  | Typical 24W, Max 40W  | Typical 24W, Max 25.5W  |
| Dimensions (WxHxD) / Weight       | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)  | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)   | Ø 188x264.9mm (Ø 7.40x10.47") /<br>4,400g (9.7lb)  | Ø 184.9x318.8mm (7.28x12.55")<br>5,600g (12.34lb)   | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)  | Ø 158x293.3mm (6.22x11.55")<br>3,200g (7.05lb)  |
| Additional Features               | Upgraded preset accuracy, Object auto tracking, Target lock tracking  | Upgraded preset accuracy, Object auto tracking, Target lock tracking   | Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus   | Upgraded preset accuracy, Object auto tracking, Target lock tracking  | Upgraded preset accuracy, Object auto tracking, Target lock tracking  | Upgraded preset accuracy, Object auto tracking, Target lock tracking  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



**PNO-A9311R**  
4K AI IR Bullet Camera



**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   |   |   |  |  |   |
| Resolution / Max. Frame Rate      | 8MP/30fps   |   |   |  |  |   |
| Min. Illumination                 | Color: 0.075Lux(F1.36, 1/30sec, 30IRE)<br>BW: 0.0075Lux(F1.36, 1/30sec, 30IRE),<br>0Lux(IR LED on)  | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0.005Lux(F1.6, 1/30sec),<br>0Lux(IR LED on)                    | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0.005Lux(F1.6, 1/30sec),<br>0Lux(IR LED on)                    | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0.005Lux(F1.6, 1/30sec),<br>0Lux(IR LED on)               | Color: 0.05Lux(F1.6, 1/30sec)<br>BW: 0.005Lux(F1.6, 1/30sec),<br>0Lux(IR LED on)               | Color: 0.03Lux(F1.2, 1/30sec)<br>B/W : 0.003Lux(F1.2, 1/30sec)        |
| Video Output                      | CVBS: 1.0 Vp-p, Micro USB Type B  |   |   |  |  |   |
| Focal Length                      | 6.91~214.7mm (31x) motorized<br>varifocal   | 4.5~10mm(2.2x) motorized<br>varifocal   | 4.5~10mm(2.2x) motorized<br>varifocal   | 4.5~10mm (2.2x) motorized<br>varifocal   | 4.5~10mm (2.2x) motorized<br>varifocal   | -   |
| Angular Field of View             | H: 60.92° (Wide)~2.2° (Tele) /<br>V: 35.26° (Wide)~1.24° (Tele) /<br>D: 69.18° (Wide)~2.52° (Tele)  | H: 101.4° (Wide)~45.5° (Tele)<br>V: 53.6° (Wide)~25.5° (Tele)<br>D: 120.7° (Wide)~52.3° (Tele)      | H: 101.4° (Wide)~45.5° (Tele)<br>V: 53.6° (Wide)~25.5° (Tele)<br>D: 120.7° (Wide)~52.3° (Tele)      | H: 101.4° (Wide)~45.5° (Tele)<br>V: 53.6° (Wide)~25.5° (Tele)<br>D: 120.7° (Wide)~52.3° (Tele) | H: 101.4° (Wide)~45.5° (Tele)<br>V: 53.6° (Wide)~25.5° (Tele)<br>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                | WiseIR 70m(229.66ft)  | WiseIR 30m(98.42ft)   | WiseIR 30m(98.42ft)   | WiseIR 30m(98.42ft)  | WiseIR 30m(98.42ft)  | -   |
| Day & Night                       | Auto(ICR)   |   |   |  |  |   |
| Wide Dynamic Range                | 120dB   | -   | -   | -  | -  | -   |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |   |   |  |  |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |   |   |  |  |   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Color)<br/> <b>Support BestShot per object</b><br/> <b>Analytics events based on AI engine</b><br/>                     - Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&amp;Fall detection<br/> <b>Analytics events</b> - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear) <b>Support WiseDetector for Adding custom objects</b></p> |   |   |  |  |   |
| Business Intelligence             | Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap  |   |   |  |  |   |
| Alarm I/O                         | 1/1   |   |   |  |  |   |
| Audio I/O                         | Line in / Line out  |   |   |  |  |   |
| Video Compression                 | H.265, H.264, MJPEG   |   |   |  |  |   |
| WiseStream                        | Manual(Sea area), WiseStream II, WiseStream III (using AI engine)   |   |   |  |  |   |
| Streaming                         | Up to 6 profiles  | Up to 6 profiles  | Up to 6 profiles  | Unicast(6 users) / Multicast<br>Multiple streaming(Up to 6 profiles)                           | Unicast(6 users) / Multicast<br>Multiple streaming(Up to 6 profiles)                           | Unicast(6 users) / Multicast<br>Multiple streaming(Up to 6 profiles)  |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slot Max. 512GB(256GBx2)  |   |   |  |  |   |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform<br>- WiseAI application included (Analytic based on AI, Business intelligence)   |   |   |  |  |   |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F) /<br>Less than 90% RH<br>* Start up should be done<br>at above -30°C   | -50°C ~ +55°C (-58°F ~ +131°F) /<br>Less than 90% RH<br>* Start up should be done<br>at above -30°C | -50°C ~ +55°C (-58°F ~ +131°F) /<br>Less than 90% RH<br>* Start up should be done<br>at above -30°C | -25°C ~ +50°C (-13°F ~ +122°F) /<br>Less than 90% RH   | -25°C ~ +50°C (-13°F ~ +122°F) /<br>Less than 90% RH   | -10°C ~ +55°C (+14°F ~ +131°F) /<br>Less than 90% RH                  |
| Certification                     | IP66, IP67, IK10, NEMA4X  | IP66, IP67, IK10, NEMA4X  | IP66, IP67, IP6K9K, IK10+, NEMA4X   | IP52, IK10   | IP52, IK10, Plenum rate  | -   |
| Power Consumption                 | PoE+: Max 25.5W, typical 14.0W<br>12VDC: Max 24.0W, typical 12.7W   | PoE+: Max 20W, typical 17W<br>12VDC: Max 18W, typical 16W   | PoE+: Max 20W, typical 17W<br>12VDC: Max 18.7W, typical 15W   | PoE+: Max 20W, typical 16W<br>12VDC: Max 17.7W, typical 14W                                    | PoE+: Max 20W, typical 16W<br>12VDC: Max 17.7W, typical 14W                                    | PoE+: Max 16.50W, typical 12.50W<br>12VDC: Max 13.50W, typical 10.80W |
| Dimensions (WxHxD) / Weight       | Ø136.2x358.7mm<br>(Ø5.36" x 14.12")<br>(Without sunshield), 3200g(7.05lb)   | Ø91.0x368.6mm (3.58" x 14.51")<br>(Without sunshield),<br>Weight : 2.48Kg (5.47lb)                  | Ø180x125mm(7.09x4.92"),<br>Weight : 1.90Kg(4.19lb)  | Ø160 x 125mm(Ø6.3" x 4.92")<br>1.6kg (3.53lb)  | Ø205 x 163mm<br>(Ø8.07" x 6.42")<br>1.95kg(4.30lb)   | W 73.1 x H 66.6 x D 147.8mm<br>700g (1.54lb)                          |
| Additional Features               | AI : BestShot, Attributes (Person, Vehicle, Face, License plate)  |   |   |  |  |   |





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



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



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



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



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

|                                   |   |  |  |  |  |  |
|-----------------------------------|---|--|--|--|--|--|
| Imaging Device                    | 1/2" CMOS   |  | 1/2" CMOS  |  | 1/2" CMOS  |  |
| Resolution / Max. Frame Rate      | 2MP / 120fps  |  | 2MP / 120fps   |  | 2MP / 120fps   |  |
| Min. Illumination                 | Color: 0.007Lux(F1.3, 1/30sec, 30IRE)<br>B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE),<br>0Lux(IR LED on), 30/25fps  |  | Color: 0.007Lux(F1.3, 1/30sec, 30IRE)<br>B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE),<br>0Lux(IR LED on), 30/25fps                             |  | Color: 0.007Lux(F1.3, 1/30sec, 30IRE)<br>B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE),<br>0Lux(IR LED on), 30/25fps                             |  |
| 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                      | 4.38 ~ 9.33mm (2.13x) motorized varifocal   |  | 4.38 ~ 9.33mm (2.13x) motorized varifocal  |  | 4.38 ~ 9.33mm (2.13x) motorized varifocal  |  |
| Angular Field of View             | H:103.1° (Wide)~44.5° (Tele) /<br>V:54.2° (Wide)~24.9° (Tele) /<br>D:124° (Wide)~51.1° (Tele)   |  | H:103.1° (Wide)~44.5° (Tele) /<br>V:54.2° (Wide)~24.9° (Tele) /<br>D:124° (Wide)~51.1° (Tele)  |  | H:103.1° (Wide)~44.5° (Tele) /<br>V:54.2° (Wide)~24.9° (Tele) /<br>D:124° (Wide)~51.1° (Tele)  |  |
| Pan / Tilt / Rotate               | -   |  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   |  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   |  |
| IR Viewable Length                | WiseIR 40m(131.23ft)  |  | WiseIR 40m(131.23ft)   |  | WiseIR 40m(131.23ft)   |  |
| Day & Night                       | Auto (ICR)  |  | Auto (ICR)   |  | Auto (ICR)   |  |
| Wide Dynamic Range                | 120dB   |  | 120dB  |  | 120dB  |  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V  |  |  |  |  |  |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |  | Support (built-in gyro sensor)   |  | Support (built-in gyro sensor)   |  |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/> <b>Attributes:</b> Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Color)<br/> <b>Support BestShot per object</b><br/> <b>Analytics events based on AI engine</b><br/>                     - Object detection, Virtual line*(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, Social distancing detection, Slip&amp;Fall detection<br/> <b>Analytics events</b> - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) <b>Support WiseDetector for Adding custom objects</b></p> |  |  |  |  |  |
| Business Intelligence             | Based on AI engine : People counting, Queue management, Heatmap   |  | Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap   |  | Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap   |  |
| Alarm I/O                         | 1/1   |  | 1/1  |  | 1/1  |  |
| Audio I/O                         | 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   |  |
| WiseStream                        | Manual(Sea area), WiseStream II, WiseStream III (using AI engine)   |  |  |  |  |  |
| Streaming                         | Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)   |  | Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)  |  | Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)  |  |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slots 512GB   |  |  |  |  |  |
| Application Programming Interface | ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)  |  | ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence) |  | ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence) |  |
| Operating Temperature             | -50°C ~ +55°C(-58° F ~ +131° F) / Less than 90% RH<br>* Start up should be done at above -30°C  |  | -40°C ~ +55°C(-40° F ~ +131° F) / Less than 90% RH<br>* Start up should be done at above -30°C   |  | -25°C ~ +50°C (-13° F ~ +122° F) / Less than 90% RH  |  |
| Certification                     | IP66, IP67, IK10, NEMA4X  |  | IP66, IP67, IP6K9K, IK10+, NEMA4X  |  | IP52, IK10, Plenum rate  |  |
| Power Consumption                 | PoE+: Max 19.50W, typical 16.00W<br>12VDC: Max 17.00W, typical 13.50W   |  | PoE+: Max 19.50W, typical 16.00W<br>12VDC: Max 17.00W, typical 13.50W  |  | PoE+: Max 19.50W, typical 16.00W<br>12VDC: Max 17.00W, typical 13.50W  |  |
| Dimensions (WxHxD) / Weight       | Ø91x 368.6mm(3.58" x 14.51")<br>(Without sunshield) 2.48kg (5.47lb)   |  | Ø180x125mm(7.09x4.92"),<br>Weight : 1.90Kg (4.19lb) TBD  |  | Ø205 x 163mm (Ø8.07" x 4.92")<br>1.95kg (4.30lb)   |  |
| 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)   |  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



**PNM-C34404RQPZ**  
4K 4CH PTRZ + 2MP 40x PTZ AI Camera



**PNM-C16083RVQ**  
4MP x 4CH AI Camera



**PNM-C32083RVQ**  
4K x 4CH AI Camera

| Imaging Device                    | 1/2.8" CMOS x 4CH   | 1/2.8" CMOS x 1CH PTZ   | 1/2.8" CMOS x 4CH   | 1/2.8" CMOS x 4CH   |
|-----------------------------------|---|---|---|---|
| Resolution / Max. Frame Rate      | [AI On] 8MP Max. 15fps [AI Off] 8MP Max. 20 fps   | 2MP / 60fps   | 4MP / 30fps   | [AI On] 8MP Max. 15fps [AI Off] 8MP Max. 20fps  |
| Min. Illumination                 | Color: 0.1Lux(F1.5, 1/30sec, 30IRE)<br>BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)   | Color: 0.05Lux(F1.6, 1/30sec, 30IRE)<br>BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)   | Color: 0.075Lux(F1.5, 1/30sec, 30IRE)<br>BW: 0.0075Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)   | Color: 0.1Lux(F1.5, 1/30sec, 30IRE)<br>BW: 0.01Lux(F1.5, 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  |
| Focal Length                      | 3.3~5.7mm(1.7x) motorized varifocal   | 4.25~170mm(40x) zoom(digital 32x, total 1280x zoom)   | 3.3~5.7mm(1.7x) motorized varifocal   | 3.3~5.7mm(1.7x) motorized varifocal   |
| Angular Field of View             | H: 109° (Wide)~56° (Tele)<br>V: 55° (Wide)~31° (Tele)<br>D: 136° (Wide)~65° (Tele)  | H: 65.66° (Wide)~1.88° (Tele)<br>V: 39.40° (Wide)~1.09° (Tele)  | H: 99.8° (Wide)~53.0° (Tele)<br>V: 53.8° (Wide)~30.7° (Tele)<br>D: 124.3° (Wide)~61.8° (Tele)   | H: 108.3° (Wide)~56.4° (Tele)<br>V: 54.7° (Wide)~31.2° (Tele)<br>D: 135.5° (Wide)~65.2° (Tele)                                    |
| Pan / Tilt / Rotate               | 0° ~360° / 9° ~65° / 0° ~90°<br>* Tilt angle with Shield IR: 40° ~65°   | 0° ~360° / -20° ~90°  | 0~360° / 0~73° / 0~90°  | 0~360° / 0~73° / 0~90°  |
| IR Viewable Length                | 20m (65.62ft)   | WiseIR 200m (656.17ft)  | WiseIR 15m(49.21ft)   | WiseIR 15m(49.21ft)   |
| Day & Night                       | Auto (ICR)  |   | Auto(ICR)   | Auto (ICR)  |
| Wide Dynamic Range                | 120dB   | extremeWDR (150dB)  | 120dB   | 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  |
| Digital Image Stabilization       | -   | Support   | -   | -   |
| Analytics                         | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/><b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/><b>Support BestShot</b><br/><b>Analytics events based on AI engine</b><br/>:Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/><b>Analytics events</b><br/>: Defocus detection, Motion detection, Tampering, Virtual area(Appear/Disappear)</p> | <p><b>Analytics events:</b> Motion detection, Fog detection, Tampering, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Virtual line(Crossing/Direction)<br/>Support Audio detection, Sound classification via optional I/O box (SPM-4210)</p> | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/><b>Attributes:</b> Vehicle (Type: car/bus/truck/motorcycle/bicycle)<br/><b>Support BestShot</b><br/><b>Analytics events based on AI engine</b><br/>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/><b>Analytics events</b><br/>- Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)</p> |   |
| Business Intelligence             | -   | -   | -   | -   |
| Alarm I/O                         | -   | -   | 2 configurable I/O ports<br>* Support extra alarm I/O via optional SPM-4210 I/O box   | 2 configurable I/O ports<br>* Support extra alarm I/O via optional SPM-4210 I/O box   |
| Audio I/O                         | -   | -   | 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  |
| WiseStream                        | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine)  |   | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine)  | Manual(5ea area), WiseStream II, WiseStream III (Based on AI engine)  |
| Streaming                         | Unicast(10 users) / Multicast Multiple streaming (Up to 3 profiles)   | Unicast(20 users) / Multicast Multiple streaming (Up to 10 profiles)  | Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel)  | Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel)  |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slot 1TB(512GBx2)   |   | Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)  | Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)  |
| Application Programming Interface | ONVIF Profile S/T SUNAPI (HTTP API)<br>Wisenet open platform  |   | ONVIF Profile S/T SUNAPI(HTTP API)<br>Wisenet open platform   | ONVIF Profile S/T SUNAPI(HTTP API)<br>Wisenet open platform   |
| Operating Temperature             | -40°C~-50°C(-40°F~+122°F)<br>* Start up should be done at above -30°C 0~95% RH(non-condensing)  |   | -40°C~+55°C(-40°F~+131°F)<br>* Start up should be done at above -35°C<br>0~95% RH(non-condensing)<br>Humidity control /w Air vent   | -40°C~+55°C(-40°F~+131°F)<br>* Start up should be done at above -35°C<br>0~95% RH(non-condensing)<br>Humidity control /w Air vent |
| Certification                     | IP66, IK10, NEMA4X  |   | IP66, IK10, NEMA4X  | IP66, IK10, NEMA4X  |
| Power Consumption                 | HPoE: Max 64.00W, typical 45.00W  |   | PoE+: Max 25.5W, typical 22.0W<br>PoE++: Max 33.0W, typical 22.0W   | PoE+: Max 25.5W, typical 22.0W<br>PoE++: Max 33.0W, typical 22.0W   |
| Dimensions (WxHxD) / Weight       | Ø 140x110.2mm(Ø 5.51x4.34"), 875g(1.93 lb)  |   | Ø 250x114.2mm(Ø 9.84x4.50"), 2730g(6.02 lb)   | Ø 250x114.2mm(Ø 9.84x4.50"), 2800g(6.17 lb)   |



**PNM-C16013RVQ**  
4MP x 4CH AI Camera



**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

|                                   |  |  |   |  |
|-----------------------------------|--|--|---|--|
| Imaging Device                    | 1/2.8" CMOS x 4CH  | 1/2.8" CMOS x 2CH  | 1/2.8" CMOS x 2CH   | 1/2.8" CMOS x 4CH  |
| Resolution / Max. Frame Rate      | 4MP/15fps  | 6MP / 15fps  | 2MP / 30fps   | 2MP / 20fps x 4CH  |
| Min. Illumination                 | Color: 0.05Lux(F1.2, 1/30sec, 30IRE)<br>BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)  | Color: 0.16Lux (F1.67, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.035Lux(F2.2, 1/30sec, 30IRE)<br>BW: 0.0035lux(F2.2, 1/30sec, 30IRE), 0lux(IR LED on) | Color: 0.1Lux (F2.0, 1/30sec)<br>BW: 0.01Lux (F2.0, 1/30sec), 0Lux (IR LED on)                 |
| Video Output                      | USB: Micro USB Type B, 2592x1520 for installation  | Micro USB Type B   | Micro USB Type B  | Micro USB Type B   |
| Focal Length                      | 3.19mm fixed focal   | 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: 97°<br>V: 54°<br>D: 116°  | H: 96° (Wide) ~ 47° (Tele)<br>V: 51° (Wide) ~ 26° (Tele)<br>D: 113° (Wide) ~ 54° (Tele)  | H: 107° (Wide) ~ 56° (Tele)<br>V: 57° (Wide) ~ 31° (Tele)<br>D: 126° (Wide) ~ 64° (Tele)      | H: 209° , V: 60°   |
| Pan / Tilt / Rotate               | 0~360° (100° per CH) / 0~75° / 0~90°   | 0° ~ 355° / 0° ~ 78° / 0° ~ 180°   | 0° ~ 355° / 0° ~ 78° / 0° ~ 180°  | 0° ~ 360° / 0° ~ 65° / -   |
| IR Viewable Length                | 20m(65.62ft)   | 25m (82ft)   | 25m (82ft)  | 20m (65.62ft)  |
| Day & Night                       | Auto (ICR)   | Auto (ICR)   | Auto (ICR)  | Auto (ICR)   |
| Wide Dynamic Range                | 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 Stabilization       | -  |  |   |  |
| Analytics                         | <p><b>Classified object type:</b><br/>Person/Face/Vehicle/License plate</p> <p><b>Attributes:</b> Vehicle<br/>(Type: Car/Bus/Truck/Motorcycle/Bicycle)</p> <p><b>Support Detection shot</b></p> <p><b>Analytics events based on AI engine</b><br/>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</p> <p><b>Analytics events</b> - Motion detection, Tampering, Virtual area(Appear/Disappear)<br/>Audio detection, Sound classification (with NW I/O box SPM-4210)</p> | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate</p> <p><b>Attributes:</b> Vehicle(Type: car/bus/truck/motorcycle/bicycle)</p> <p><b>Support BestShot</b></p> <p><b>Analytics events based on AI engine</b><br/>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</p> <p><b>Analytics events</b> - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear)</p> |   |  |
| Business Intelligence             | -  |  |   |  |
| Alarm I/O                         | 2 configurable I/O ports<br>* Support extra alarm I/O via optional SPM-4210I/O box   | * Support Alarm via optional SPM-4210I/O box   | * Support Alarm via optional SPM-4210I/O box  | 2 configurable I/O ports   |
| Audio I/O                         | Selectable(mic in/line in) / -   | * 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   |  |   |  |
| WiseStream                        | Manual(5ea area), WiseStream II , WiseStream III (Based on AI engine)  | WiseStream II , WiseStream III (Based on AI engine)  | Manual(5ea area), WiseStream II , WiseStream III (Based on AI engine)                         | Manual(5ea area), WiseStream II , WiseStream III (Based on AI engine)                          |
| Streaming                         | Up to 4 profiles per channel   | Unicast (10 users) / Multicast 5 profiles per channel  | Unicast (10 users) / Multicast 5 profiles per channel   | Unicast(20 users) / Multicast Multiple streaming (Up to 3 profiles, 2 virtual channel support) |
| Edge Storage                      | Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2)   | 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/M<br>SUNAPI(HTTP API) Wisenet open platform  | ONVIF Profile S/T<br>SUNAPI (HTTP API) Open platform   | ONVIF Profile S/T<br>SUNAPI(HTTP API) Open platform   | ONVIF Profile S/G/T/M<br>SUNAPI (HTTP API) Wisenet open platform                               |
| Operating Temperature             | -40°C~+55°C(-40° F~+131°F)<br>* Start up should be done at above -35°C<br>0~95% RH(non-condensing), Humidity control /w AIR vent   | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% 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, NEMA4X, IK09   | IP66, IP67, NEMA4X, IK 10  | IP66, IP67, NEMA4X, IK 10   | IP66, IK 10, NEMA4X  |
| Power Consumption                 | -  | PoE+: Max 21W, typical 16.5W   | PoE+: Max 20W, typical 15.5W  | PoE+: Max 24.5W, typical 11.3W<br>12VDC: Max 22.0W, typical 10.4W<br>Power redundancy failover |
| Dimensions (WxHxD) / Weight       | Ø200x80mm(7.87x3.15"), 1,380g(3.05 lb)   | W 215 x H 135 x D 93.2mm (8.46"x5.31"x3.67")1.33kg (2.93lb)  | W 215 x H 135 x D 93.2mm (8.46"x5.31"x3.67") 1.33kg (2.93lb)                                  | Ø253x170mm (Ø9.96"x6.69")2.9kg (6.39lb)  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION





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



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



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

|                                   |  |   |   |
|-----------------------------------|--|---|---|
| Imaging Device                    | 1/2.8" CMOS  |   |   |
| Resolution / Max. Frame Rate      | 8MP / 30fps  | 5MP / 30fps   | 8MP / 30fps   |
| Min. Illumination                 | Color: 0.06Lux (F1.6, 1/30sec)<br>B/W: 0.006Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)  | Color: 0.07Lux (F1.6, 1/30sec)<br>B/W: 0.007Lux (F1.6, 1/30sec, 30ire), 0Lux(IR LED on)   | Color: 0.06Lux (F1.6, 1/30sec)<br>B/W: 0.006Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)                                       |
| Video Output                      | USB: Micro USB Type B, 1280x720 for installation   |   |   |
| Focal Length                      | 3.2~10.2mm (3.2x) motorized varifocal  |   |   |
| Angular Field of View             | H: 104° (wide)~31° (tele)<br>V: 55° (wide)~17° (tele)<br>D: 124° (wide)~35° (tele)   | H: 95° (wide)~29° (tele)<br>V: 69° (wide)~21° (tele)<br>D: 126° (wide)~36° (tele)   | H: 104° (wide)~31° (tele)<br>V: 55° (wide)~17° (tele)<br>D: 124° (wide)~35° (tele)  |
| Pan / Tilt / Rotate               | 0° ~360° / 0° ~100° / 0° ~360°   | 0° ~360° / 0° ~100° / 0° ~360°  | 0° ~350° / -35° ~70° / 0° ~355°   |
| IR Viewable Length                | 30m(98.42ft)   |   |   |
| Day & Night                       | Auto (ICR)   |   |   |
| Wide Dynamic Range                | 120db  |   |   |
| Digital Noise Reduction           | WiseNR II(Based on AI engine), SSNR V  |   |   |
| Digital Image Stabilization       | -  |   |   |
| Analytics                         | <p><b>Classified object type</b> : Person/Vehicle<br/> <b>Attributes</b> : Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine</b> : Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events</b> : Defocus detection, Tampering, Virtual area(Appear/Disappear)</p> |   |   |
| Business Intelligence             | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap   |   |   |
| Alarm I/O                         | Input 1ea / Output 1ea   | Input 1ea / Output 1ea  | Input 1ea / Output 1ea<br>* Alarm I/O is supported through an optional cable (SPP-C7400)                                      |
| Audio I/O                         | Selectable(mic in/line in) / Line out  | Selectable(mic in/line in) / Line out   | Selectable(mic in/line in) / Line out<br>* Audio I/O is supported through an optional cable (SPP-C7400)                       |
| Video Compression                 | H.265/H.264, MJPEG   |   |   |
| WiseStream                        | Manual(5ea area), WiseStream III (Based on AI engine)  |   |   |
| Streaming                         | Up to 5 profiles   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC 1 slot 256GB  |   |   |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI(HTTP API)  |   |   |
| Operating Temperature             | -30°C~+55°C(-22°F~+131°F) /<br>0~95% RH(non-condensing)<br>* Start up should be done at above -30°C<br>Humidity control /w Air vent  | -30°C~+55°C(-22°F~+131°F) /<br>0~95% RH(non-condensing)<br>* Start up should be done at above -30°C<br>Humidity control /w Air vent | -40°C~+55°C(-40°F~+131°F) /<br>0~95% RH<br>* Start up should be done at above -30°C<br>Humidity control /w Air vapor control" |
| Certification                     | IP66, IK10   |   |   |
| Power Consumption                 | PoE: Max 12W, typical 5.3W   | PoE: Max 12W, typical 5.3W  | PoE: Max 12.95W, typical 5.3W   |
| Dimensions (WxHxD) / Weight       | ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb)  | ø 93.4x245.8mm(ø 3.68x9.68"), 930g(2.05 lb)   | ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93 lb)  |



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



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



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



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

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Imaging Device                    | 1/2.8" CMOS  |  |  |  |
| Resolution / Max. Frame Rate      | 5MP / 30fps  | 8MP / 30fps  | 5MP / 30fps  | 5MP / 30fps  |
| Min. Illumination                 | Color: 0.07Lux (F1.6, 1/30sec)<br>B/W: 0.007Lux (F1.6, 1/30sec, 30IRE), 0lux(IR LED on)  | Color: 0.03Lux (F1.6, 1/30sec)<br>B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)                                      | Color: 0.03Lux (F1.6, 1/30sec)<br>B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0lux(IR LED on)                                      | Color: 0.05Lux (F2.0, 1/30sec)<br>BW: 0.005Lux (F2.0, 1/30sec, 30IRE)  |
| Video Output                      | USB: Micro USB Type B, 1280x720 for installation   |  |  |  |
| Focal Length                      | 3.2~10.2mm (3.2x) motorized varifocal  | 3.0mm fixed focal  | 3.0mm fixed focal  | 2.4mm fixed focal  |
| Angular Field of View             | H: 95° (wide)~29° (tele)<br>V: 69° (wide)~21° (tele)<br>D: 126° (wide)~36° (tele)  | H: 108° / V: 59° / D: 127°   | H: 100° / V: 73° / D: 129°   | H: 123° / V: 91° / D: 159°   |
| Pan / Tilt / Rotate               | 0° ~350° / -35° ~70° / 0° ~355°  |  |  |  |
| IR Viewable Length                | 30m(98.42ft)   | 20m(65.62ft)   | 20m(65.62ft)   | -  |
| Day & Night                       | Auto (ICR)   |  |  |  |
| Wide Dynamic Range                | 120db  |  |  |  |
| Digital Noise Reduction           | WiseNR II (Based on AI engine), SSNR V   |  |  |  |
| Digital Image Stabilization       | -  |  |  |  |
| Analytics                         | <p><b>Classified object type</b> : Person/Vehicle<br/> <b>Attributes</b> : Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/> <b>Support DetectionShot</b><br/> <b>Analytics events based on AI engine</b> : Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events</b> : Defocus detection, Tampering, Virtual area(Appear/Disappear)</p> |  |  |  |
| Business Intelligence             | Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap   |  |  |  |
| Alarm I/O                         | Input 1ea / Output 1ea<br>* Alarm I/O is supported through an optional cable (SPP-C7400)   | -  | -  | -  |
| Audio I/O                         | Selectable(mic in/line in) / Line out<br>* Audio I/O is supported through an optional cable (SPP-C7400)  | -  | -  | -  |
| Video Compression                 | H.265/H.264, MJPEG   |  |  |  |
| WiseStream                        | Manual(Sea area), WiseStream III (Based on AI engine)  |  |  |  |
| Streaming                         | Up to 5 profiles   |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC 1slot 256GB   |  |  |  |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI(HTTP API)  |  |  |  |
| Operating Temperature             | -30°C~+55°C(-22°F~+131°F) /<br>0~95% RH(non-condensing)<br>* Start up should be done at above -30°C<br>Humidity control /w Air vent  | -40°C~+55°C(-40°F~+131°F) /<br>0~95% RH<br>* Start up should be done at above -30°C<br>Humidity control /w Air vapor control | -40°C~+55°C(-40°F~+131°F) /<br>0~95% RH<br>* Start up should be done at above -30°C<br>Humidity control /w Air vapor control | -40°C~+55°C(-40°F~+131°F) /<br>0~95% RH<br>* Start up should be done at above -30°C<br>Humidity control /w Air vapor control |
| Certification                     | IP66, IK10   | IP66, IK10, NEMA4X   | IP66, IK10, NEMA4X   | IP66, IK10, NEMA4X   |
| Power Consumption                 | PoE: Max 12.95W, typical 5.3W  | PoE: Max 8.5W, typical 4.9W  | PoE: Max 8.5W, typical 4.9W  | PoE: Max 7W, typical 4.9W  |
| Dimensions (WxHxD) / Weight       | φ 140x110.2mm(φ 5.51x4.34"), 875g(1.93lb)  | φ 110x77mm(φ 4.33x3.03"), 522g(1.15lb)   | φ 110x77mm(φ 4.33x3.03"), 522g(1.15lb)   | φ 110x77mm(φ 4.33x3.03"), 522g(1.15lb)   |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



**TNO-C3030TRA**  
QVGA AI Thermal Radiometry Camera



**TNO-C3020TRA**  
QVGA AI Thermal Radiometry Camera



**TNO-C3010TRA**  
QVGA AI Thermal Radiometry Camera

|                                   |   |   |  |
|-----------------------------------|---|---|--|
| Imaging Device                    | Uncooled micro bolometer(17 $\mu$ m)  |   |  |
| Resolution / Max. Frame Rate      | 384 x 288 (can be scaled up to 768 x 576) / 8fps  |   |  |
| Min. Illumination                 | -   |   |  |
| Video Output                      | USB: Micro USB Type B, 768x576 for installation   |   |  |
| Focal Length                      | 9.7mm fixed focal   | 6.6mm fixed focal                             | 4.4mm fixed focal                              |
| Angular Field of View             | H: 37.9° / V: 28.7° / D: 46.7° (iFoV: 1.8 mRad)   | H: 60° / V: 43.8° / D: 77.8° (iFoV: 2.6 mRad) | H: 90° / V: 65.3° / D: 118.6° (iFoV: 3.9 mRad) |
| Pan / Tilt / Rotate               | 0° ~350° / 0° ~90° / 0° ~350°   |   |  |
| IR Viewable Length                | -   |   |  |
| Day & Night                       | -   |   |  |
| Wide Dynamic Range                | -   |   |  |
| Digital Noise Reduction           | -   |   |  |
| Digital Image Stabilization       | -   |   |  |
| Analytics                         | <p><b>Classified object type:</b> Person/Vehicle<br/> <b>Support BestShot</b><br/> <b>Analytics events based on AI engine</b><br/>                     - WiseMD, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br/> <b>Analytics events</b><br/>                     - Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</p> |   |  |
| Business Intelligence             | Support (Temperature Analysis)  |   |  |
| 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   |   |  |
| WiseStream                        | Manual(Sea area), WiseStream II, WiseStream III (Based on AI engine)  |   |  |
| Streaming                         | Up to 10profiles  |   |  |
| Edge Storage                      | Micro SD/SDHC/SDXC 1slot Max. 1TB   |   |  |
| Application Programming Interface | ONVIF Profile S/G/T/M<br>SUNAPI(HTTP API) Wisenet open platform   |   |  |
| Operating Temperature             | -40°C~+60°C(-40°F~+140°F)<br>0~95% RH(non-condensing)   |   |  |
| Certification                     | IP66, IK10, NEMA4X  |   |  |
| Power Consumption                 | PoE: Max 10.8W, typical 9W<br>12VDC: Max 9.4W, typical 7.7W   |   |  |
| Dimensions (WxHxD) / Weight       | $\phi$ 93.8x233.5mm( $\phi$ 3.69x9.19"), 1700g(3.75lb)  |   |  |
| Additional Features               | Radiometry 10 polygonal ROI zones,<br>Temperature detection -40~550 °C  |   |  |





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



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

| Imaging Device                    | Thermal   | Visible  | Thermal   | Visible  |
|-----------------------------------|---|--|---|--|
|                                   | VGA Uncooled micro bolometer (12μm)   | 1/1.8" CMOS  | VGA Uncooled micro bolometer (12μm)   | 1/1.8" CMOS  |
| Resolution / Max. Frame Rate      | 640 x 480 (can be scaled up to 1280 x 960) / 30fps  | 8MP / 30fps  | 640 x 480 (can be scaled up to 1280 x 960) / 30fps  | 8MP / 30fps  |
| Min. Illumination                 | -   | Color: 0.06Lux (F1.7, 1/30sec)<br>BW: 0.005Lux (F1.7, 1/30sec)   | -   | Color: 0.06Lux (F1.7, 1/30sec)<br>BW: 0.005Lux (F1.7, 1/30sec)   |
| Video Output                      | USB: Micro USB Type B, 1280x720 for installation  |  | USB: Micro USB Type B, 1280x720 for installation  |  |
| 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)<br>V: 22.8° (Wide) ~ 8.4° (Tele)<br>D: 48.7° (Wide) ~ 17.1° (Tele)  | H: 31.9° / V: 24.2° / D: 39.5°  | H: 42° (Wide) ~ 15° (Tele)<br>V: 22.8° (Wide) ~ 8.4° (Tele)<br>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           | -   | WiseNR II, SSNR V  | -   | WiseNR II, SSNR V  |
| Digital Image Stabilization       | -   | Support (built-in gyro sensor)   | -   | Support (built-in gyro sensor)   |
| Analytics                         | <p><b>Classified object type:</b> Person/Vehicle<br/><b>Support BestShot</b></p> <p><b>Analytics events based on AI engine</b></p> <ul style="list-style-type: none"> <li>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</li> </ul> <p><b>Analytics events</b></p> <ul style="list-style-type: none"> <li>- Motion detection</li> </ul> | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/><b>Attributes:</b> Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/><b>Support BestShot</b></p> <p><b>Analytics events based on AI engine</b></p> <ul style="list-style-type: none"> <li>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</li> </ul> <p><b>Analytics events</b></p> <ul style="list-style-type: none"> <li>- Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</li> </ul> | <p><b>Classified object type:</b> Person/Vehicle<br/><b>Support BestShot</b></p> <p><b>Analytics events based on AI engine</b></p> <ul style="list-style-type: none"> <li>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</li> </ul> <p><b>Analytics events</b></p> <ul style="list-style-type: none"> <li>- Motion detection</li> </ul> | <p><b>Classified object type:</b> Person/Face/Vehicle/License plate<br/><b>Attributes:</b> Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br/><b>Support BestShot</b></p> <p><b>Analytics events based on AI engine</b></p> <ul style="list-style-type: none"> <li>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)</li> </ul> <p><b>Analytics events</b></p> <ul style="list-style-type: none"> <li>- Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)</li> </ul> |
| Business Intelligence             | Vehicle counting  |  | Vehicle counting  |  |
| 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  |  |
| 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<br>SUNAPI (HTTP API)<br>Wisenet open platform (visible channel only)  |  | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Wisenet open platform (visible channel only)  |  |
| Operating Temperature             | -40°C ~ +60°C (-58°F ~ +140°F)<br>* Start up should be done at above -30°C<br>0~95% RH (non-condensing)   |  | -40°C ~ +60°C (-58°F ~ +140°F)<br>* Start up should be done at above -30°C<br>0~95% 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)  |  |
| Power Consumption                 | PoE+: Max 23.5W<br>12VDC: Max 19.5W   |  | PoE+: Max 23.5W<br>12VDC: Max 19.5W   |  |
| Dimensions (WxHxD) / Weight       | W 353.4 x H 287.5 x D 191.2mm<br>(13.92" x 11.32" x 7.53")<br>4.53kg (9.99lb)   |  | W 353.4 x H 287.5 x D 191.2mm<br>(13.92" x 11.32" x 7.53")<br>4.53kg (9.99lb)   |  |



**TNM-C4940TD**

Bi-spectrum AI Thermal Camera



**TNM-C4942TDR**

Bi-spectrum AI Radiometry Thermal Camera

| Imaging Device                    | Thermal   |                                    | Visible   |                                  |
|-----------------------------------|---|------------------------------------|---|----------------------------------|
|                                   |   | VGA Uncooled micro bolometer(12μm) |   | 1/1.8" CMOS                      |
| Resolution / Max. Frame Rate      | 640 x 480 (can be scaled up to 1280 x 960) / 30fps  |                                    | 8MP/ 30fps  |                                  |
| Min. Illumination                 | -   |                                    | Color: 0.06Lux(F1.3, 1/30sec)<br>BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)   |                                  |
| Video Output                      | USB: Micro USB Type B, 1280x720 for installation  |                                    |   |                                  |
| Focal Length                      | 9.1mm fixed focal   |                                    | 4.4~9.3mm (2.2x) motorized varifocal  |                                  |
| Angular Field of View             | H: 50.0° / V: 37.0° / D: 63.8°  |                                    | H: 112.1° (Wide)~47.5° (Tele)<br>V: 58° (Wide)~26.6° (Tele)<br>D: 137.5° (Wide)~54.6° (Tele)  |                                  |
| IR Viewable Length                | -   |                                    | 30m (98.42ft)   |                                  |
| Day & Night                       | -   |                                    | Auto (ICR)  |                                  |
| Wide Dynamic Range                | -   |                                    | WDR (120dB)   |                                  |
| Digital Noise Reduction           | -   |                                    | WiseNR II, SSNR V   |                                  |
| Digital Image Stabilization       | -   |                                    | Support (built-in gyro sensor)  |                                  |
| Analytics                         | <b>Classified object type:</b> Person/Vehicle<br><b>Support BestShot</b><br><b>Analytics events based on AI engine</b><br>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br><b>Analytics events</b><br>- Motion detection |                                    | <b>Classified object type:</b> Person/Face/Vehicle/License plate<br><b>Attributes:</b> Vehicle(Type:car/bus/truck/motorcycle/bicycle)<br><b>Support BestShot</b><br><b>Analytics events based on AI engine</b><br>- Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit)<br><b>Analytics events</b><br>- Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) |                                  |
| Business Intelligence             | Vehicle counting  |                                    | Temperature Analysis  |                                  |
| 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  |                                  |
| WiseStream                        | WiseStream II   | WiseStream III                     | WiseStream II   | Manual(Sea area), 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<br>SUNAPI (HTTP API)<br>Wisenet open platform (visible channel only)  |                                    | ONVIF Profile S/T/M<br>SUNAPI(HTTP API)<br>Wisenet open platform (visible channel only)   |                                  |
| Operating Temperature             | -40°C ~ +60°C (-58°F ~ +140°F)<br>* Start up should be done at above -30°C<br>0~95% RH (non-condensing)   |                                    | -40°C ~ +60°C (-58°F ~ +140°F)<br>* Start up should be done at above -30°C<br>0~95% 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)  |                                  |
| Power Consumption                 | PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W  |                                    | PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W  |                                  |
| 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)   |                                  |
| Additional Features               | -   |                                    | Radiometry 6 polygonal ROI zones (TBD), Temperature detection -20 ~ 130°C   |                                  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION



**TNB-9000**  
8K Box Camera



**TNV-C7013RC**  
AI Corner Mount Camera

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Imaging Device                    |  | 43.3mm Full-frame CMOS   | 1/1.8" progressive CMOS  |
| Resolution / Max. Frame Rate      |  | 8K/15fps   | 3MP / 30fps  |
| Min. Illumination                 |  | Color: 0.015Lux (F1.4)<br>BW: 0.0015Lux (F1.4)   | Color: 0.04Lux(F2.0, 1/30sec, 30IRE)<br>BW: 0.04Lux(F2.0, 1/30sec, 30IRE), 0Lux(IR LED on)   |
| Video Output                      |  | HDMI   | -  |
| Focal Length                      |  | -  | 2.39mm fixed focal   |
| Angular Field of View             |  | Canon 24mm, H: 57.4°<br>Canon 35mm, H: 42.6°<br>Canon 50mm, H: 30.9°<br>Canon 85mm, H: 19.1°<br>Canon 100mm, H: 16°<br>Canon 70-200mm, H: 22.8° ~ 8° | H: 128° / V: 100°  |
| IR Viewable Length                |  | -  | Wise IR 15m (49.21ft), invisible 940nm wavelength  |
| Day & Night                       |  | Auto (ICR)   | Auto (ICR)   |
| Wide Dynamic Range                |  | -  | extremeWDR (120dB)   |
| Digital Noise Reduction           |  | SSNR V   | WiseNR II (Based on AI engine), SSNR V   |
| Digital Image Stabilization       |  | -  | Support  |
| Analytics                         |  | Intelligent analytics,<br>Audio detection,<br>Sound classification   | <b>Classified object type</b> : Person/Face/Vehicle/License plate<br><b>Support DetectionShot</b><br><b>Analytics events based on AI engine</b><br>: Object detection, Virtual line(Crossing/Direction),<br>Virtual area(Loitering/Intrusion/Enter/Exit)<br><b>Analytics events</b><br>: Defocus detection, Motion detection, Tampering,<br>Audio detection, Sound classification,<br>Virtual area(Appear/Disappear),<br>Clothes color detection (Orange/Black/Red, @400lux) |
| Business Intelligence             |  | -  | -  |
| Alarm I/O                         |  | 1 / 1  | 2 configurable I/O ports<br>* Support Alarm via optional SPM-4210 I/O box  |
| Audio I/O                         |  | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out   |
| Video Compression                 |  | H.265/H.264, MJPEG   |  |
| WiseStream                        |  | Manual(Sea area), WiseStream II  | Manual(Sea area), WiseStream II,<br>WiseStream III (Based on AI engine)  |
| Streaming                         |  | Up to 3 Profiles   | Up to 10 profiles, 3 virtual channel support   |
| Edge Storage                      |  | micro SD/SDHC/SDXC   | Micro SD/SDHC/SDXC 1slot 1TB   |
| Application Programming Interface |  | ONVIF Profile S/G/T<br>SUNAPI  | ONVIF Profile S/G/T/M<br>SUNAPI(HTTP API) Wisenet open platform  |
| Operating Temperature             |  | 0°C ~ +45°C<br>(32°F ~ +122°F)   | -10°C ~ +55°C (14°F ~ +131°F)<br>0~95% RH(non-condensing) Humidity control /w AIR vent   |
| Certification                     |  | EMC  | IP66, IP6K9K, IK 10+   |
| Power Consumption                 |  | PoE: Max 30W, typical 20W / 12VDC: Max 26W, typical 18W  | PoE: Max 12.95W, typical 9.7W / DC: Max 12.7W, typical 9.0W  |
| Dimensions (WxHxD) / Weight       |  | W120 x H118.1 x D179mm, 2.1Kg(4.55 lb)   | W198.3 x H104.8 x D198.6mm(7.87" x 4.13" x 7.82"),<br>1,935g (4.27lb)  |
| Additional Features               |  | Super high resolution, Canon EF mount  | -  |

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION





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



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



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



**TNO-7180RPL**  
3MP License Plate Capture Camera

|                                   |  |                         |   |                         |   |                                  |  |  |
|-----------------------------------|--|-------------------------|---|-------------------------|---|----------------------------------|--|--|
| Imaging Device                    | 1/1.8" CMOS  |                         | 1/1.8" CMOS   |                         | 1/1.8" CMOS   |                                  | 1/1.8" CMOS, Global Shutter  |  |
| Resolution / Max. Frame Rate      | 8MP / 30fps  |                         | 8MP / 30fps   |                         | 8MP / 30fps   |                                  | 3MP / 55fps  |  |
| Min. Illumination                 | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED on)   |                         | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec), 0Lux (IR LED on)            |                         | Color: 0.03Lux (F1.2, 1/30sec)<br>B/W: 0.003Lux (F1.2, 1/30sec)   |                                  | Color 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, Micro USB Type B                                  |                                  | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation<br>USB: Micro USB Type B, 1280x720 for installation  |  |
| Focal Length                      | 4.5~10mm (2.2x) motorized varifocal  |                         | 4.5~10mm (2.2x) motorized varifocal   |                         | -   |                                  | 6.8~120mm (18x) motorized varifocal  |  |
| Angular Field of View             | H:101.4° (Wide)~45.5° (Tele)<br>V:53.6° (Wide)~25.5° (Tele)<br>D:120.7° (Wide)~52.3° (Tele)            |                         | H:101.4° (Wide)~45.5° (Tele)<br>V:53.6° (Wide)~25.5° (Tele)<br>D:120.7° (Wide)~52.3° (Tele) |                         | -   |                                  | H: 54.5° (Wide)~3.4° (Tele)<br>V: 42.3° (Wide)~2.5° (Tele)   |  |
| Pan / Tilt / Rotate               | -  |                         | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  |                         | -   |                                  | -  |  |
| IR Viewable Length                | 30m (98.42ft)  |                         | 30m (98.42ft)   |                         | -   |                                  | WiseIR 50m (164ft)   |  |
| Day & Night                       | Auto (ICR)   |                         | Auto (ICR)  |                         | Auto (ICR)  |                                  | Auto (ICR)   |  |
| Wide Dynamic Range                | -  |                         | -   |                         | -   |                                  | -  |  |
| Digital Noise Reduction           | SSNR V   |                         | SSNR V  |                         | SSNR V  |                                  | SSNR V   |  |
| Digital Image Stabilization       | Stabilization Support (built-in gyro sensor)   |                         | Stabilization Support (built-in gyro sensor)  |                         | Stabilization Support (built-in gyro sensor)                      |                                  | Support  |  |
| Analytics                         | Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection |                         |   |                         |   |                                  | Analytics events<br>- Motion detection, Tampering, Virtual Line(Crossing/Direction), Virtual Area(Loitering/Intrusion/Enter/Exit, Appear/Disappear)  |  |
| Business Intelligence             | -  |                         | -   |                         | -   |                                  | -  |  |
| Alarm I/O                         | 1/1  |                         | 1/1   |                         | 1/1   |                                  | 4 configurable I/O ports   |  |
| Audio I/O                         | Selectable (mic in/line in/built-in mic) / Line out  |                         | Line in / Line out  |                         | Line in / Line out  |                                  | Selectable (mic in/line in) / Line out   |  |
| Video Compression                 | H.265 / H.264, MJPEG   |                         |   |                         |   |                                  |  |  |
| WiseStream                        | Manual(Sea area), WiseStream II  |                         | Manual(Sea area), WiseStream II   |                         | Manual(Sea area), WiseStream II                                   |                                  | WiseStream II  |  |
| Streaming                         | Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)                                      |                         |   |                         |   |                                  | Up to 10 Profiles  |  |
| Edge Storage                      | Pre-installed with 32GB Micro SD to support 10,000 LPR images  |                         |   |                         |   |                                  | Micro SD/SDHC/SDXC 1 slot (32GB Card preinstalled)   |  |
| Application Programming Interface | ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform   |                         |   |                         |   |                                  | ONVIF Profile S/G/T SUNAPI(HTTP API)<br>Wisenet open platform v3.60  |  |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F) / 0~90% RH<br>* Start up should be done at above -30°C                  |                         | -40°C ~ +55°C (-40°F ~ +131°F) / 0~90% RH<br>* Start up should be done at above -30°C       |                         | -10°C ~ +55°C (+14°F ~ +131°F) /<br>Less than 90% RH              |                                  | Normal: -40°C ~ +55°C (-40°F ~ +131°F) /<br>Intermittent: -40°C ~ +60°C (-40°F ~ +140°F)<br>Cold start: -40°C Maximum Temperature based on NEMA-TS 2(2.2.7):<br>+74°C (+165°F) Less than 95% RH (Non-condensing) |  |
| Certification                     | IP66, IP67, IK10, NEMA4X   |                         | IP66, IP67, IP6K9K, IK10+, NEMA4X   |                         | -   |                                  | IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9)   |  |
| Power Consumption                 | PoE+: Max 20W, typical 17W<br>12VDC: Max 18W, typical 16W  |                         | PoE+: Max 20W, typical 17W<br>12VDC: Max 18.7W, typical 15W                                 |                         | PoE+: Max 16.5W, typical 12.5W<br>12VDC: Max 13.5W, typical 10.8W |                                  | PoE: Max 50W, Typical 27W<br>12VDC: Max 47.5W, Typical 25W   |  |
| Dimensions (WxHxD) / Weight       | Ø91 x 368.6mm (Ø3.58" x 14.51")<br>(Without sunshield) 2.48kg (5.47lb)                                 |                         | Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19lb)  |                         | W 81 x H 67 x D 165mm<br>(3.19" x 2.64" x 6.48") 880g (1.94lb)    |                                  | 186.9(W) x 259.3(H) x 293.7(D) (mm) / 4.8kg (10.5lb)   |  |
|                                   | <b>Road AI</b>   |                         | <b>Road AI</b>  |                         | <b>Road AI</b>  |                                  | <b>Road AI</b>   |  |
| Solution                          | Community Traffic Observation  | Parking Application     | Community Traffic Observation   | Parking Application     | City Traffic  | City Traffic Observation         | Highways   |  |
| Speed Description                 | Moderate Speed   | Low speed               | Moderate Speed  | Low speed               | Regular Speed   | Regular Speed                    | High 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   | Up to 2 lanes                    | Up to 2 lanes  |  |
| Speed limit                       | Up to 70kmh (45mph)  | Up to 70kmh (45mph)     | Up to 70kmh (45mph)   | Up to 40kmh (25mph)     | Up to 100kmh (65mph)  | Up to 120kmh (75mph) for 2 lanes | Up to 200kmh (125mph) for 2 lanes  |  |
| Min. Forward Distance             | 12m (38ft)   | 10m (33ft)              | 12m (38ft)  | 10m (33ft)              | 16m (52ft)  | 16m (52ft)                       | 27m (90ft)   |  |
| Max. Forward Distance             | 12m (40ft)   | 13m (45ft)              | 12m (40ft)  | 13m (45ft)              | 36m (120ft)   | 46m (150ft)                      | 46m (150ft)  |  |
| Max. Horizontal Angle             | 25°  | 30°                     | 25°   | 30°                     | 25°   | 25°                              | 15°  |  |
| Max. Vertical Angle               | 25°  | 30°                     | 25°   | 30°                     | 25°   | 25°                              | 15°  |  |
| Horizontal Offset                 | Up to 5m (18ft)  | Up to 7m (24ft)         | Up to 5m (18ft)   | Up to 7m (24ft)         | Up to 7m (24ft)   | Up to 7m (24ft)                  | Up to 4m (12ft)  |  |
| Camera Height                     | Up to 5m (18ft)  | Up to 7m (24ft)         | Up to 5m (18ft)   | Up to 7m (24ft)         | Up to 7m (24ft)   | Up to 11m (39ft)                 | Up to 11m (39ft)   |  |
| Vehicle Recognition               | Make : 70+ / Model : 600+ / Color : 11   |                         | Make : 70+ / Model : 600+ / Color : 11  |                         | Make : 70+ / Model : 600+ / Color : 11                            |                                  | Make : 70+ / Model : 600+ / Color : 11   |  |



**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

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| Imaging Device                    | 1/2.8" CMOS  |   |  |  |  |
| Resolution / Max. Frame Rate      | 4K / 30fps   |   |  |  |  |
| Min. Illumination                 | Color: 0.05Lux (F1.2, 1/30sec)<br>B/W: 0Lux (IR LED On)  |   |  |  |  |
| 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   | 2.8 ~ 8.4mm (3x) motorized varifocal   | -  |
| Angular Field of View             | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele)                           | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele)            | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele) | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>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)   |   |  |  |  |
| Wide Dynamic Range                | extremeWDR (120dB)   |   |  |  |  |
| Digital Noise Reduction           | SSNR V   |   |  |  |  |
| Digital Image Stabilization       | 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   |   |  |  |  |
| Alarm I/O                         | 2 configurable I/O ports   |   |  |  |  |
| Audio I/O                         | Selectable (mic in/line in) /<br>Line out  | Selectable (mic in/line in) /<br>Line out   | Selectable (mic in/line in) /<br>Line out  | Selectable (mic in/line in/Built-in mic) /<br>Line out   | Selectable (mic in/line in/Built-in mic)<br>Supply voltage: 2.5VDC (4mA),<br>Input impedance: 2K Ohm |
| Video Compression                 | H.265 / H.264, MJPEG   |   |  |  |  |
| WiseStream                        | WiseStream II  |   |  |  |  |
| Streaming                         | Up to 10 profiles  |   |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |   |  |  |  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API) Wisenet open platform   |   |  |  |  |
| Operating Temperature             | -50°C ~ +60°C (-58°F ~ +140°F) /<br>0~95% RH (non condensing)<br>* Start up should be done at above -30°C                | -50°C ~ +60°C (-58°F ~ +140°F) /<br>0~95% RH (non condensing)<br>* Start up should be done at above -30°C | -25°C ~ +60°C (-13°F ~ +140°F) /<br>0~95% RH (non condensing)                                  | -25°C ~ +60°C (-13°F ~ +140°F) /<br>0~95% RH (non condensing)                                  | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~95% RH (non condensing)  |
| Certification                     | IP66, IP67, IK 10, NEMA4X  | IP66, IP67, IP6K9K, IK 10+, NEMA4X  | IP52, Plenum rate, IK 10   | IP52, IK 10  | -  |
| Power Consumption                 | PoE: Max 12.95W, typical 10.5W<br>12VDC: Max 12.5W, typical 9.4W<br>24VAC: Max 14.5W, typical 11.2W                      | PoE: Max 12.95W, typical 10.5W<br>12VDC: Max 12.5W, typical 9.4W<br>24VAC: Max 14.5W, typical 11.2W       | PoE: Max 12.95W, typical 10.7W<br>12VDC: Max 11.5W, typical 9W                                 | PoE: Max 12.95W, typical 10.7W<br>12VDC: Max 11.5W, typical 9W                                 | PoE: Max 12.95W, typical 8.2W<br>12VDC: Max 11.5W, typical 7.5W<br>24VAC: Max 13.5W, typical 8.9W    |
| Dimensions (WxHxD) /<br>Weight    | Ø91 x 368.6mm (Ø3.85" x 14.51")<br>2.2kg (4.85lb)  | Ø180 x 125mm (Ø7.09" x 4.92")<br>1.9kg (4.18lb)   | Ø205 x 163mm (Ø8.07" x 6.42")<br>1.95kg (4.29lb)   | Ø160 x 125mm (Ø6.3" x 4.92")<br>1.6kg (3.52lb)   | W81 x H67 x D165mm(3.19" x 2.64" x 6.48")<br>880g (1.94lb)   |
| Additional Features               | UL CAP, Secure by Default  |   |  |  |  |



**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  |   |  |  |   |
| Resolution / Max. Frame Rate      | 6MP / 30fps  |   |  |  |   |
| Min. Illumination                 | Color: 0.05Lux (F1.2, 1/30sec)<br>B/W: 0Lux (IR LED On)  | Color: 0.05Lux (F1.2, 1/30sec)<br>B/W: 0Lux (IR LED On)   | Color: 0.05Lux (F1.2, 1/30sec)<br>B/W: 0Lux (IR LED On)  | Color: 0.05Lux (F1.2, 1/30sec)<br>B/W: 0Lux (IR LED On)  | Color: 0.05Lux (F1.2, 1/30sec)<br>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   | 2.8 ~ 8.4mm (3x) motorized varifocal   | -   |
| Angular Field of View             | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele)                             | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele)            | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>D: 133° (Wide) ~ 46.3° (Tele) | H: 114° (Wide) ~ 40.2° (Tele)<br>V: 62° (Wide) ~ 22.5° (Tele)<br>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)   |   |  |  |   |
| Wide Dynamic Range                | extremeWDR   |   |  |  |   |
| Digital Noise Reduction           | SSNR V   |   |  |  |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)   |   |  |  |   |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification, Audio Playback<br>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) /<br>Line out  | Selectable (mic in/line in/Built-in mic) /<br>Line out  | Selectable (mic in/line in/Built-in mic) /<br>Line out   | Selectable (mic in/line in/Built-in mic) /<br>Line out   | Selectable (mic in/line in/Built-in mic) /<br>Line out  |
| Video Compression                 | H.265 / H.264, MJPEG   |   |  |  |   |
| WiseStream                        | WiseStream II  |   |  |  |   |
| Streaming                         | Up to 10 profiles  |   |  |  |   |
| Edge Storage                      | micro SD/SDHC/SDXC   |   |  |  |   |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API) Wisenet open platform   |   |  |  |   |
| Operating Temperature             | -50°C ~ +60°C (-58°F ~ +140°F) /<br>0~95% RH (non condensing)<br>* Start up should be done at above -30°C                  | -50°C ~ +60°C (-58°F ~ +140°F) /<br>0~95% RH (non condensing)<br>* Start up should be done at above -30°C | -25°C ~ +60°C (-13°F ~ +140°F) /<br>0~95% RH (non condensing)                                  | -25°C ~ +60°C (-13°F ~ +140°F) /<br>0~95% RH (non condensing)                                  | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~95% 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<br>12VDC: Max 12.5W, typical 9.4W<br>24VAC: Max 14.5W, typical 11.2W                        | PoE: Max 12.95W, typical 10.7W<br>12VDC: Max 11.5W, typical 9W<br>24VAC: Max 13.5W, typical 11W           | PoE: Max 12.95W, typical 10.7W<br>12VDC: Max 11.5W, typical 9W                                 | PoE: Max 12.95W, typical 10.7W<br>12VDC: Max 11.5W, typical 9W                                 | PoE: Max 12.95W, typical 8.2W<br>12VDC: Max 11.5W, typical 7.5W<br>24VAC: Max 13.5W, typical 8.9W |
| Dimensions (WxHxD) /<br>Weight    | Ø91 x 368.6mm (Ø3.85" x 14.51")<br>2.2kg (4.85lb)  | Ø180 x 125mm (Ø7.09" x 4.92")<br>1.9kg (4.18lb)   | Ø205 x 163mm (Ø8.07" x 6.42")<br>1.95kg (4.29lb)   | Ø160 x 125mm (Ø6.3" x 4.92")<br>1.6kg (3.52lb)   | W81 x H67 x D165mm (3.19" x 2.64" x 6.48")<br>880g (1.94lb)                                       |
| Additional Features               | UL CAP, Secure by Default  |   |  |  |   |





**XND-8081VZ**  
SMP Dome Camera



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



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



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



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

|                                   |   |   |  |  |   |
|-----------------------------------|---|---|--|--|---|
| Imaging Device                    | 1/1.8" CMOS   |   |  |  |   |
| Resolution / Max. Frame Rate      | 5MP / 30fps   |   |  |  |   |
| Min. Illumination                 | Color : 0.07Lux (F1.2)<br>B/W : 0.007Lux (F1.2)   | Color : 0.07Lux (F1.2)<br>B/W : 0.007Lux (F1.2)   | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)   | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)   | Color : 0.07Lux (F1.2)<br>B/W : 0.007Lux (F1.2)   |
| Video Output                      | Micro USB Type B  | 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  |
| Focal Length                      | 3.6~9.4mm (2.6x)<br>motorized varifocal   | 3.6~9.4mm (2.6x)<br>motorized varifocal   | 3.9~9.4mm (2.4x)<br>motorized varifocal  | 3.9~9.4mm (2.4x)<br>motorized varifocal  | 3.6~9.4mm (2.6x)<br>motorized varifocal   |
| Angular Field of View             | H : 102.5° (Wide) ~ 38.7° (Tele)<br>V : 74.2° (Wide) ~ 29° (Tele)<br>D : 135.5° (Wide) ~ 48.6° (Tele) | H : 102.5° (Wide) ~ 38.7° (Tele)<br>V : 74.2° (Wide) ~ 29° (Tele)<br>D : 135.5° (Wide) ~ 48.6° (Tele) | H : 92.1° (Wide) ~ 38.7° (Tele)<br>V : 67.2° (Wide) ~ 29° (Tele)<br>D : 119.9° (Wide) ~ 48.6° (Tele) | H : 92.1° (Wide) ~ 38.7° (Tele)<br>V : 67.2° (Wide) ~ 29° (Tele)<br>D : 119.9° (Wide) ~ 48.6° (Tele) | H : 102.5° (Wide) ~ 38.7° (Tele)<br>V : 74.2° (Wide) ~ 29° (Tele)<br>D : 135.5° (Wide) ~ 48.6° (Tele) |
| Pan / Tilt / Rotate               | ± 175° / 0~85° / ± 175° (Remote)  | ± 175° / 0~85° / ± 175° (Remote)  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | ± 175° / 0~85° / ± 175° (Remote)  |
| IR Viewable Length                | -   | -   | 50m (164.04ft)   | 50m (164.04ft)   | -   |
| Day & Night                       | Auto (ICR)  |   |  |  |   |
| Wide Dynamic Range                | 120dB   |   |  |  |   |
| Digital Noise Reduction           | SSNR V  |   |  |  |   |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)  |   |  |  |   |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection         |   |  |  |   |
| Business Intelligence             | -   |   |  |  |   |
| Alarm I/O                         | 1 / 1   |   |  |  |   |
| Audio I/O                         | Selectable (mic in/line in),<br>Built-in mic / Line out   | Selectable (mic in/line in) / Line out  | Selectable (mic in/line in),<br>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  |   |  |  |   |
| WiseStream                        | WiseStream II   |   |  |  |   |
| 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<br>(-13°F ~ +140°F)   | -25°C ~ +60°C<br>(-13°F ~ +140°F)   | -25°C ~ +60°C (-13°F ~ +140°F) /<br>0~90% RH   | -25°C ~ +60°C<br>(-13°F ~ +140°F)  | -50°C ~ +60°C<br>(-58°F ~ +140°F)<br>* Start up above -35°C (-31°F)                                   |
| Certification                     | IP52, IK10  | IP52, Plenum rate   | IP52, IK10   | IP52, Plenum rate  | IP67, IP66, IP6K9K, IK10+, NEMA4X   |
| Power Consumption                 | PoE : Max 11W<br>12VDC : Max 9W   | PoE : Max 11W<br>12VDC : Max 9W   | PoE : Max 12.95W<br>12VDC : Max 11.7W  | PoE : Max 12.95W<br>12VDC : Max 11.7W  | PoE : Max 12.3W<br>12VDC : Max 10W<br>24VAC : Max 12.3W   |
| Dimensions (WxHxD) / Weight       | Ø 160 x 125mm (Ø6.3" x 4.92")<br>1.45kg (3.20lb)  | Ø 205 x 155mm (Ø8.07" x 6.1")<br>1.85kg (4.08lb)  | Ø 160 x 125mm (Ø6.3" x 4.92")<br>1.45kg (3.20lb)   | Ø 205 x 155mm (Ø8.07" x 6.1")<br>1.8kg (3.97lb)  | Ø 180 x 125mm (Ø7.1" x 4.9")<br>1.75kg (3.86lb)   |
| Additional Features               | Modular structure,<br>Motorized PTRZ, Anti dust   | Modular structure,<br>Motorized PTRZ, Anti dust   | Modular structure, Anti dust   | Modular structure, Anti dust   | Modular structure, Motorized PTRZ   |



**XNV-8081R**  
5MP IR Vandal Dome Camera



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



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



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

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Imaging Device                    | 1/1.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  |
| Resolution / Max. Frame Rate      | 5MP / 30fps  | 2MP / 60fps  | 2MP / 60fps  | 2MP / 60fps  |
| Min. Illumination                 | Color: 0.07Lux (F1.3)<br>BW: 0Lux (IR LED)   | Color: 0.015Lux (F1.4)<br>B/W: 0.0015Lux (F1.4)  | Color: 0.015Lux (F1.4)<br>B/W: 0.0015Lux (F1.4)  | Color: 0.015Lux (F1.4)<br>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   | Micro USB type B   |
| Focal Length                      | 3.9~9.4mm (2.4x)<br>motorized varifocal  | 2.8~12mm (4.3x)<br>motorized varifocal   | 2.8~12mm (4.3x)<br>motorized varifocal   | 2.8~12mm (4.3x)<br>motorized varifocal   |
| Angular Field of View             | H: 92.1° (Wide)~38.7° (Tele)<br>V: 67.2° (Wide)~29° (Tele)<br>D: 119.9° (Wide)~48.6° (Tele)      | H: 119.5° (Wide)~27.9° (Tele)<br>V: 62.8° (Wide)~15.7° (Tele)<br>D: 142.1° (Wide)~32° (Tele) | H: 119.5° (Wide)~27.9° (Tele)<br>V: 62.8° (Wide)~15.7° (Tele)<br>D: 142.1° (Wide)~32° (Tele) | H: 119.5° (Wide)~27.9° (Tele)<br>V: 62.8° (Wide)~15.7° (Tele)<br>D: 142.1° (Wide)~32° (Tele) |
| Pan / Tilt / Rotate               | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | ± 175° / 0° ~ 85° / ± 175° (Remote)  |
| IR Viewable Length                | 50m (164.04ft)   | -  | -  | -  |
| Day & Night                       | Auto (ICR)   |  |  |  |
| Wide Dynamic Range                | 120dB  | 150dB  | 150dB  | 150dB  |
| Digital Noise Reduction           | SSNR V   |  |  |  |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   | Support (Built-in Gyro sensor)   | Support (Built-in Gyro sensor)   | Support  |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification,<br>Audio Playback, Shock detection |  |  |  |
| Business Intelligence             | -  |  |  |  |
| Alarm I/O                         | 1 / 1  |  |  |  |
| Audio I/O                         | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in),<br>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   |  |  |  |
| WiseStream                        | WiseStream II  |  |  |  |
| Streaming                         | Up to 10 Profiles  |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |  |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  |  |  |  |
| Operating Temperature             | -50°C ~ +60°C<br>(-58°F ~ +140°F)<br>* Start up above -35°C (-31°F)                              | -25°C ~ +60°C<br>(-13°F ~ +140°F)  | -25°C ~ +60°C<br>(-13°F ~ +140°F)  | -25°C ~ +60°C<br>(-13°F ~ +140°F)  |
| Certification                     | IP67, IP66, IP6K9K, IK10+, NEMA4X  | IP52, IK10   | IP52, Plenum rate  | IP52, Plenum rate  |
| Power Consumption                 | PoE: Max 12.95W<br>12VDC: Max 11.7W<br>24VAC: Max 14.9W  | PoE: Max 7W<br>12VDC: Max 5.4W   | PoE: Max 7W<br>12VDC: Max 5.4W   | PoE: Max 10W<br>12VDC: Max 8.5W  |
| Dimensions (WxHxD) / Weight       | Ø 180 x 125mm (Ø7.1" x 4.9")<br>1.75kg (3.86lb)  | Ø 160 x 125mm<br>(Ø6.3" x 4.92")<br>1.45kg (3.2lb)   | Ø 205 x 155mm<br>(Ø8.07" x 6.1")<br>1.8kg (3.97lb)   | Ø 205 x 155mm<br>(Ø8.07" x 6.1")<br>1.85kg (4.08lb)  |
| Additional Features               | Modular structure  | Modular structure,<br>Anti dust  | Modular structure,<br>Anti dust  | Modular structure,<br>Motorized PTRZ, Anti dust  |



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



**XND-6081RF**  
2MP Flush Mount IR Dome Camera



**XNV-6081Z**  
2MP Vandal Dome Camera



**XNV-6081R**  
2MP IR Vandal Dome Camera

|                                   |   |  |   |   |
|-----------------------------------|---|--|---|---|
| Imaging Device                    | 1/2.8" CMOS   |  |   |   |
| Resolution / Max. Frame Rate      | 2MP / 60fps   |  |   |   |
| Min. Illumination                 | Color : 0.015 Lux (F1.4)<br>B/W : 0Lux (IR LED on)  | Color : 0.015 Lux (F1.4)<br>B/W : 0Lux (IR LED on) | Color : 0.015lux (F1.4)<br>B/W : 0.0015Lux (F1.4)                   | Color : 0.015Lux (F1.4)<br>BW : 0Lux (IR LED)                       |
| Video Output                      | 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                                      |
| Focal Length                      | 2.8 ~ 12mm (4.3x) motorized varifocal   |  |   |   |
| Angular Field of View             | H : 119.5° (Wide) ~ 27.9° (Tele)<br>V : 62.8° (Wide) ~ 15.7° (Tele)<br>D : 142.1° (Wide) ~ 32° (Tele) |  |   |   |
| Pan / Tilt / Rotate               | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355                  | ± 175° / 0° ~ 85° / ± 175° (Remote)                                 | 0° ~ 360° / -45° ~ 85° / 0° ~ 355                                   |
| IR Viewable Length                | 50m (164.04ft)  | 50m (164.04ft)                                     | -   | 50m (164.04ft)  |
| Day & Night                       | Auto (ICR)  |  |   |   |
| Wide Dynamic Range                | 150dB   |  |   |   |
| Digital Noise Reduction           | SSNR V  |  |   |   |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)  |  |   |   |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification,<br>Audio Playback, Shock detection      |  |   |   |
| Business Intelligence             | -   |  |   |   |
| Alarm I/O                         | 1 / 1   |  |   |   |
| Audio I/O                         | Selectable (mic in/line in),<br>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                              |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |   |
| WiseStream                        | WiseStream II   |  |   |   |
| Streaming                         | Up to 10 Profiles   |  |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC  |  |   |   |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   |  |   |   |
| Operating Temperature             | -25°C ~ +60°C<br>(-13°F ~ +140°F)   | -25°C ~ +60°C<br>(-13°F ~ +140°F)                  | -50°C ~ +60°C<br>(-58°F ~ +140°F)<br>* Start up above -35°C (-31°F) | -50°C ~ +60°C<br>(-58°F ~ +140°F)<br>* Start up above -35°C (-31°F) |
| Certification                     | IP52, IK10  | IP52, Plenum rate                                  | IP67, IP66, IP6K9K, IK10+, NEMA4X                                   | IP67, IP66, IP6K9K, IK10+, NEMA4X                                   |
| Power Consumption                 | PoE : Max 12.95W<br>12VDC : Max 10.8W   | PoE : Max 12.95W<br>12VDC : Max 10.8W              | PoE : Max 11W<br>12VDC : Max 9.5W<br>24VAC : Max 11W                | PoE : Max 12.95W<br>12VDC : Max 10.8W<br>24VAC : Max 13.3W          |
| Dimensions (WxHxD) / Weight       | Ø 160 x 125mm<br>(Ø 6.3" x 4.92")<br>1.45kg (3.2lb)   | Ø 205 x 155mm (Ø 8.07" x 6.1")<br>1.8kg (3.97lb)   | Ø 180 x 125mm (Ø 7.1" x 4.9")<br>1.75kg (3.86lb)                    | Ø 180 x 125mm (Ø 7.1" x 4.9")<br>1.75kg (3.86lb)                    |
| Additional Features               | Modular design,<br>Anti dust  | Modular design, Anti dust                          | Modular structure, Motorized PTRZ                                   | Modular structure   |



**XNV-6081**  
2MP Vandal Dome Camera



**XNB-8000**  
5MP Box Camera



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



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

|                                   |   |   |  |  |
|-----------------------------------|---|---|--|--|
| Imaging Device                    | 1/2.8" CMOS   | 1/1.8" CMOS   | 1/1.8" CMOS  | 1/1.8" CMOS  |
| Resolution / Max. Frame Rate      | 2MP / 60fps   | 5MP / 30fps   | 5MP / 30fps  | 5MP / 30fps  |
| Min. Illumination                 | Color : 0.015 Lux (F1.4)<br>B/W : 0.0015 Lux (F1.4)   | Color : 0.07Lux (F1.2)<br>B/W : 0.007Lux (F1.2)                         | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)   | Color : 0.16Lux (F1.6)<br>B/W : 0Lux (IR LED on)                   |
| Video Output                      | CVBS 1.0Vp-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                      | 2.8 ~ 12mm (4.3x)<br>motorized varifocal  | -   | 3.7 ~ 9.4mm (2.5x)<br>motorized varifocal  | 3.7mm fixed (XNO-8020R)  |
| Angular Field of View             | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele)    | -   | H: 100.2° (Wide) ~ 38.7° (Tele)<br>V: 67.2° (Wide) ~ 29° (Tele)<br>D: 119.9° (Wide) ~ 48.6° (Tele) | H: 97.5° / V: 71.9° / D: 126.2° (XNO-8020R)                        |
| Pan / Tilt / Rotate               | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  | -   | -  | -  |
| IR Viewable Length                | -   | -   | 50m (164.04ft)   | 30m (98.43ft)  |
| Day & Night                       | Auto (ICR)  |   |  |  |
| Wide Dynamic Range                | 150dB   | 120dB   | 120dB  | 120dB  |
| Digital Noise Reduction           | SSNR V  |   |  |  |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)  | Support (Built-in Gyro sensor)  | Support  | Support  |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification<br>Audio Playback<br>Shock detection | Intelligent analytics<br>Audio detection<br>Sound classification        | Intelligent analytics<br>Audio detection<br>Sound classification                                   | Intelligent analytics<br>Audio detection<br>Sound classification   |
| Business Intelligence             | -   | -   | -  | People counting, Queue management, Heatmap                         |
| Alarm I/O                         | 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                             |
| Video Compression                 | H.265 / H.264, MJPEG  |   |  |  |
| WiseStream                        | WiseStream II   |   |  |  |
| Streaming                         | Up to 10 Profiles   |   |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC  |   |  |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   |   |  |  |
| Operating Temperature             | -50°C ~ +60°C<br>(-58°F ~ +140°F)<br>* Start up above -35°C (-31°F)                                   | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                       | -40°C ~ +55°C<br>(-40°F ~ +131°F)  | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) |
| Certification                     | IP67, IP66, IP6K9K, IK 10+, NEMA4X  | -   | IP67, IP66, NEMA4X, IK 10  | IP67, IP66, NEMA4X, IK 10  |
| Power Consumption                 | PoE: Max 7W<br>12VDC: Max 5.4W<br>24VAC: Max 7.1W   | PoE: Max 8.5W<br>12VDC: Max 7.5W<br>24VAC: Max 8.5W                     | PoE: Max 12.95W<br>12VDC: Max 12.5W<br>24VAC: Max 14.5W  | PoE: Max 10.3W<br>12VDC: Max 9.3W                                  |
| Dimensions (WxHxD) / Weight       | Ø 180 x 125mm (Ø 7.1" x 4.9")<br>1.45kg (3.20lb)  | W 73.1 x H 66.6 x D 147.8mm<br>(2.88" x 2.62" x 5.82")<br>420g (0.93lb) | Ø 91 x 368.6mm<br>(Ø 6.3" x 4.67")<br>2.18kg (4.81lb)  | Ø 70 x 296mm<br>(Ø 2.76" x 11.65")<br>1.22kg (2.69lb)              |
| Additional Features               | Modular structure   | Handover, Hallway View  | Handover, Hallway View   | Handover, Hallway View   |





**XND- /8080RV**  
SMP IR Dome Camera



**XND-8020R**  
SMP IR Dome Camera



**XND-8020F**  
SMP Flush Mount Dome Camera



**XNV-8080R**  
SMP IR Vandal Dome Camera

|                                   |   |  |  |   |
|-----------------------------------|---|--|--|---|
| Imaging Device                    | 1/1.8" CMOS   |  |  |   |
| Resolution / Max. Frame Rate      | 5MP / 30fps   |  |  |   |
| Min. Illumination                 | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)  | Color : 0.16Lux (F1.6)<br>B/W : 0Lux (IR LED on)                 | Color : 0.16Lux (F1.6)<br>B/W : 0.16Lux (F1.6)                   | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)  |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B  | CVBS 1.0Vp-p, Micro USB type B                                   | Micro USB type B   | CVBS 1.0Vp-p, Micro USB type B  |
| Focal Length                      | 3.9~9.4m (2.4x)<br>motorized varifocal  | 3.7mm fixed (XND-8020R)  | 3.7mm fixed  | 3.9~9.4mm (2.4x)<br>motorized varifocal   |
| Angular Field of View             | H: 92.1° (Wide) ~ 38.7° (Tele)<br>V: 67.2° (Wide) ~ 29° (Tele)<br>D: 119.9° (Wide) ~ 48.6° (Tele) | H: 97.5° / V: 71.9° / D: 126.2° (XND-8020R)                      | H: 97.5° / V: 71.9° / D: 126.2°                                  | H: 92.1° (Wide) ~ 38.7° (Tele)<br>V: 67.2° (Wide) ~ 29° (Tele)<br>D: 119.9° (Wide) ~ 48.6° (Tele) |
| Pan / Tilt / Rotate               | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°  | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°                                 | 0° ~ 355° / 0° ~ 47° / 0° ~ 353°                                 | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°  |
| IR Viewable Length                | 30m (98.43ft)   | 30m (98.43ft)  | -  | 50m (164.04ft)  |
| Day & Night                       | Auto (ICR)  | Auto (ICR)   | Auto (Electrical)  | Auto (ICR)  |
| Wide Dynamic Range                | 120dB   | 120dB  | -  | 120dB   |
| Digital Noise Reduction           | SSNR V  |  |  |   |
| Digital Image Stabilization       | Support   | Support (Built-in Gyro sensor)                                   | Support  | Support   |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification                                  | Intelligent analytics<br>Audio detection<br>Sound classification | Intelligent analytics<br>Audio detection<br>Sound classification | Intelligent analytics<br>Audio detection<br>Sound classification                                  |
| Business Intelligence             | -   | People counting,<br>Queue management, Heatmap                    | People counting,<br>Queue management, Heatmap                    | -   |
| Alarm I/O                         | 1 / 1   | 1 / 1  | -  | 1 / 1   |
| Audio I/O                         | Selectable (mic in/line in) / Line out  | Selectable (mic in/line in), Built-in mic / Line out             | Built-in mic / -   | Selectable (mic in/line in) / Line out  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |  |   |
| WiseStream                        | WiseStream II   |  |  |   |
| Streaming                         | Up to 10 Profiles   |  |  |   |
| Edge Storage                      | micro SD/SDHC/SDXC  |  |  |   |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform              | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform              | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   |
| Operating Temperature             | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                | -40°C ~ +55°C<br>(-40°F ~ +131°F)   |
| Certification                     | IK08  | IK08   | -  | IP67, IP66, NEMA4X, IK10  |
| Power Consumption                 | PoE: Max 10W<br>12VDC: Max 9W   | PoE: Max 9W<br>12VDC: Max 8W                                     | PoE: Max 4.7W  | PoE: Max 12.95W<br>12VDC: Max 11.5W<br>24VAC: Max 14W   |
| Dimensions (WxHxD) / Weight       | Ø 140.8 x 113mm<br>(Ø 5.54" x 4.45")<br>628g (1.38lb) (XND-8080R)<br>732g (1.61lb) (XND-8080RV)   | Ø 110 x 90mm<br>(Ø 4.33" x 3.54")<br>380g (0.84lb)               | Ø 98.9 x 129.1mm<br>(Ø 3.89" x 5.08")<br>275g (0.61lb)           | Ø 160 x 118.5mm<br>(Ø 6.3" x 4.67")<br>1.01kg (2.23lb)  |
| Additional Features               | Handover, Hallway View  |  |  |   |



**XNV-8080RSA**  
5MP Stainless IR Vandal Dome Camera



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



**XNF-9010RV/9010RVM**  
12MP IR Fisheye Camera

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Imaging Device                    | 1/1.8" CMOS  | 1/1.8" CMOS  | 1/2.3" 12MP CMOS   |
| Resolution / Max. Frame Rate      | 5MP / 30fps  | 5MP / 30fps  | 3008 x 3008 / 30fps  |
| Min. Illumination                 | Color : 0.07Lux (F1.3)<br>B/W : 0Lux (IR LED on)   | Color : 0.16Lux (F1.6)<br>B/W : 0Lux (IR LED on)   | Color : 0.39Lux (F2.2)<br>BW : 0Lux (IR LED on)  |
| Video Output                      | CVBS 1.0 Vp-p, Micro USB type B  |  |  |
| Focal Length                      | 3.9 ~ 9.4mm (2.4x)<br>motorized varifocal  | 3.7mm fixed (XNV-8020R)<br>4.6mm fixed (XNV-8030R)<br>7.0mm fixed (XNV-8040R)  | 1.08mm fixed focal   |
| Angular Field of View             | H : 92.1° (Wide) ~ 38.7° (Tele)<br>V : 67.2° (Wide) ~ 29° (Tele)<br>D : 119.9° (Wide) ~ 48.6° (Tele) | H : 97.5° / V : 71.9° / D : 126.2° (XNV-8020R)<br>H : 77.9° / V : 57.9° / D : 98.7° (XNV-8030R)<br>H : 50.7° / V : 37.8° / D : 63.8° (XNV-8040R) | H : 187° / V : 187° / D : 187°   |
| Pan / Tilt / Rotate               | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   | -  |
| IR Viewable Length                | 50m (164.04ft)   | 30m (98.43ft)  | 10m (32.8ft), Wise IR  |
| Day & Night                       | Auto (ICR)   |  |  |
| Wide Dynamic Range                | 120dB  | 120dB  | extremeWDR (120dB)   |
| Digital Noise Reduction           | SSNR V   |  |  |
| Digital Image Stabilization       | Support  | Support (Built-in Gyro sensor)   | -  |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification   |  |  |
| Business Intelligence             | -  | People counting,<br>Queue management, Heatmap  | People counting,<br>Queue management, Heatmap  |
| Alarm I/O                         | 1 / 1  | 1 / 1  | 2 configured I / O   |
| Audio I/O                         | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in),<br>Built-in mic / Line out  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |  |
| WiseStream                        | WiseStream II  |  |  |
| Streaming                         | Up to 10 Profiles  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |  |
| Application Programming Interface | ONVIF profile S/G, SUNAPI<br>Wisenet open platform   | ONVIF profile S/G, SUNAPI<br>Wisenet open platform   | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform  |
| Operating Temperature             | -40°C ~ +55°C<br>(-40°F ~ +131°F)  | -30°C ~ +55°C<br>(-22°F ~ +131°F)  | -40°C ~ +60°C (-40°F ~ +140°F) /<br>0 ~ 95% RH   |
| Certification                     | IP66, NEMA4X, IP6K9K, IK10+  | IP66, IP67, IK10   | IP66, IK10, NEMA4X,<br>EN50155 class T3 (XNF-9010RVM only)   |
| Power Consumption                 | PoE : Max 12.95W<br>12VDC : Max 11.5W<br>24VAC : Max 14W   | PoE : Max 9W<br>12VDC : Max 8W   | PoE : Max 12.95W, typical 11W<br>12VDC : Max 11W, typical 9.1W   |
| Dimensions (WxHxD) / Weight       | Ø160 X 120.5mm<br>(Ø6.38" x 4.74")<br>2.8kg (6.17lb)   | Ø120 x 97.5mm<br>(Ø4.72" x 3.84")<br>615g (1.36lb)   | Ø160 x 72mm<br>(Ø6.38" x 2.83")<br>1.1kg (2.43lb)  |
| Additional Features               | Handover, Hallway View   | Handover, Hallway View   | Various mode support (Original, Double panorama,<br>Single panorama, Quad view)<br>M12 Connector (XNF-9010RVM) |



**XNF-9010RS**  
12MP Stainless IR Fisheye Camera



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



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



**XNB-6002**  
2MP x 1CH Remote Head Camera



**XNB-6000**  
2MP Box Camera

|                                   |   |  |   |  |   |
|-----------------------------------|---|--|---|--|---|
| Imaging Device                    | 1/2.3" 12MP CMOS  | 1/1.8" CMOS  | 1/2" CMOS   | -  | 1/2.8" CMOS   |
| Resolution / Max. Frame Rate      | 3008 x 3008 / 30fps   | 2048 x 2048 / 30fps  | 2MP / 60fps   | 2MP / 60fps  | 2MP / 60fps   |
| Min. Illumination                 | Color: 0.39Lux (F2.2, 1/30sec)<br>BW: 0Lux (IR LED on)  | Color: 0.1Lux (F1.6)<br>B/W: 0Lux (IR LED on)  | Color: 0.006Lux (F1.2)<br>B/W: 0.0006Lux (F1.2)                         | -  | Color: 0.01Lux (F1.2)<br>B/W: 0.001Lux (F1.2)                           |
| Video Output                      | CVBS: 1.0Vp-p, Micro USB Type B   |  |   |  |   |
| Focal Length                      | 1.08mm fixed focal  | 1.6mm fixed  | -   | -  | -   |
| Angular Field of View             | H: 187° / V: 187° / D: 187°   | H: 192° / V: 192° / D: 192°  | -   | -  | -   |
| Pan / Tilt / Rotate               | -   | -  | -   | -  | -   |
| IR Viewable Length                | 9m (29.53ft), Wise IR   | 15m (49.21ft)  | -   | -  | -   |
| Day & Night                       | Auto (ICR)  | Auto (ICR)   | Auto (ICR)  | Auto (electrical)  | Auto (ICR)  |
| Wide Dynamic Range                | extremeWDR (120dB)  | 120dB  | 150dB   | extremeWDR (120dB)   | 150dB   |
| Digital Noise Reduction           | SSNR V  | SSNR V   | SSNR V  | SSNR V, WiseNR   | SSNR V  |
| Digital Image Stabilization       | -   | -  | Support (Built-in Gyro sensor)  | Support (Built-in Gyro sensor)   | Support (Built-in Gyro sensor)  |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification  | Intelligent analytics<br>Audio detection<br>Sound classification   | Intelligent analytics<br>Audio detection<br>Sound classification        | <b>Analytic events</b><br>- Defocus detection, Motion detection,<br>Tampering, Fog detection, Audio detection,<br>Sound classification, Face detection, Virtual<br>area (Loitering/Intrusion/Enter/Exit/Appear/<br>Disappear), Virtual line (Crossing/Direction) | Intelligent analytics<br>Audio detection<br>Sound classification        |
| Business Intelligence             | People counting,<br>Queue management, Heatmap   | People counting,<br>Queue management, Heatmap  | -   | People counting,<br>Queue management, Heatmap  | -   |
| Alarm I/O                         | 2 configured 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),<br>Built-in mic / Line out  | Selectable (mic in/line in),<br>Built-in mic / Line out                 | Selectable (mic in/line in), Built-in mic /<br>Line out  | Selectable (mic in/line in),<br>Built-in mic / Line out                 |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |  |   |
| WiseStream                        | WiseStream II   |  |   |  |   |
| Streaming                         | Up to 10 Profiles   |  |   |  |   |
| Edge Storage                      | micro SD/SDHC/SDXC  |  |   |  |   |
| Application Programming Interface | ONVIF Profile S/G/T SUNAPI (HTTP API)<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform                     | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform                     |
| Operating Temperature             | -40°C ~ +50°C (-40°F ~ +122°F) /<br>0~95% RH  | -10°C ~ +55°C (+14°F ~ +131°F) (XNF-8010R)<br>-40°C ~ +55°C (-40°F ~ +131°F)<br>(XNF-8010RV/8010RVM)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                       | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0 ~ 90% RH (non-condensing)  | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                       |
| Certification                     | IP66, IP67, IP6K9K, NEMA4X, IK10, IK10+<br>(it can resist impacts of 40 joules), NSF, ANSI<br>Standard 169 - Special Purpose Food<br>Equipment and Devices. | IP66, IK10 (XNF-8010RV/8010RVM)  | -   | -  | -   |
| Power Consumption                 | PoE: Max 12.95W, typical 11W<br>12VDC: Max 11W, typical 9.1W  | PoE: Max 12W, 12VDC: Max 11W<br>(XNF-8010R)<br>PoE: Max 12.95W, 12VDC: Max 12W<br>(XNF-8010RV/8010RVM)   | PoE: Max. 8.5W<br>12VDC: Max 8W<br>24VAC: Max 9W                        | PoE: Max 10.5W, typical 7.4W<br>12VDC: Max 8.6W, typical 5.8W<br>Power redundancy failover   | PoE: Max 7.5W<br>12VDC: Max 6.5W<br>24VAC: Max 8W                       |
| Dimensions (WxHxD) /<br>Weight    | Ø 167.9 x 72.1mm<br>(Ø 6.61" x 2.838")<br>2.98kg (6.57lb)   | Ø 146 x 54.8mm (Ø 5.75" x 2.16")<br>730g (1.61lb) (XNF-8010R)<br>Ø 146 x 65.8mm (Ø 5.75" x 2.59")<br>785g (1.73lb) (XNF-8010RV)<br>790g (1.74lb) (XNF-8010RVM) | W 73.1 x H 66.6 x D 147.8mm<br>(2.88" x 2.62" x 5.82")<br>420g (0.93lb) | W 131.1 x H 33.5 x D 86mm<br>(5.16" x 1.32" x 3.39")<br>420g   | W 73.1 x H 66.6 x D 147.8mm<br>(2.88" x 2.62" x 5.82")<br>420g (0.93lb) |
| Additional Features               | Various mode support<br>(Original, Double panorama, Single panorama,<br>Quad view)  | M12 Connector (XNF-8010RVM),<br>Built-in MIC, On board dewarping   | Handover, Hallway View  | compatible lens:<br>SLA-T1080FA, SLA-T2480A,<br>SLA-T2480VA, SLA-T4680A, SLA-T4680VA   | Handover, Hallway View  |



**XNB-6001**  
2MP Remote Head Camera



**SLA-T4680/T4680V**  
2MP lens for XNB-6001



**SLA-T2480/T2480V**  
2MP lens for XNB-6001



**SLA-T1080F**  
2MP lens for XNB-6001

|                                   |  |   |   |  |
|-----------------------------------|--|---|---|--|
| Imaging Device                    | -  | 1/2.8" CMOS   | 1/2.8" CMOS   | 1/2.8" CMOS  |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | -   | -   | -  |
| Min. Illumination                 | -  | Color : 0.06Lux (F2.5)<br>B/W : 0.06Lux (F2.5)  | Color : 0.45Lux (F2.0)<br>B/W : 0.45Lux (F2.0)  | Color : 0.03Lux (F1.6)   |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B                                     | -   | -   | -  |
| Focal Length                      | -  | 4.6mm Pinhole   | 2.4mm fixed   | 1.6mm fisheye  |
| Angular Field of View             | -  | H: 73° / V: 39° / D: 85°  | H: 138° / V: 73° / D: 168°  | H: 187° / V: 113.9°  |
| Pan / Tilt / Rotate               | -  | -   | -   | -  |
| IR Viewable Length                | -  | -   | -   | -  |
| Day & Night                       | -  | Auto (Electrical)   | Auto (Electrical)   | Auto (Electrical)  |
| Wide Dynamic Range                | 120dB  | -   | -   | -  |
| Digital Noise Reduction           | SSNR V   | -   | -   | -  |
| Digital Image Stabilization       | Support  | -   | -   | -  |
| Analytics                         | Intelligent analytics<br>Audio detection                           | -   | -   | -  |
| Business Intelligence             | People counting,<br>Queue management, Heatmap                      | -   | -   | -  |
| Alarm I/O                         | 1 / 1  | -   | -   | -  |
| Audio I/O                         | Selectable (mic in/line in) / Line out                             | -   | -   | -  |
| Video Compression                 | H.265 / H.264, MJPEG   | -   | -   | -  |
| WiseStream                        | WiseStream II  | -   | -   | -  |
| Streaming                         | Up to 10 Profiles  | -   | -   | -  |
| Edge Storage                      | SD/SDHC/SDXC   | -   | -   | -  |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform                | -   | -   | -  |
| Operating Temperature             | -10°C ~ +55°C<br>(+14°F ~ +131°F)                                  |   |   |  |
| Certification                     | -  |   |   |  |
| Power Consumption                 | PoE: Max 6W<br>12VDC: Max 6.5W                                     | -   | -   | -  |
| Dimensions (WxHxD) / Weight       | W 131.1 x H 28 x D 86mm<br>(5.16" x 1.1" x 3.39")<br>245g (0.54lb) | Ø 24 x 42mm (Ø 0.94" x 1.65") (Lens)<br>8m (314.96") (Cable) 310g (0.68lb) (SLA-T4680)<br>30 x 20.2 x 45mm (1.18" x 0.8" x 1.77") (Lens)<br>8m (314.96") (Cable) 321g (0.71lb) (SLA-T4680V) | Ø 24 x 49.8mm (Ø 0.94" x 1.96") (Lens)<br>8m (314.96") (Cable) 318g (0.70lb) (SLA-T2480)<br>30 x 27.9 x 45mm (1.18" x 0.1" x 1.77") (Lens)<br>8m (314.96") (Cable) 328g (0.72lb) (SLA-T2480V) | Ø 35 x 68.9mm<br>(Ø 1.38" x 2.71") (Lens)<br>8m (314.96") (Cable)<br>321g (0.71lb) |
| Additional Features               | Handover, Hallway View   | -   | -   | -  |





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



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



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



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



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

| Imaging Device                    | 1/2.8" CMOS   |  | 1/2" CMOS   |  | 1/2.8" CMOS   |  | 1/2.8" CMOS   |  |
|-----------------------------------|---|--|---|--|---|--|---|--|
| Resolution / Max. Frame Rate      | 2MP / 60fps   |  |   |  |   |  |   |  |
| Min. Illumination                 | Color : 0.03Lux (F1.6)<br>B/W : 0Lux (IR LED on)  |  | Color : 0.004Lux (F0.94)<br>B/W : 0Lux (IR LED on)  |  | Color : 0.015Lux (F1.4)<br>B/W : 0Lux (IR LED on)   |  | Color : 0.03lux (F1.6)<br>B/W : 0Lux (IR LED on)  |  |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B  |  |   |  |   |  |   |  |
| Focal Length                      | 5.2 ~ 62.4mm (Optical 12x)  |  | 4.1 ~ 16.4mm (Optical 4x)<br>motorized varifocal  |  | 2.8 ~ 12mm (4.3x)<br>motorized varifocal  |  | 3.2 ~ 10mm (3.1x)<br>motorized varifocal  |  |
| Angular Field of View             | H : 54.58° (Wide) ~ 5.3° (Tele)<br>V : 32.19° (Wide) ~ 3° (Tele)<br>D : 61.4° (Wide) ~ 6.06° (Tele) |  | H : 100° (Wide) ~ 26.2° (Tele)<br>V : 54° (Wide) ~ 14.8° (Tele)<br>D : 116° (Wide) ~ 30° (Tele) |  | H : 119.5° (Wide) ~ 27.9° (Tele)<br>V : 62.8° (Wide) ~ 15.7° (Tele)<br>D : 142.1° (Wide) ~ 32° (Tele) |  | H : 109° (Wide) ~ 33.2° (Tele)<br>V : 57.4° (Wide) ~ 18.7° (Tele)<br>D : 132° (Wide) ~ 38° (Tele) |  |
| Pan / Tilt / Rotate               | -   |  |   |  |   |  |   |  |
| IR Viewable Length                | 70m (229.66ft)  |  | 70m (229.66ft)  |  | 50m (164.04ft)  |  | 30m (98.42ft)   |  |
| Day & Night                       | Auto (ICR)  |  |   |  |   |  |   |  |
| Wide Dynamic Range                | 150dB   |  |   |  |   |  |   |  |
| Digital Noise Reduction           | SSNR V  |  |   |  |   |  |   |  |
| Digital Image Stabilization       | Support   |  | Support   |  | Support   |  | Support   |  |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification                                    |  | Intelligent analytics<br>Audio detection<br>Sound classification                                |  | Intelligent analytics<br>Audio detection<br>Sound classification                                      |  | Intelligent analytics<br>Audio detection<br>Sound classification                                  |  |
| Business Intelligence             | -   |  | -   |  | -   |  | People counting,<br>Queue management, Heatmap   |  |
| Alarm I/O                         | 1 / 1   |  | 1 / 1   |  | 1 / 1   |  | -   |  |
| Audio I/O                         | Selectable (mic in/line in) / Line out  |  | Selectable (mic in/line in) / Line out  |  | Selectable (mic in/line in) / Line out  |  | -   |  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |  |   |  |   |  |
| WiseStream                        | WiseStream II   |  |   |  |   |  |   |  |
| Streaming                         | Up to 10 Profiles   |  |   |  |   |  |   |  |
| Edge Storage                      | micro SD/SDHC/SDXC  |  |   |  |   |  |   |  |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   |  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   |  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   |  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   |  |
| Operating Temperature             | -40°C ~ +55°C<br>(-40°F ~ +131°F)<br>* Start up above -35°C (-31°F)                                 |  | -40°C ~ +55°C<br>(-40°F ~ +131°F)<br>* Start up above -35°C (-31°F)                             |  | -40°C ~ +55°C<br>(-40°F ~ +131°F)   |  | -40°C ~ +55°C<br>(-40°F ~ +131°F)   |  |
| Certification                     | IP67, IP66, NEMA 4X, IK10   |  | IP67, IP66, NEMA 4X, IK10   |  | IP67, IP66, NEMA 4X, IK10   |  | IP66, IK10  |  |
| Power Consumption                 | PoE : Max 12.95W<br>12VDC : Max 12.5W<br>24VAC : Max 14.5W  |  | PoE : Max 12.95W<br>12VDC : Max 11.5W<br>24VAC : Max 12.95W                                     |  | PoE : Max 12.95W<br>12VDC : Max 12W<br>24VAC : Max 15W  |  | PoE : Max. 11W  |  |
| Dimensions (WxHxD) / Weight       | Ø91 x 368.6mm<br>(Ø3.58" x 14.51")<br>2.18kg (4.81lb)   |  | Ø91 x 388.6mm<br>(Ø3.58" x 15.3")<br>2.35kg (5.18lb)  |  | Ø91 x 368.6mm<br>(Ø3.58" x 14.51")<br>2.18kg (4.81lb)   |  | Ø91 x 322.9mm<br>(Ø3.58" x 12.71")<br>1.29kg (4.25lb)   |  |
| Additional Features               | Handover, Hallway View  |  |   |  |   |  |   |  |



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



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



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



**XND-L6080V**  
2MP Dome Camera

|                                   |  |  |  |   |  |
|-----------------------------------|--|--|--|---|--|
| Imaging Device                    |  | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS   | 1/2.8" CMOS  |
| Resolution / Max. Frame Rate      |  | 2MP / 60fps  |  |   |  |
| Min. Illumination                 |  | Color: 0.015Lux (F1.4)<br>B/W: 0.0015Lux (F1.4)  | Color: 0.015Lux (F1.4)<br>B/W: 0Lux (IR LED on)  | Color: 0.03Lux (F1.6)<br>B/W: 0Lux (IR LED on)  | Color: 0.03Lux (F1.6)<br>B/W: 0.01Lux (F1.6)   |
| Video Output                      |  | CVBS 1.0Vp-p, Micro USB type B   |  |   |  |
| Focal Length                      |  | 2.8~12mm (4.3x)<br>motorized varifocal   | 2.8~12mm (4.3x)<br>motorized varifocal   | 3.2~10mm (3.1x)<br>motorized varifocal  | 3.2~10mm (3.1x)<br>motorized varifocal   |
| Angular Field of View             |  | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele) | H: 109° (Wide) ~ 33.2° (Tele)<br>V: 57.4° (Wide) ~ 18.7° (Tele)<br>D: 132° (Wide) ~ 38° (Tele)  | H: 109° (Wide) ~ 33.2° (Tele)<br>V: 57.4° (Wide) ~ 18.7° (Tele)<br>D: 132° (Wide) ~ 38° (Tele) |
| 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°   |
| IR Viewable Length                |  | -  | 30m (98.43ft)  | 30m (98.42ft)   | -  |
| Day & Night                       |  | Auto (ICR)   |  |   |  |
| Wide Dynamic Range                |  | 150dB  | 150dB  | 120dB   | 120dB  |
| Digital Noise Reduction           |  | SSNR V   |  |   |  |
| Digital Image Stabilization       |  | Support  | Support  | Support   | Support  |
| Analytics                         |  | Intelligent analytics<br>Audio detection<br>Sound classification                                   | Intelligent analytics<br>Audio detection<br>Sound classification                                   | Intelligent analytics   | Intelligent analytics  |
| Business Intelligence             |  | -  |  |   |  |
| Alarm I/O                         |  | 1 / 1  | 1 / 1  | -   | -  |
| Audio I/O                         |  | 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   |  |   |  |
| WiseStream                        |  | WiseStream II  |  |   |  |
| 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,<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  |
| Operating Temperature             |  | -10°C ~ +55°C<br>(+14°F ~ +131°F)  | -10°C ~ +55°C<br>(+14°F ~ +131°F)  | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)  |
| Certification                     |  | IK08   |  |   |  |
| Power Consumption                 |  | PoE: Max 6.5W<br>12VDC: Max 6W   | PoE: Max 10W<br>12VDC: Max 9W  | PoE: Max 8W   | PoE: Max 6W  |
| Dimensions (WxHxD)<br>Weight      |  | Ø140.8 x 113mm<br>(Ø5.54" x 4.45")<br>610g (1.34lb) (XND-6080)<br>714g (1.57lb) (XND-6080V)        | Ø140.8 x 113mm<br>(Ø5.54" x 4.45")<br>624g (1.38lb) (XND-6080R)<br>724g (1.60lb) (XND-6080RV)      | Ø140.8 x 113mm<br>(Ø5.54" x 4.45")<br>580g (1.28lb) (XND-L6080R)<br>690g (1.52lb) (XND-L6080RV) | Ø140.8 x 113mm<br>(Ø5.54" x 4.45")<br>675g (1.49lb)  |
| Additional Features               |  | Handover, Hallway View   | Handover, Hallway View   | Defog, Hallway View   | Defog, Hallway View  |



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



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



**XND-6010**  
2MP Dome Camera



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

|                                   |  |  |   |  |
|-----------------------------------|--|--|---|--|
| Imaging Device                    | 1/2.8" CMOS  |  |   |  |
| Resolution / Max. Frame Rate      | 2MP / 60fps  |  |   |  |
| Min. Illumination                 | Color : 0.015 Lux (F1.4)<br>B/W : 0Lux (IR LED on)           | Color : 0.055Lux (F2.0)<br>B/W : 0.055Lux (F2.0)     | Color : 0.055Lux (F2.0)<br>B/W : 0.055Lux (F2.0)      | Color : 0.03Lux (F1.6), B/W : 0.003Lux (F1.6) (XNV-6120)<br>Color : 0.03Lux (F1.6), B/W : 0Lux (IR LED on) (XNV-6120R)                         |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B                               | Micro USB type B                                     | CVBS 1.0Vp-p, Micro USB type B                        | CVBS 1.0Vp-p, Micro USB type B   |
| Focal Length                      | 4mm fixed  | 2.8mm fixed  | 2.4mm fixed   | 5.2~62.4mm (Optical 12x)   |
| Angular Field of View             | H : 88.6° / V : 47.5° / D : 104.8°                           | H : 112° / V : 62° / D : 130°                        | H : 139° / V : 73° / D : 167°                         | H : 54.58° (Wide) ~ 5.3° (Tele)<br>V : 32.19° (Wide) ~ 3° (Tele)<br>D : 61.4° (Wide) ~ 6.06° (Tele)  |
| Pan / Tilt / Rotate               | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°                             | 0° ~ 355° / 0° ~ 47° / 0° ~ 353°                     | 0° ~ 354° / 0° ~ 75° / 0° ~ 355°                      | 0° ~ 354° / 0° ~ 75° / 0° ~ 355°   |
| IR Viewable Length                | 30m (98.43ft)  | -  | -   | 70m (229.66ft) (XNV-6120R)   |
| Day & Night                       | Auto (ICR)   | Auto (Electrical)                                    | Auto (ICR)  | Auto (ICR)   |
| Wide Dynamic Range                | 150dB  | -  | 150dB   | 150dB  |
| Digital Noise Reduction           | SSNR V   |  |   |  |
| Digital Image Stabilization       | Support  | Support  | Support   | Support (Built-in Gyro sensor)   |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification |  |   |  |
| Business Intelligence             | People counting,<br>Queue management, Heatmap                | People counting,<br>Queue management, Heatmap        | People counting,<br>Queue management, Heatmap         | -  |
| Alarm I/O                         | 1 / 1  | -  | 1 / 1   | 1 / 1  |
| Audio I/O                         | Selectable (mic in/line in), Built-in mic / Line out         | Built-in mic / -                                     | Selectable (mic in/line in), Built-in mic / Line out  | Selectable (mic in/line in) / Line out   |
| Video Compression                 | H.265 / H.264, MJPEG   |  |   |  |
| WiseStream                        | WiseStream II  |  |   |  |
| Streaming                         | Up to 10 Profiles  |  |   |  |
| Edge Storage                      | SD/SDHC/SDXC   | SD/SDHC/SDXC   | micro SD/SDHC/SDXC                                    | SD/SDHC/SDXC   |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform          | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  |
| Operating Temperature             | -10°C ~ +55°C<br>(+14°F ~ +131°F)                            | -10°C ~ +55°C<br>(+14°F ~ +131°F)                    | -10°C ~ +55°C<br>(+14°F ~ +131°F)                     | -40°C ~ +55°C<br>(-40°F ~ +131°F)<br>* Start up above -35°C (-31°F)  |
| Certification                     | IK08   | -  | IK08  | IP67, IP66, NEMA 4X, IK10  |
| Power Consumption                 | PoE : Max 9W<br>12VDC : Max 8W                               | PoE : Max 4.7W                                       | PoE : Max 6.5W<br>12VDC : Max 6W                      | PoE : Max. 7.8W, 12V DC : Max 7W,<br>24V AC : Max. 8.2W (XNV-6120)<br>PoE : Max. 12.95W, 12V DC : Max. 11.5W,<br>24V AC : Max. 14W (XNV-6120R) |
| Dimensions (WxHxD) / Weight       | Ø 110 x 90mm<br>(Ø 4.33" x 3.54")<br>380g (0.84lb)           | Ø 98.9 x 129mm<br>(Ø 3.89" x 5.08")<br>275g (0.61lb) | Ø 140.8 x 113mm<br>(Ø 5.54" x 4.45")<br>610g (1.34lb) | Ø 160 x 128.5mm (Ø 6.3" x 5.06")<br>985g (2.17lb) (XNV-6120)<br>995g (2.19lb) (XNV-6120R)  |
| Additional Features               | Handover, Hallway View                                       |  |   |  |



**XNV-6085**  
2MP Vandal Dome Camera (extraLUX)



**XNV-6080**  
2MP Vandal Dome Camera



**XNV-6080R**  
2MP IR Vandal Dome Camera



**XNV-6080RSA**  
2MP Stainless IR Vandal Dome Camera



**XNV-L6080**  
2MP Vandal Dome Camera

|                                   |  |  |  |  |  |
|-----------------------------------|--|--|--|--|--|
| Imaging Device                    | 1/2" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.8" CMOS  |
| Resolution / Max. Frame Rate      | 2MP / 60fps  |  |  |  |  |
| Min. Illumination                 | Color : 0.004Lux (F0.94)<br>B/W : 0.0004Lux (F0.94)  | Color : 0.015Lux (F1.4)<br>B/W : 0.015Lux (F1.4)   | Color : 0.015Lux (F1.4)<br>B/W : 0Lux (IR LED on)  | Color : 0.015Lux (F1.4)<br>B/W : 0Lux (IR LED on)  | Color : 0.03Lux (F1.6)<br>B/W : 0.01Lux (F1.6)   |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B   |  |  |  |  |
| Focal Length                      | 4.1 ~ 16.4mm (Optical 4x)  | 2.8 ~ 12mm (4.3x)<br>motorized varifocal   | 2.8 ~ 12mm (4.3x)<br>motorized varifocal   | 2.8 ~ 12mm (4.3x)<br>motorized varifocal   | 3.2 ~ 10mm (3.1x)<br>motorized varifocal   |
| Angular Field of View             | H: 100° (Wide) ~ 26.2° (Tele)<br>V: 54° (Wide) ~ 14.8° (Tele)<br>D: 116° (Wide) ~ 30° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele) | H: 119.5° (Wide) ~ 27.9° (Tele)<br>V: 62.8° (Wide) ~ 15.7° (Tele)<br>D: 142.1° (Wide) ~ 32° (Tele) | H: 109° (Wide) ~ 33.2° (Tele)<br>V: 57.4° (Wide) ~ 18.7° (Tele)<br>D: 132° (Wide) ~ 38° (Tele) |
| Pan / Tilt / Rotate               | ± 175° / ± 73° / ± 175°  | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°   |
| IR Viewable Length                | -  | -  | 50m (164.04ft)   | 50m (164.04ft)   | -  |
| Day & Night                       | Auto (ICR)   |  |  |  |  |
| Wide Dynamic Range                | 150dB  | 150dB  | 150dB  | 150dB  | 120dB  |
| Digital Noise Reduction           | SSNR V   |  |  |  |  |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   | Support  | Support  | Support  | Support  |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification                             | Intelligent analytics<br>Audio detection,<br>Sound classification                                  | Intelligent analytics<br>Audio detection,<br>Sound classification                                  | Intelligent analytics<br>Audio detection,<br>Sound classification                                  | Intelligent analytics  |
| Business Intelligence             | -  |  |  |  |  |
| Alarm I/O                         | 1 / 1  | 1 / 1  | 1 / 1  | 1 / 1  | -  |
| Audio I/O                         | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out   | -  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |  |  |  |
| WiseStream                        | WiseStream II  |  |  |  |  |
| Streaming                         | Up to 10 Profiles  |  |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |  |  |  |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  |
| Operating Temperature             | -40°C ~ +55°C<br>(-40°F ~ +131°F)<br>* Start up above -35°C (-31°F)                          | -40°C ~ +55°C<br>(-40°F ~ +131°F)  | -40°C ~ +55°C<br>(-40°F ~ +131°F)  | -40°C ~ +55°C<br>(-40°F ~ +131°F)  | -40°C ~ +55°C<br>(-40°F ~ +131°F)  |
| Certification                     | IP67, IP66, NEMA 4X, IK10  | IP67, IP66, NEMA 4X, IK10  | IP67, IP66, NEMA 4X, IK10  | IP66, NEMA 4X, IP6K9K, IK10+   | IP66, IK10   |
| Power Consumption                 | PoE : Max 12.1W<br>12VDC : Max 11.1W<br>24VAC : Max 13.5W                                    | PoE : Max 7.8W<br>12VDC : Max 7W<br>24VAC : Max 8.2W   | PoE : Max 12.95W<br>12VDC : Max 11.5W<br>24VAC : Max 14W   | PoE : Max 12.95W<br>12VDC : Max 11.5W<br>24VAC : Max 14W   | PoE : Max 8W   |
| Dimensions (WxHxD) / Weight       | Ø160 x 140mm<br>(Ø6.3" x 5.51")<br>1.4kg (3.09lb)  | Ø160 x 118.5mm<br>(Ø6.3" x 4.67")<br>985g (2.17lb)   | Ø160 x 118.5mm<br>(Ø6.3" x 4.67")<br>995g (2.19lb)   | Ø160 x 120.5mm<br>(Ø6.38" x 4.74")<br>2.8kg (6.17lb)   | Ø160 x 118.5mm<br>(Ø6.3" x 4.67")<br>940g (2.11lb)   |
| Additional Features               | Handover, Hallway View   |  |  |  |  |





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



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



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



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



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

|                                   |   |  |  |  |  |
|-----------------------------------|---|--|--|--|--|
| Imaging Device                    | 1/2.8" CMOS   |  |  |  |  |
| Resolution / Max. Frame Rate      | 2MP / 60fps   |  |  |  |  |
| Min. Illumination                 | Color : 0.03Lux (F1.6)<br>B/W : 0Lux (IR LED on)  | Color : 0.04Lux (F2.0)<br>B/W : 0Lux (IR LED on)                                   | Color : 0.015Lux (F1.4)<br>B/W : 0Lux (IR LED on)                  | Color : 0.04Lux (F2.0)<br>B/W : 0.04Lux (F2.0)                         | Color : 0.04Lux (F2.0)<br>B/W : 0.04Lux (F2.0)                                     |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B  | Micro USB Type B   | CVBS 1.0Vp-p, Micro USB type B                                     | Micro USB Type B   | Micro USB type B   |
| Focal Length                      | 3.2 ~ 10mm (3.1x)<br>motorized varifocal  | 3.6mm fixed  | 4mm fixed  | 2.8mm fixed  | 2.4mm fixed  |
| Angular Field of View             | H : 109° (Wide) ~ 33.2° (Tele)<br>V : 57.4° (Wide) ~ 18.7° (Tele)<br>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°  |
| Pan / Tilt / Rotate               | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°  | ±5° / 0° ~ 67° / ±90°  | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°                                   | ±5° / ±10° / ±90°  | ±5° / 0° ~ 67° / ±90°  |
| IR Viewable Length                | 30m (98.43ft)   | 15m (49.21ft)  | 30m (98.43ft)  | -  | -  |
| Day & Night                       | Auto (ICR)  | Auto (ICR)   | Auto (ICR)   | Auto (Electrical)  | Auto (Electrical)  |
| Wide Dynamic Range                | 120dB   | 150dB  | 150dB  | 150dB  | 150dB  |
| Digital Noise Reduction           | SSNR V  |  |  |  |  |
| Digital Image Stabilization       | Support   | Support (Built-in Gyro sensor)   | Support  | Support (Built-in Gyro sensor)   | Support (Built-in Gyro sensor)   |
| Analytics                         | Intelligent analytics   | Intelligent analytics<br>Audio detection<br>Sound classification (w/ external MIC) | Intelligent analytics<br>Audio detection<br>Sound classification   | Intelligent analytics<br>Audio detection<br>Sound classification       | Intelligent analytics<br>Audio detection<br>Sound classification (w/ external MIC) |
| Business Intelligence             | -   | -  | People counting,<br>Queue management, Heatmap                      | -  | -  |
| Alarm I/O                         | -   | -  | 1 / 1  | -  | -  |
| Audio I/O                         | -   | Selectable (mic in/line in), Built-in mic / Line out                               | Selectable (mic in/line in) / Line out                             | Selectable (mic in/line in) / Line out                                 | Selectable (mic in/line in), Built-in mic / Line out                               |
| Video Compression                 | H.265 / H.264, MJPEG  |  |  |  |  |
| WiseStream                        | WiseStream II   |  |  |  |  |
| Streaming                         | Up to 5 Profiles  | Up to 10 Profiles  | Up to 10 Profiles  | Up to 10 Profiles  | Up to 10 Profiles  |
| Edge Storage                      | micro SD/SDHC/SDXC  |  |  |  |  |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   |  |  |  |  |
| Operating Temperature             | -40°C ~ +55°C<br>(-40°F ~ +131°F)   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                 | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -40°C ~ +60°C<br>(-40°F ~ +140°F)<br>* Start up above -30°C (-22°F)    | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                 |
| Certification                     | IP66, IK10  | IP66, IK10, NEMA4X   | IP67, IP66, IK10   | IP67, IP6K9K, IK10, NEMA4X   | IP66, IK10, NEMA4X   |
| Power Consumption                 | PoE : Max 11W   | PoE : Max 6.7W   | PoE : Max 9W<br>12V DC : Max 8W                                    | PoE : Max 7.2W   | PoE : Max 6.5W   |
| Dimensions (WxHxD) / Weight       | Ø160 x 118.5mm<br>(Ø6.3" x 4.67")<br>940g (2.07lb)  | W98.9 x H52 x D 100mm<br>(3.89" x 2.05" x 3.94")<br>295g (0.65lb)                  | Ø120 x 97.5mm<br>(Ø4.72" x 3.84")<br>615g (1.36lb)                 | W103.7 x H72.3 x D 126.8mm<br>(4.08" x 2.85" x 4.99")<br>478g (1.04lb) | W98.9 x H52 x D 100mm<br>(3.89" x 2.05" x 3.94")<br>295g (0.65lb)                  |
| Additional Features               | Handover, Hallway View  | M12 Connector (XNV-6022RM)<br>Handover, Hallway View                               | Handover, Hallway View   | M12 Connector<br>Handover, Hallway View                                | M12 Connector (XNV-6012M)<br>Handover, Hallway View                                |



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



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

**PTZ PLUS**



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

**PTZ PLUS**



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

**PTZ PLUS**



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

|                                   |  |  |   |   |   |
|-----------------------------------|--|--|---|---|---|
| Imaging Device                    | 1/2.8" CMOS  |  |   |   |   |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | 2MP / 60fps  | 8MP / 30fps   | 6MP / 30fps   | 2MP / 60fps   |
| Min. Illumination                 | Color: 0.055Lux (F2.0)<br>B/W: 0.055Lux (F2.0)                     | Color: 0.055Lux (F2.0)<br>B/W: 0.0055Lux (F2.0)                    | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)   | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)   | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  |
| Video Output                      | CVBS 1.0Vp-p, Micro USB type B                                     | CVBS 1.0Vpp, Micro USB type B                                      | -   | -   | -   |
| Focal Length                      | 2.8mm fixed  | 2.4mm fixed  | 5~150mm (30x) zoom  | 5~150mm (30x) zoom  | 4.25~170mm (40x) zoom   |
| Angular Field of View             | H: 112° / V: 62° / D: 130°   | H: 139° / V: 73° / D: 167°   | H: 57.42° (Wide) ~ 2.19° (Tele)<br>V: 33.54° (Wide) ~ 1.25° (Tele)  | H: 57.42° (Wide) ~ 2.19° (Tele)<br>V: 33.54° (Wide) ~ 1.25° (Tele)  | H: 65.66° (Wide) ~ 1.88° (Tele)<br>V: 39.4° (Wide) ~ 1.09° (Tele)   |
| Pan / Tilt / Rotate               | 0° ~ 353° / 0° ~ 59° / 0° ~ 353°                                   | 0° ~ 354° / 0° ~ 67° / 0° ~ 355°                                   | 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 (Electrical)  | Auto (ICR)   | Auto (ICR)  | Auto (ICR)  | Auto (ICR)  |
| Wide Dynamic Range                | 150dB  | 150dB  | extremeWDR (120dB)  | extremeWDR (120dB)  | extremeWDR (150dB)  |
| Digital Noise Reduction           | SSNR V   |  |   |   |   |
| Digital Image Stabilization       | Support  | Support  | Support (built-in gyro sensor)  | Support (built-in gyro sensor)  | Support (built-in gyro sensor)  |
| Analytics                         | Intelligent analytics  | Intelligent analytics<br>Audio detection<br>Sound classification   | Intelligent analytics<br>*Audio detection, Sound classification<br>(with NWI/O Box: SPM-4210)   | Intelligent analytics<br>*Audio detection, Sound classification<br>(with NWI/O Box: SPM-4210)   | Intelligent analytics<br>*Audio detection, Sound classification<br>(with NWI/O Box: SPM-4210)   |
| Business Intelligence             | People counting,<br>Queue management, Heatmap                      | People counting,<br>Queue management, Heatmap                      | -   | -   | -   |
| Alarm I/O                         | -  | 1 / 1  | Compatible with NWI/O Box (Optional)  | Compatible with NWI/O Box (Optional)  | Compatible with NWI/O Box (Optional)  |
| Audio I/O                         | -  | Selectable (mic in/line in) / Line out                             | 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   |  |   |   |   |
| WiseStream                        | WiseStream II  |  |   |   |   |
| Streaming                         | Up to 10 Profiles  |  |   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |   |   |   |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform                |  |   |   |   |
| Operating Temperature             | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | Normal: -40°C ~ +55°C (-40°F ~ +131°F) /<br>Maximum Temperature based on NEMA-TS<br>2(2.2.7): +74°C (+165°F)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | Normal: -40°C ~ +55°C (-40°F ~ +131°F) /<br>Maximum Temperature based on NEMA-TS<br>2(2.2.7): +74°C (+165°F)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | Normal: -40°C ~ +55°C (-40°F ~ +131°F) /<br>Maximum Temperature based on NEMA-TS<br>2(2.2.7): +74°C (+165°F)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) |
| Certification                     | IP66, IK10, NEMA4X   | IP67, IP66, IK10   | 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                 | PoE: Max 6.5W  | PoE: Max 6W<br>12V DC: Max 5.5W                                    | HPoE (Camera only):<br>Max 42W, typical 20W   | HPoE (Camera only):<br>Max 42W, typical 20W   | HPoE (Camera only):<br>Max 42W, typical 20W   |
| Dimensions (WxHxD) / Weight       | Ø 112.8 x 63.7mm<br>(Ø 4.44" x 2.51")<br>420g (0.93lb)             | Ø 120 x 97.5mm<br>(Ø 4.72" x 3.84")<br>625g (1.38lb)               | Ø 184.9 x 318.8mm<br>(Ø 7.28" x 12.55")<br>5.4kg (11.9lb)   | Ø 184.9 x 318.8mm<br>(Ø 7.28" x 12.55")<br>5.4kg (11.9lb)   | Ø 184.9 x 318.8mm<br>(Ø 7.28" x 12.55")<br>5.4kg (11.9lb)   |
| Additional Features               | Handover, Hallway View   | Handover, Hallway View   | 1 Terminal & Cable, Upgraded preset accuracy,<br>Built-in wiper, Object auto tracking (Based on AI engine), Target lock tracking, Included SFP slot in HPoE injector                  |   |   |

PTZ PLUS


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

PTZ PLUS


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

PTZ PLUS


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

PTZ PLUS


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

PTZ PLUS


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

PTZ PLUS


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

|                                   |  |   |   |   |   |   |
|-----------------------------------|--|---|---|---|---|---|
| Imaging Device                    | 1/2.8" CMOS  |   |   |   |   |   |
| Resolution / Max. Frame Rate      | 8MP / 30fps  | 6MP / 30fps   | 2MP / 60fps   | 8MP / 30fps   | 6MP / 30fps   | 2MP / 60fps   |
| Min. Illumination                 | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)   | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0.01Lux (IR LED On)  | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0.01Lux (IR LED On)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (IR LED On)  |
| Video Output                      | -  |   |   |   |   |   |
| Focal Length                      | 5 ~ 125mm (25x) zoom   | 5 ~ 125mm (25x) zoom  | 4.25 ~ 170mm (40x) zoom   | 5 ~ 125mm (25x) zoom  | 5 ~ 125mm (25x) zoom  | 4.25 ~ 170mm (40x) zoom   |
| Angular Field of View             | H: 57.42° (Wide) ~ 2.71° (Tele)<br>V: 33.54° (Wide) ~ 1.55° (Tele)   | H: 57.42° (Wide) ~ 2.71° (Tele)<br>V: 33.54° (Wide) ~ 1.55° (Tele)  | H: 65.66° (Wide) ~ 1.88° (Tele)<br>V: 39.4° (Wide) ~ 1.09° (Tele)   | H: 57.42° (Wide) ~ 2.71° (Tele)<br>V: 33.54° (Wide) ~ 1.55° (Tele)  | H: 57.42° (Wide) ~ 2.71° (Tele)<br>V: 33.54° (Wide) ~ 1.55° (Tele)  | H: 65.66° (Wide) ~ 1.88° (Tele)<br>V: 39.4° (Wide) ~ 1.09° (Tele)   |
| Pan / Tilt / Rotate               | 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)   | Auto (ICR)  | Auto (ICR)  | Auto (ICR)  | Auto (ICR)/Color/BW/Schedule  | Auto (ICR)  |
| Wide Dynamic Range                | extremeWDR (120dB)   | extremeWDR (120dB)  | extremeWDR (150dB)  | extremeWDR (120dB)  | extremeWDR (120dB)  | extremeWDR (150dB)  |
| Digital Noise Reduction           | SSNR V   |   |   |   |   |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)   |   |   |   |   |   |
| Analytics                         | Intelligent analytics<br>* 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   |   |   |   |   |   |
| WiseStream                        | WiseStream II  |   |   |   |   |   |
| Streaming                         | Up to 10 profiles  |   |   |   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC   |   |   |   |   |   |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  |   |   |   |   |   |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing)      | -40°C ~ +55°C (-40°F ~ +131°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | -40°C ~ +50°C (-40°F ~ +122°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | -40°C ~ +55°C (-40°F ~ +131°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | -40°C ~ +55°C (-40°F ~ +131°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) | -40°C ~ +50°C (-40°F ~ +122°F) /<br>+74°C (+165°F) (MAX)<br>based on NEMA-TS 2 (2.2.7)<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing) |
| Certification                     | IP66, IK 10, NEMA 4X,<br>NEMA TS-2 (2.2.8, 2.2.9)  |   |   |   |   |   |
| Power Consumption                 | HPoE (Camera only):<br>Typical 20W, Max 40W  | HPoE (Camera only):<br>Typical 20W, Max 40W   | HPoE (Camera only):<br>Typical 20W, Max 40W   | PoE+ (IEEE802.3at, Class4):<br>Typical 20W, Max 25W   | PoE+ (IEEE802.3at, Class4):<br>Typical 20W, Max 25W   | PoE+ (IEEE802.3at, Class4):<br>Typical 20W, Max 25W   |
| Dimensions (WxHxD) / Weight       | Ø 158 x 293.3mm (Ø 6.22" x 11.55")<br>3.2kg (7.05lb)   |   |   |   |   |   |
| Additional Features               | 1 Terminal & Cable, Upgraded preset accuracy,<br>Built-in wiper, Object auto tracking (Based on AI engine), Target lock tracking. Included SFP slot in HPoE injector |   |   | 1 Terminal & Cable, Upgraded preset accuracy,<br>Object auto tracking (Based on AI engine), Target lock tracking  |   |   |



**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

|                                   |  |  |   |   |
|-----------------------------------|--|--|---|---|
| Imaging Device                    | 1/2.8" CMOS  |  |   |   |
| Resolution / Max. Frame Rate      | 2MP / 60fps  |  |   |   |
| Min. Illumination                 | Color : 0.02Lux (F1.6)<br>B/W : 0Lux (IR LED on)   | Color : 0.01Lux (F1.5, 1/30sec)<br>BW : 0Lux (IR LED)  | Color : 0.03Lux (F1.6)<br>B/W : 0.003Lux (F1.6)                                     | Color : 0.015Lux (F1.4)<br>B/W : 0.0015Lux (F1.4)   |
| Video Output                      | CVBS 1.0 Vp-p  | CVBS : 1.0 Vp-p  | CVBS 1.0 Vp-p, Micro USB type B   | CVBS 1.0 Vp-p, Micro USB type B   |
| Focal Length                      | 4.75 ~ 261.4mm (55x) zoom  | 6 ~ 222mm (37x) zoom   | 5.2 ~ 62.4mm (12x) zoom   | 2.8 ~ 12mm (4.3x) zoom  |
| Angular Field of View             | H : 58.6° (Wide) ~ 1.23° (Tele)<br>V : 34.8° (Wide) ~ 0.71° (Tele)                                     | H : 59.3° (Wide) ~ 1.9° (Tele)<br>V : 35.8° (Wide) ~ 1.1° (Tele)                                       | H : 54.58° (Wide) ~ 5.3° (Tele)<br>V : 32.19° (Wide) ~ 3° (Tele)                    | H : 119.5° (Wide) ~ 27.9° (Tele)<br>V : 62.8° (Wide) ~ 15.7° (Tele)<br>D : 142.1° (Wide) ~ 32° (Tele) |
| Pan / Tilt / Rotate               | 360° Endless / 95° (-5° ~ 90°) / -   | 360° Endless / 190° (-5° ~ 185°) / -   | 360° Endless / 190° (-5° ~ 185°) / -  | 0° ~ 355° / 0° ~ 90°  |
| IR Viewable Length                | 500m (1,640.42ft)  | 350m (1,148.29ft)  | -   | -   |
| Day & Night                       | Auto (ICR)   |  |   |   |
| Wide Dynamic Range                | 120dB  | 150dB  | 150dB   | 150dB   |
| Digital Noise Reduction           | SSNR V   |  |   |   |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   |  |   |   |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification<br>Shock detection<br>Defog detection | Intelligent analytics<br>Audio detection<br>Sound classification<br>Shock detection<br>Defog detection | Intelligent analytics<br>Audio detection<br>Sound classification<br>Defog detection | Intelligent analytics<br>Audio detection<br>Sound classification<br>Defog detection                   |
| Business Intelligence             | -  |  |   |   |
| Alarm I/O                         | 4 / 2  | 4 / 2  | 1 / 1   | 1 / 1   |
| Audio I/O                         | Selectable (mic in / line in) / Line out   |  |   |   |
| Video Compression                 | H.265 / H.264, MJPEG   |  |   |   |
| WiseStream                        | WiseStream II  |  |   |   |
| Streaming                         | Up to 10 Profiles  |  |   |   |
| Edge Storage                      | micro SD / SDHC / SDXC   |  |   |   |
| Application Programming Interface | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform  | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform                                      | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform                                 | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform   |
| Operating Temperature             | -50°C ~ +55°C<br>(-122°F ~ +131°F)<br>* Start up above -30°C (HPoE Mode)                               | -50°C ~ +55°C (-122°F ~ +131°F) /<br>0 ~ 90% RH  | -30°C ~ +55°C<br>(-22°F ~ +131°F)   | -30°C ~ +55°C<br>(-22°F ~ +131°F)   |
| Certification                     | IP66, IK10   |  |   |   |
| Power Consumption                 | HPoE : 60W<br>24VAC : Max 92W  | 24VAC : Max 90W  | PoE, 12VDC : Max 12W  | PoE : Max 9.6W<br>12VDC : Max 8.6W  |
| Dimensions (WxHxD) / Weight       | Ø236.9 x 407.7mm<br>(Ø9.33" x 16.05")<br>7.1kg (15.65lb)   | Ø236.9 x 407.7mm<br>(9.33" x 16.05")<br>7.1kg (15.65lb)  | Ø168 x 161.5mm<br>(Ø6.61" x 6.36")<br>1.9kg (4.19lb)                                | Ø136.1 x 106.1mm<br>(Ø5.36" x 4.18")<br>0.78kg (1.72lb)   |
| Additional Features               | Auto tracking (Based on MD)  |  |   |   |





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



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

**SolidEDGE**



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

**SolidEDGE**



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

|                                   |  |  |  |   |
|-----------------------------------|--|--|--|---|
| Imaging Device                    | 1/2.8" 2MP CMOS  | 1/2.8" 2MP CMOS  | 1/2" CMOS  | 1/2" CMOS   |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | 2MP / 60fps  | 2MP / 120fps   | 2MP / 120fps  |
| Min. Illumination                 | Color: 0.05Lux (1/30sec, F1.6)<br>B/W: 0.005Lux (1/30sec, F1.6)  | Color: 0.05Lux (1/30sec, F1.6)<br>B/W: 0.005Lux (1/30sec, F1.6)  | Color: 0.008Lux(F1.3, 1/30sec, 30IRE) BW: 0.0008Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps<br>Color: 0.016Lux(F1.3, 1/60sec, 30IRE) BW: 0.0016Lux(F1.3, 1/60sec, 30IRE), 0Lux(IR LED on), 60/50fps<br>Color: 0.032Lux(F1.3, 1/120sec, 30IRE) BW: 0.0032Lux(F1.3, 1/120sec, 30IRE), 0Lux(IR LED on), 120/100fps |   |
| Video Output                      | 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  | CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation   |
| Focal Length                      | 4.44 ~ 142.6mm (Optical 32X)<br>(digital 32x, total 1024x zoom)  | 4.44 ~ 142.6mm (Optical 32X)<br>(digital 32x, total 1024x zoom)  | 4.38~9.33mm(2.13x) motorized varifocal   | 4.38~9.33mm(2.13x) motorized varifocal  |
| Angular Field of View             | H: 64.66° (Wide) ~ 2.29° (Tele)<br>V: 38.08° (Wide) ~ 1.3° (Tele)                                      | H: 64.66° (Wide) ~ 2.29° (Tele)<br>V: 38.08° (Wide) ~ 1.3° (Tele)                                      | H: 104° (Wide) ~ 44° (Tele)<br>V: 55° (Wide) ~ 24° (Tele)<br>D: 124° (Wide) ~ 51° (Tele)   | H: 104° (Wide) ~ 44° (Tele)<br>V: 55° (Wide) ~ 24° (Tele)<br>D: 124° (Wide) ~ 51° (Tele)  |
| Pan / Tilt / Rotate               | -  | -  | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°   | 0° ~ 360° / -45° ~ 85° / 0° ~ 355°  |
| IR Viewable Length                | -  | -  | Wise IR 40m (131.23ft)   | Wise IR 40m (131.23ft)  |
| Day & Night                       | Auto (ICR)   | Auto (ICR)   | Auto (ICR)   | Auto (ICR)  |
| Wide Dynamic Range                | 120dB  | 120dB  | 120dB  | 120dB   |
| Digital Noise Reduction           | SSNR V   | SSNR V   | WiseNR, SSNR V   | WiseNR, SSNR V  |
| Digital Image Stabilization       | Support  | Support  | -  | -   |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification<br>Shock detection<br>Defog detection | Intelligent analytics<br>Audio detection<br>Sound classification<br>Shock detection<br>Defog detection | <b>Analytics events:</b> Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear)<br><b>Digital auto tracking</b>  |   |
| Business Intelligence             | -  | -  | -  | -   |
| Alarm I/O                         | 1 / 2  | 1 / 1  | Input 1ea / Output 1ea   | Input 1ea / Output 1ea  |
| 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  |
| WiseStream                        | WiseStream II  | WiseStream II  | Manual (Sea area), WiseStream II   | Manual (Sea area), WiseStream II  |
| Streaming                         | Up to 10 profiles  | Up to 10 profiles  | Up to 5 profiles   | Up to 5 profiles  |
| Edge Storage                      | micro SD/SDHC/SDXC 2 slot 512GB  | micro SD/SDHC/SDXC 1slot 256GB   | 1TB SSD included (WAVE pre-installed)  | 2TB SSD included (WAVE pre-installed)   |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform                                      | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform                                      | ONVIF Profile S/T/M<br>SUNAPI (HTTP API)   | ONVIF Profile S/T/M<br>SUNAPI (HTTP API)  |
| Operating Temperature             | -10°C ~ +55°C (-14°F ~ +131°F) /<br>0~90% RH   | -10°C ~ +55°C (-14°F ~ +131°F) /<br>0~90% RH   | -30°C ~ +55°C (-22°F ~ +131°F) /<br>0~95%RH(non-condensing)<br>* Start up should be done at above -20°C<br>Humidity control /w AIR vent  | -30°C ~ +55°C (-22°F ~ +131°F) /<br>0~95%RH(non-condensing)<br>* Start up should be done at above -20°C<br>Humidity control /w AIR vent |
| Certification                     | -  | -  | IP66, IP67, IP6K9K, NEMA4X, IK10   | IP66, IP67, IP6K9K, NEMA4X, IK10  |
| Power Consumption                 | PoE: Max 7.5W, Typical 4.5W<br>12VDC: Max 7W, Typical 4W   | PoE: Max 7.5W, Typ 5W<br>12VDC: Max 5.7W, Typ 3.7W   | PoE+: Max 19.2W, typical 14.4W<br>12VDC: Max 17.5W, typical 12.7W  | PoE+: Max 19.2W, typical 14.4W<br>12VDC: Max 17.5W, typical 12.7W   |
| Dimensions (WxHxD) / Weight       | W 96 x H 76 x D 143.5mm (3.78" x 2.99" x 5.65")<br>578g (1.27 lb)                                      | W 72 x H 63.9 x D 135.4mm (2.83" x 2.52" x 5.33")<br>480g (1.06 lb)                                    | Ø 180x130mm (Ø 7.09x5.12")<br>1900g (4.19 lb)  | Ø 180x130mm (Ø 7.09x5.12")<br>1900g (4.19 lb)   |
| Additional Features               | Auto tracking (Based on MD)  | Auto tracking (Based on MD)  | Connect and record up to 5 additional cameras<br>Pre-licensed with 1x Wave channel, purchase additional licenses to suit number of connected cameras   |   |



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



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



**PNM-9085RQZ1**  
5MP x 4CH IR PTRZ Multi-directional Camera



**PNM-9084RQZ1**  
2MP x 4CH IR PTRZ Multi-directional Camera



**PNM-9084QZ1**  
2MP x 4CH 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   | 1/2.8" CMOS x 4CH   |
| Resolution / Max. Frame Rate      | 15MP / 20fps  | 8.3MP / 30fps   | 8MP / 60Hz  | 8MP / 60fps   | 8MP / 60fps   |
| Min. Illumination                 | Color: 0.1Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED on)   | Color: 0.3Lux (F1.6)<br>Color: 0.03Lux (F1.6)   | Color: 0.11Lux (F1.92, 30 IRE)<br>BW: 0Lux (IR LED on)  | Color: 0.05lux (F1.6, 30 IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.04lux (F2.2, 1/30sec)<br>BW: 0.004lux (F2.2, 1/30sec)  |
| 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   | 3~6mm (2x) motorized varifocal  |
| Angular Field of View             | H: 196° / V: 64° (Min distance 5m)<br>H: 197° / V: 64° (Max distance 100m)  | H: 209° / V: 83.3°  | H: 87.58° (Wide) ~ 37.34° (Tele)<br>V: 64.58° (Wide) ~ 28.04° (Tele)<br>D: 112.46° (Wide) ~ 46.85° (Tele)   | H: 109° (Wide) ~ 33.2° (Tele)<br>V: 57.4° (Wide) ~ 18.7° (Tele)<br>D: 132° (Wide) ~ 38° (Tele)  | H: 107° (Wide) ~ 56.3° (Tele)<br>V: 57° (Wide) ~ 31.5° (Tele)<br>D: 126° (Wide) ~ 64.3° (Tele)  |
| Pan / Tilt / Rotate               | 0° ~ 355° / 0° ~ 60° / -  | 0° ~ 355° / 0° ~ 60° / -  | Remote adjustment (Max. 200cycles)<br>0~360° / 35~80° / 0~90°   | Remote adjustment (Max. 200cycles)<br>0~360° / 35~80° / 0~90°   | Remote adjustment (Max. 200cycles)<br>0~360° / 35~80° / 0~90°   |
| IR Viewable Length                | 20m (65.62ft)   | -   | 30m (98.43ft)   | 30m (98.43ft)   | -   |
| Day & Night                       | Auto (ICR)  |   |   |   |   |
| Wide Dynamic Range                | 120dB   | extremeWDR (120dB)  | 120dB   | 120dB   | 120dB   |
| Digital Noise Reduction           | SSNR V  |   |   |   |   |
| Digital Image Stabilization       | -   | -   | Support   | Support   | Support   |
| Analytics                         | Defocus detection, Motion detection,<br>Appear/Disappear, Enter/Exit, Tampering,<br>Virtual line, Audio detection | Defocus detection, Motion detection,<br>Appear/Disappear, Enter/Exit, Tampering,<br>Virtual line, Audio detection | Defocus detection, Directional detection,<br>Fog detection, Face detection, Motion<br>detection,<br>Appear/Disappear, Enter/Exit, Loitering,<br>Tampering, Virtual line,<br>Audio detection | Defocus detection, Directional detection,<br>Fog detection, Face detection, Motion<br>detection,<br>Appear/Disappear, Enter/Exit, Loitering,<br>Tampering, Virtual line,<br>Audio detection | Defocus detection, Directional detection,<br>Fog detection, Face detection, Motion<br>detection,<br>Appear/Disappear, Enter/Exit, Loitering,<br>Tampering, Virtual line,<br>Audio detection |
| Business Intelligence             | Heatmap   | Heatmap   | -   | -   | -   |
| Alarm I/O                         | 2 / 1   | 1 / 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  | Selectable (mic in/line in) / Line out  |
| Video Compression                 | H.265 / H.264, MJPEG  |   |   |   |   |
| WiseStream                        | WiseStream II   |   |   |   |   |
| Streaming                         | Up to 3 profiles  | Up to 10 profiles   | Up to 10 profiles   | Up to 10 profiles   | Up to 10 profiles   |
| Edge Storage                      | micro SD/SDHC/SDXC 2slots 512GB (256GBx2)   | micro SD/SDHC/SDXC  | micro SD/SDHC/SDXC 4slot 256GB (each CH)  | micro SD/SDHC/SDXC 4slot 256GB (each CH)  | micro SD/SDHC/SDXC 4slot 256GB (each CH)  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)  | ONVIF Profile S/G/T, SUNAPI,<br>Wisenet open platform   | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Wisenet open platform   | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Wisenet open platform   | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Wisenet open platform   |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F)<br>* Startup should be above -30°C<br>0~95% RH (Non-condensing)                    | -40°C ~ +60°C (-40°F ~ +131°F) /<br>0~95% RH (Non-condensing)<br>* Maximum temperature: +60°C (intermittent)      | -40°C ~ +55°C (-40°F ~ +131°F) /<br>0~90% RH  | -40°C ~ +55°C (-40°F ~ +131°F) /<br>0~90% RH  | -40°C ~ +55°C (-40°F ~ +131°F) /<br>0~90% RH<br>*Startup should be above at -35°C   |
| Certification                     | IP66, IK10, NEMA4X  |   |   |   |   |
| Power Consumption                 | PoE+: Max 23.5W, Typical 18W<br>12VDC: Max 20.5W, Typical 16W   | PoE+: Max 18W, Typical 10.4W<br>12VDC: Max 16W, Typical 9W  | PoE++: Max. 45W, Typical 33.7 W<br>12VDC: Max. 42 W, Typical 32 W   | PoE++: Max. 42 W, Typical 30 W<br>12VDC: Max. 38 W, Typical 28.2 W  | PoE++: Max. 33W, Typical 20W  |
| Dimensions (WxHxD) / Weight       | Ø253 x 170mm<br>2.6kg (4.7lb)   | Ø253 x 165mm<br>(Ø9.96" x 6.5")<br>3.2kg (7.1lb)  | Ø315 x 145.9 mm<br>(Ø 12.4" x 5.74")<br>5.2 kg (11.5lb)   | Ø315 x 145.9 mm<br>(Ø 12.4" x 5.74")<br>5.2 kg (11.5lb)   | Ø251 x 116.5mm<br>3kg (6.6lb)   |
| Additional Features               | -   | 4CH Stitching   | Motorized PTRZ  | Motorized PTRZ  | Motorized PTRZ  |



**PNM-8082VT**  
2MP x 3CH Multi-directional Camera



**PNM-12082RVD**  
6MP x 2CH Multi-directional Camera



**PNM-7082RVD**  
2MP x 2CH Multi-directional Camera

|                                   |   |  |  |
|-----------------------------------|---|--|--|
| Imaging Device                    | 1/2.8" CMOS 3CH   | 1/2.8" CMOS x 2CH  | 1/2.8" CMOS x 2CH  |
| Resolution / Max. Frame Rate      | 2MP / 30fps   | 6MP / 15fps  | 2MP / 30fps  |
| Min. Illumination                 | Color: 0.04lux (F2.2)<br>BW: 0.004lux (F2.2)  | Color: 0.16lux (F1.67, 1/30sec, 30IRE)<br>BW: 0Lux (IR LED on)   | Color: 0.035lux (F2.2, 1/30sec, 30IRE)<br>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  | 3.54~6.69mm (1.9x) motorized varifocal   | 3~6mm (2x) motorized varifocal   |
| Angular Field of View             | H: 107° (Wide)~56.3° (Tele)<br>V: 57° (Wide)~31.5° (Tele)<br>D: 126° (Wide)~64.3° (Tele)              | H: 96° (Wide)~47° (Tele)<br>V: 51° (Wide)~26° (Tele)<br>D: 113° (Wide)~54° (Tele)  | H: 107° (Wide)~56° (Tele)<br>V: 57° (Wide)~31° (Tele)<br>D: 126° (Wide)~64° (Tele)   |
| Pan / Tilt / Rotate               | 0~360° / 0~73° / 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)  |  |  |
| Wide Dynamic Range                | extremeWDR (150dB)  | extremeWDR (120dB)   | extremeWDR (150dB)   |
| Digital Noise Reduction           | SSNR V  | WiseNR, SSNR V   | WiseNR, SSNR V   |
| Digital Image Stabilization       | Support   | -  | -  |
| Analytics                         | Defocus detection, Directional detection,<br>Motion detection, Enter/Exit, Tampering,<br>Virtual line | <b>Analytics events</b> : Defocus detection, Motion detection,<br>Tampering, Virtual line<br>(Crossing/Direction), Virtual area (Loitering/Enter/Exit)<br>Support Audio detection, Sound classification via optional SPM-4210I/O box | <b>Analytics events</b> : Defocus detection, Motion detection,<br>Tampering, Virtual line<br>(Crossing/Direction), Virtual area (Loitering/Enter/Exit)<br>Support Audio detection, Sound classification via optional SPM-4210I/O box |
| Business Intelligence             | -   | -  | -  |
| Alarm I/O                         | -   | * Support Alarm via optional SPM-4210I/O box   | * Support Alarm via optional SPM-4210I/O box   |
| Audio I/O                         | -   | * Audio in/out via optional SPM-4210I/O box  | * Audio in/out via optional SPM-4210I/O box  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |  |
| WiseStream                        | WiseStream II   |  |  |
| Streaming                         | Up to 10 profiles   |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC  | micro SD/SDHC/SDXC 1slot Max. 512GB  | micro SD/SDHC/SDXC 1slot Max. 512GB  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)  | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Open platform  | ONVIF Profile S/T<br>SUNAPI (HTTP API)<br>Open platform  |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F) / 0~95% RH (Non condensing)<br>*Start up should be above at -35°C      |  |  |
| Certification                     | IP66, IK 10, NEMA4X   | IP66, IP67, NEMA4X, IK 10  | IP66, IP67, NEMA4X, IK 10  |
| Power Consumption                 | PoE+: Max: 16.5W, Typical: 8.2W   | PoE+: Max 18.3W, typical 13.5W   | PoE+: Max 17W, typical 12.5W   |
| Dimensions (WxHxD) / Weight       | Ø251 x 116.5mm<br>(Ø9.88" x 4.59")<br>3kg (6.6lb)   | W 215 x D 135 x H 93.2mm<br>(8.46" x 5.31" x 3.67")<br>1.33kg (2.9lb)  | W 215 x D 135 x H 93.2mm<br>(8.46" x 5.31" x 3.67")<br>1.33kg (2.9lb)  |
| Additional Features               | 3CH Multi-directional   | -  | -  |



**PNM-9000QB**  
2MP x 4CH Remote Head Camera



**SLA-T4680A/T4680VA**  
2MP lens



**SLA-T2480WA/T2480WDA**  
2MP Waterproof lens



**SLA-T2480A/T2480VA**  
2MP lens



**SLA-T1080FA**  
2MP lens

|                                   | PNM-9000QB<br>2MP x 4CH Remote Head Camera  | SLA-T4680A/T4680VA<br>2MP lens   | SLA-T2480WA/T2480WDA<br>2MP Waterproof lens  | SLA-T2480A/T2480VA<br>2MP lens   | SLA-T1080FA<br>2MP lens                   |
|-----------------------------------|---|--|--|--|---|
| Imaging Device                    | -   | 1/2.8" 2MP CMOS  | 1/2.8" CMOS  | 1/2.8" 2MP CMOS  | 1/2.8" 2MP CMOS                           |
| Resolution / Max. Frame Rate      | 2MP / 30fps   | -  | -  | -  | -   |
| Min. Illumination                 | -   | Color: 0.06Lux (F2.5)  | Color: 0.045Lux (F2.0, 1/30sec, 30IRE)<br>BW: 0.045Lux (F2.0, 1/30sec, 30IRE)<br>* with PNM-9000QB, XNB-6002 | Color: 0.045Lux (F2.0)   | Color: 0.03Lux (F1.6)                     |
| Video Output                      | HDMI (1920x1080, Quad view support)   | -  | -  | -  | -   |
| Focal Length                      | -   | 4.6mm fixed focal  | 2.4mm fixed focal  | 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: 138° / V: 73° / D: 165°   | H: 187° / V: 113.9°                       |
| Pan / Tilt / Rotate               | -   | -  | 0°~350° / 0°~70° / 0°~355°   | -  | -   |
| IR Viewable Length                | -   | -  | -  | -  | -   |
| Day & Night                       | Auto (electrical)   | -  | -  | -  | -   |
| Wide Dynamic Range                | extremeWDR (150dB)  | -  | -  | -  | -   |
| Digital Noise Reduction           | SSNR V  | -  | -  | -  | -   |
| Digital Image Stabilization       | Support   | -  | -  | -  | -   |
| Analytics                         | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line | -  | -  | -  | -   |
| Business Intelligence             | -   | -  | -  | -  | -   |
| Alarm I/O                         | 1 / 1   | -  | -  | -  | -   |
| Audio I/O                         | Selectable (mic in/line in) / Line out  | -  | -  | -  | -   |
| Video Compression                 | H.265 / H.264, MJPEG  | -  | -  | -  | -   |
| WiseStream                        | WiseStream II   | -  | -  | -  | -   |
| Streaming                         | Up to 10 profiles   | -  | -  | -  | -   |
| Edge Storage                      | micro SD/SDHC/SDXC  | -  | -  | -  | -   |
| Application Programming Interface | ONVIF Profile S/G/T, SUNAPI (HTTP API)<br>Wisenet open platform                                 | -  | -  | -  | -   |
| Operating Temperature             | -10°C ~ +45°C (-40°F ~ +113°F) /<br>0~95% RH (Non condensing)                                   | -  | -30°C ~ +55°C (-22°F ~ +131°F) / 0~95% RH<br>* Start up should be done at above -30°C                        | -  | -   |
| Certification                     | -   | -  | IP66, NEMA 4X, IP66, NEMA 4X, IK10   | -  | -   |
| Power Consumption                 | PoE: Max 22W, Typical 16.70W<br>DC: Max 19W, Typical: 14W                                       | -  | -  | -  | -   |
| Dimensions (WxHxD) / Weight       | W 200 x H 37 x D 146mm<br>(7.87" x 1.46" x 5.75")<br>715g (1.58lb)                              | Ø24 x L49.8mm, 310g<br>(SLA-T4680A)<br>W 30 x H 27.9 x D 45mm, 321g<br>(SLA-T4680VA) | Ø24x49.8mm(ø0.94x1.96"), 101g(0.22lb) /<br>Ø110.0x77.0mm(ø3.54x2.36"), 450g(0.99lb)                          | Ø24 x L49.8mm, 318g<br>(SLA-T2480A)<br>W 30 x H 27.9 x D 45mm, 328g<br>(SLA-T2480VA) | Ø35 x L68.9mm<br>430g (0.95lb)            |
| Additional Features               | Optional pinhole/fixed lens   | Compatible camera:<br>XNB-6002/PNM-9000QB  | Compatible camera:<br>XNB-6002/PNM-9000QB  | Compatible camera:<br>XNB-6002/PNM-9000QB  | Compatible camera:<br>XNB-6002/PNM-9000QB |



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



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



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



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



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

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Imaging Device                    | 1/2.8" CMOS  |  |  |  |
| Resolution / Max. Frame Rate      | 5MP / 30fps  |  |  |  |
| Min. Illumination                 | Color : 0.15Lux (F1.6)<br>B/W : 0Lux (IR LED on)   | Color : 0.15Lux (F1.6)<br>B/W : 0Lux (IR LED on)                   | Color : 0.15Lux (F2.0)<br>B/W : 0Lux (IR LED on)                   | Color : 0.15Lux (F1.6)<br>B/W : 0Lux (IR LED on)   |
| Video Output                      | CVBS 0.1.0Vp-p   |  |  |  |
| Focal Length                      | 3.2 ~ 10mm (3.1x)<br>motorized varifocal   | 4.0mm fixed  | 2.8mm fixed  | 3.2 ~ 10mm (3.1x)<br>motorized varifocal   |
| Angular Field of View             | H: 100.3° (Wide) ~ 31.2° (Tele)<br>V: 72.3° (Wide) ~ 23.5° (Tele)<br>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)<br>V: 72.3° (Wide) ~ 23.5° (Tele)<br>D: 133.1° (Wide) ~ 38.8° (Tele) |
| Pan / Tilt / Rotate               | -  | -  | -  | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   |
| IR Viewable Length                | 30m (98.43ft)  | 25m (82.02ft)  | 20m (65.62ft)  | 20m (65.62ft)  |
| Day & Night                       | Auto (ICR)   |  |  |  |
| Wide Dynamic Range                | 120dB  |  |  |  |
| Digital Noise Reduction           | SSNR   |  |  |  |
| Digital Image Stabilization       | -  |  |  |  |
| Analytics                         | Intelligent analytics  |  |  |  |
| Business Intelligence             | -  |  |  |  |
| Alarm I/O                         | 1 / 1  |  |  |  |
| Audio I/O                         | -  |  |  |  |
| Video Compression                 | H.265 / H.264, MPEG  |  |  |  |
| WiseStream                        | WiseStream II  |  |  |  |
| Streaming                         | Up to 3 Profiles   |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |  |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Wisenet open platform   |  |  |  |
| Operating Temperature             | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                                   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -10°C ~ +50°C<br>(+14°F ~ +122°F)  |
| Certification                     | 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   |
| Dimensions (WxHxD) / Weight       | Ø91 x 322.9mm<br>(Ø3.58" x 12.71")<br>1.19kg (2.624lb)   | Ø70 x 246mm<br>(Ø2.76" x 9.69")<br>680g (1.499lb)                  | Ø70 x 246mm<br>(Ø2.76" x 9.69")<br>680g (1.499lb)                  | Ø120.3 x 102mm<br>(Ø4.74" x 4.02")<br>430g (0.948lb)   |
| Additional Features               | Hallway View   |  |  |  |





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



**QND-8012**  
5MP/4MP Dome Camera



**QND-8021**  
5MP Dome Camera



**QND-8022**  
5MP/4MP Dome Camera



**QND-8011**  
5MP Dome Camera

|                                   |   |   |  |   |  |
|-----------------------------------|---|---|--|---|--|
| Imaging Device                    | 1/2.8" CMOS   |   |  |   |  |
| Resolution / Max. Frame Rate      | 5MP / 30fps   | 5MP/4MP / 30fps   | 5MP / 30fps  | 5MP/4MP / 30fps   | 5MP / 30fps  |
| Min. Illumination                 | Color: 0.15Lux (F2.0)<br>B/W: 0Lux (IR LED on)        | Color: 0.15Lux (F2.0, 1/30sec, 30IRE)<br>BW: 0.15Lux (F2.0, 1/30sec, 30IRE) | Color: 0.15Lux (F1.6)                              | Color: 0.15Lux (F1.6, 1/30sec, 30IRE)<br>BW: 0.15Lux (F1.6, 1/30sec, 30IRE) | Color: 0.15Lux (F2.0)                              |
| Video Output                      | CVBS 1.0 Vp-p   | Micro HDMI: 1080p@30/25fps(60/50Hz)   | Micro HDMI   | Micro HDMI: 1080p@30/25fps(60/50Hz)   | Micro HDMI   |
| Focal Length                      | 2.8mm fixed   | 2.8mm fixed focal   | 4mm fixed  | 4.0mm fixed focal   | 2.8mm fixed  |
| Angular Field of View             | H: 104.7° / V: 76.5° / D: 136°                        | H: 105° / V: 77° / D: 137°  | H: 80.1° / V: 58° / D: 105.8°                      | H: 81° / V: 58° / D: 106°   | H: 104.4° / V: 76.7° / D: 136.1°                   |
| Pan / Tilt / Rotate               | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°                      | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°  | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°                   | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°  | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°                   |
| IR Viewable Length                | 20m (65.62ft)   | -   | -  | -   | -  |
| Day & Night                       | Auto (ICR)  | Auto (Electrical)   | Auto (Electrical)                                  | Auto (Electrical)   | Auto (Electrical)                                  |
| Wide Dynamic Range                | 120dB   |   |  |   |  |
| Digital Noise Reduction           | SSNR  |   |  |   |  |
| Digital Image Stabilization       | -   |   |  |   |  |
| Analytics                         | Intelligent analytics                                 | Defocus detection, Motion detection, Tampering                              | Intelligent analytics                              | Defocus detection, Motion detection, Tampering                              | Intelligent analytics                              |
| Business Intelligence             | -   | People counting   | People counting                                    | People counting   | People counting                                    |
| Alarm I/O                         | 1 / 1   | -   | -  | -   | -  |
| Audio I/O                         | -   |   |  |   |  |
| Video Compression                 | H.265 / H.264, MJPEG                                  |   |  |   |  |
| WiseStream                        | WiseStream II   |   |  |   |  |
| Streaming                         | Up to 3 Profiles                                      |   |  |   |  |
| Edge Storage                      | micro SD/SDHC/SDXC                                    | Micro SD/SDHC/SDXC 1 slot 128GB   | micro SD/SDHC/SDXC                                 | Micro SD/SDHC/SDXC 1 slot 128GB   | micro SD/SDHC/SDXC                                 |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Wisenet open platform    | ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform                 | ONVIF profile S/G/T, SUNAPI, Wisenet open platform | ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform                 | ONVIF profile S/G/T, SUNAPI, Wisenet open platform |
| Operating Temperature             | -10°C ~ +50°C<br>(+14°F ~ +122°F)                     | -10°C ~ +40°C (+14°F ~ +104°F)<br>0~90% RH (non-condensing)                 | -10°C ~ +40°C<br>(+14°F ~ +104°F)                  | -10°C ~ +40°C (+14°F ~ +104°F)<br>0~90% RH (non-condensing)                 | -10°C ~ +40°C<br>(+14°F ~ +104°F)                  |
| Certification                     | -   | IP42, IK08  | IP42, IK08   | IP42, IK08  | IP42, IK08   |
| Power Consumption                 | PoE: Max 7.5W, typical 5.8W                           | PoE: Max 5.00W, typical 4.00W   | PoE: Max 5W, typical 4W                            | PoE: Max 5.00W, typical 4.00W   | PoE: Max 5W, typical 4W                            |
| Dimensions (WxHxD) / Weight       | Ø110.6 x 89.5mm<br>(Ø4.35" x 3.52")<br>360g (0.794lb) | Ø99.0 x 56.0mm<br>(Ø3.9 x 2.2")<br>165g (0.36lb)                            | Ø99 x 56mm<br>(Ø3.9" x 2.2")<br>165g (0.364lb)     | Ø99.0 x 56.0mm<br>(Ø3.9 x 2.2")<br>165g (0.36 lb)                           | Ø99 x 56mm<br>(Ø3.9" x 2.2")<br>165g (0.364lb)     |
| Additional Features               | Hallway View  | Hallway View  | Super compact design, Hallway View                 | Hallway View  | Super compact design, Hallway View                 |



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



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



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



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

|                                   |  |  |  |  |
|-----------------------------------|--|--|--|--|
| Imaging Device                    | 1/2.8" CMOS  |  |  |  |
| Resolution / Max. Frame Rate      | 5MP / 30fps  |  |  |  |
| Min. Illumination                 | Color : 0.15Lux (F1.6)<br>B/W : 0Lux (IR LED on)   | Color : 0.15Lux (F1.6)<br>B/W : 0Lux (IR LED on)                   | Color : 0.15Lux (F2.0)<br>B/W : 0Lux (IR LED on)                   | Color : 0.15Lux (F2.0)<br>B/W : 0Lux (IR LED on)                   |
| Video Output                      | CVBS 1.0 Vp-p  |  |  |  |
| Focal Length                      | 3.2~10mm (3.1x)<br>motorized varifocal   | 4.0mm fixed  | 2.8mm fixed  | 2.8mm fixed  |
| Angular Field of View             | H: 100.3° (Wide) ~ 31.2° (Tele)<br>V: 72.3° (Wide) ~ 23.5° (Tele)<br>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: 104.4°<br>V: 76.7°<br>D: 136.1°                                 |
| Pan / Tilt / Rotate               | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°                                   | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°                                   | 0° ~ 350° / 0° ~ 75° / 0° ~ 360°                                   |
| IR Viewable Length                | 30m (98.42ft)  | 25m (82.02ft)  | 20m (65.62ft)  | 20m (65.62ft)  |
| Day & Night                       | Auto (ICR)   |  |  |  |
| Wide Dynamic Range                | 120dB  |  |  |  |
| Digital Noise Reduction           | SSNR   |  |  |  |
| Digital Image Stabilization       | -  |  |  |  |
| Analytics                         | Intelligent analytics  |  |  |  |
| Business Intelligence             | -  |  |  |  |
| Alarm I/O                         | 1 / 1  | 1 / 1  | 1 / 1  | -  |
| Audio I/O                         | -  | -  | -  | -  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |  |  |
| WiseStream                        | WiseStream II  |  |  |  |
| Streaming                         | Up to 3 Profiles   |  |  |  |
| Edge Storage                      | micro SD/SDHC/SDXC   |  |  |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  |  |  |  |
| Operating Temperature             | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                                   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) |
| Certification                     | IP66, IK10   | IP66, IK10   | IP66, IK10   | IP67, IK10   |
| Power Consumption                 | PoE : Max 8.9W, typical 6.6W   | PoE : Max 7.2W, typical 5.4W                                       | PoE : Max 7.5W, typical 5.8W                                       | PoE : Max 7.4W, typical 5.5W                                       |
| Dimensions (WxHxD) / Weight       | Ø137 x 106.1mm<br>(Ø5.39" x 4.18")<br>700g (1.543lb)   | Ø120.3 x 91.7mm<br>(Ø4.74" x 3.61")<br>510g (1.124lb)              | Ø120.3 x 91.7mm<br>(Ø4.74" x 3.61")<br>510g (1.124lb)              | Ø125 x 87.35mm<br>(Ø4.92" x 3.44")<br>645g (1.422lb)               |
| Additional Features               | Hallway View   |  |  |  |



**QNO-6082R/6082R1**  
2MP IR Bullet Camera



**QNO-6072R/6072R1**  
2MP IR Bullet Camera



**QNO-6022R/6022R1**  
2MP IR Bullet Camera



**QNO-6012R/6012R1**  
2MP IR Bullet Camera

|                                   |  |   |  |   |  |   |  |   |
|-----------------------------------|--|---|--|---|--|---|--|---|
| Imaging Device                    | 1/2.8" CMOS  |   |  |   |  |   |  |   |
| Resolution / Max. Frame Rate      | 2MP / 30fps  |   |  |   |  |   |  |   |
| Min. Illumination                 | Color: 0.03Lux (F1.6)<br>B/W: 0Lux (IR LED on)   |   |  |   |  |   |  |   |
| Video Output                      | CVBS 1.0Vp-p   |   |  |   |  |   |  |   |
| Focal Length                      | 3.2~10mm (3.1x)<br>motorized varifocal   |   | 3.2~10mm (3.1x)<br>manual varifocal  |   | 4mm fixed  |   | 2.8mm fixed  |   |
| Angular Field of View             | H: 109° (Wide)~33.2° (Tele)<br>V: 57.4° (Wide)~18.7° (Tele)<br>D: 132° (Wide)~38° (Tele) |   | H: 109° (Wide)~33.2° (Tele)<br>V: 57.4° (Wide)~18.7° (Tele)<br>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               | -  |   |  |   |  |   |  |   |
| IR Viewable Length                | 30m (98.43ft)  |   | 30m (98.43ft)  |   | 25m (82.02ft)  |   | 20m (65.62ft)  |   |
| Day & Night                       | Auto (ICR)   |   |  |   |  |   |  |   |
| Wide Dynamic Range                | 120dB  |   |  |   |  |   |  |   |
| Digital Noise Reduction           | SSNR   |   |  |   |  |   |  |   |
| Digital Image Stabilization       | -  |   |  |   |  |   |  |   |
| Analytics                         | Intelligent analytics  |   |  |   |  |   |  |   |
| Business Intelligence             | -  |   |  |   |  |   |  |   |
| Alarm I/O                         | 1 / 1  |   |  |   |  |   |  |   |
| Audio I/O                         | Selectable<br>(mic in/line in)   | - | Selectable<br>(mic in/line in)   | - | Selectable<br>(mic in/line in)                             | - | Selectable<br>(mic in/line in)                             | - |
| Video Compression                 | H.265 / H.264, MPEG  |   |  |   |  |   |  |   |
| WiseStream                        | WiseStream II  |   |  |   |  |   |  |   |
| Streaming                         | Up to 3 Profiles   |   |  |   |  |   |  |   |
| Edge Storage                      | micro SD/SDHC/SDXC   |   |  |   |  |   |  |   |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform                                    |   |  |   |  |   |  |   |
| Operating Temperature             | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                       |   |  |   |  |   |  |   |
| Certification                     | IP66, IK10   |   |  |   |  |   |  |   |
| Power Consumption                 | PoE: Max 7.4W, typical 5.4W<br>12VDC: Max 6.5W, typical 4.8W                             |   | PoE: Max 7.4W, typical 5.4W<br>12VDC: Max 6.5W, typical 4.8W                             |   | PoE: Max 7W, typical 5.2W<br>12VDC: Max 6.1W, typical 4.5W |   | PoE: Max 7W, typical 5.2W<br>12VDC: Max 6.1W, typical 4.5W |   |
| Dimensions (WxHxD) / Weight       | Ø78 x 259.8mm<br>(Ø3.07" x 10.23")<br>900g (1.984lb)                                     |   | Ø70 x 246mm<br>(Ø2.76" x 9.69")<br>730g (1.609lb)  |   | Ø70 x 246mm<br>(Ø2.76" x 9.69")<br>700g (1.543lb)          |   | Ø70 x 246mm<br>(Ø2.76" x 9.69")<br>700g (1.543lb)          |   |
| Additional Features               | Hallway View   |   |  |   |  |   |  |   |



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



**QND-6012R/6012R1**  
2MP IR Dome Camera

|                                   |   |  |              |  |   |  |              |  |
|-----------------------------------|---|--|--------------|--|---|--|--------------|--|
| Imaging Device                    | 1/2.8" CMOS   |  |              |  |   |  |              |  |
| Resolution / Max. Frame Rate      | 2MP / 30fps   |  |              |  |   |  |              |  |
| Min. Illumination                 |   |  |              | Color : 0.03Lux (F1.6)<br>B/W : 0Lux (IR LED on)             |   | Color : 0.03Lux (F2.0)<br>B/W : 0Lux (IR LED on)             |              |  |
| Video Output                      | CVBS 1.0Vp-p  |  |              |  |   |  |              |  |
| Focal Length                      |   |  |              | 4mm fixed  |   | 2.8mm fixed  |              |  |
| Angular Field of View             |   |  |              | 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°                      |  |              |  |   |  |              |  |
| IR Viewable Length                | 20m (65.62ft)   |  |              |  |   |  |              |  |
| Day & Night                       | Auto (ICR)  |  |              |  |   |  |              |  |
| Wide Dynamic Range                | 120dB   |  |              |  |   |  |              |  |
| Digital Noise Reduction           | SSNR  |  |              |  |   |  |              |  |
| Digital Image Stabilization       | -   |  |              |  |   |  |              |  |
| Analytics                         | Intelligent analytics                                 |  |              |  |   |  |              |  |
| Business Intelligence             | -   |  |              |  |   |  |              |  |
| Alarm I/O                         | 1 / 1   |  |              |  |   |  |              |  |
| Audio I/O                         |   |  | Built-in mic |  | - |  | Built-in mic |  |
| Video Compression                 | H.265 / H.264, MJPEG                                  |  |              |  |   |  |              |  |
| WiseStream                        | WiseStream II   |  |              |  |   |  |              |  |
| Streaming                         | Up to 3 Profiles                                      |  |              |  |   |  |              |  |
| Edge Storage                      | micro SD/SDHC/SDXC                                    |  |              |  |   |  |              |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform |  |              |  |   |  |              |  |
| Operating Temperature             | -10°C ~ +55°C<br>(+14°F ~ +131°F)                     |  |              |  |   |  |              |  |
| Certification                     | -   |  |              |  |   |  |              |  |
| Power Consumption                 |   |  |              | PoE : Max 7.4W, typical 6W<br>12VDC : Max 6.4W, typical 5.1W |   | PoE : Max 7.4W, typical 6W<br>12VDC : Max 6.4W, typical 5.1W |              |  |
| Dimensions (WxHxD) / Weight       |   |  |              | Ø 110 x 86mm<br>(Ø 4.33" x 3.39")<br>255g (0.562lb)          |   | Ø 110 x 86mm<br>(Ø 4.33" x 3.39")<br>255g (0.562lb)          |              |  |
| Additional Features               | Hallway View  |  |              |  |   |  |              |  |

Q mini


**QND-6021**  
 2MP Dome Camera

Q mini


**QND-6011**  
 2MP Dome Camera

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Imaging Device                    | 1/2.8" CMOS  | 1/2.8" CMOS  |  |
| Resolution / Max. Frame Rate      | 2MP / 30fps  | 2MP / 30fps  |  |
| Min. Illumination                 | Color : 0.03Lux (F1.6)                             | Color : 0.03Lux (F2.0)                             |  |
| Video Output                      | -  | -  |  |
| Focal Length                      | 4mm fixed  | 2.8mm fixed  |  |
| Angular Field of View             | H: 87.6° / V: 46.4° / D: 104.5°                    | H: 113.74° / V: 61.5° / D: 134.45°                 |  |
| Pan / Tilt / Rotate               | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°                   | 0° ~ 350° / 0° ~ 69° / 0° ~ 355°                   |  |
| IR Viewable Length                | -  | -  |  |
| Day & Night                       | Auto (Electrical)                                  | Auto (Electrical)                                  |  |
| Wide Dynamic Range                |  | 120dB  |  |
| Digital Noise Reduction           |  | SSNR   |  |
| Digital Image Stabilization       |  | -  |  |
| Analytics                         | Intelligent analytics                              | Intelligent analytics                              |  |
| Business Intelligence             | People counting                                    | People counting                                    |  |
| Alarm I/O                         | -  | -  |  |
| Audio I/O                         | -  | -  |  |
| Video Compression                 |  | H.265 / H.264, MJPEG                               |  |
| WiseStream                        |  | WiseStream II                                      |  |
| Streaming                         |  | Up to 3 Profiles                                   |  |
| Edge Storage                      | micro SD/SDHC/SDXC                                 | micro SD/SDHC/SDXC                                 |  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI, Wisenet open platform | ONVIF profile S/G/T, SUNAPI, Wisenet open platform |  |
| Operating Temperature             | -10°C ~ +55°C<br>(+14°F ~ +131°F)                  | -10°C ~ +55°C<br>(+14°F ~ +131°F)                  |  |
| Certification                     | IP42, IK08   | IP42, IK08   |  |
| Power Consumption                 | PoE : Max 4.8W, typical 2.8W                       | PoE : Max 4.8W, typical 2.8W                       |  |
| Dimensions (WxHxD) / Weight       | Ø99 x 56mm<br>(Ø3.9" x 2.2")<br>145g (0.320lb)     | Ø99 x 56mm<br>(Ø3.9" x 2.2")<br>145g (0.320lb)     |  |
| Additional Features               | Super compact design, Hallway View                 | Super compact design, Hallway View                 |  |





**QNV-6082R/6082R1**  
2MP IR Vandal Dome Camera

|                                   |                       |  |   |  |
|-----------------------------------|-----------------------|--|---|--|
| Imaging Device                    |                       |  | 1/2.8" CMOS   |  |
| Resolution / Max. Frame Rate      |                       |  | 2MP / 30fps   |  |
| Min. Illumination                 |                       |  | Color : 0.03Lux (F1.6)<br>B/W : 0Lux (IR LED on)  |  |
| Video Output                      | CVBS 1.0 Vp-p         |  |   |  |
| Focal Length                      |                       |  | 3.2 ~ 10mm (3.1x)<br>motorized varifocal  |  |
| Angular Field of View             |                       |  | H : 109° (Wide) ~ 33.2° (Tele)<br>V : 57.4° (Wide) ~ 18.7° (Tele)<br>D : 132° (Wide) ~ 38° (Tele) |  |
| Pan / Tilt / Rotate               |                       |  |   |  |
| IR Viewable Length                |                       |  | 30m (98.42ft)   |  |
| Day & Night                       | Auto (ICR)            |  |   |  |
| Wide Dynamic Range                | 120dB                 |  |   |  |
| Digital Noise Reduction           | SSNR                  |  |   |  |
| Digital Image Stabilization       | -                     |  |   |  |
| Analytics                         | Intelligent analytics |  |   |  |
| Business Intelligence             | -                     |  |   |  |
| Alarm I/O                         | 1 / 1                 |  |   |  |
| Audio I/O                         |                       |  | Selectable<br>(mic in/line in)  | -  |
| Video Compression                 | H.265 / H.264, MJPEG  |  |   |  |
| WiseStream                        | WiseStream II         |  |   |  |
| Streaming                         | Up to 3 Profiles      |  |   |  |
| Edge Storage                      |                       |  | micro SD/SDHC/SDXC  |  |
| Application Programming Interface |                       |  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   |  |
| Operating Temperature             |                       |  | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F)                                |  |
| Certification                     | IP66, IK10            |  |   |  |
| Power Consumption                 |                       |  | PoE : Max 7.7W, typical 6W<br>12VDC : Max 6.5W  | PoE : Max 7.7W, typical 6W<br>12VDC : Max 6.5W |
| Dimensions (WxHxD) / Weight       |                       |  | Ø 137 x 106.1mm<br>(Ø 5.39" x 4.18")<br>710g (1.565lb)  |  |
| Additional Features               |                       |  | Hallway View  |  |



**QNV-6022R/6022R1**  
2MP IR Vandal Dome Camera



**QNV-6012R/6012R1**  
2MP IR Vandal Dome Camera



**QNV-6024RM**  
2MP IR Flat Camera



**QNP-6320**  
2MP 32x PTZ Camera

|                                   |  |  |  |   |
|-----------------------------------|--|--|--|---|
| Imaging Device                    | 1/2.8" CMOS  |  |  |   |
| Resolution / Max. Frame Rate      | 2MP / 30fps  |  |  |   |
| Min. Illumination                 | Color: 0.03Lux (F1.6)<br>B/W: 0Lux (IR LED on)                     | Color: 0.03Lux (F2.0)<br>B/W: 0Lux (IR LED on)                     | Color: 0.03Lux (F2.0)<br>B/W: 0Lux (IR LED on)                   | Color: 0.05Lux (F1.6, 1/30sec)<br>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)<br>V: 38.08° (Wide)~1.30° (Tele)                                |
| Pan / Tilt / Rotate               | 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)   |  |  |   |
| Wide Dynamic Range                | 120dB  |  |  |   |
| Digital Noise Reduction           | SSNR   | SSNR   | SSNR   | SSNR V  |
| Digital Image Stabilization       | -  | -  | -  | 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  | -  | 4 / 2   |
| Audio I/O                         | Selectable (mic in/line in) -                                      | Selectable (mic in/line in) -                                      | Selectable (mic in/line in/built-in mic) / Line out              | Selectable (mic in/line in) / Line out  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |  |   |
| WiseStream                        | WiseStream II  |  |  |   |
| Streaming                         | Up to 3 Profiles   | Up to 3 Profiles   | Up to 3 Profiles   | Up to 10 profiles   |
| Edge Storage                      | micro SD/SDHC/SDXC   | 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<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -20°C (-4°F) | -30°C ~ +55°C<br>(-22°F ~ +131°F)                                | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~95% RH  |
| Certification                     | IP66, IK10   | IP66, IK10   | IP66, IK10, NEMA4X   | -   |
| Power Consumption                 | PoE: Max 7.4W, typical 6W<br>12VDC: Max 6.4W                       | PoE: Max 7.4W, typical 6W<br>12VDC: Max 6.4W                       | PoE: Max 6.7W, typical 5W  | Max. 14.5W, Typ. 12W  |
| Dimensions (WxHxD) / Weight       | Ø 120.3 x 91.7mm<br>(Ø 4.74" x 3.61")<br>510g (1.124lb)            | Ø 120.3 x 91.7mm<br>(Ø 4.74" x 3.61")<br>510g (1.124lb)            | W98.9 x H52 x D100mm<br>(3.89" x 2.05" x 3.94")<br>295g (0.65lb) | Ø 152 x 218mm<br>(Ø 5.98" x 8.58")<br>1.7kg (3.75lb)  |
| Additional Features               | Hallway View   | Hallway View   | M12 connector, Hallway View                                      | Auto tracking (Based on MD)   |



**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   |   |   |   |
| Resolution / Max. Frame Rate      | 2MP / 60fps   |   |   |   |
| Min. Illumination                 | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED On)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec)  | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec)                                      | Color: 0.05Lux (F1.6, 1/30sec)<br>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)<br>V: 38.08° (Wide) ~ 1.3° (Tele)   | H: 64.66° (Wide) ~ 2.29° (Tele)<br>V: 38.08° (Wide) ~ 1.3° (Tele)   | H: 64.66° (Wide) ~ 2.99° (Tele)<br>V: 38.08° (Wide) ~ 1.68° (Tele)                                  | H: 64.66° (Wide) ~ 2.99° (Tele)<br>V: 38.08° (Wide) ~ 1.68° (Tele)  |
| Pan / Tilt / Rotate               | -   |   |   |   |
| IR Viewable Length                | 100m (328.08ft)   | -   | -   | -   |
| Day & Night                       | Auto (ICR)  |   |   |   |
| Wide Dynamic Range                | 120dB   |   |   |   |
| Digital Noise Reduction           | SSNR V  |   |   |   |
| Digital Image Stabilization       | Support (built-in gyro sensor)  |   |   |   |
| Analytics                         | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line<br>Audio detection (with NWI/O Box) | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line<br>Audio detection (with NWI/O Box) | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line,<br>Audio detection | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line<br>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, MPEG   |   |   |   |
| WiseStream                        | WiseStream II   |   |   |   |
| Streaming                         | Up to 10 profiles   |   |   |   |
| Edge Storage                      | microSD/SDHC/SDXC 1 slot 256GB  |   |   |   |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform   |   |   |   |
| Operating Temperature             | Normal: -35°C ~ +55°C (-31°F ~ +131°F) /<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing)   | Normal: -35°C ~ +55°C (-31°F ~ +131°F) /<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing)   | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~95% RH  | Normal: -35°C ~ +55°C (-31°F ~ +131°F) /<br>* Start up should be done at above -30°C<br>0~95% 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<br>3.1kg (6.83lb)  | Ø204.3 x 265mm (Ø8.04" x 10.43")<br>2.7kg (5.95lb)  | Ø152 x 218mm (Ø5.98" x 8.58")<br>1.7kg (3.75lb)   | Ø158 x 293.3mm<br>3.1kg (6.83lb)  |
| Additional Features               | Auto tracking (Based on MD)   |   |   |   |



**QNP-6250H**  
2MP 25x PTZ Camera



**QNP-6320HS**  
2MP 32x PTZ Camera



**QNF-9010**  
12MP Fisheye Camera



**QNF-8010**  
6MP Fisheye Camera

|                                   |  |  |   |   |
|-----------------------------------|--|--|---|---|
| Imaging Device                    | 1/2.8" CMOS  | 1/2.8" CMOS  | 1/2.3" CMOS   | 1/1.8" CMOS   |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | 2MP / 60fps  | 9MP / 30fps   | 4MP / 30fps   |
| Min. Illumination                 | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec)   | Color: 0.05Lux (F1.6, 1/30sec)<br>BW: 0.005Lux (F1.6, 1/30sec)   | Color: 0.39Lux (F2.2, 1/30sec)                        | Color: 0.2Lux (F2.5)                                |
| Video Output                      | -  | -  | CVBS 1.0 Vp-p   | CVBS 1.0 Vp-p                                       |
| Focal Length                      | 4.44~111mm (25x) zoom  | 4.44~142.6mm (32x) zoom  | 1.08mm fixed  | 1.14mm fixed  |
| Angular Field of View             | H: 64.66° (Wide) ~ 2.99° (Tele)<br>V: 38.08° (Wide) ~ 1.68° (Tele)   | H: 64.66° (Wide) ~ 2.29° (Tele)<br>V: 38.08° (Wide) ~ 1.30° (Tele)   | H: 187° / V: 187° / D: 187°                           | H: 187° / V: 187° / D: 187°                         |
| Pan / Tilt / Rotate               |  |  |   |   |
| IR Viewable Length                |  |  |   |   |
| Day & Night                       | Auto (ICR)   | Auto (ICR)   | Auto (Electrical)                                     | Auto (Electrical)                                   |
| Wide Dynamic Range                |  |  |   |   |
| Digital Noise Reduction           | SSNR V   | SSNR V   | SSNR V  | SSNR V  |
| Digital Image Stabilization       | Support (built-in gyro sensor)   | Support (built-in gyro sensor)   | -   | -   |
| Analytics                         | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line<br>Audio detection(with NWI/O Box) | Directional detection, Motion detection,<br>Enter/Exit, Tampering, Virtual line<br>Audio detection(with NWI/O Box) | Defocus detection,<br>Motion detection, Tampering     | Intelligent analytics                               |
| Business Intelligence             | -  | -  | People counting, Heatmap                              | People counting, Heatmap                            |
| Alarm I/O                         | 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)   | -   | -   |
| Video Compression                 |  |  |   |   |
| WiseStream                        |  |  |   |   |
| Streaming                         | Up to 10 profiles  | Up to 10 profiles  | Up to 3 profiles                                      | Up to 3 profiles                                    |
| Edge Storage                      | micro SD/SDHC/SDXC 1slot 256GB   | micro SD/SDHC/SDXC 1slot 256GB   | micro SD/SDHC/SDXC                                    | micro SD/SDHC/SDXC                                  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform  | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform | ONVIF profile S/G, SUNAPI,<br>Wisenet open platform |
| Operating Temperature             | -35°C ~ +55°C (-31°F ~ +131°F) /<br>* Start up should be done at above -30°C<br>0~95% RH (Non-condensing)          | -35°C ~ +55°C (-31°F ~ +131°F) /<br>* Start up should be done at above -25°C<br>0~95% RH (Non-condensing)          | -10°C ~ +40°C<br>(+14°F ~ +104°F)                     | -10°C ~ +55°C<br>(+14°F ~ +131°F)                   |
| Certification                     | IP66, IK10, NEMA4X   | IP66, IP67, IK10, NEMA4X   | -   | IP42  |
| Power Consumption                 | Max. 23W, Typ. 14W   | Max. 23W, Typ. 14W   | PoE: Max 7.7W, typical 6.4W                           | PoE: Max 6.4W, typical 4.6W                         |
| Dimensions (WxHxD) / Weight       | Ø204.3 x 265mm<br>(Ø8.04" x 10.43")<br>2.7kg (5.95lb)  | Ø227 x 299.2mm<br>(Ø8.94" x 11.78")<br>5.4kg (11.93lb)   | Ø99 x 49mm<br>(Ø3.9" x 1.93")<br>370g (0.82lb)        | Ø99 x 49mm<br>(Ø3.9" x 1.93")<br>320g (0.705lb)     |
| Additional Features               | Auto tracking(Based on MD)   | Auto tracking(Based on MD)   | Panorama view, Busieness Intelligence                 | Panorama view, Busieness Intelligence               |



**TNV-7011RC**  
3MP Corner Mount Camera



**TNV-8011C**  
5MP Corner Mount Camera

|                                   |  |  |
|-----------------------------------|--|--|
| Imaging Device                    | 1/2.8" CMOS  |  |
| Resolution / Max. Frame Rate      | 3MP / 30fps  | 5MP / 30fps  |
| Min. Illumination                 | Color: 0.3 lux (F2.0, 1/30sec)<br>B/W: 0 lux (F2.0, 1/30sec)   | Color: 0.1 lux (F2.3, 1/30sec)<br>B/W: 0.02 lux (F2.3, 1/30sec)  |
| Video Output                      | CVBS: 1.0 Vp-p   | CVBS: 1.0 Vp-p, Micro USB Type B   |
| Focal Length                      | 2.8mm fixed focal  | 2.3mm fixed focal  |
| Angular Field of View             | H: 102° / V: 75° / D: 129°   | H: 131° / V: 93.4° / D: 174°   |
| Pan / Tilt / Rotate               | - / 30° ~ 60° / -  | -  |
| IR Viewable Length                | 10m (32.8ft)   | -  |
| Day & Night                       | Auto (ICR)   |  |
| Wide Dynamic Range                | 120dB  |  |
| Digital Noise Reduction           | SSNR V   | SSNR   |
| Digital Image Stabilization       | Support  |  |
| Analytics                         | Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, Appear/Disappear, Audio detection, Face detection, Motion detection, Digital auto tracking, Sound classification, Shock detection | Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection |
| Business Intelligence             | -  |  |
| Alarm I/O                         | 1 / 1  |  |
| Audio I/O                         | Selectable (mic in/line in) / Line out   |  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |
| WiseStream                        | WiseStream II  |  |
| Streaming                         | Up to 10 profiles  | Up to 3 profiles   |
| Edge Storage                      | micro SD/SDHC/SDXC 1 slot 256GB  | micro SD/SDHC/SDXC 1 slot 128GB  |
| Application Programming Interface | SUNAPI (HTTP API)<br>Wisenet open platform   | SUNAPI (HTTP API)<br>Wisenet open platform   |
| Operating Temperature             | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~90% RH   | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~95% RH   |
| Certification                     | IP66, IP6K9K, IK10+  | IP66, IP6K9K, IK10   |
| Power Consumption                 | PoE: Max 12W, typical 10.1W,<br>12VDC: Max. 11W, typical 8.6W  | PoE: Max 6.49W, typical 4.6W   |
| Dimensions (WxHxD) / Weight       | Ø295.5 x 113.5mm<br>(Ø11.6" x 4.47")<br>2.1kg (4.63lb)   | W 170 x H 165 x D 78.8mm<br>(6.69" x 6.49" x 3.1")<br>830g (1.83lb)  |
| Additional Features               | -  |  |



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



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

|                                   |  |   |
|-----------------------------------|--|---|
| Imaging Device                    | VGA Uncooled micro bolometer (12 $\mu$ m)  | Uncooled Micro bolometer  |
| Resolution / Max. Frame Rate      | 2MP / 60fps  | 640 x 480 / 30fps   |
| Min. Illumination                 | Color: 0.05Lux (F1.6, 1/30sec)<br>B/W: 0.005 Lux (F1.6, 1/30sec)   | -   |
| Video Output                      | CVBS: 1.0Vp-p  |   |
| Focal Length                      | 4.44~142.6mm (32x) zoom  | 19mm / 35mm fixed   |
| Angular Field of View             | H: 61.8° (Wide) ~ 2.19° (Tele)<br>V: 36.2° (Wide) ~ 1.24° (Tele)   | H: 32° / V: 24.3° / D: 39.2°<br>H: 17.2° / V: 13° / D: 22°  |
| Pan / Tilt / Rotate               | 360° Endless / (130°) -90° ~ 40° / -   | 360° Endless / -90° ~ 40° / -   |
| IR Viewable Length                | 200m with SPI-50 (Optional)  | -   |
| Day & Night                       | Auto (ICR)   | -   |
| Wide Dynamic Range                | 120dB  | -   |
| Digital Noise Reduction           | SSNR V   | -   |
| Digital Image Stabilization       | Support  | Support (Built-in Gyro sensor)  |
| Analytics                         | Defocus detection, Directional detection,<br>Fog detection, Face detection, Motion detection,<br>Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line,<br>Audio detection, Temperature detection, Sound classification, Shock detection |
| Business Intelligence             | -  |   |
| Alarm I/O                         | 1 / 1  | 1/2   |
| Audio I/O                         | Selectable (mic in/line in) / Line out   |   |
| Video Compression                 | H.265 / H.264, MJPEG   |   |
| WiseStream                        | WiseStream II  |   |
| Streaming                         | Up to 10 profiles  |   |
| Edge Storage                      | micro SD/SDHC/SDXC   | Micro SD/SDHC/SDXC 1slot 256GB  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI (HTTP API)<br>Wisenet open platform  |   |
| Operating Temperature             | -40°C ~ +55°C (-40°F ~ +131°F) /<br>0~90% RH   |   |
| Certification                     | IP66, Safety (UL, KC-SDOC),<br>EMC (FCC, CE, VCCI, RCM, KC)  | IP66, NEMA 4X, IK10   |
| Power Consumption                 | Max 100W (Heater On),<br>typical 25W (Heater Off)  | 24VAC: Max 84W(Heater on),<br>Max 62W(Heater off)   |
| Dimensions (WxHxD) /<br>Weight    | W 219 × H 528.2 × D 460mm<br>(8.62" x 20.79" x 18.11")<br>14kg (30.86lb)   | W 219 x H 528 x D 335mm<br>(8.62" x 20.79" x 13.19")<br>11.7kg (25.79lb)  |
| Additional Features               | -  | Various color palettes  |





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



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

|                                   |   |                              |
|-----------------------------------|---|------------------------------|
| Imaging Device                    | Uncooled Micro bolometer  |                              |
| Resolution / Max. Frame Rate      | 640 x 480 / 30fps   |                              |
| Min. Illumination                 | -   |                              |
| Video Output                      | CVBS: 1.0 Vp-p, Micro USB Type B  |                              |
| Focal Length                      | 35mm fixed  | 19mm fixed                   |
| Angular Field of View             | H: 17.2° / V: 13° / D: 22°  | H: 32° / V: 24.3° / D: 39.2° |
| Pan / Tilt / Rotate               | -   |                              |
| IR Viewable Length                | -   |                              |
| Day & Night                       | -   |                              |
| Wide Dynamic Range                | -   |                              |
| Digital Noise Reduction           | -   |                              |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)  |                              |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection |                              |
| Business Intelligence             | -   |                              |
| Alarm I/O                         | 1 / 2   |                              |
| Audio I/O                         | Selectable (mic in/line in) / Line out  |                              |
| Video Compression                 | H.265 / H.264, MJPEG  |                              |
| WiseStream                        | WiseStream II   |                              |
| Streaming                         | Up to 10 Profiles   |                              |
| Edge Storage                      | micro SD/SDHC/SDXC  |                              |
| Application Programming Interface | ONVIF profile S/G, SUNAPI, Wisenet open platform  |                              |
| Operating Temperature             | -40°C ~ +60°C<br>(-40°F ~ +140°F)   |                              |
| Certification                     | IP66, NEMA 4X   | IP66, NEMA 4X, IK10          |
| Power Consumption                 | PoE: Max 10W<br>12VDC: Max 9W<br>24VAC: Max 10.5W   |                              |
| Dimensions (WxHxD) / Weight       | Ø 147.51 x 401.8mm<br>(Ø 5.81" x 15.82")<br>3.17kg (7.0lb)  |                              |
| Additional Features               | Various color palettes  |                              |



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



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

|                                   |  |  |
|-----------------------------------|--|--|
| Imaging Device                    | Uncooled Micro bolometer   |  |
| Resolution / Max. Frame Rate      | 640 x 480 / 30fps  |  |
| Min. Illumination                 | -  |  |
| Video Output                      | CVBS: 1.0 Vp-p, Micro USB Type B   |  |
| Focal Length                      | 19mm fixed   | 13mm fixed   |
| Angular Field of View             | H: 32° / V: 24.3° / D: 39.2°   | H: 48.6° / V: 36.4° / D: 61.6°                             |
| Pan / Tilt / Rotate               | -  |  |
| IR Viewable Length                | -  |  |
| Day & Night                       | -  |  |
| Wide Dynamic Range                | -  |  |
| Digital Noise Reduction           | -  |  |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   |  |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection |  |
| Business Intelligence             | -  |  |
| Alarm I/O                         | 1 / 2  |  |
| Audio I/O                         | Selectable (mic in/line in) / Line out   |  |
| Video Compression                 | H.265 / H.264, MJPEG   |  |
| WiseStream                        | WiseStream II  |  |
| 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             | -40°C ~ +60°C<br>(-40°F ~ +140°F)  |  |
| Certification                     | IP66, NEMA 4X, IK 10   |  |
| Power Consumption                 | PoE: Max 10W<br>12VDC: Max 9W<br>24VAC: Max 10.5W  |  |
| Dimensions (WxHxD) / Weight       | Ø 101.97 x 401.8mm<br>(Ø 4.01" x 15.82")<br>3.12kg (6.89lb)  | Ø 147.51 x 401.8mm<br>(Ø 5.81" x 15.82")<br>3.17kg (7.0lb) |
| Additional Features               | Various color palettes<br>Spot temperature reading   | Various color palettes                                     |



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



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



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

|                                   |  |                       |                            |
|-----------------------------------|--|-----------------------|----------------------------|
| Imaging Device                    | Uncooled Micro bolometer   |                       |                            |
| Resolution / Max. Frame Rate      | 320 x 240 / 30fps  |                       |                            |
| Min. Illumination                 | -  |                       |                            |
| Video Output                      | CVBS: 1.0 Vp-p, Micro USB Type B   |                       |                            |
| Focal Length                      | 4.7mm fixed focal  | 13.7mm fixed focal    | 19mm fixed focal           |
| Angular Field of View             | H:50° / V:36.4° / D:65.3°  | H:16° / V:12° / D:20° | H:11.5° / V:8.7° / D:14.4° |
| Pan / Tilt / Rotate               | -  |                       |                            |
| IR Viewable Length                | -  |                       |                            |
| Day & Night                       | -  |                       |                            |
| Wide Dynamic Range                | -  |                       |                            |
| Digital Noise Reduction           | -  |                       |                            |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   |                       |                            |
| Analytics                         | Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection |                       |                            |
| Business Intelligence             | -  |                       |                            |
| Alarm I/O                         | 1 / 2  |                       |                            |
| Audio I/O                         | Selectable (mic in/line in) / Line out   |                       |                            |
| Video Compression                 | H.265 / H.264, MJPEG   |                       |                            |
| WiseStream                        | WiseStream II  |                       |                            |
| 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             | -40°C ~ +60°C<br>(-40°F ~ +140°F)  |                       |                            |
| Certification                     | IP66, NEMA 4X, IK10  |                       |                            |
| Power Consumption                 | PoE: Max. 8.7W, typical 7.5W<br>12VDC: Max. 7.8W, typical 6.7W<br>24VAC: Max. 9.2W, typical 8W       |                       |                            |
| Dimensions (WxHxD) / Weight       | Ø147.51 x 375.3mm<br>(Ø5.81 x 14.78")<br>2.51kg (5.538lb)  |                       |                            |
| Additional Features               | Various color palettes   |                       |                            |



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



**TNO-L3030T**  
QVGA Thermal Bullet Camera



**TNO-L4030T**  
VGA Thermal Bullet Camera



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

|                                   |  |   |   |   |
|-----------------------------------|--|---|---|---|
| Imaging Device                    | Uncooled Micro bolometer   | Uncooled Micro bolometer  | Uncooled Micro bolometer  | 1/2.8" CMOS   |
| Resolution / Max. Frame Rate      | 320 x 240 / 30fps  | 320 x 240 / 8fps  | 640 x 480 / 8fps  | 2MP / 60fps   |
| Min. Illumination                 | -  | -   | -   | Color: 0.018Lux (F1.6, 1/30sec)<br>BW: 0 Lux (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  |
| Focal Length                      | 35mm fixed focal   | 13.7mm fixed focal  | 13mm fixed focal  | 1.6mm fixed focal   |
| Angular Field of View             | H: 6.3° / V: 4.7° / D: 7.8°  | H: 16°, V: 12°, D: 20°  | H: 48.6°, V: 36.4°, D: 61.6°  | H: 180° / V: 114° / D: 180°   |
| Pan / Tilt / Rotate               | -  |   |   |   |
| IR Viewable Length                | -  | -   | -   | 5m  |
| Day & Night                       | -  | -   | -   | Auto (ICR)  |
| Wide Dynamic Range                | -  | -   | -   | WDR (150dB)   |
| Digital Noise Reduction           | -  | -   | -   | SSNR V  |
| Digital Image Stabilization       | Support (Built-in Gyro sensor)   | Support (Built-in Gyro sensor)  | Support (Built-in Gyro sensor)  | Support   |
| Analytics                         | Intelligent analytics<br>Audio detection<br>Sound classification<br>Shock detection<br>Temperature detection | Directional detection, motion detection,<br>appear/disappear, enter/exit, loitering, tampering,<br>virtual line, audio detection, temperature detection,<br>sound classification, shock detection | Directional detection, motion detection,<br>appear/disappear, enter/exit, loitering, tampering,<br>virtual line, audio detection, temperature detection,<br>sound classification, shock detection | Directional detection, Motion detection,<br>Appear/Disappear, Enter/Exit, Loitering,<br>Tampering, Virtual line, Audio detection,<br>Shock detection, Sound classification      |
| Business Intelligence             | -  |   |   |   |
| Alarm I/O                         | 1 / 2  | 1 / 2   | 1 / 2   | Input 2ea / Output 1ea, Relay out 1ea<br>(12VDC Max. 550mA with 2A adapter)<br>Tampering switch, Touchless call   |
| Audio I/O                         | Selectable (mic in/line in) / Line out   | Selectable (mic in/line in) / Line out  | Selectable (mic in/line in) / Line out  | Built-in mic / Built-in speaker   |
| Video Compression                 | H.265 / H.264, MJPEG   |   |   |   |
| WiseStream                        | WiseStream II  |   |   |   |
| Streaming                         | Up to 10 Profiles  |   |   |   |
| Edge Storage                      | micro SD/SDHC/SDXC   | Micro SD/SDHC/SDXC  | Micro SD/SDHC/SDXC  | micro SD/SDHC/SDXC 1slot 256GB  |
| Application Programming Interface | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform  | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   | ONVIF profile S/G/T, SUNAPI,<br>Wisenet open platform   | ONVIF Profile S<br>SUNAPI (HTTP API)<br>Wisenet open platform   |
| Operating Temperature             | -40°C ~ +60°C<br>(-40°F ~ +140°F)  | -40°C ~ +60°C<br>(-40°F ~ +140°F)   | -40°C ~ +60°C<br>(-40°F ~ +140°F)   | -30°C ~ +55°C (-22°F ~ +131°F)<br>0~95% RH  |
| Certification                     | IP66, NEMA 4X  | IP66, NEMA 4X, IK10   | IP66, NEMA 4X, IK10   | IP65, IK08, NEMA4X, Safety (UL), EMC (FCC, CE)  |
| Power Consumption                 | PoE: Max. 8.7W, typical 7.5W<br>12VDC: Max. 7.8W, typical 6.7W<br>24VAC: Max. 9.2W, typical 8W               | PoE: Max. 8.7W, typical 7.5W<br>12VDC: Max. 7.8W, typical 6.7W<br>24VAC: Max. 9.2W, typical 8.0W  | PoE: Max. 10W, typical 8.6W<br>12VDC: Max. 9W, typical 7.5W<br>24VAC: Max. 10.5W, typical 8.9W  | PoE: Max 12.95W, typical 9.1W<br>12VDC: Max 17.6W, typical 7W<br>* 12VDC power consumption includes<br>12VDC/550mA relay out  |
| Dimensions (WxHxD) / Weight       | Ø 147.51 x 401.3mm<br>(Ø 5.81" x 15.79")<br>2.74kg (6.05lb)  | Ø 147.51 x 375.3mm<br>(58.07" x 147.76")<br>2,512g (5.538lb)  | Ø 101.97 x 401.8mm<br>(4.01" x 15.82")<br>3,124g (6.89lb)   | W 49 x H 165 x D 48mm<br>(1.93" x 6.5" x 1.89")<br>490g (1.08lb)  |
| Additional Features               | Various color palettes   | Various color palettes  | Various color palettes  | SIP, Directional detection, Motion detection,<br>Appear/Disappear, Enter/Exit, Loitering, Tampering,<br>Virtual line, Audio detection,<br>Shock detection, Sound classification |



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



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



**TNO-L4030TR**  
VGA Radiometric Thermal Bullet Camera

|                                   |  |  |  |
|-----------------------------------|--|--|--|
| Imaging Device                    | Uncooled micro bolometer   |  |  |
| Resolution/ Max. FrameRate        | 640x480 / 30fps  | 640x480 / 30fps  | 640x480 / 8fps   |
| NETD                              | < 60mK   |  |  |
| Pixel Size                        | 12μm   |  |  |
| Video Out                         | CVBS 1.0 Vp-p, Micro USB Type B, 1280x720 for installation   |  |  |
| Focal Length (Zoom Ratio)         | 2.7mm fixed focal  |  |  |
| Angular Field of View             | H:92.0° / V:65.5° / D:125.7°   |  |  |
| Min. Object Distance              | 0.3m(0.98ft)   |  |  |
| Digital Image Stabilization       | Support(built-in gyro sensor)  |  |  |
| Analytics                         | Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Abnormal Temperature change detection, Sound classification, Shock detection |  |  |
| Temperature Detect Range          | -  |  |  |
| Temperature Accuracy              | -  |  |  |
| Temperature Detection             | 3 Rectangular ROI zones  |  |  |
| Alarm I/O                         | 1 / 2  |  |  |
| Audio I/O                         | Selectable (mic in/line in) / Line out   |  |  |
| Video Compression                 | H.265/H.264: Main/Baseline/High, MJPEG   |  |  |
| WiseStream                        | WiseStream II  |  |  |
| Streaming                         | Up to 10Profiles   |  |  |
| Edge Storage                      | Micro SD/SDHC/SDXC 1slot 256GB   |  |  |
| Application Programming Interface | ONVIF Profile S/G/T<br>SUNAPI(HTTP API)<br>Wisenet open platform"  |  |  |
| Power Consumption                 | -  | PoE: Max. 10W, typical 8.6W<br>12VDC: Max. 9W, typical 7.5W<br>24VAC: Max. 10.5W, typical 8.9W | PoE: Max. 10W, typical 8.6W<br>12VDC: Max. 9W, typical 7.5W<br>24VAC: Max. 10.5W, typical 8.9W |
| Product dimensions / weight       | Φ147.51x375.3mm(58.07x147.76") / 2512g(5.538lb)  |  |  |
| Additional Features               | Various Color Palettes, Hybrid palettes, Spot temperature reading, Handover  |  |  |
| Power Consumption                 | PoE: Max 10W<br>12VDC: Max 9W<br>24VAC: Max 10.5W  | PoE: Max. 8.7W, typical 7.5W<br>12VDC: Max. 7.8W, typical 6.7W<br>24VAC: Max. 9.2W, typical 8W | PoE: Max. 8.7W, typical 7.5W<br>12VDC: Max. 7.8W, typical 6.7W<br>24VAC: Max. 9.2W, typical 8W |
| Dimensions (WxHxD) /Weight        | Φ101.97 x 401.8mm (Φ4.01" x 15.82")<br>3.12kg (6.89lb)   | Φ147.51 x 375.3mm (Φ5.81" x 14.78")<br>2.51kg (5.538lb)  | Φ147.51 x 375.3mm (Φ5.81" x 14.78")<br>2.51kg (5.538lb)  |
| Additional Features               | Various color palettes<br>Spot temperature reading   | Various color palettes   | Various color palettes   |

# 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

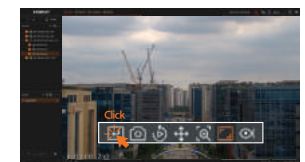
Dynamic layout allows users to freely customize the channel display. Set the best channel display and create the most intuitive monitoring environment.



## 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





# AI NVR

## AI enhances accuracy and efficiency

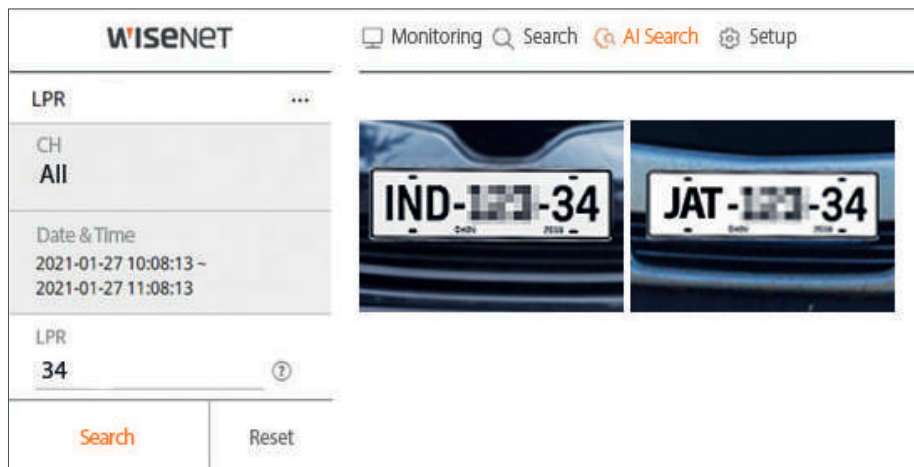
Hanwha AI NVR with AI algorithms provides accurate object detection/classification/search, increasing the efficiency of monitoring operation.



## License Plate Recognition LPR (Search)

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

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

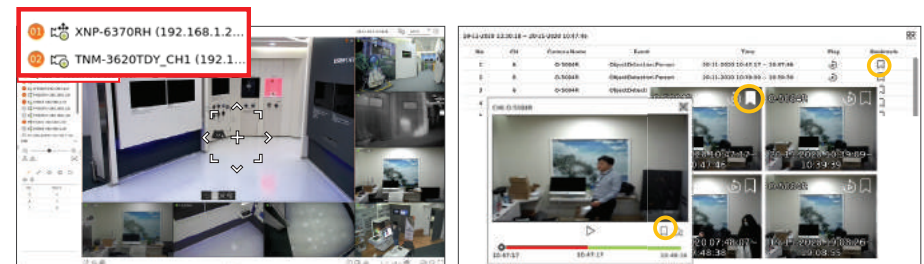


When managing multi channels, the Hanwha's AI NVR greatly improves search efficiency by allowing users to preview images and videos by simply hovering mouse cursor on the timeline. Moreover, users can configure event and alarm for all channels within a single page.



## Live monitoring and bookmarks

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



Live monitoring and PTZ control

Bookmark setup and event search



**PRN-6400DB4**  
64CH AI NVR



**PRN-3200B4**  
32CH AI NVR



**PRN-3200B2**  
32CH AI NVR



**PRN-1600B2**  
16CH AI NVR

|                           |   |                                |                                      |                                      |
|---------------------------|---|--------------------------------|--------------------------------------|--------------------------------------|
| OS                        | Linux   |                                |                                      |                                      |
| Supported Compression     | H.265 / H.264, MJPEG, WiseStream  |                                |                                      |                                      |
| Max. Recording Bit Rate   | 400Mbps   | 400Mbps                        | 400Mbps                              | 250Mbps                              |
| Max # of Cameras          | 64CH  | 32CH                           | 32CH                                 | 16CH                                 |
| Network Camera Resolution | 32MP ~ CIF  |                                |                                      |                                      |
| HDD Slot                  | 16SATA(10TB per HDD), Hot-swap  | 16SATA(10TB per HDD), Hot-swap | 8SATA(10TB per HDD), Hot-swap        | 8SATA(10TB per HDD), Hot-swap        |
| Record Mode               | 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  |                                |                                      |                                      |
| Event Action              | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown   |                                |                                      |                                      |
| External Storage          | iSCSI   | iSCSI                          | iSCSI storage                        | iSCSI storage                        |
| RAID                      | RAID 5/6  |                                |                                      |                                      |
| Hot Swap                  | Yes   |                                |                                      |                                      |
| Network Viewer Software   | SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS  |                                |                                      |                                      |
| Local Monitor             | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD)   |                                |                                      |                                      |
| Network Camera Protocol   | SUNAPI, ONVIF   |                                |                                      |                                      |
| Power Input               | 100 ~ 240 VAC ± 10%, 50/60 Hz (Dual SMPS)   | 100 ~ 240 VAC ± 10% 50/60 Hz   | 100 ~ 240 VAC ± 10%: 50/60 Hz, 2.1 A | 100 ~ 240 VAC ± 10%: 50/60 Hz, 2.1 A |
| Power Consumption         | Max. 265W (16 HDD)  | Max. 265W (16 HDD)             | Max. 205W (With 10TB HDDs 8EA)       | Max. 205W (With 10TB HDDs 8EA)       |
| PoE Budget                | -   |                                |                                      |                                      |
| Additional Features       | <ul style="list-style-type: none"> <li>• LPR search (English, Numbers)               <ul style="list-style-type: none"> <li>• AI search attribute (Person, Face, Vehicle, License plate – with AI cameras)</li> <li>• N+1 failover supported</li> </ul> </li> <li>• PTZ camera configuration and control               <ul style="list-style-type: none"> <li>• Dynamic layout</li> <li>• Virtual channel view</li> </ul> </li> </ul> |                                |                                      |                                      |



**XRN-6420DB4/6420B4**  
64CH NVR



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



**XRN-6410RB2**  
64CH NVR



**XRN-6410B2**  
64CH NVR

|                           |  |  |   |   |
|---------------------------|--|--|---|---|
| OS                        | Linux  |  |   |   |
| Supported Compression     | H.265, H.264, MJPEG  | H.265 / H.264, MJPEG, WiseStream   | H.265 / H.264, MJPEG, WiseStream  | H.265 / H.264, MJPEG, WiseStream  |
| Max. Recording Bit Rate   | 520Mbps  | 400Mbps  | 400Mbps   | 400Mbps   |
| Max # of Cameras          | 64CH   |  |   |   |
| Network Camera Resolution | 32MP ~ CIF   |  |   |   |
| HDD Slot                  | 16SATA(10TB per HDD)   | 16SATA(10TB per HDD)   | 8SATA(10TB per HDD)   | 8SATA(10TB per HDD)   |
| Record Mode               | 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   |  |   |   |
| Event Action              | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown  |  |   |   |
| External Storage          | iSCSI storage  | iSCSI  | iSCSI   | iSCSI   |
| RAID                      | RAID-5/6   | RAID 5/6   | RAID 5/6  | -   |
| Hot Swap                  | Yes  | Yes  | Yes   | -   |
| Network Viewer Software   | SSM, WAVE, Webviewer, Wisenet Viewer, Wisenet mobile<br>Support CGI(SUNAPI) for integration to 3'rd party VMS  | SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer,<br>Support CGI(SUNAPI) for integration to 3'rd party VMS   | SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer,<br>Support CGI(SUNAPI) for integration to 3'rd party VMS  | SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer,<br>Support CGI(SUNAPI) for integration to 3'rd party VMS  |
| Local Monitor             | Dynamic layout, Virtual channel view<br>[Web] Dynamic layout   | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD)  | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD)   | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD)   |
| Network Camera Protocol   | SUNAPI, ONVIF  | SUNAPI, ONVIF  | SUNAPI, ONVIF   | SUNAPI, ONVIF   |
| Power Input               | -  | 100 ~ 240 VAC ± 10%; 50/60 Hz,<br>2.7A (Dual SMPS / XRN-6410B4)  | 100 ~ 240 VAC ± 10%; 50/60 Hz   | 100 ~ 240 VAC ± 10%; 50/60 Hz   |
| Power Consumption         | -  | Max. 265W (16 HDD)   | Max. 160w (8HDD)  | Max. 138W (8 HDD)   |
| PoE Budget                | -  |  |   |   |
| Additional Features       | <ul style="list-style-type: none"> <li>N+1 failover supported</li> <li>AI search (BestShot, Attribute)</li> <li>- When integrated with AI cameras</li> <li>PTZ camera configuration and control</li> <li>Dual SMPS (6410DB4)</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)</li> <li>- When integrated with AI cameras</li> <li>PTZ camera configuration and control</li> <li>Dual SMPS (6410DB4)</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)</li> <li>- When integrated with AI cameras</li> <li>PTZ camera configuration and control</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)</li> <li>- When integrated with AI cameras</li> <li>PTZ camera configuration and control</li> <li>Dynamic layout</li> <li>Fisheye dewarping</li> </ul> |



**XRN-3220B4**  
32CH NVR



**XRN-3210B4**  
32CH NVR



**XRN-3210RB2**  
32CH NVR



**XRN-3210B2**  
32CH NVR

|                           |   |   |   |   |
|---------------------------|---|---|---|---|
| OS                        | Linux   |   |   |   |
| Supported Compression     | H.265, H.264, MJPEG   | H.265 / H.264, MJPEG, WiseStream                        | H.265 / H.264, MJPEG, WiseStream                        | H.265 / H.264, MJPEG, WiseStream                        |
| Max. Recording Bit Rate   | 520Mbps   | 400Mbps   | 400Mbps   | 400Mbps   |
| Max # of Cameras          | 32CH  |   |   |   |
| Network Camera Resolution | 32MP ~ CIF  |   |   |   |
| HDD Slot                  | 16SATA (10TB per HDD)   | 16SATA (10TB per HDD)                                   | 8SATA (10TB per HDD)                                    | 8SATA (10TB per HDD)                                    |
| Record Mode               | 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  |   |   |   |
| Event Action              | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown   |   |   |   |
| External Storage          | iSCSI storage   | iSCSI   | iSCSI   | iSCSI   |
| RAID                      | RAID-5/6  | RAID 5/6  | RAID 5/6  | -   |
| Hot Swap                  | Yes   | Yes   | Yes   | -   |
| Network Viewer Software   | SSM, WAVE, Webviewer, Wisenet Viewer, Wisenet mobile<br>Support CGI(SUNAPI) for integration to 3'rd party VMS   |   |   |   |
| Local Monitor             | Dynamic layout, Virtual channel view<br>[Web] Dynamic layout  | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD) | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD) | Support dual monitor<br>HDMI 1 (Up to 4K), HDMI 2 (FHD) |
| Network Camera Protocol   | SUNAPI, ONVIF   | SUNAPI, ONVIF   | SUNAPI, ONVIF   | SUNAPI, ONVIF   |
| Power Input               | -   | 100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A                     | 100 ~ 240 VAC ± 10%, 50/60 Hz                           | 100 ~ 240 VAC ± 10%, 50/60 Hz                           |
| Power Consumption         | -   | Max. 265W (16 HDD)                                      | Max. 160W (8 HDD)                                       | Max. 138W (8 HDD)                                       |
| PoE Budget                | -   |   |   |   |
| 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 AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control               <ul style="list-style-type: none"> <li>• Fisheye dewarping</li> </ul> </li> </ul> |   |   |   |



**XRN-1620SB1**  
16CH NVR



**XRN-1620B2**  
16CH NVR



**XRN-1620B2**  
16CH NVR



**XRN-820S**  
8CH NVR

|                           |   |  |  |  |  |
|---------------------------|---|--|--|--|--|
| OS                        | Linux   |  |  |  |  |
| Supported Compression     | H.265 / H.264, MJPEG, WiseStream  | H.265 / H.264, MJPEG, WiseStream                                   | H.265 / H.264, MJPEG, WiseStream                                   | H.265 / H.264, MJPEG, WiseStream                                   |  |
| Max. Recording Bit Rate   | 140Mbps   | 140Mbps  | 140Mbps  | 100Mbps  |  |
| Max # of Cameras          | 16CH  | 16CH   | 16CH   | 8CH  |  |
| Network Camera Resolution | 32MP ~ CIF  | 32MP ~ CIF   | 32MP ~ CIF   | 32MP ~ CIF   |  |
| HDD Slot                  | Up to 4 SATA (Max. 24TB)  | Up to 4 SATA (Max. 24TB)   | Up to 8 SATA (Max. 80TB)   | Up to 2 SATA (Max. 12TB)   |  |
| Record Mode               | 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) | Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post) |  |
| Event Trigger             | Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event  |  |  |  |  |
| Event Action              | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown   |  |  |  |  |
| External Storage          | -   |  |  |  |  |
| RAID                      | -   |  |  |  |  |
| Hot Swap                  | -   |  |  |  |  |
| Network Viewer Software   | SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3 <sup>rd</sup> 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)               |  |
| Network Camera Protocol   | SUNAPI, ONVIF   |  |  |  |  |
| Power Input               | 100 ~ 240 VAC ± 10%, 50/60Hz  |  |  |  |  |
| Power Consumption         | Max. 310W   | Max. 310W  | Max. 130W  | Max. 160W  |  |
| PoE Budget                | 200W  | 200W   | -  | 100W   |  |
| Additional Features       | <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 AI cameras</li> </ul> </li> <li>• PTZ camera configuration and control</li> </ul> |  |  |  |  |



**XRN-420S**  
4CH NVR



**QRN-1630S**  
16CH NVR



**QRN-830S**  
8CH NVR



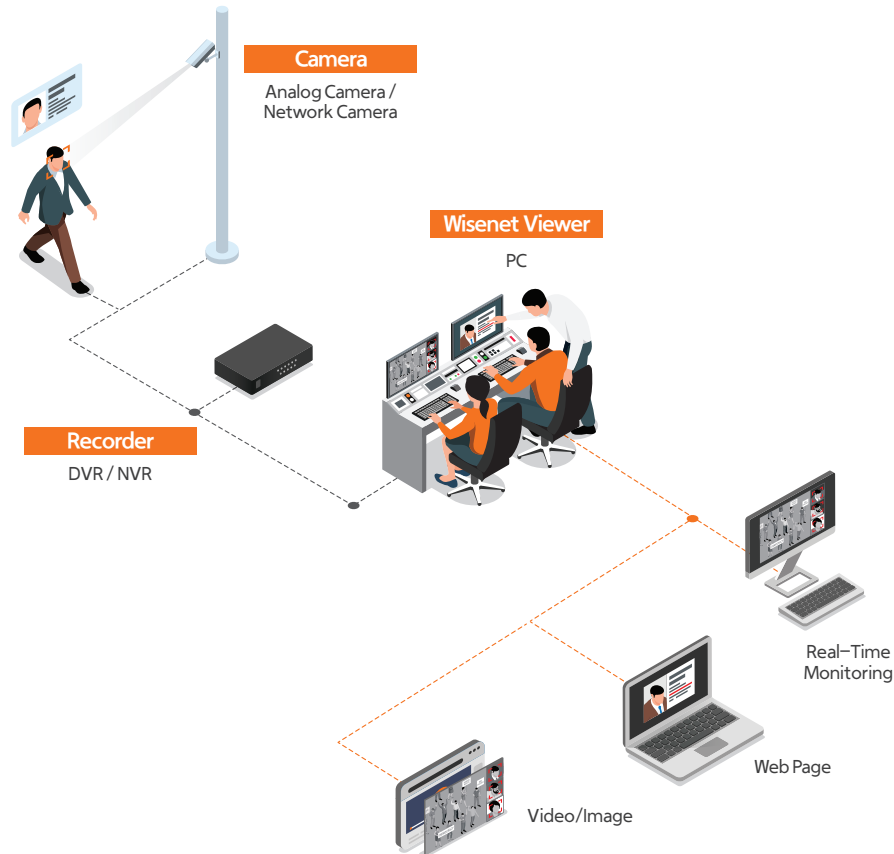
**QRN-430S**  
4CH NVR

|                           |  |  |  |  |
|---------------------------|--|--|--|--|
| OS                        | Linux  |  |  |  |
| Supported Compression     | H.265/H.264, MJPEG   |  |  |  |
| Max. Recording Bit Rate   | 50Mbps   | 128Mbps  | Max. 80Mbps  | 40Mbps   |
| Max # of Cameras          | 4CH  | 16CH   | 8CH  | 4CH  |
| Network Camera Resolution | 8MP~CIF  |  |  |  |
| HDD Slot                  | Up to 1 SATA (Max.6TB)   | Up to 2 SATA (Max. 20TB)   | Up to 1 SATA (Max. 6TB)  | Up to 1 SATA (Max. 6TB)  |
| Record Mode               | Normal, Dual Stream, Schedule(Continuous/Event), Event(Pre/Post), Bookmark   |  |  |  |
| Event Trigger             | Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event   | Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, 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   | 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   | WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile 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             | HDMI: 3840x2160, VGA: 1920x1080  | 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  |  |  |  |
| Power Input               | 100~240 VAC ± 10%: 50/60 Hz  | 100~240 VAC ± 10%: 50/60 Hz  | 54VDC / 1.55A  | 100~240 VAC ± 10%: 50/60 Hz  |
| Power Consumption         | Max 67W(1HDD, PoE On)  | Max. 200W (2HDD, PoE ON)   | Max 84W (1HDD, PoE ON)   | Max 52W (1HDD, PoE On)   |
| PoE Budget                | 50W  | 130W   | 65W  | 35W  |
| Additional Features       | <ul style="list-style-type: none"> <li>PoE supported</li> <li>N+1 failover supported</li> <li>AI search (BestShot, Attribute)</li> </ul> -When integrated with AI cameras <ul style="list-style-type: none"> <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>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> |



# Wisenet Viewer

Costless yet powerful NVR·DVR Management Software

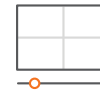


## Monitoring with PC gets easier

- Supports multiple OS (Windows, macOS)
- Flexible channel division and custom layout
- AI search (Person, Face, Vehicle, LPR)
- Fisheye de-warping
- Displays web pages (ex. NVR web-viewer) and video tutorials
- Allows videos to be directly saved to PC
- Event trigger and action rule management
- Remote connection (DDNS/P2P)

\* Available on Windows, macOS

## Effective monitoring with essential features



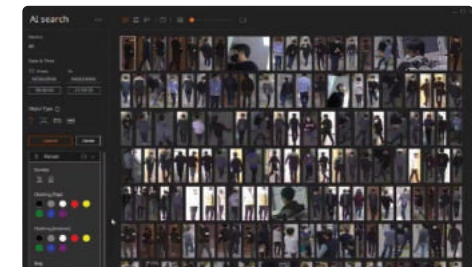
Customizable channel layout & Timeline



Easy monitoring with Fisheye De-warping



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,<br>HDMI# 2 up to 1080p                         |
| Display             | Max. 64ch decoding<br>Decoding performance : 8M@60fps, 2M@360fps |
| Power               | Dual Power : 12VDC, PoE (IEEE802.3af)                            |
| Additional Features | Multi adapter for monitor back mount (VESA)                      |

# Wisenet WAVE

## Video Management System

### 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 customizable layouts and sizes.
- Zoom windows 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 preview search options facilitate rapid retrieval of recorded video.

Wisenet WAVE targets the needs of projects in the mid-market with an emphasis on simplified user experience.

### 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. (For embedded devices, please contact **Hanwha Vision Support**)



WAVE Sync

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



Desktop

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



Mobile

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



Server

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

| 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 macOS        |                   |                   |
| Microsoft Edge     |                    |                   |                   |
| Apple Safari       |                    |                   |                   |

## Cloud

### Wisenet WAVE Sync Simplifies Everything

A cloud-based service which can be remotely accessed by an unlimited number of authorized users from anywhere in the world.

### Setup in Seconds

- Step 1: Create Wisenet WAVE Sync Account
- Step 2: Link your System to Wisenet WAVE Sync
- Step 3: Connect, View and Manage from anywhere



# Wisenet WAVE

## Desktop

### The Ultimate Flexibility

Wisenet WAVE offers a wide range of options to allow users to choose how and where to manage their video surveillance systems with minimal hardware requirements. Wisenet WAVE is offered as software which can be installed onto a user's desktop running Windows, Linux or Apple devices.



## Mobile

### Smart Phone. Smart Video.

A mobile app provides the opportunity to remotely access the key functions of Wisenet WAVE from a smart device to enable 'on-the-road' users to view and respond to any incidents captured by connected cameras.



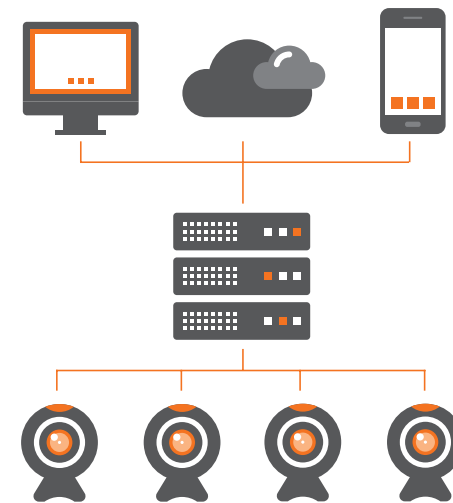
## Server

### Lightweight. Powerful. Server Hive.

The Wisenet WAVE server application is the foundation of the entire platform - with the ability to operate alone or as one part of a hive.

Wisenet WAVE is available as a downloadable software application from the **Hanwha Vision** website which enables the installers to easily and effortlessly install and configure.

The supporting web-based application enables each Wisenet WAVE platform to be managed as a stand alone system or as part of a larger, scalable video management solution. The application also provides an audit trail, real-time health monitoring and camera failover support, as well as reports on server health and storage status.



### Server Hive

Connect to any Server w/ any Client

- Instant synchronization
- No single point of failure
- Automatic failover
- One-click upgrades



# Wisenet SSM

## Ideal choice for integrated monitoring

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



### Cost Competitiveness

Offer major features of video surveillance in reasonable price

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

High quality VMS features for the price

### High reliability

Superb device compatibility offered as a VMS of device manufacturer

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

Dashboard that can monitor device status

### Convenient Operation

A single manufacturer providing unified user experience

Be the first to use the latest device features

Offer various solutions for user environments

## AI video search

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

### • Best Shot search using unique attributes

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



**Hanwha SSM search**  
Support quick search using attributes



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

## Parking management solution

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

### • Vehicle management & event search

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

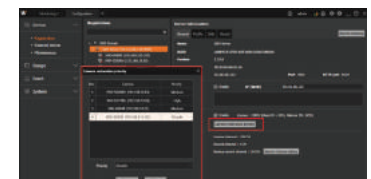


## Stable monitoring

SSM provides safe and stable monitoring environment through Failover.

### • Vehicle management & event search

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



## Wisenet Access Software 2.2

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

ACSMonitoring



Fire Alarm



Lift Control



### Key Features

- Interlocking**  
 Control the locking of two or more doors  
 If one door is opened or unlocked, the remaining doors refuse access
- Mustering Report**  
 Provide information of the occupants in the fire grouping area based in Fire event
- Role Based Access**  
 Configure Role-based rules to provide access to a door (Multiple cards access)
- LDAP integration**  
 Synchronize Active Directory "Security group" users to have the same "Access Group", "Company", "Department" in WACS
- Lift access control**  
 Provide Access control for Lift up to 12 floors per output board (V300, X300)
- Guard Tour**  
 Provide Guard Tour : Sequential, Time Bound types



Configuration

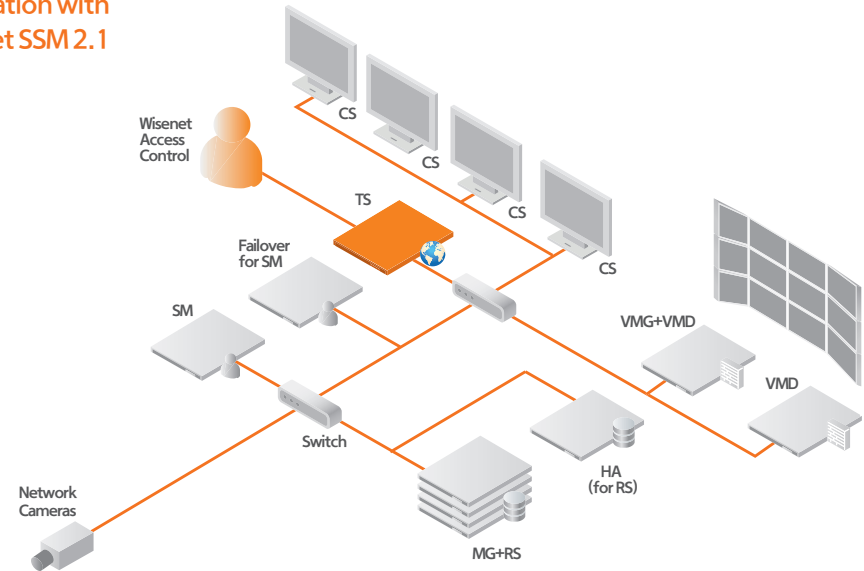


Monitoring



Mustering Report

### Integration with Wisenet SSM 2.1



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



Reader



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



**U90**  
Long Range UHF Reader



**BioEntry W2**  
Fingerprint / Card Reader



**BioMini**  
Fingerprint Scanner

|                           |  |                                |  |                                |
|---------------------------|--|--------------------------------|--|--------------------------------|
| Credential Compatibility  | 125KHz/ 13.56Mhz   | 902~928 MHz                    | 13.56Mhz   | -                              |
| Communication             | Wiegand/Clock & Data/BLE/NFC   | Wiegand                        | Wiegand  | USB 2.0                        |
| Compatible Access Cards   | Standard Profile : iClass SE/SEOS, MIFARE (Classic/SIO), HID Prox, EM4102, MIFARE DESFire EV1/EV2 (CSN/SIO) SEOS Profile : iClass SEOS | UHF Card                       | iCLASS SE/SEOS, MIFARE (Classic) / DESFire EV1 CSN | -                              |
| Keypad                    | No / Yes (6x2) / No / Yes (4x3)  | -                              | -  | -                              |
| Operating Voltage Range   | 12V DC   | 12V DC or 24V DC               | 12V DC   | USB 2.0                        |
| Operating Temperature     | -35°C ~ 66°C (-31°F ~ 150°F)   | -35°C ~ +65°C (-31°F ~ +150°F) | -20°C ~ +50°C (-4°F ~ +122°F)                      | -10°C ~ +50°C (+14°F ~ +122°F) |
| Ingress Protection        | IP65   | IP65                           | IP67   | -                              |
| Impact Protection         | -  | -                              | IK08   | -                              |
| Panel Connection          | Pigtail  | Pigtail                        | Pigtail  | -                              |
| Color                     | Black with silver  | Black                          | Dark Gray  | Dark Gray                      |
| OSDP                      | Support  | -                              | -  | -                              |
| Max. User                 | -  | -                              | 500,000 (1 : 1), 100,000 (1 : N)                   | -                              |
| Max. Fingerprint Template | -  | -                              | 1,000,000 (1 : 1), 200,000 (1 : N)                 | -                              |
| Ethernet                  | -  | -                              | 10/100Mbps   | -                              |

Controller



**X1100**  
Hybrid controller



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

Peripheral



**SSA-X300**  
Power Package

Card



**iCLASS SEOS (Elite)**  
13.56MHz



**Mobile Subscription**

**UHF Card**  
902-928 MHz Card

|                       |                           |                            |                                |   |  |  |  |
|-----------------------|---------------------------|----------------------------|--------------------------------|---|--|--|--|
| Communication         | Ethernet (10/100)/RS-485  | RS-485                     | Controller/ Interface On Board | Max. 2ea Boards in enclosure                  | <ul style="list-style-type: none"> <li>• 13.56Mhz</li> <li>• Compatible with Signo 20 (k)/40K, R10 EXP</li> <li>• Encoded by <b>Hanwha Vision</b> unique format (Elite)</li> </ul> | <ul style="list-style-type: none"> <li>• Bluetooth/NFC via mobile device (Android, IOS)</li> </ul> | <ul style="list-style-type: none"> <li>• Long range card (3~5m)</li> </ul> |
| Reader interface      | 2ea                       | 2ea/ -                     | Input Power                    | 100 ~ 240V AC (50Hz/60Hz) / 2.0A              |  |  |  |
| Max. expansion board  | 32ea                      | -                          | Power Consumption              | 13.5V ± 5%, 4.7A (Strobe, Horn 12.5V DC ± 5%) |  |  |  |
| Max. card holders     | 250,000                   | -                          | Charging Current               | 700mA   |  |  |  |
| Max. Event buffers    | 50,000                    | -                          | Back up Battery                | 12V, 18Ah, rechargeable                       |  |  |  |
| Input port            | 7ea                       | 7ea/ 19ea/ 3ea             | SMPS Status Transmission       | AC loss, Battery fail (Non battery)           |  |  |  |
| Output port           | 4ea                       | 4ea/ 2ea/ 12ea             | AC Input Protection            | by Fuse in input port                         |  |  |  |
| Operating Temperature | 0°C ~ 70°C (32°F ~ 158°F) | 0°C ~ 70°C (32°F ~ 158° F) | Operation Temperature          | 0°C ~ +45°C (+32°F ~ +113°F)                  |  |  |  |
| PoE                   | -                         | -                          | Case Lock                      | Lock on front door with keys                  |  |  |  |
| Color                 | Gray                      | Gray                       | Dimension (mm)                 | W410 x H410 x D97mm (16.14" x 16.14" x 3.82") |  |  |  |
| OSDP                  | Yes                       | Yes                        |                                |   |  |  |  |



# IP Audio System

IP audio meets network surveillance system for better safety and operational efficiency in daily life.



 Motion Detection

 Please stay away from the fence



**TTS**  
Text To Speech



**PoE & PoE+**  
Dual Support +



**SIP**  
PBX integration



**Scheduler**  
Day, Week, Month and Year



## IP Speakers



**SPA-C110B/SPA-C110W**  
Ceiling Speaker



**SPA-C100B / SPA-C100W**  
Ceiling Speaker



**SPA-P100B/SPA-P100W**  
Pendant speaker



**SPA-W100B / SPA-W100W**  
Wall speaker



**SPA-H100B/SPA-H100W**  
Horn speaker

|                           |   |             |             |             |              |
|---------------------------|---|-------------|-------------|-------------|--------------|
| Amplifier                 | Built in 10W Class D                                      |             |             |             |              |
| Ethernet                  | 10/100 Base-T   |             |             |             |              |
| Internal Memory           | 1 GBytes  |             |             |             |              |
| Max. Sound Pressure Level | 100dB   | 100dB       | 101dB       | 101dB       | 125dB        |
| Frequency Range (-10dB)   | 120Hz~20kHz   | 120Hz~20kHz | 130Hz~20kHz | 120Hz~20kHz | 650Hz~5.3kHz |
| Sensitivity (1Watt)       | 90dB  | 90dB        | 91dB        | 91dB        | 111dB        |
| Power                     | PoE/ PoE+   |             |             |             |              |
| TTS                       | Korean, English(US, UK), German, French, Spanish, Russian |             |             |             |              |

## IP Audio Module



**SPA-D1000**  
Audio Module

## IP Audio Server



**SPA-S1000**  
Audio Server

|                 |                      |
|-----------------|----------------------|
| Amplifier       | Built in 10W Class D |
| Ethernet        | 10/100 Base-T        |
| Internal Memory | 1 GBytes             |

|                       |  |
|-----------------------|--|
| Ethernet              | 100/1000 Base-T                                  |
| Power                 | AC 120-240V, 50/60Hz, 10W DC 24V, 350mA          |
| Functional Monitoring | Connection verification, Built-in system logging |



**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

| Imaging Device              | 1/3" CMOS   |  |   |  |   |
|-----------------------------|---|--|---|--|---|
| Resolution                  | 2560 x 1440   |  |   |  |   |
| Min. Illumination           | Color: 0.16Lux (F1.2)<br>B/W: 0.009Lux (F1.2)   | Color: 0.16Lux (F1.6)<br>B/W: 0Lux (IR LED on)   | Color: 0.26Lux (F1.8) (HCO-7010R)<br>0.27Lux (F2.0) (HCO-7020R/7030R)<br>B/W: 0Lux (IR LED on)  | Color: 0.16Lux (F1.6)<br>B/W: 0Lux (IR LED on)   | Color: 0.26Lux (F1.8) (HCD-7010RA)<br>0.27Lux (F2.0) (HCD-7020R/7030RA)<br>B/W: 0Lux (IR LED on)  |
| Focal Length                | -   | 3.2 ~ 10mm (3.1x)<br>varifocal   | 2.8mm fixed (HCO-7010R)<br>4.0mm fixed (HCO-7020R)<br>6.0mm fixed (HCO-7030R)   | 3.2 ~ 10mm (3.1x)<br>varifocal   | 2.8mm fixed (HCD-7010RA)<br>4.0mm fixed (HCD-7020RA)<br>6.0mm fixed (HCD-7030RA)  |
| Angular Field of View       | -   | H: 93.48° (Wide) ~ 29.44° (Tele)<br>V: 50.47° (Wide) ~ 16.64° (Tele)<br>D: 112.53° (Wide) ~ 33.7° (Tele) | H: 107.48° / V: 59.67° / D: 122.01° (HCO-7010RA)<br>H: 78.22° / V: 41.21° / D: 87.91° (HCO-7020RA)<br>H: 49.01° / V: 27.61° / D: 55.6° (HCO-7030RA) | H: 93.48° (Wide) ~ 29.44° (Tele)<br>V: 50.47° (Wide) ~ 16.64° (Tele)<br>D: 112.53° (Wide) ~ 33.7° (Tele) | H: 107.48° / V: 59.67° / D: 122.01° (HCD-7010RA)<br>H: 78.22° / V: 41.21° / D: 87.91° (HCD-7020RA)<br>H: 49.02° / V: 27.61° / D: 55.6° (HCD-7030RA) |
| Pan / Tilt / Rotate         | -   | -  | -   | 0° ~ 350° / 0° ~ 63° / 0° ~ 355°   | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°  |
| IR Viewable Length          | -   | 30m (98.43ft)  | 20m (65.62ft) (HCO-7010R)<br>25m (82.02ft) (HCO-7020R)<br>30m (98.43ft) (HCO-7030R)   | 20m (65.62ft)  | 20m (65.62ft) (HCD-7010RA)<br>25m (82.02ft) (HCD-7020RA)<br>30m (98.43ft) (HCD-7030RA)  |
| Day & Night                 | Auto (ICR)  |  |   |  |   |
| Backlight Compensation      | BLC/HLC/DWDR  |  |   |  |   |
| Digital Noise Reduction     | 2D DNR  |  |   |  |   |
| Motion detection            | Support   |  |   |  |   |
| Privacy Masking             | 2 Zones   |  |   |  |   |
| Alarm I/O                   | 0/1   | 0/1  | 0/1   | 0/1  | MD Output 1   |
| Protocol                    | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)<br>RS-485: Samsung T, Pelco D/P | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)  | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)   | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)  | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)   |
| Operating Temperature       | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)                                      | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)  | -10°C ~ +55°C<br>(+14°F ~ +131°F)   |
| Certification               | -   | 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   |
| Dimensions (WxHxD) / Weight | W 59.6 x H 68.4 x D 92.7mm<br>(2.35" x 2.69" x 3.65")<br>186g (0.41lb)                        | Ø 78 x 259.8mm<br>(Ø 3.07" x 10.23")<br>(Without sunshield)<br>914g (2.02lb)                             | Ø 70 x 246mm<br>(Ø 2.76" x 9.69")<br>(Without sunshield)<br>670g (1.48lb)   | Ø 119.8 x 98.5mm<br>(Ø 4.72" x 3.88")<br>320g (0.71lb)   | Ø 110.1 x 86.1mm<br>(Ø 4.33" x 3.39")<br>240g (0.53lb)  |
| Additional Features         | Video Transmission up to 500m<br>(5C2V Coaxial Cable)   |  |   |  |   |



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



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



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



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



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

|                             | HCV-7070RA   | HCV-7010RA/20RA/30RA  | HCB-6001  | HCB-6000  | HCO-6080R   |
|-----------------------------|--|---|---|---|---|
| Imaging Device              | 1/3" CMOS  | 1/3" CMOS   | 1/2.8" CMOS   | 1/2.8" CMOS   | 1/2.8" CMOS   |
| Resolution                  | 2560 x 1440  | 2560 x 1440   | 1920 x 1080   | 1920 x 1080   | 1920 x 1080   |
| Min. Illumination           | Color: 0.16Lux (F1.6)<br>B/W: 0Lux (IR LED on)   | Color: 0.26Lux (F1.8) (HCV-7010R)<br>0.27Lux (F2.0) (HCV-7020R/7030R)<br>B/W: 0Lux (IR LED on)  | Color: 0.09Lux (F1.2)<br>B/W: 0.009Lux (F1.2)   | Color: 0.09Lux (F1.2)<br>B/W: 0.009Lux (F1.2)   | Color: 0.11Lux (F1.6)<br>B/W: 0Lux (IR LED on)  |
| Focal Length                | 3.2 ~ 10mm (3.1x)<br>varifocal   | 2.8mm fixed (HCV-7010R)<br>4.0mm fixed (HCV-7020R)<br>6.0mm fixed (HCV-7030R)   | -   | -   | 3.2 ~ 10mm (3.1x)<br>motorized varifocal  |
| Angular Field of View       | H: 93.48° (Wide) ~ 29.44° (Tele)<br>V: 50.47° (Wide) ~ 16.64° (Tele)<br>D: 112.53° (Wide) ~ 33.7° (Tele) | H: 107.48° / V: 59.67° / D: 122.01°<br>(HCV-7010R)<br>H: 78.22° / V: 41.21° / D: 87.91°<br>(HCV-7020R)<br>H: 49.01° / V: 27.61° / D: 55.6°<br>(HCV-7030R) | -   | -   | H: 110.2° (Wide) ~ 32° (Tele)<br>V: 55.4° (Wide) ~ 18° (Tele)<br>D: 128.4° (Wide) ~ 36.6° (Tele)                      |
| Pan / Tilt / Rotate         | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°  | -   | -   | -   |
| IR Viewable Length          | 30m (98.43ft)  | 20m (65.62ft) (HCV-7010R)<br>25m (82.02ft) (HCV-7020R)<br>30m (98.43ft) (HCV-7030R)   | -   | -   | 30m (98.43ft)   |
| Day & Night                 | Auto (ICR)   |   |   |   |   |
| Backlight Compensation      | BLC / HLC / DWDR   | BLC/HLC/DWDR  | WDR (120dB)   | WDR (120dB)   | WDR (120dB)   |
| Digital Noise Reduction     | 2D DNR   | 2D DNR  | SSNRIV  | SSNRIV  | SSNRIV  |
| Motion detection            | Support  |   |   |   |   |
| Privacy Masking             | 2 Zones  | 2 Zones   | 4 Zones   | 8 Zones   | 8 Zones   |
| Alarm I/O                   | MD Output 1  |   |   |   |   |
| Protocol                    | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)  | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron)   | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol),<br>RS-485: Samsung T, Pelco D/P,<br>Panasonic, Bosch, Honeywell, Vicon, GE, AD | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol),<br>RS-485: Samsung T, Pelco D/P,<br>Panasonic, Bosch, Honeywell, Vicon, GE, AD | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol) |
| Operating Temperature       | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)                                      | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)   |
| Certification               | IP66, IK10   | IP66, IK10  | -   | -   | IP66, IK10  |
| Power Consumption           | 12VDC & 24VAC: Max 5.8W  | 12VDC: Max 5W   | 12VDC & 24VAC: Max 6W   | 12VDC & 24VAC: Max 3.5W   | 12VDC & 24VAC: Max 5.8W   |
| Dimensions (WxHxD) / Weight | Ø137 x 106.1mm<br>(Ø5.39" x 4.18")<br>715g (1.58lb)  | Ø120.3 x 91.7mm<br>(Ø4.74" x 3.61")<br>510g (1.12lb)  | W 130.9 x H 73.1 x D 67.2mm<br>(5.15" x 2.88" x 2.65")<br>287g (0.63lb)   | W 68.4 x H 59.6 x D 92.7mm<br>(2.69" x 2.35" x 3.65")<br>186g (0.41lb)  | Ø78 x 259.8mm<br>(Ø3.07" x 10.23")<br>(Without sunshield)<br>948g (2.09lb)  |
| Additional Features         | Video Transmission up to 500m<br>(5C2V Coaxial Cable)  |   |   |   |   |



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



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



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



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

|                             |   |  |  |
|-----------------------------|---|--|--|
| Imaging Device              | 1/2.8" CMOS   |  |  |
| Resolution                  | 1920 x 1080   |  |  |
| Min. Illumination           | Color: 0.11Lux (F1.6)<br>B/W: 0Lux (IR LED on)  | Color: 0.17Lux (F1.6)<br>B/W: 0Lux (IR LED on)                             | Color: 0.11Lux (F1.6)<br>B/W: 0Lux (IR LED on)   |
| Focal Length                | 3.2 ~ 10mm (3.1x)<br>varifocal  | 4mm fixed (F1.6)   | 3.2 ~ 10mm (3.1x)<br>motorized varifocal (HCD-6080R)<br>varifocal (HCD-6070R)                    |
| Angular Field of View       | H: 110.2° (Wide) ~ 32° (Tele)<br>V: 55.4° (Wide) ~ 18° (Tele)<br>D: 128.4° (Wide) ~ 36.6° (Tele)                      | H: 87.6° / V: 46.4° / D: 104.5°  | H: 110.2° (Wide) ~ 32° (Tele)<br>V: 55.4° (Wide) ~ 18° (Tele)<br>D: 128.4° (Wide) ~ 36.6° (Tele) |
| Pan / Tilt / Rotate         | -   | -  | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   |
| IR Viewable Length          | 30m (98.43ft)   | 30m (98.43ft)  | 20m (65.62ft)  |
| Day & Night                 | Auto (ICR)  |  |  |
| Backlight Compensation      | WDR (120dB)   |  |  |
| Digital Noise Reduction     | SSNRIV  |  |  |
| Motion detection            | Support   |  |  |
| Privacy Masking             | 8 Zones   |  |  |
| Alarm I/O                   | MD Output 1   | -  | MD Output 1  |
| Protocol                    | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol) |  |  |
| Operating Temperature       | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>*Start up above -10°C (+14°F)  | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>*Start up above -10°C (+14°F)         | -10°C ~ +55°C<br>(+14°F ~ +131°F)  |
| Certification               | IP66, IK10  | IP66   | -  |
| Power Consumption           | 12VDC & 24VAC : Max 6W  | 12VDC : Max 5.4W   | 12VDC & 24VAC : Max 5.8W (HCD-6080R)<br>12VDC & 24VAC : Max 4.2W (HCD-6070R)                     |
| Dimensions (WxHxD) / Weight | Ø78 x 259.8mm<br>(Ø3.07" x 10.23")<br>(Without sunshield)<br>914g (2.02lb)  | Ø58.6 x 165.2mm<br>(Ø2.31" x 6.5")<br>(Without sunshield)<br>279g (0.62lb) | Ø119.8 x 98.5mm<br>(Ø4.72" x 3.88")<br>330g (0.73lb) (HCD-6080R)<br>320g (0.71lb) (HCD-6070R)    |
| Additional Features         | Video transmission up to 500m<br>(5C2V Coaxial Cable)   |  |  |





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



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



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



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

|                                |   |   |  |
|--------------------------------|---|---|--|
| Imaging Device                 | 1/2.8" CMOS   |   |  |
| Resolution                     | 1920x1080   |   |  |
| Min. Illumination              | Color: 0.27Lux (F2.0)<br>B/W: 0.017 Lux (F2.0)  | Color: 0.11Lux (F1.6)<br>B/W: 0Lux (IR LED on)  | Color: 0.04Lux (F1.2, 1/30sec)<br>BW: 0.004Lux (F1.2)                                      |
| Focal Length                   | 2.8mm fixed (F2.0)  | 3.2~10mm (3.1x)<br>motorized varifocal (HCV-6080R)<br>varifocal (HCV-6070R)   | -  |
| Angular Field of View          | H: 113.7° / V: 61.5° / D: 134.5°  | H: 110.2° (Wide)~32° (Tele)<br>V: 55.4° (Wide)~18° (Tele)<br>D: 128.4° (Wide)~36.6° (Tele)                            | H: 110.2° (Wide)~32° (Tele)<br>V: 55.4° (Wide)~18° (Tele)<br>D: 128.4° (Wide)~36.6° (Tele) |
| Pan / Tilt / Rotate            | 0° ~350° / 0° ~67° / 0° ~355°   | 0° ~350° / 0° ~67° / 0° ~355°   | -  |
| IR Viewable Length             | -   | 30m (98.43ft)   | -  |
| Day & Night                    | Auto (ICR)  |   |  |
| Backlight Compensation         | WDR (120dB)   |   |  |
| Digital Noise Reduction        | SSNRIV  |   |  |
| Motion detection               | Support   |   |  |
| Privacy Masking                | 8 Zones   |   |  |
| Alarm I/O                      | -   | MD Output 1   | 0 / 1  |
| Protocol                       | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol) | AHD: ACP<br>(AHD Coax Protocol),<br>CVBS: Pelco-C (Coaxitron),<br>CCP (CVI Coax Protocol),<br>TCP (TVI Coax Protocol) | ACP (AHD Coax Protocol)<br>CVBS: Pelco-C (Coaxitron)                                       |
| Operating Temperature          | -10°C ~ +55°C<br>(+14°F ~ +131°F)   | -30°C ~ +55°C<br>(-22°F ~ +131°F)<br>* Start up above -10°C (+14°F)   | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~90% RH   |
| Certification                  | -   | IP66, IK10  | -  |
| Power Consumption              | 12VDC: Max 3.6W   | 12VDC & 24VAC: Max 5.8W (HCV-6080R)<br>12VDC & 24VAC: Max 4.2W (HCV-6070R)  | AC 24V / 0.37A (Max 3.6W)<br>DC 12V / 0.32A (Max 3.5W)                                     |
| Dimensions (WxHxD) /<br>Weight | Ø110 x 86mm<br>(Ø4.33" x 3.39")<br>225g (0.49lb)  | Ø137 x 106.1mm<br>(Ø5.39" x 4.18")<br>725g (1.60lb) (HCV-6080R)<br>715g (1.58lb) (HCV-6070R)                          | W68.4 x H59.6 x D92.7mm<br>(2.69" x 2.35" x 3.65")<br>186g (0.41lb)                        |
| Additional Features            | Video transmission up to 500m<br>(5C2V Coaxial Cable)   |   |  |



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



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

|                                |  |  |  |
|--------------------------------|--|--|--|
| Imaging Device                 | 1/2.8" CMOS  |  |  |
| Resolution                     | 1920 x 1080  |  |  |
| Min. Illumination              | Color: 0.11Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED on)   |  | Color: 0.11Lux (F1.6, 1/30sec)<br>BW: 0Lux (IR LED on)   |
| Focal Length                   | 3.2~10mm (3.1x) varifocal  |  | 3.2~10mm (3.1x) varifocal  |
| Angular Field of View          | H: 110.2° (Wide) ~ 32° (Tele)<br>V: 55.4° (Wide) ~ 18° (Tele)<br>D: 128.4° (Wide) ~ 36.6° (Tele) |  | H: 110.2° (Wide) ~ 32° (Tele)<br>V: 55.4° (Wide) ~ 18° (Tele)<br>D: 128.4° (Wide) ~ 36.6° (Tele) |
| Pan / Tilt / Rotate            | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   |  | 0° ~ 350° / 0° ~ 67° / 0° ~ 355°   |
| IR Viewable Length             | 20m (65.62ft)  |  | 30m (98.43ft)  |
| Day & Night                    | Auto (ICR)   |  |  |
| Backlight Compensation         | BLC, HLC, DWDR   |  |  |
| Digital Noise Reduction        | SSNRIV   |  |  |
| Motion detection               | Support  |  |  |
| Privacy Masking                | 8 Zones  |  |  |
| Alarm I/O                      | 0 / 1  |  | -  |
| Protocol                       | ACP (AHD Coax Protocol)<br>CVBS: Pelco-C (Coaxitron)   |  |  |
| Operating Temperature          | -10°C ~ +55°C (+14°F ~ +131°F) /<br>0~90% RH   |  | -30°C ~ +55°C (+14°F ~ +131°F) /<br>0~90% RH<br>* Start up should be done at above -10°C         |
| Certification                  | -  |  | IP66, IK10   |
| Power Consumption              | AC 24V / 0.45A<br>DC 12V / 0.46A   |  | AC 24V / 0.45A<br>DC 12V / 0.46A   |
| Dimensions (WxHxD) /<br>Weight | Ø 119.8 x 98.5mm<br>(Ø 4.72" x 3.88")<br>320g (0.7lb)  |  | Ø 137 x 106.1mm<br>(Ø 5.39" x 4.18")<br>715g (1.57lb)  |
| Additional Features            | Video transmission up to 500m (5C2V Coaxial Cable)   |  |  |



**HRX-1635**  
16CH 8MP Pentabrid Recorder



**HRX-1634**  
16CH 8MP Pentabrid Recorder



**HRX-835**  
8CH 8MP Pentabrid Recorder



**HRX-435**  
4CH 8MP Pentabrid Recorder



**HRX-434**  
4CH 8MP Pentabrid Recorder

|                     | HRX-1635   | HRX-1634                                       | HRX-835   | HRX-435   | HRX-434   |
|---------------------|--|--|---|---|---|
| OS                  | Linux  |  |   |   |   |
| Compression         | H.264, H.265, MJPEG  |  |   |   |   |
| Signal Type         | 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,<br>5MP 12/12fps,<br>4MP 15/12fps,<br>2MP 30/25fps<br>NTSC/PAL<br>*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, Wisenet mobile<br>SUNAPI for integration to 3 <sup>rd</sup> party VMS                        | SSM, WebViewer, Wisenet Viewer, Wisenet Mobile | SSM, Webviewer, Wisenet mobile<br>SUNAPI for integration to 3 <sup>rd</sup> party VMS | SSM, Webviewer, Wisenet mobile<br>SUNAPI for integration to 3 <sup>rd</sup> party VMS | SSM, Webviewer, Wisenet mobile<br>SUNAPI for integration to 3 <sup>rd</sup> 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))<br>Coaxial Control support (CVBS and AHD/CVI/TVI)<br>RS-485<br>USB (2ports) |  |   |   |   |

## LED Monitor



**SMT-4343**  
43" LED Monitor



**SMT-3240**  
32" LED Monitor



**SMT-3234**  
32" LED Monitor



**SMT-2431**  
24" LED Monitor



**SMT-2212**  
22" LED Monitor

| Screen Size           | 43"                   | 32"                   | 32"                                |  |  | 24"                   | 22"                   |
|-----------------------|-----------------------|-----------------------|------------------------------------|--|--|-----------------------|-----------------------|
| Max. Resolution       | 3840 x 2160           | 3840 x 2160           | 1920 x 1080                        |  |  | 1920 x 1080           | 1920 x 1080           |
| 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> |
| Contrast Ratio        | 1000:1                | 1000:1                | 2250:1                             |  |  | 4000:1                | 3000:1                |
| Aspect Ratio          | 16:9                  |                       |                                    |  |  |                       |                       |
| Viewing Angle(H/V)    | 178° / 178°           |                       |                                    |  |  |                       |                       |
| Response Time         | 8.5ms                 | 14ms                  | 8ms                                |  |  | 14ms                  | 6.5ms                 |
| 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)      |
| Audio In/Out          | -/1                   | -/1                   | -/1                                |  |  | -/-                   | -/-                   |
| Built-in Speakers     | Yes                   | Yes                   | Yes                                |  |  | -                     | -                     |
| VESA Mount(mm)        | 100*100/400*200       | 100*100               | 100*100                            |  |  | 100*100               | 100*100               |
| Power                 | 100V ~ 240V AC        | 100V ~ 240V AC        | 100V ~ 240V AC                     |  |  | 100V ~ 240V AC        | DC 12V 5A             |
| Stand                 | Optional              | Yes                   | Optional                           |  |  | Yes                   | Yes                   |
| Tempered Glass Screen |                       |                       |                                    |  |  |                       |                       |
| Additional Features   | Remote Controller     | -                     | Remote Controller                  |  |  | -                     | -                     |

## Controller



**SPC-7000**  
System Controller



**SPC-2001**  
PTZ / DVR System Controller



**SPC-1010**  
PTZ Control Keyboard

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

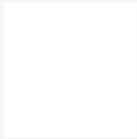


# Lens

NETWORK

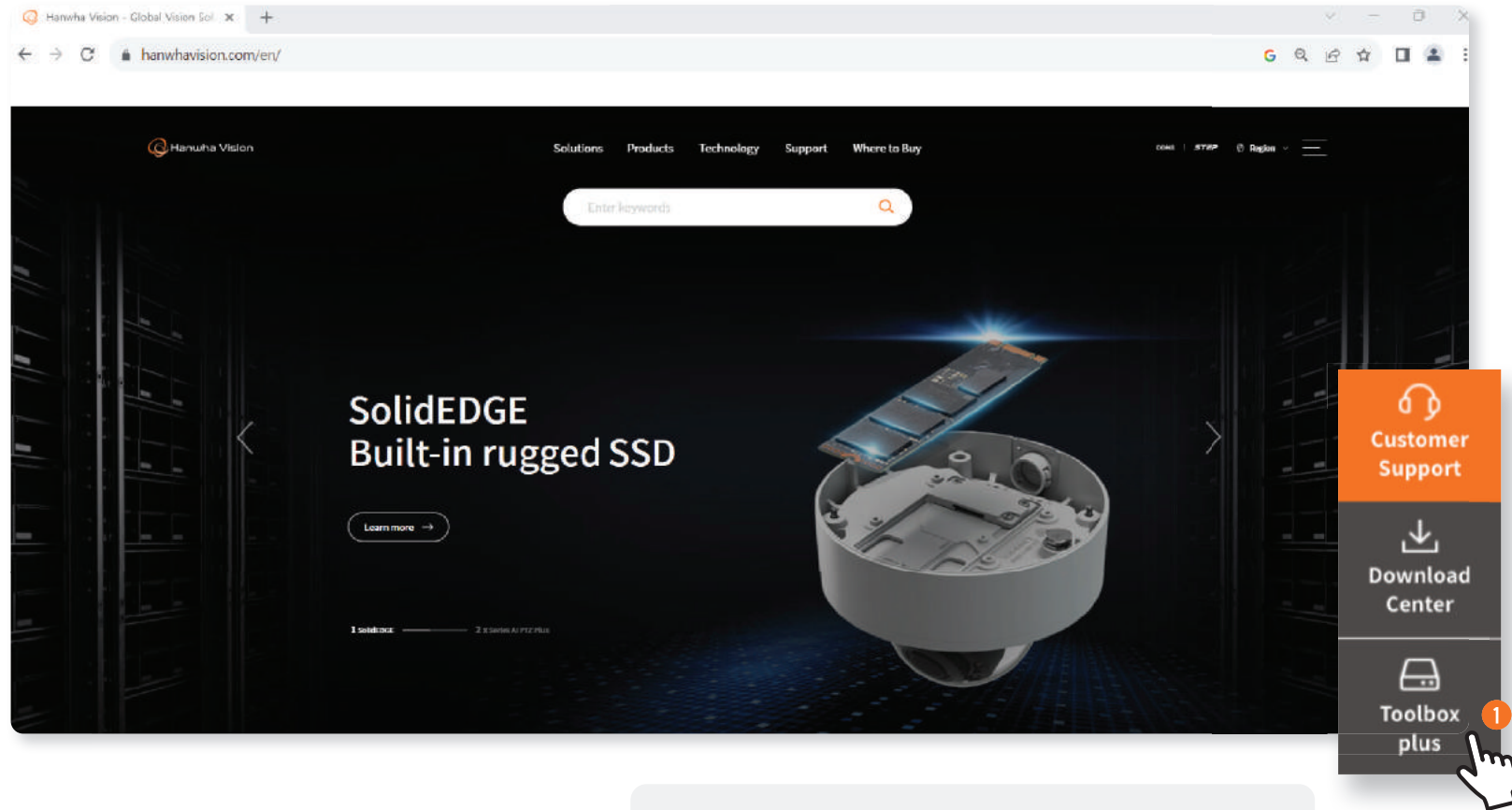
ANALOG

PERIPHERAL

INSTALLATION SOLUTION

| Model       | Image   | Mount | Image Format | Resolution | Focal Length               | Back Focal Length              | Zoom Ratio | F. No | Angle of View | Operation |        |        | Dimensions<br>W x H x D (mm / inch)              | Weight<br>(g / lb) |
|-------------|---|-------|--------------|------------|----------------------------|--------------------------------|------------|-------|---------------|-----------|--------|--------|--|--------------------|
|             |   |       |              |            |                            |                                |            |       |               | Iris      | Focus  | Zoom   |  |                    |
|             |    |       |              |            |                            |                                |            |       |               |           |        |        |  |                    |
| SLA-M2890DN |    | CS    | 1 / 2.8"     | 3Megapixel | 2.8~9mm<br>(0.11" ~ 0.35") | 7.5 ~ 15.9mm<br>(0.3" ~ 0.63") | 3.2        | 1.2   | 134.2°~42.7°  | DC        | Manual | Manual | W45 x H51.5 x D54.3mm<br>(1.77" x 2.03" x 2.14") | 84g<br>(0.19lb)    |
| SLA-M2890PN |  |       |              |            |                            |                                |            |       |               | P-Iris    |        |        |  | 82.1g<br>(0.18lb)  |

## Toolbox Plus



The image shows a screenshot of the Hanwha Vision website. The main navigation menu includes Solutions, Products, Technology, Support, and Where to Buy. A search bar is present with the placeholder text "Enter keywords". The main content area features a large image of a rugged SSD with the text "SolidEDGE Built-in rugged SSD" and a "Learn more" button. On the right side, a vertical menu is visible with the following items: Customer Support, Download Center, and Toolbox plus. A hand cursor is pointing to the "Toolbox plus" item, which has a small orange circle with the number "1" next to it.

Click the Toolbox Plus on Hanwha Vision.com

Or you can also connect by using below URL  
([https://www.hanwhavision.com/wisenettoolbox\\_plus](https://www.hanwhavision.com/wisenettoolbox_plus))



Choose product you are interested in

Select region and language

This screenshot shows the Wisenet website interface with three numbered callouts:
 

- 2**: A hand cursor points to the 'Network camera' category in the left sidebar.
- 3**: A hand cursor points to the 'Global' region and 'English' language dropdown menus.
- 4**: A hand cursor points to a camera card in the main grid, which is highlighted with a red '+' icon.

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

This screenshot shows the same Wisenet website interface with a fifth numbered callout:
 

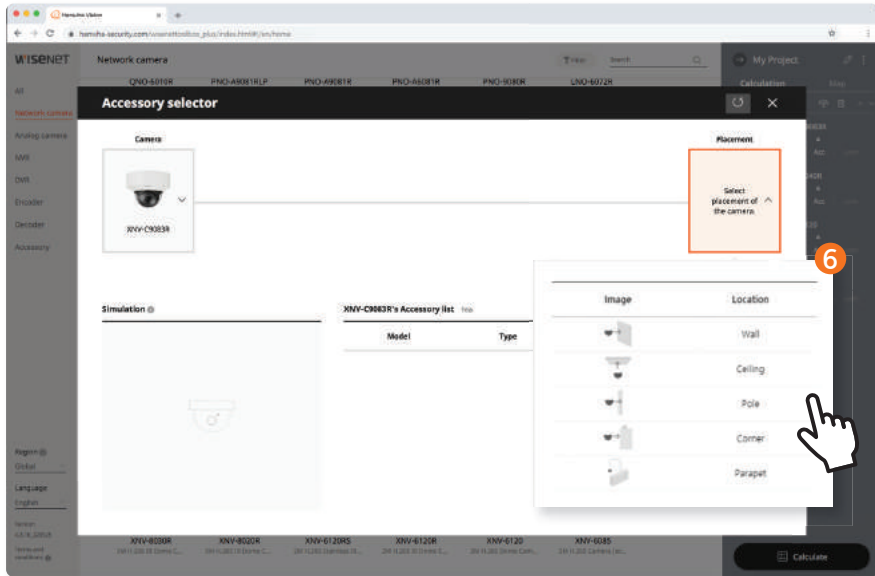
- 5**: A hand cursor points to the 'Acc' button on the camera card for the XNV-C9083R model.

Click the Acc to find compatible accessories

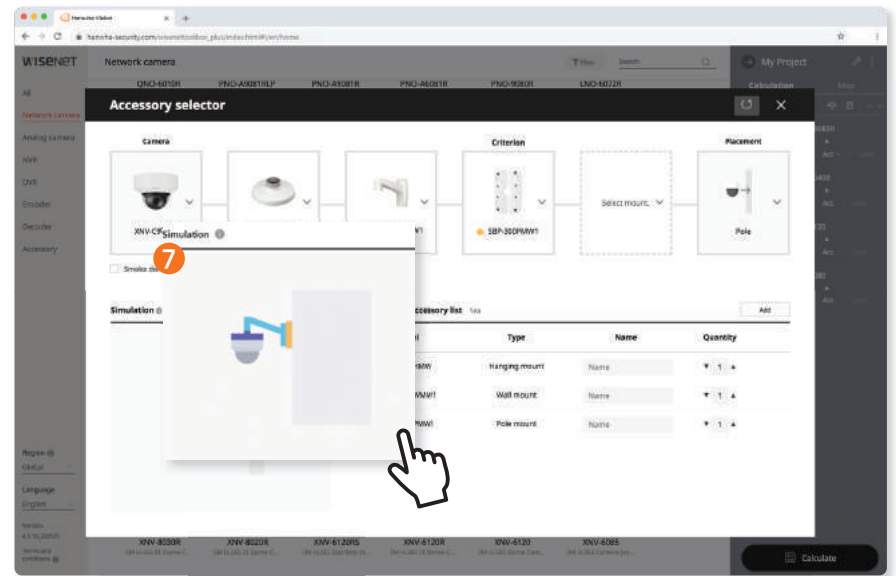
This sidebar shows the 'My Project' section with a 'Calculation' tab. It lists the following cameras:
 

- XNV-C9083R
- XNV-8040R
- XNV-6120
- XNV-6080

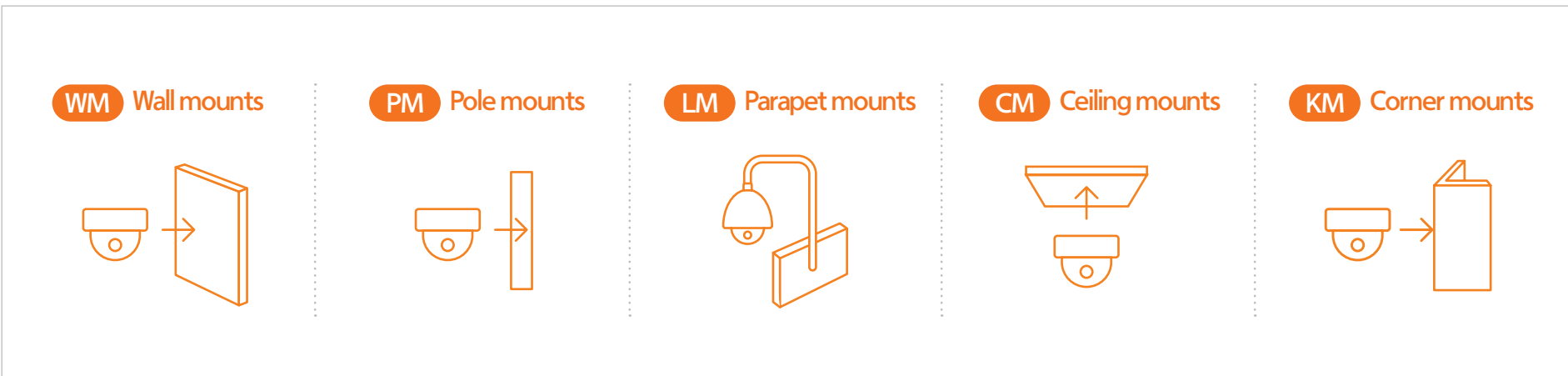
 Each camera entry includes a checkbox, a camera icon, and options for 'FoV', 'Acc', and 'Lens'.



Accessory Selector pops up. All compatible accessories are shown

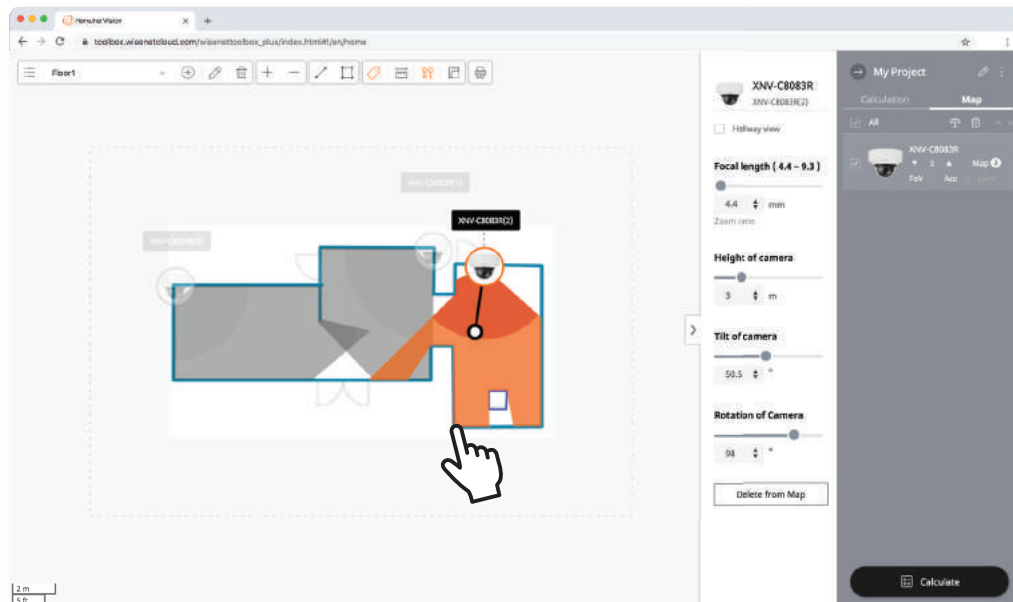
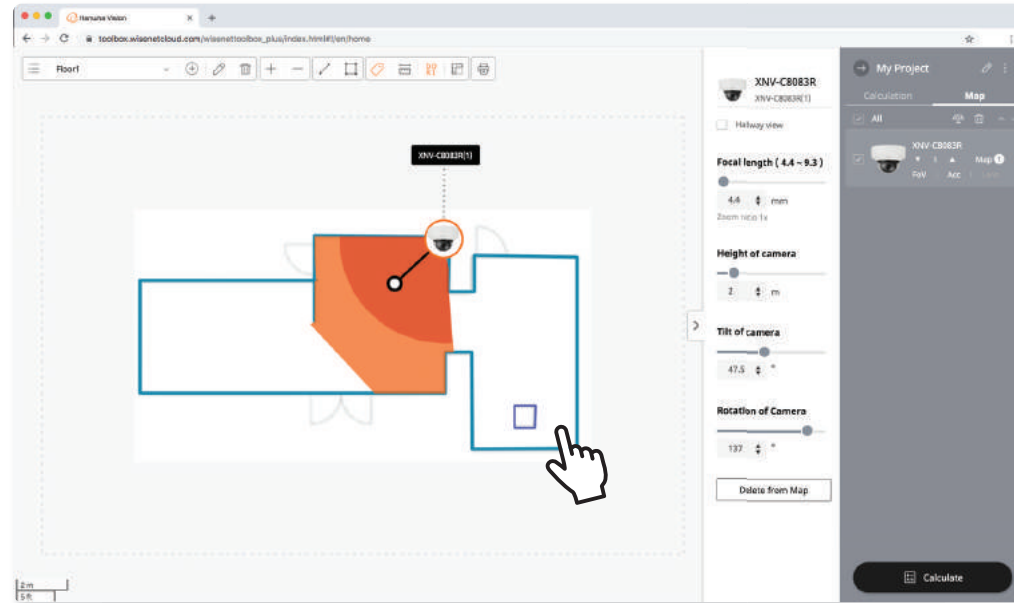


Choose accessories then the simulation intuitively shows all connected accessories



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

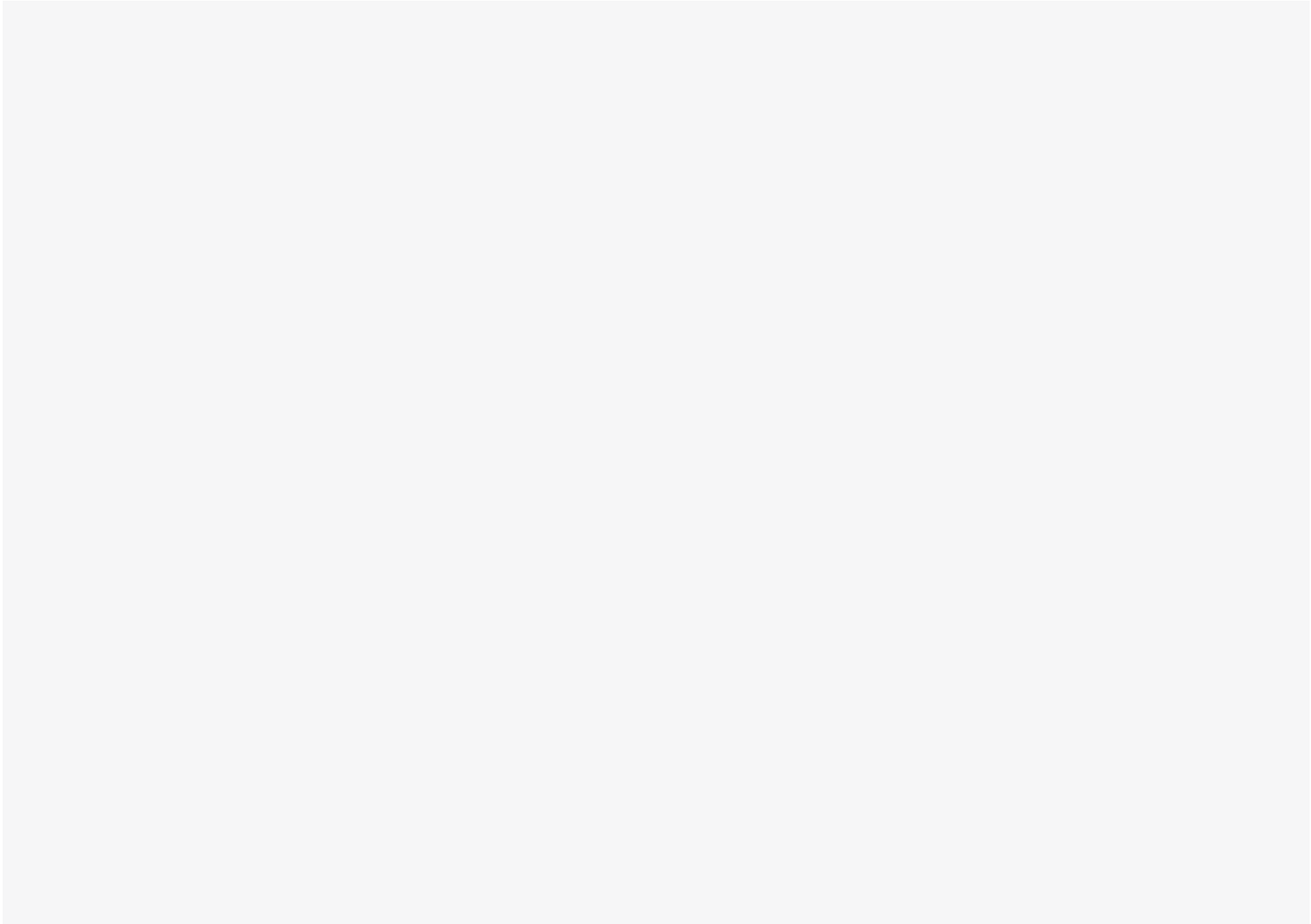
Toolbox Plus helps you simulate  
the best place for installing cameras.



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.

MEMO



---

## HEAD OFFICE

6, Pangyo-ro 319beon-gil, Bundang-gu, Seongnam-si,  
Gyeonggi-do, 13488  
For more information, please visit our website [hanwhavision.com](http://hanwhavision.com)

---

## Global Networks

Hanwha Vision America  
Hanwha Vision Europe  
Hanwha Vision MEA FZE  
Hanwha Vision Oceania  
Hanwha Vision Singapore Branch  
Hanwha Vision Hanoi / Ho Chi Minh Office

[www.hanwhavision.com/en](http://www.hanwhavision.com/en)

Scan this  
QR code to find  
our official partners.



© 2023 Hanwha Vision Co., Ltd. All rights reserved.

DESIGN AND SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE  
Under no circumstances, this document shall be reproduced, distributed or changed,  
partially or wholly, without formal authorization of Hanwha Vision Co., Ltd.  
Hanwha Vision is formerly known as Hanwha Techwin.

FIRST EDITION 11-2023(M.H)