Hanwha Techwin

2023

PRODUCT PORTFOLIO

Hanwha-Security.com

Hanwha Group

Hanwha Techwin is one of **Hanwha** Groups' affiliates.
Hanwha Group, founded in 1952, is one of the Top–Ten business group in South Korea and a "FORTUNE Global 500" company.

Hanwha Group has 76 domestic affiliates and 351 global networks in three major sectors: manufacturing and construction, finance, and services and leisure. With more than 60 years track record of industrial leadership, **Hanwha** provides a range of products and services that enhance the quality of life for customers.

Products & Services

Aerospace & Mechatronics
Financial Services
Solar Energy
Leisure & Lifestyle
Chemicals & Materials
Construction

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

Hanwha
Techwin

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

With over 30 years in the video–surveillance business, **Hanwha Techwin** is a top–tier global security company through its world–class optical, manufacturing and image processing technologies.

As the world shifts to the Fourth Industrial Revolution, we are leading the market with next–generation technologies, such as Deep Learning, Artificial Intelligence (AI) and Business Intelligence (BI) and able to offer solutions tailored to meet various vertical–market requirements.

Providing cybersecurity that customers can trust and rely on, we offer total security solutions which provide high satisfaction and value, as well as real–life practical benefits.

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

History

2013 ~ Current

- **2021** – Winner of Security Today New Product of the Year for Video Surveillance AI Cameras (PNV–A6081R)
- **2021** – The New X series AI cameras (X Core, X Plus) launched
- **2020** – Hanwha Techwin's 30th anniversary, Wisenet7 SoC launched
- **2019** – Acquired Cybersecurity certification 'Secure by Default' from UK government
- **2018** – Hanwha Techwin Vietnam manufacturing subsidiary established
- **2017** – Winner of IF Design Award, Red Dot Design Award
- **2017** – Wisenet V SoC and Wisenet X camera series launched
- **2015** – Hanwha Techwin is formed by strategic acquisition by Hanwha Group
- **2015** – Winner of Red Dot Design Award
- **2015** – Wisenet Lite series launched
- **2013** – Wisenet III SoC and camera series launched

1990 ~ 2012

- **2012** – Winner of Red Dot Design, CES Innovation Award
- **2012** – World’ s first 37X IR PTZ camera launched
- **2011** – B2C business began
- **2009** – Hanwha Techwin Tianjin and Shanghai subsidiaries established
- **2008** – Korea’ s first 37X optical AF PTZ camera launched
- **2004** – WinnerIII analog ISP chip developed
- **2001** – Hanwha Techwin Europe subsidiary established
- **1997** – World–class ultra low–light surveillance camera launched
- **1993** – Korea’ s first auto–iris lens for CCTV cameras developed
- **1990** – Video surveillance business established

Engineered in Korea

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

Core Technologies

Based on long-established optical and image-processing technologies, **Hanwha Techwin** has competitive edge not only in optical lenses but also in SoC cameras chipset development.
As technologies become more advanced and security solutions are leveraged across all areas of life, the role of security goes beyond just monitoring. It is now being utilized in many other ways in order to fulfill the growing market demand for built-in analytics capabilities and intelligent functionality. In order to provide agile response to such trend, **Hanwha Techwin** will strive to achieve technological advancement by developing deep-learning and AI solutions.

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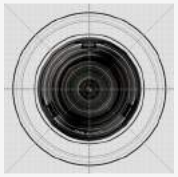
01. Optical design technology

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



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02. SoC design technology

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

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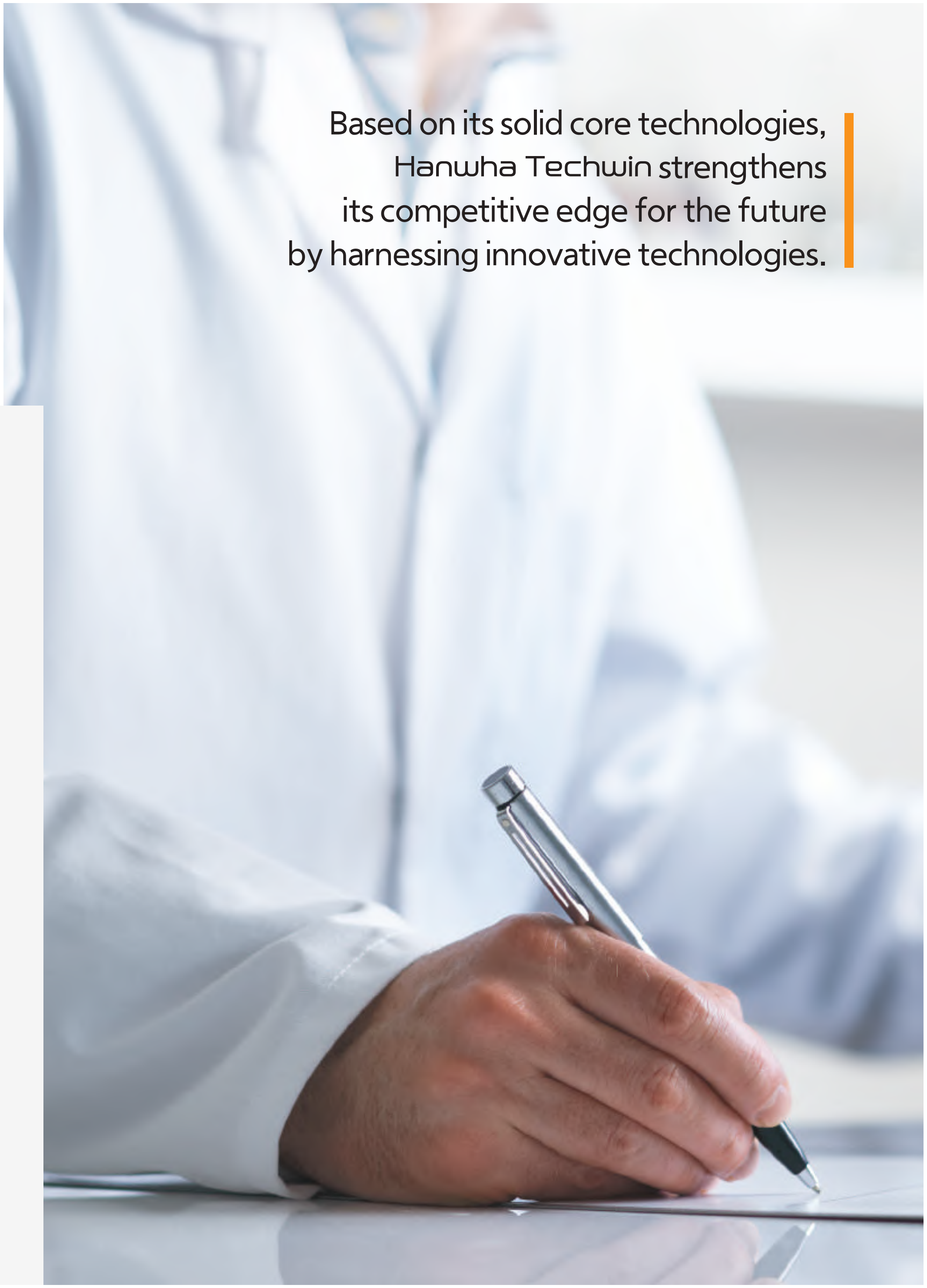
03. Intelligent Analytics technology

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



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

Hanwha Techwin

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

High–tech Powered in Vietnam

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

End-to-end Cybersecurity

Hanwha Techwin offers cybersecurity with the industry's highest levels of cybersecurity policy with secure boot/OS/storage, a signed firmware/open platform app, secure JTAG and more.
Hanwha Techwin established its own device certificate issuing system to embed certificates into the product not only in the development progress but also in the manufacturing progress.

Hanwha
Techwin
S-CERT

- Hanwha Techwin Private Device Certification Root CA
- UL CAP, Secure by Default certified, 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)

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

Next level of Cybersecurity

The New X series AI camera X PLUS/X Core lineup

AI-Enhanced X series Cameras

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

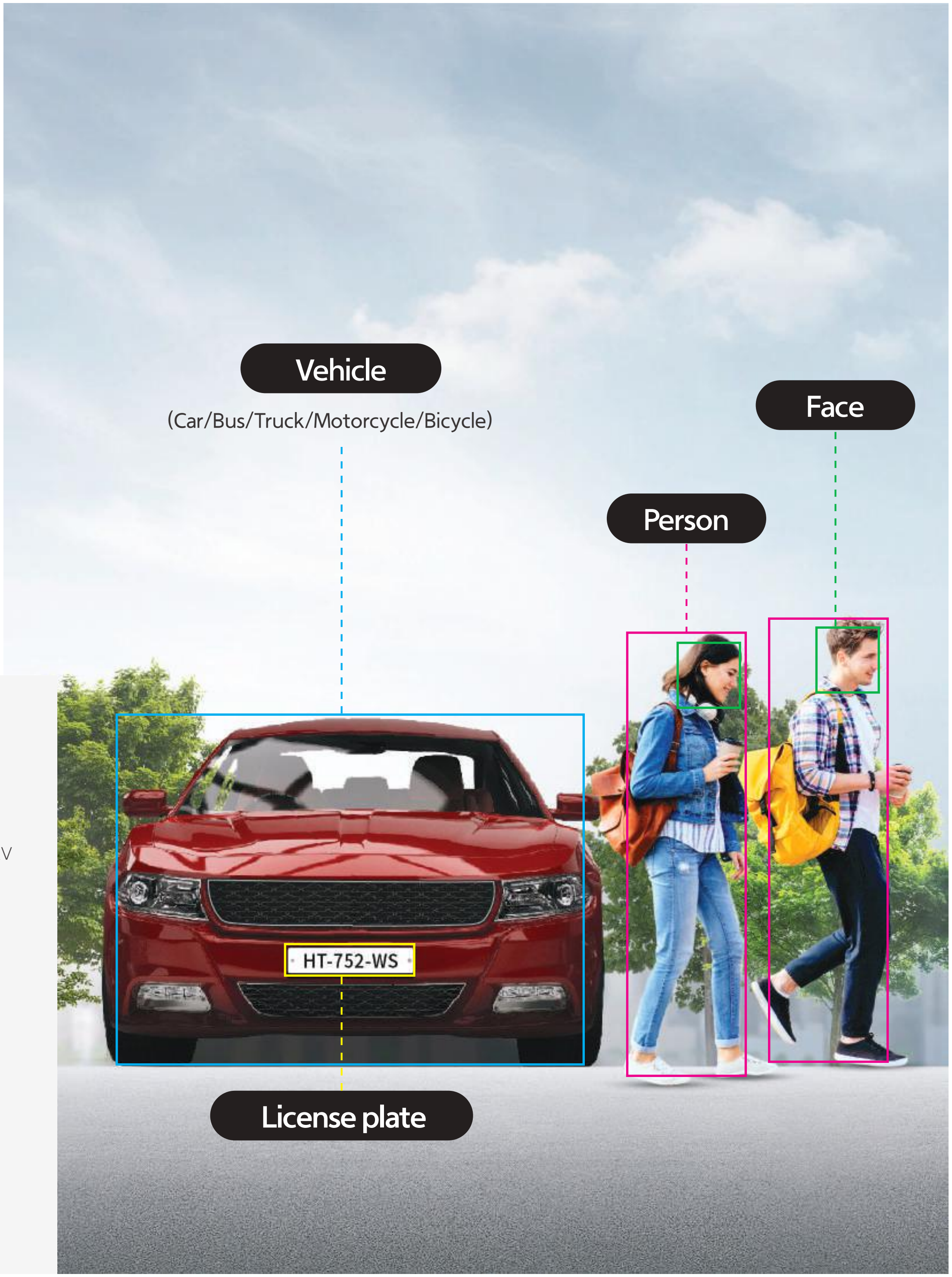
Featuring Hanwha's advanced artificial intelligence (AI) and deep-learning technologies, the New X series cameras offer industry-leading AI-based object detection for false alarm reduction analytics, AI-enhanced image quality and edge-based business intelligence.

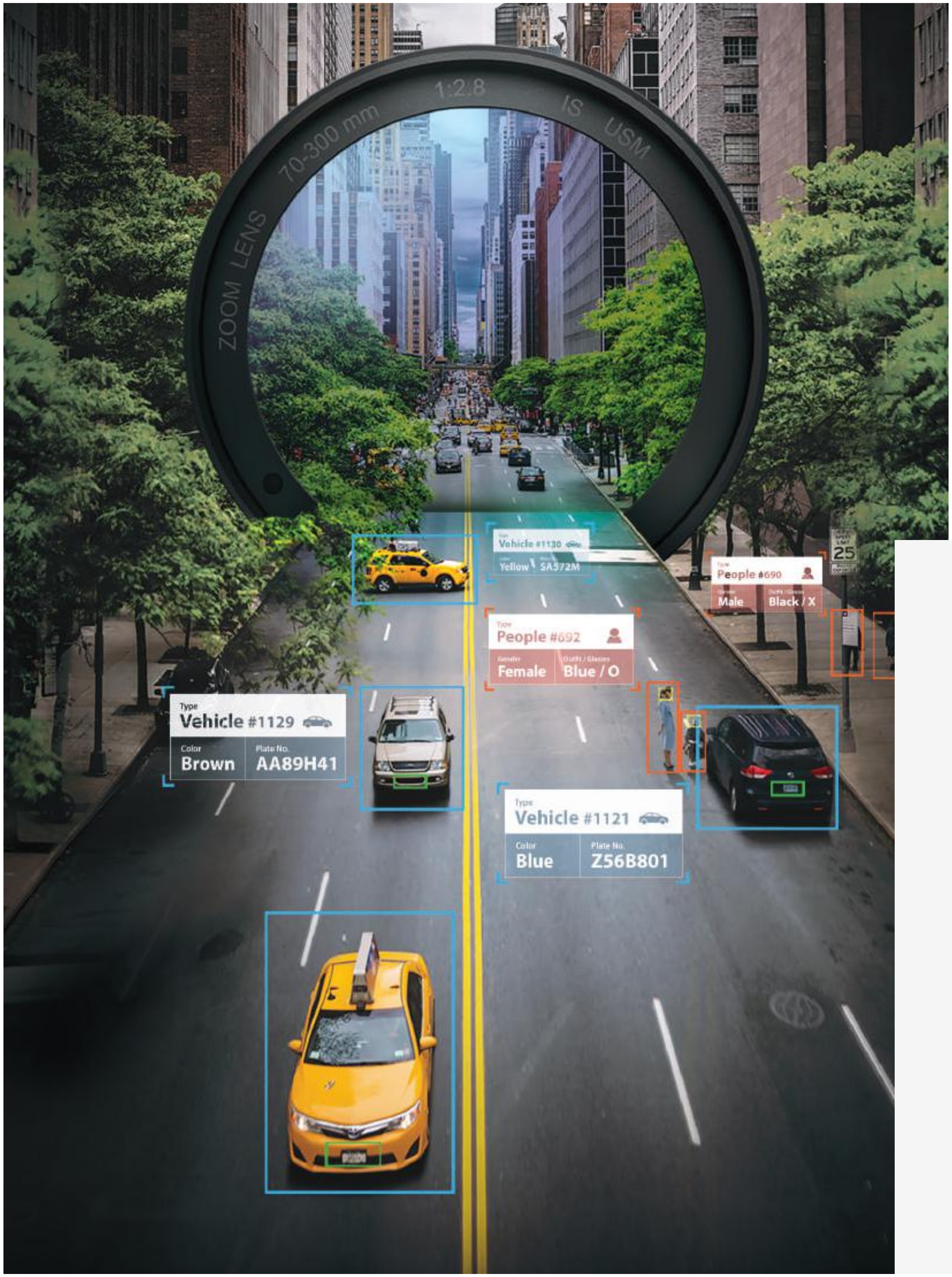
X PLUS

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




1:2.8
70-300 mm
IS
USM
ZOOM LENS
Vehicle #1130
Yellow
SA572M
People #690
Male
Black / X
Type
People #692
Gender
Female
Outfit / Glasses
Blue / O
Type
Vehicle #1129
Color
Brown
Plate No.
AA89H41
Type
Vehicle #1121
Color
Blue
Plate No.
Z56B801

P series AI Camera & NVR

Precise Object Detection & Classification with AI

Person **Face** **Vehicle** **License plate**

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

AI Camera Series 4K 2MP

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

* See more at P21, 22

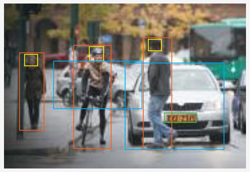
AI NVR Series

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

* See more at P78

Wisenet AI Camera

Detect and classify objects real-time



VMS Plug-in for improved AI search

* Person, face, vehicle, license plate

Wisenet AI Search

Quickly search based on attributes

milestone
Genetec

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

Q series AI Camera

Expand Q series with built–in AI

- AI based Person, Vehicle detection
- AI based directional detection, loitering
- WiseNRII, SSNRV, WiseStreamIII

Person
Vehicle
AB345 XZ

AI Camera Series

QNV–C9083R, QNV–C8083R, QNO–C9083R, QNO–C8083R

Wide
Mid
Tele
…lesley St
700 m

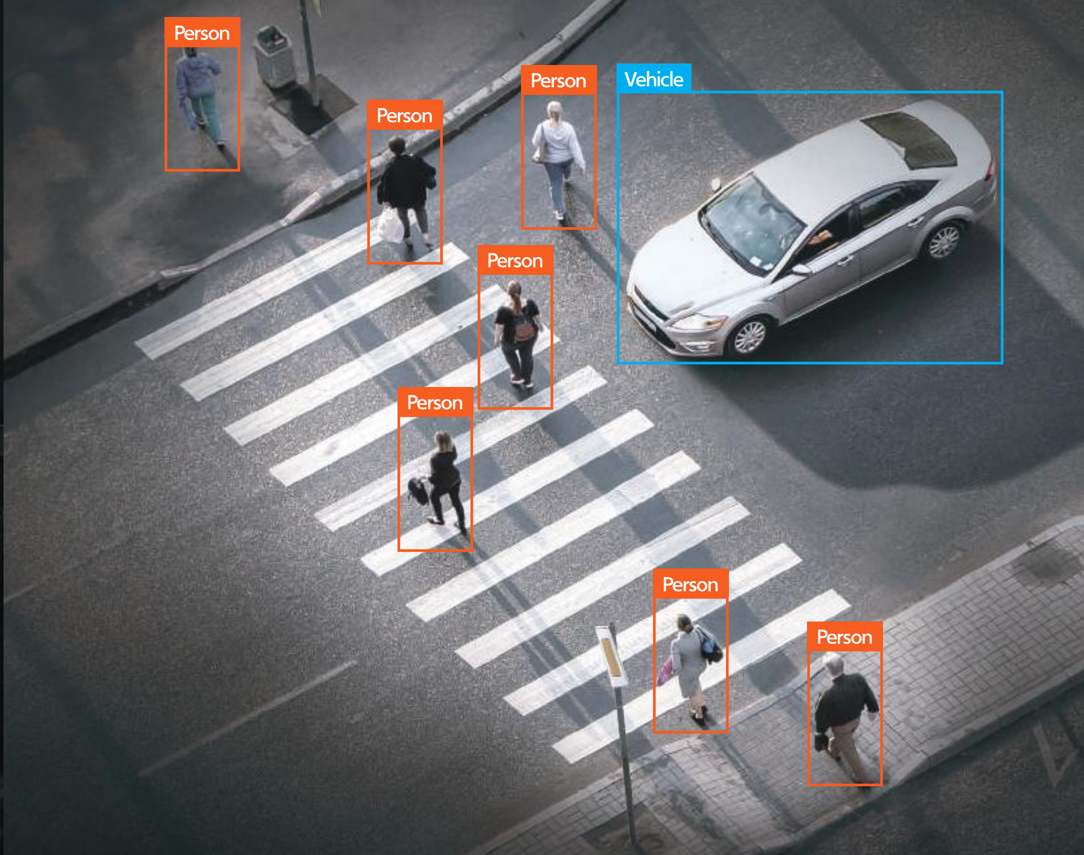
PTZ PLUS

New Generation PTZ

Clearer image with Wisenet IR

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

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


Person
Person
Person
Vehicle
Person
Person
Person
Person

Meet our specialized cameras equipped with powerful AI

Select the best fit camera for your special safety needs

Bi-Spectrum

TNM-C4940TD,C 4950TD, C4960TD

Dual Lens

PNM-C12083RVD, C7083RVD

12X Zoom

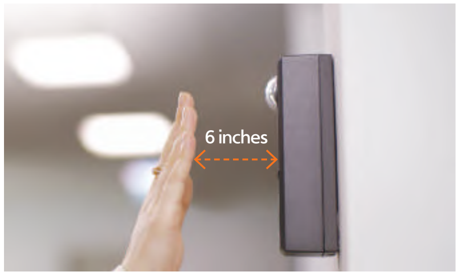
XNV-6123R, XNO-6123R

Touchless
Network Intercom Station

TID–600R

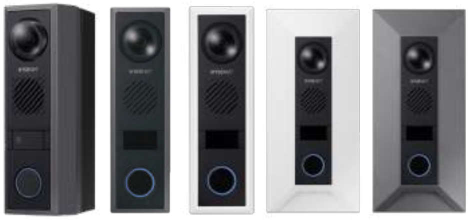
Touchless call as an essential post COVID–19 protocol

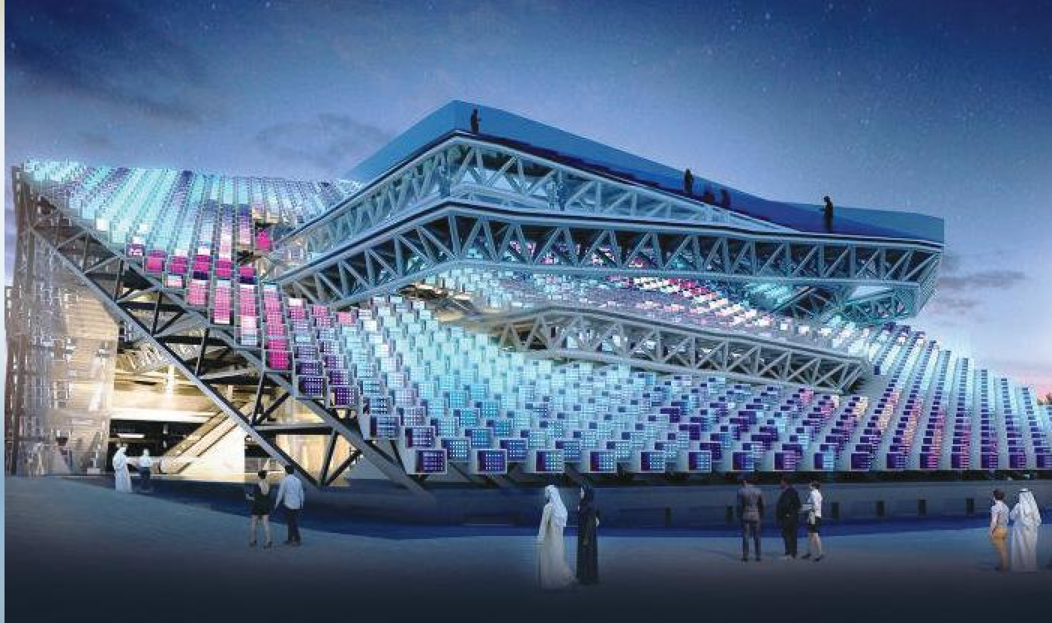
The ToF sensor of TID–600R allows touchless call, where users simply present their palm within 6 inches of the station to initiate a call.



Various mounting options for a greater versatility

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





Case Study

The Korea Pavilion at Dubai Expo 2020

Hanwha Techwin's surveillance project for the Korea Pavilion

Challenge

- To secure safety of 25 million visitors in an effective and efficient way
- To improve visitors' experience by gathering their behavioral data

Solution

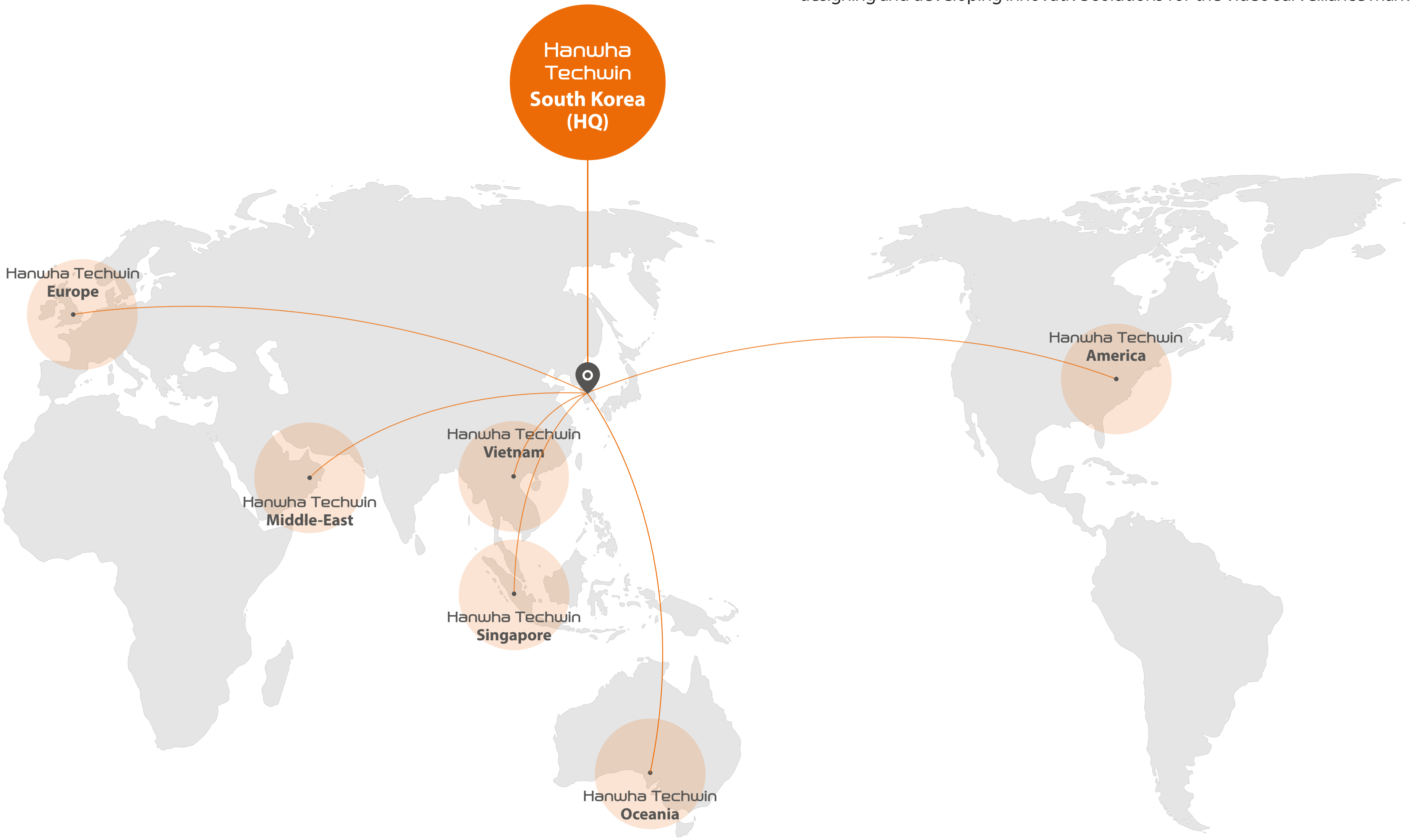
- End–to–end solutions ranging from cameras, recorders, VMS, peripherals and accessories
- XNF–8010R 6MP fisheye camera for high quality images of large space and visitors' statistical data
- For building interiors and exteriors, XNO-6080R and QNV–6072R with motion detection, as well as tampering and defocus detection

Result

- Reduced installation and maintenance costs by implementing industry standard PoE, network–based cameras
- Gathered insightful data for better visitors' experiences with cameras to capture their behaviors.

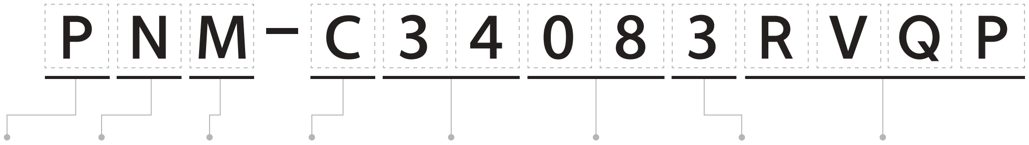
Hanwha Techwin Global network

Hanwha Techwin is a Korean company with a long legacy of designing and developing innovative solutions for the video surveillance market.


Hanwha Techwin
South Korea
(HQ)
Hanwha Techwin
Europe
Hanwha Techwin
Middle-East
Hanwha Techwin
Vietnam
Hanwha Techwin
Singapore
Hanwha Techwin
Oceania
Hanwha Techwin
America

PRODUCT NAMING RULE

Camera



Series Name
P : Premium
X : Versatile
Q : Quality
H : HD+
L : Entry
T : Vertical
(Special)
VS : VSO

Product Type
N : Network cam
C : Analog cam
U : UTP Camera

Shape
B : Box
D : Dome
F : Fisheye
M : Multi-Sensor
O : Bullet
P : PTZ
U : Positioning
V : Vandal
Z : Zoom box
E : Flateye

Grade
Null : Basic
A : AI
E : Entry
L : Lite
C: Core AI

Total Resolution
1 : Small sensor
2 : QQVGA
3 : QVGA
4 : VGA
5 : 1MP
6 : 2MP
7 : 3 ~ 4MP
8 : 5 ~ 7MP
9 : 8MP ↑
12 : 12MP
15 : 15MP
24 : 24MP
32 : 32MP
34 : 34MP
36 : 36MP
40 : 40MP

Lens
00 : No Lens
01 : 3mm ↓ fixed
02 : 3.1 ~ 4mm fixed
03 : 4.1 ~ 6mm fixed
04 : 6.1 ~ 9.9mm fixed
05 : 10mm ↑ fixed
06 : 2X V/F
07 : 2X ~ 9X V/F
08 : 2X ~ 9X M-V/F
09 : 10X ↑ V/F
XX : Zoom Ratio
(PTZ, Zoom)

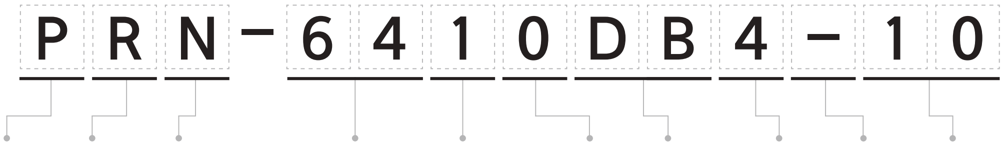
First Visible Resolution
6 : 2M
7 : 3 ~ 4M
8 : 5 ~ 7M
9 : 8MP ↑

Second Lens Combination QVGA lens/ VGA lens + visible lens
1: 2.7 / 13mm + 3mm ↓ fixed
2 : 4.7 / 19mm + 4mm fixed
3 : 13.7 / 35mm + 6mm fixed
4 : 2.7 / 13mm + 2X ~ 9X M-V/F
5 : 4.7 / 19mm + 2X ~ 9X M-V/F
6 : 13.7 / 35mm + 2X ~ 9X M-V/F
7 : 2.7 / 13mm + 12x Zoom
8 : 4.7 / 19mm + 12x Zoom
9 : 13.7 / 35mm + 12x Zoom

Version
0 ~ 9

Feature
A : Revision
B : Black Color
C : Counting or Corner
D : Dual eye
E : Explosion Proof
or PoE extender
F : Flush or SFP LC
(Fiber Channel)
G : Government
H : Housing
L : BLE
M : Mobile
P : PTZ (for multi)
Q : Quad eye
R : IR or Radiometric
S : Stainless Steel
T : Thermal or Triple eye
V : Vandal
W : Wiper, White Color
X : Radar
Y : Body Temp
Z : PTRZ
LP : License plate
FR : Face recognition
SSD : Built-in SSD
OP : Open platform

Recorder



Series Name
P : Premium
X : Versatile
Q : Quality
H : HD+
L : Entry
T : Vertical
(Special)
S: Legacy
(Existing)

Product Type
R : Recorder
W : Workstation

Type
D : DVR
X : Pentabrid
M : Mobile
N : NVR
S : S/W
P : PC NVR
V : Viewer
O : recording
Only

[NVR: Channel / Mbps]
4 : 4CH
8 : 8CH
16 : 16CH
32 : 32CH
64 : 64CH
128 : 128CH

[Appliance : Max Mbps]

First digit	Second digit
1 : 100 ~ 199Mbps	1 : 36CH
2 : 200 ~ 299Mbps	2 : 72CH
3 : 300 ~ 399Mbps	3 : 128CH
4 : 400 ~ 499Mbps	
5 : 500 ~ 599Mbps	
6 : 600 ~ 699Mbps	

Performance
1 ~ 9 : Major Version
0 : down grade

Version
0 ~ 9

Function
Null : Null
S : PoE Switch
M : PoE Switch with
M12 Connector
A : A revision
D : Dual SMPS
G : Government
B : HDD Bay
R : RAID for B2 model
W : Wifi
U : UTP(Hybrid)

Null : Null
1 : 4 Bay
2 : 8 Bay
3 : 12 bay
4 : 16 Bay
5 : 20Bay
6 : 24Bay

Null : Null
- : HDD

Capacity
3G : 320GB
5G : 520GB
1T ~ 9T : 1 ~ 9 TB
10 ~ 99 : 10~ 99 TB

PRODUCT NAMING RULE

Decoder/Encoder

SPD-1600R

Series Name
S : Legacy
(Existing)

Product Type
P : Peripheral

Type
D : Decoder
E : Encoder

[Decoder]
No. of Monitors
1 ~ 99
[Encoder]
No. of Channels
1, 4, 16 ….

Performance
[Decoder]
5 : ~ 64ch
6 : 65 ~ 144ch
7 : 145 ~ 288ch
8 : 289 ~ 576ch
9 : 577 ~ 1152ch

[Encoder]
Major version
0 ~ 9

Version
0 ~ 9

Extra Feature
B : Blade
(Card)
R : Rack
Null : Box

Lens : CS Mount

SLA- M8550DN

Series Name
S : Legacy
(Existing)

Product Type
L : Lens

Type
A : Auto Iris
M : Manual Iris
Z : Motorized
Zoom

Optical Resolution
Null : 540k pixel
M : Megapixel
(1 ~ 3MP)
2M : 2M
5M : 5M
K : 4K

Focal Length (Wide)
0 ~ 9 : 0 ~ 9 mm
00 ~ 99 : 0.0 ~ 9.9 mm

Focal Length (Tele)
00 ~ 99 : 0.0 ~ 9.9 mm

Extra Features
D : DC Iris
DN : DC Iris, Day & Night
PN : P–Iris, Day & Night

Monitor

SMT-4933

Series Name
S : Legacy
(Existing)

Product Type
M : Monitor

Appearance
T : LED

Panel Size
Inch

Input
0 : BNC
1 : VGA,
Normal
2 : VGA + BNC
3 : etc.
4 : 4K
5 : Large size
(56”~)

Version
0 ~ 9

Function
Null : Normal
N : N/W
PV : Public view
monitor

Lens : Remote Head

SLA-T4680V

Series Name
S : Legacy
(Existing)

Product Type
L : Lens

Type
A : Auto Iris
M : Manual Iris
Z : Motorized
Zoom

Pixel Resolution
T : 2MP Remote Head
(Two)

Focal Length
00 ~ 99 :
0.0 ~ 9.9 mm

Cable Length
00 ~ 99 :
0.0 ~ 9.9 mm

A :Revision

Shape
Null : Cylinder
F : Fisheye
V : Flat Cube

CONTENTS

NETWORK

Camera

- AI Cameras
- X series
- P series
- Q series
- T series
- L series

NVR

Encoder / Decoder

VMS

Access Control

Audio Management System

ANALOG

Camera

DVR

PERIPHERAL

Monitor
Controller
Lens

ACCESSORY

Wisenet Toolbox Plus

* Product specifications in this brochure may differ as products are continuously updated to meet our customers' needs. We recommend to check out our website for the latest specs: www.hanwha-security.com

AI Camera

	X Plus XNO-9083R 4K AI IR Bullet Camera	X Plus XNV-9083R 4K AI IR Vandal Dome Camera	X Plus NEW XNV-9083RZ 4K AI IR Vandal Dome Camera	X Plus XND-9083RV 4K AI IR Dome Camera	X Plus XNB-9003 4K AI Box Camera
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Color: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE), 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.03Lux (F1.2, 1/30sec) BW: 0.003Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	–	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.4 ~ 9.3mm (2.1x) motorized varifocal	4.4 ~ 9.3mm(2.1x) motorized varifocal	4.4~9.3mm(2.1x) motorized varifocal	4.4 ~ 9.3mm (2.1x) motorized varifocal	–
Angular Field of View	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) D: 138° (Wide) ~ 54° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	–
Pan / Tilt / Rotate	–	0° ~ 360° / −45° ~ 85° / 0° ~ 355°	0° ~ 350° / 0° ~ 85° / 0° ~ 340°	0° ~ 360° / −45° ~ 85° / 0° ~ 355°	–
IR Viewable Length	WiseIR 50m (164.04ft)	WiseIR 50m (164.04ft)	15m (49.21ft) 30m (98.43ft) based on scene	WiseIR 50m (164.04ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	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	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)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	–	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	–	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable(mic in/line in) / Line out	–	Selectable (mic in/line in/built-in mic) / Line out	Selectable (mic in/line in/built-in mic) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	8MP / 30fps	8MP / 30fps	4K / 30fps	8MP / 30fps	8MP / 30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	−50℃ ~ +60℃ (−58℉ ~ +140℉) NEMA TS-2 : 74℃ * Start up should be done at above −30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	−50℃ ~ +55℃ (−58℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above −30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	−50°C ~+55°C(−58°F ~ +131°F) +74°C (165°F) (Max) based on NEMA TS-2(2.2.7) * Start up should be done at above −30°C 0~95%RH(non-condensing) Humidity control /w AIR vent	−25°C ~ 50°C (−13°F ~ +122°F) * Maximum temperature : +55°C (intermittent) less than 95% RH (non-condensing) Humidity control /w GORE vent	−10 °C ~ 55°C (−14°F ~ +131°F) less than 95%RH (non-condensing)
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP52/IK10	–
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+ (IEEE802.3at type 2, Class4)	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W
Dimensions (WxHxD) / Weight	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.2kg (4.85 lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19 lb)	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W 81 x H 67 x D165mm (3.19" x 2.64" x 6.48") 880g (1.94 lb)

AI Camera

	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** **6MP AI IR Vandal Dome Camera**
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Color: 0.06Lux (F1.7, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.06Lux (F1.7, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.04Lux(F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE), 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) V : 22.8° (Wide) ~ 8.4° (Tele) D : 48.7° (Wide) ~ 17.1° (Tele)	H : 42° (Wide) ~ 15° (Tele) V : 22.8° (Wide) ~ 8.4° (Tele) D : 48.7° (Wide) ~ 17.1° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H: 113° (Wide) ~ 47° (Tele) V: 58° (Wide) ~ 26° (Tele) 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)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	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)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	–
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, 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	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264, MJPEG
Resolution / Max. Frame Rate	6MP/30fps	6MP/30fps	6MP/30fps	6MP/30fps	6MP/30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50℃ ~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	-25℃ ~ 50℃ (-13℉ ~ +122℉) * Maximum temperature : +55°C (intermittent) less than 95% RH (non-condensing) Humidity control /w GORE vent	-50 ℃ ~ +60℃ (-58℉ ~ +140℉) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	-50℃ ~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	-50℃ ~ +55℃ (-58℉ ~ +131℉) +74℃ (165℉) (Max) based on NEMA TS-2 (2.2.7) * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control /w AIR vent
Certification	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP52/IK10	IP66/IP67, NEMA4X, IK10	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP66/IP67/IP6K9K, NEMA4X, IK10+
Power Consumption	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 12.1W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (7.09" x 4.92") 1.9kg (4.19 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.2kg (4.85 lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19 lb)	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)

AI Camera

	X Plus **XNV-8083Z** **6MP AI Vandal Dome Camera**	X Plus **XND-8083RV** **6MP AI IR Dome Camera**	X Plus **XNB-8003** **6MP AI Box Camera**	X Plus **XNO-6123R** **2MP AI IR Bullet Camera**	X Plus **XNO-6083R** **2MP AI IR Bullet Camera**
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" CMOS	1/2.8" progressive CMOS
Min. Illumination	Color: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE)	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.03Lux (F1.2, 1/30sec, 30IRE) BW: 0.003Lux (F1.2, 1/30sec, 30IRE)	Color: 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) 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	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: 113° (Wide)~47° (Tele) V: 58° (Wide)~26° (Tele) D: 138° (Wide)~54° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	–	H: 55° (Wide) ~ 5° (Tele) V: 35° (Wide) ~ 3° (Tele) D: 62° (Wide) ~ 6° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate	0° ~350° / 0° ~85° / 0° ~340°	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)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	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	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)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	–	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	–	Based on AI engine : People counting, Queue management, Heatmap
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	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	6MP/30fps	6MP/30fps	6MP/30fps	2MP / 120fps	2MP/120fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50°C ~ +55°C (-58°F ~ +131°F) +74°C (165°F) (Max) based on NEMA TS-2 (2.2.7) * Start up should be done at above -30°C 0~95%RH (non-condensing) Humidity control /w AIR vent	-25°C ~ 50°C (-13°F~ +122°F) * Maximum temperature : +55°C (intermittent) less than 95% RH (non-condensing) Humidity control /w GORE vent	-10℃ ~ 55℃ (-14℉ ~ +131℉) less than 95%RH (non-condensing)	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 95% RH (Non-condensing) * Start up should be done at above -30℃ Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74℃ (+165℉) Humidity control /w GORE vent	-50 ℃ ~ +60℃ (-58℉ ~ +140℉) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent
Certification	IP66/IP67/IP6K9K, NEMA4X, IK10+	IP52/IK10	–	IP66/67, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66/IP67, NEMA4X, IK10
Power Consumption	PoE+: Max 17.0W, typical 12.1W	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover
Dimensions (WxHxD) /Weight	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W 81 x H 67 x D 165mm (Ø3.19" x 2.64 "x 6.48") 880g (1.94 lb)	Ø93.4 x 298.4mm (Ø3.68"x11.75") 2.3kg (5.07 lb)	Ø93.4 x 298.4mm (Ø3.68"x11.75") 2.2kg (4.85 lb)

AI Camera

	X Plus **XNV-6123R** **2MP AI IR Vandal Dome Camera**	X Plus **XNV-6083R** **2MP AI IR Vandal Dome Camera**	X Plus **XND-6083RV** **2MP AI IR Dome Camera**	X Plus **XNB-6003** **2MP AI Box Camera**	X Core **XNO-C9083R** **4K AI IR Bullet Camera**
Imaging Device	1/2.8" CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Color: 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.007Lux (F1.2, 1/30sec, 30IRE) B/W : 0.0007Lux (F1.2, 1/30sec, 30IRE), 30/25fps	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)
Video Output	CVBS : 1.0 Vp-p, Micro USB type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	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	-	4.4 ~ 9.3mm (2.1x) motorized varifocal
Angular Field of View	H : 55° (Wide) ~ 5° (Tele) V : 33° (Wide) ~ 3° (Tele) D : 62° (Wide) ~ 6° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	-	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)
Pan / Tilt / Rotate	0° ~360° / -45° ~ 80° / 0° ~ 355°	0° ~360° / -45° ~ 80° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	-	-
IR Viewable Length	WiseIR 90m (295.28ft)	WiseIR 50m (164.04ft)	WiseIR 50m (164.04ft)	-	WiseIR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	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	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)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine: Object** detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)				
Business Intelligence	-	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/built-in mic) / Line out	Selectable (mic in/line in/built-in mic) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps	8MP / 30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)	micro SD/SDHC/SDXC 1slot 512GB
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 95% RH (Non-condensing) * Start up should be done at above -30℃ Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74℃ (+165℉) Humidity control /w GORE vent	-50℃~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ less than 95%RH (non-condensing) Humidity control /w GORE vent	-25℃ ~ 50℃ (-13℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) less than 95% RH (non-condensing) Humidity control /w GORE vent	-10°C ~ 55°C (-14°F ~ +131°F) less than 95%RH (non-condensing)	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) * Start up should be done at above -20℃ NEMA TS-2 : 74℃ 0~95%RH (Non-condensing) 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+	IP52, IK10	-	IP66/IP67/NEMA4X, IK10
Power Consumption	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø180 x 138mm (Ø7.09" x 5.43") 2.13kg (4.70 lb)	Ø180 x 125mm (Ø7.09 x 4.92") 1.9kg (4.19 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W 81 x H 67 x D 165mm (3.19" x 2.64" x 6.48") 880g (1.94 lb)	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62 lb)

AI 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**	X Core **XNV−C8083R** **6MP AI IR Vandal Dome Camera**
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Min. Illumination	Color: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)
Video Output	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) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H : 112.1° (Wide) ~ 47.5° (Tele) V : 58° (Wide) ~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / −45° ~ 75° / 0° ~ 355°	0° ~ 360° / −45° ~ 75° / 0° ~ 355°	−	0° ~ 360° / −45° ~ 75° / 0° ~ 355°
IR Viewable Length	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	8MP / 30fps	8MP / 30fps	6MP / 30fps	6MP / 30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	−40℃ ~ +55℃ (−40℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (non−condensing) Humidity control /w GORE vent	−10℃ ~ 50℃ (14℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non−condensing) Humidity control /w GORE vent	−40℃ ~ +55℃ (−40℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (Non−condensing) Humidity control /w GORE vent	−40℃ ~ +55℃ (−40℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (Non−condensing) Humidity control /w GORE vent
Certification	IP66/IP67/NEMA4X, IK10	IP52, IK08	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10
Power Consumption	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.2lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98 lb)	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62 lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.20 lb)

AI Camera

	X Core **XND−C8083RV** **6MP AI Dome Camerav**	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	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS
Min. Illumination	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)
Video Output	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	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) V : 58° (Wide)~ 26.6° (Tele) D : 137.5° (Wide) ~ 54.6° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)	H: 109.7° (Wide) ~ 30.4° (Tele) V: 60.8° (Wide) ~ 17.8° (Tele) D: 131.3° (Wide) ~ 35.3° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / −45° ~ 75° / 0° ~ 355°	−	0° ~ 360° / −45° ~ 75° / 0° ~ 355°	0° ~ 360° / −45° ~ 75° / 0° ~ 355°
IR Viewable Length	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 30fps	4MP / 60fps	4MP / 60fps	4MP / 60fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	−10℃ ~ 50℃ (14℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non−condensing) Humidity control /w GORE vent	−40℃ ~ +55℃ (−40℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (non−condensing) Humidity control /w GORE vent	−40℃ ~ +55℃ (−40℉ ~ +131℉) * Maximum temperature : +60°C (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (non−condensing) Humidity control /w GORE vent	−10℃ ~ 50℃ (14℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non−condensing) Humidity control /w GORE vent
Certification	IP52, IK08	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP52, IK08
Power Consumption	PoE: Max 12.95W, typical 11.2W 12VDC: Max 13.2W, typical 10.8W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W
Dimensions (WxHxD) / Weight	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98 lb)	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62 lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.20 lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98 lb)

AI Camera

	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**	 **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
Min. Illumination	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.39 Lux (F2.2, 1/30sec) BW : 0Lux(IR LED on)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	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) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H: 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	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	−
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	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	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	−
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events:** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)			**Classified object type:** Person/Face/Vehicle/License plate **Support DetectionShot Analytics events based on AI engine:** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events :** Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear)
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	3008 x 3008 / 30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 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 SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	−40°F ~ +55°F (−40°F ~ +131°F) * Maximum temperature : +60°C (intermittent) * Start up should be done at above −20°F NEMA TS−2 : 74°F 0~95%RH (non−condensing) Humidity control /w GORE vent	−40°F ~ +55°F (−40°F ~ +131°F) * Maximum temperature : +60°C (intermittent) * Start up should be done at above −20℃ NEMA TS−2 : 74℃ 0~95%RH (non−condensing) Humidity control /w GORE vent	−10℃ ~ 50℃ (14°F ~ +122°F) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non−condensing) Humidity control /w GORE vent	−40℃ ~ +60℃ (−40°F ~ +140°F) / Less than 95% RH POE+ Mode 55℃ (Hysteresis 5℃)
Certification	IP66/IP67/NEMA4X, IK10	IP66/IP67/NEMA4X, IK10	IP52, IK08	IP66, IK10, NEMA4X
Power Consumption	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 10.8W 12VDC: Max 12.5W, typical 10W	PoE: Max 12.95W, typical 9.4W, 12VDC: Max 12.9W, typical 9.0W / PoE+: Max 23.0W, typical 9.4W, 12VDC: Max 22.0W, typical 9.0W
Dimensions (WxHxD) / Weight	Ø93.4 x 276.6mm (Ø3.68" x 10.89") 1.64kg (3.62 lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.45kg (3.20 lb)	Ø160 x 118mm (Ø6.3" x 4.65") 1.35kg (2.98 lb)	Ø160 x 72mm (Ø6.23" x 2.84") 1.17kg (2.58lb)

AI 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	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.03Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	4.5~10mm (2.2x) motorized varifocal	-
Angular Field of View	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 120.7° (Wide) ~ 52.3° (Tele)	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 120.7° (Wide) ~ 52.3° (Tele)	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 120.7° (Wide) ~ 52.3° (Tele)	H: 101.4° (Wide) ~ 45.5° (Tele) V: 53.6° (Wide) ~ 25.5° (Tele) D: 120.7° (Wide) ~ 52.3° (Tele)	-
Pan / Tilt / Rotate	-	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	-
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	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	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)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle/bicycle and Color) **Support Bestshot per object Analytics events based on AI engine** - Object detection, Virtual line*(Crossing/Direction), Virtual area *(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection **Analytics events** - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)				
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	1/1	1/1	1/1	1/1	1/1
Audio I/O	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	8MP / 30fps	8MP / 30fps	8MP / 30fps	8MP / 30fps	8MP/30fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -10℃	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -10℃	-25℃ ~ +50℃ (-13℉ ~ +122℉)	-25℃ ~ +50℃ (-13℉ ~ +122℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate	-
Power Consumption	PoE+: Max 20W, typical 17W 12VDC: Max 18W, typical 16W	PoE+: Max 20W, typical 17W 12VDC: Max 18.7W, typical 15W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 16.5W, typical 12.5W 12VDC: Max 13.5W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53lb)	Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.30lb)	W 73.1 x H 66.6 x D 147.8mm 700g (1.54lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)

AI Camera

	 PNO–A6081R **2MP AI IR Bullet Camera**	 **PNV–A6081R** **2MP AI IR Vandal Dome Camera**	 **PND–A6081RV** **2MP AI IR Dome Camera**	 **PND–A6081RF** **2MP AI IR Dome Camera**	 **PNB–A6001** **2MP AI Box Camera**
Imaging Device	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS	1/2" CMOS
Min. Illumination	Color: 0.008Lux (F1.3) BW : 0Lux (IR LED on)	Color: 0.008Lux (F1.3) BW : 0Lux (IR LED on)	Color: 0.008Lux (F1.3) BW : 0Lux (IR LED on)	Color: 0.008Lux (F1.3) BW : 0Lux (IR LED on)	Color: 0.007Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp–p, Micro USB Type B	CVBS: 1.0 Vp–p, Micro USB Type B	CVBS: 1.0 Vp–p, Micro USB Type B	CVBS: 1.0 Vp–p, Micro USB Type B	CVBS: 1.0 Vp–p, Micro USB Type B
Focal Length	4.38 ~ 9.33mm (2.13x) motorized varifocal	4.38 ~ 9.33mm (2.13x) motorized varifocal	4.38 ~ 9.33mm (2.13x) motorized varifocal	4.38 ~ 9.33mm (2.13x) motorized varifocal	–
Angular Field of View	H:103.1° (Wide) ~ 44.5° (Tele) V:54.2° (Wide) ~ 24.9° (Tele) D:124° (Wide) ~ 51.1° (Tele)	H:103.1° (Wide) ~ 44.5° (Tele) V:54.2° (Wide) ~ 24.9° (Tele) D:124° (Wide) ~ 51.1° (Tele)	H:103.1° (Wide) ~ 44.5° (Tele) V:54.2° (Wide) ~ 24.9° (Tele) D:124° (Wide) ~ 51.1° (Tele)	H:103.1° (Wide) ~ 44.5° (Tele) V:54.2° (Wide) ~ 24.9° (Tele) D:124° (Wide) ~ 51.1° (Tele)	–
Pan / Tilt / Rotate	–	0° ~ 360° / –45° ~ 85° / 0° ~ 355°	0° ~ 360° / –45° ~ 85° / 0° ~ 355°	0° ~ 360° / –45° ~ 85° / 0° ~ 355°	–
IR Viewable Length	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	30m (98.42ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR	WiseNR Ⅱ (Based on AI engine), SSNR	WiseNR Ⅱ (Based on AI engine), SSNR	WiseNR Ⅱ (Based on AI engine), SSNR	WiseNR Ⅱ (Based on AI engine), SSNR
Digital Image Stabilization	Support (built–in gyro sensor)	Support (built–in gyro sensor)	Support (built–in gyro sensor)	Support (built–in gyro sensor)	Support (built–in gyro sensor)
Analytics	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Person(Gender, Color and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type:car/bus/truck/motorcycle/bicycle and Color) **Support Bestshot per object Analytics events based on AI engine** – Object detection, Virtual line*(Crossing/Direction), Virtual area *(Loitering/Intrusion/Enter/Exit), Face mask detection, Digital auto tracking, Social distancing detection **Analytics events** – Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)				
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	1/1	1/1	1/1	1/1	1/1
Audio I/O	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out	Line in / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF PROFILE S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF PROFILE S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF PROFILE S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF PROFILE S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF PROFILE S/G/T/M SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	–40℃ ~ +55℃ (–40°F ~ +131°F) / Less than 90% RH * Start up should be done at above –30℃	–40℃ ~ +55℃ (–40°F ~ +131°F) / Less than 90% RH * Start up should be done at above –30℃	–25℃ ~ +50℃ (–13°F ~ +122°F) / Less than 90% RH	–25℃ ~ +50℃ (–13°F ~ +122°F) / Less than 90% RH	–10℃ ~ +55℃(+14°F ~ +131°F) / Less than 90% RH
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10, Plenum rate	–
Power Consumption	PoE+: Max 20W, typical 17W 12VDC: Max 18W, typical 16W	PoE+: Max 20W, typical 17W 12VDC: Max 18.7W, typical 15W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 20W, typical 16W 12VDC: Max 17.7W, typical 14W	PoE+: Max 16.5W, typical 12.5W 12VDC: Max 13.5W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53lb)	Ø205 x 163mm (Ø8.07" x 4.92") 1.95kg (4.30lb)	W 81 x H 67 x D 165mm (3.19" x 2.64" x 6.48") 880g (1.94lb)
Additional Features	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)	AI : BestShot, Attributes (Person, Vehicle, Face, License plate)

AI Camera

PNO-A9081RLP
4K AI LPR IR Bullet Camera

PNV-A9081RLP
4K AI LPR IR Vandal Dome Camera

PNB-A9001LP
4K AI LPR Box Camera

	PNO-A9081RLP 4K AI LPR IR Bullet Camera		PNV-A9081RLP 4K AI LPR IR Vandal Dome Camera		PNB-A9001LP 4K AI LPR Box Camera
Imaging Device	1/1.8" CMOS		1/1.8" CMOS		1/1.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)		Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec), 0Lux (IR LED on)		Color: 0.03Lux (F1.2, 1/30sec) B/W : 0.003Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.5 ~ 10mm (2.2x) motorized varifocal		4.5 ~ 10mm (2.2x) motorized varifocal		-
Angular Field of View	H:101.4° (Wide) ~ 45.5° (Tele) V:53.6° (Wide) ~ 25.5° (Tele) D:120.7° (Wide) ~ 52.3° (Tele)		H:101.4° (Wide) ~ 45.5° (Tele) V:53.6° (Wide) ~ 25.5° (Tele) D:120.7° (Wide) ~ 52.3° (Tele)		-
Pan / Tilt / Rotate	-		0° ~ 360° / -45° ~ 85° / 0° ~ 355°		-
IR Viewable Length	30m (98.42ft)		30m (98.42ft)		-
Day & Night	Auto (ICR)		Auto (ICR)		Auto (ICR)
Wide Dynamic Range	-		-		-
Digital Noise Reduction	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)
Analytics	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection		Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection		Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection
Business Intelligence	-		-		-
Alarm I/O	1/1		1/1		1/1
Audio I/O	Selectable (mic in/line in/built-in mic) / Line out		Line in / Line out		Line in / Line out
Video Compression	H.265 / H.264, MJPEG		H.265 / H.264, MJPEG		H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	8MP / 30fps		8MP / 30fps		8MP / 30fps
WiseStream	WiseStream Ⅱ		WiseStream Ⅱ		WiseStream Ⅱ
Streaming	Up to 3 profiles		Up to 3 profiles		Up to 3 profiles
Edge Storage	Pre-installed with 32GB micro SD to support 10,000 LPR images		Pre-installed with 32GB micro SD to support 10,000 LPR images		Pre-installed with 32GB micro SD to support 10,000 LPR images
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform		ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform		ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH * Start up should be done at above -30℃		-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH * Start up should be done at above -30℃		-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH
Certification	IP66/IP67, IK10, NEMA4X		IP66/IP67/IP6K9K, IK10+, NEMA4X		-
Power Consumption	PoE+: Max 20W, typical 17W 12VDC: Max 18W, typical 16W		PoE+: Max 20W, typical 17W 12VDC: Max 18.7W, typical 15W		PoE+: Max 16.5W, typical 12.5W 12VDC: Max 13.5W, typical 10.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.58" x 14.51") (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 (3.19" x 2.64" x 6.48") 880g (1.94lb)
	Wisenet Road AI		Wisenet Road AI		Wisenet Road AI
Solution	Community Traffic Observation	Parking Application	Community Traffic Observation	Parking Application	City Traffic
Speed Description	Moderate Speed	Low speed	Moderate Speed	Low speed	Regular Speed
Lane Coverage	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	Up to 2 lanes
Speed limit	Up to 70kmh (45mph)	Up to 70kmh (45mph)	Up to 70kmh (45mph)	Up to 40kmh (25mph)	Up to 100kmh (65mph)
Min. Forward Distance	12m (38ft)	10m (33ft)	12m (38ft)	10m (33ft)	16m (52ft)
Max. Forward Distance	12m (40ft)	13m (45ft)	12m (40ft)	13m (45ft)	36m (120ft)
Max. Horizontal Angle	25°	30°	25°	30°	25°
Max. Vertical Angle	25°	30°	25°	30°	25°
Horizontal Offset	Up to 5m (18ft)	Up to 7m (24ft)	Up to 5m (18ft)	Up to 7m (24ft)	Up to 7m (24ft)
Camera Height	Up to 5m (18ft)	Up to 7m (24ft)	Up to 5m (18ft)	Up to 7m (24ft)	Up to 7m (24ft)
Vehicle Recognition	Make : 70+ / Model : 600+ / Color : 11		Make : 70+ / Model : 600+ / Color : 11		Make : 70+ / Model : 600+ / Color : 11

AI Camera

	 PNM-C12083RVD **6MP x 2CH AI Multi-directional Camera**	 **PNM-C7083RVD** **2MP x 2CH AI Multi-directional Camera**	 NEW **PNM-C9022RV** **2MP x 4CH AI Multi-directional Camera**
Imaging Device	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 4CH
Min. Illumination	Color: 0.16Lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.035Lux (F2.2, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.1Lux (F2.0, 1/30sec) BW: 0.01Lux (F2.0, 1/30sec), 0Lux (IR LED on)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	3.54 ~ 6.69mm (1.9x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal per CH	2.8mm fixed focal (x4)
Angular Field of View	H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele)	H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele)	H: 209° , V: 60°
Pan / Tilt / Rotate	0° ~ 355° /0° ~ 78° /0° ~180°	0° ~ 355° /0° ~78° /0° ~ 180°	0° ~ 360° / 0° ~ 65° / –
IR Viewable Length	25m (82ft)	25m (82ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	–	–	–
Analytics	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support Bestshot Analytics events based on AI engine :** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events*:** Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support Bestshot Analytics events based on AI engine :** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events*:** Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Vehicle (Type:car/bus/truck/motorcycle/bicycle) **Support Bestshot Analytics events based on AI engine :** Object detection, Virtual line (Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events* :** Defocus detection, Motion detection, Tampering, Virtual area (Appear/Disappear)
Business Intelligence	–	–	–
Alarm I/O	* Support Alarm via optional SPM-4210 I/O box	* Support Alarm via optional SPM-4210 I/O box	2 configurable I/O ports
Audio I/O	* Audio in/out via optional SPM-4210 I/O box	* Audio in/out via optional SPM-4210 I/O box	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 15fps	2MP / 30fps	2MP / 20fps
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Unicast (10 users) / Multicast 5 profiles per channel	Unicast(10 users) / Multicast 5 profiles per channel	Unicast(10 users) / Multicast 3 profiles per channel
Edge Storage	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Open platform	ONVIF Profile S/T SUNAPI (HTTP API) Open platform	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH (Non-condensing)	-40℃~+55℃ (-40℉ ~ +131℉) / Less than 95% RH (Non-condensing)	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0 ~ 95% RH (non-condensing)
Certification	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10	IEC/EN 63000, IEC/EN 60529 IP66, IEC/EN 62262 IK10, NEMA 250 type 4X"
Power Consumption	PoE+: Max 21W, typical 16.5W	PoE+: Max 20W, typical 15.5W	PoE+: Max 24.5W, typical 11.3W 12VDC: Max 22.0W, typical 10.4W Power redundancy failover
Dimensions (WxHxD) / Weight	W 215 x H 135 x D 93.2mm (8.46"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"x 6.69") 2.9kg (6.39lb)

TNM–C4960TD
Bi–spectrum AI Thermal Camera

TNM–C4950TD
Bi–spectrum AI Thermal Camera

	TNM–C4960TD		TNM–C4950TD	
Imaging Device	Thermal	Visible	Thermal	Visible
	Uncooled micro bolometer	1/1.8" CMOS	Uncooled micro bolometer	1/1.8" CMOS
Min. Illumination	–	Color: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)	–	Color: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)
Video Output	Micro USB Type B		Micro USB Type B	
Focal Length	25mm fixed focal	10.9~29mm (2.6x) motorized varifocal	13.5mm fixed focal	10.9~29mm (2.6x) motorized varifocal
Angular Field of View	H: 17.4° / V: 13.1° / D: 21.6°	H:42° (Wide) ~ 15° (Tele) V:22.8° (Wide) ~ 8.4° (Tele) D:48.7° (Wide) ~ 17.1° (Tele)	H: 31.9° / V: 24.2° / D: 39.5°	H:42° (Wide) ~ 15° (Tele) V:22.8° (Wide) ~ 8.4° (Tele) D:48.7° (Wide) ~ 17.1° (Tele)
Pan / Tilt / Rotate	–		–	
IR Viewable Length	–		–	
Day & Night	–	Auto (ICR)	–	Auto (ICR)
Wide Dynamic Range	–	WDR (120dB)	–	WDR (120dB)
Digital Noise Reduction	–	SSNR Ⅴ, WiseNR Ⅱ	–	SSNR Ⅴ, WiseNR Ⅱ
Digital Image Stabilization	–	Support (built–in gyro sensor)	–	Support (built–in gyro sensor)
Analytics	**Analytics events :** Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection	**Analytics events based on AI engine (NPU) :** Object detection (Person/Face/Vehicle (car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam **Analytics events :** Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear	**Analytics events :** Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection	**Analytics events based on AI engine (NPU) :** Object detection (Person/Face/Vehicle (car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam **Analytics events :** Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear
Business Intelligence	–		–	
Alarm I/O	4 configurable I/O ports		4 configurable I/O ports	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG		H.265 / H.264, MJPEG	
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	3840 x 2160 / 30fps	640 x 480 (can be scaled up to 1280 x 960) / 30fps	3840 x 2160 / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅲ	WiseStream Ⅱ	WiseStream Ⅲ
Streaming	Up to 3 profiles		Up to 3 profiles	
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB		micro SD/SDHC/SDXC 2slots 512GB	
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform (visible channel only)		ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform (visible channel only)	
Operating Temperature	−40℃ ~ +60℃ (−58℉ ~ +140℉) * Start up should be done at above −30℃ less than 95% RH (non–condensing)		−40℃ ~ +60℃ (−58℉ ~ +140℉) * Start up should be done at above −30℃ less than 95% RH (non–condensing)	
Certification	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)		IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)	
Power Consumption	PoE+ : Max 23.5W 12VDC : Max 19.5W		PoE+ : Max 23.5W 12VDC : Max 19.5W	
Dimensions (WxHxD) / Weight	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)		W 353.4 x H 287.5 x D191.2mm (13.92 " x 11.32" x 7.53") 4.53kg (9.99lb)	

AI Camera

TNM–C4940TD
Bi–spectrum AI Thermal Camera

TNB–9000
8K Box Camera

	TNM–C4940TD Bi–spectrum AI Thermal Camera		TNB–9000 8K Box Camera
Imaging Device	Thermal	Visible	43.3mm Full–frame CMOS
	Uncooled micro bolometer	1/1.8" CMOS	
Min. Illumination	–	Color: 0.06Lux (F1.7, 1/30sec) BW: 0Lux (IR LED on)	Color : 0.015Lux (F1.4) BW : 0.0015Lux (F1.4)
Video Output	Micro USB Type B		HDMI
Focal Length	9.1mm fixed focal	4.4 ~ 9.3mm (2.2x) motorized varifocal	–
Angular Field of View	H: 50° / V: 37° / D: 63.8°	H:112.1° (Wide) ~ 47.5° (Tele) V:58° (Wide) ~ 26.6° (Tele) D:137.5° (Wide) ~ 54.6° (Tele)	Canon 24mm, H: 57.4° Canon 35mm, H: 42.6° Canon 50mm, H: 30.9° Canon 85mm, H: 19.1° Canon 100mm, H: 16° Canon 70–200mm, H: 22.8° ~ 8°
Pan / Tilt / Rotate	–		–
IR Viewable Length	–	30m (98.42ft)	–
Day & Night	–	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	–	WDR (120dB)	–
Digital Noise Reduction	–	SSNR Ⅴ, WiseNR Ⅱ	SSNR Ⅴ
Digital Image Stabilization	–	Support (built–in gyro sensor)	–
Analytics	**Analytics events :** Directional detection, Motion detection, Enter/Exit, Virtual line, Temperature Change detection	**Analytics events based on AI engine (NPU) :** Object detection (Person/Face/Vehicle (car/truck/bus/bicycle/motorcycle)/License plate), Bestshot, IVA (Virtual line/Area, Enter/Exit, Loitering, direction, intrusion), Stopped vehicle, Traffic jam **Analytics events :** Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Appear/Disappear	Intelligent analytics, Audio detection, Sound classification
Business Intelligence	–		–
Alarm I/O	4 configurable I/O ports		1 / 1
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG		H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	3840 x 2160 / 30fps	8K / 15fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅲ	WiseStream Ⅱ
Streaming	Up to 3 profiles		Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB		micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform (visible channel only)		ONVIF Profile S/G/T SUNAPI
Operating Temperature	-40℃ ~ +60℃ (-58℉ ~ +140℉) * Start up should be done at above -30℃ less than 95% RH (non-condensing)		0℃ ~ +45℃ (32℉ ~ +122℉)
Certification	IP66/IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)		EMC
Power Consumption	PoE+ : Max 25.5W 12VDC : Max 21.5W		PoE : Max 30W, typical 20W 12VDC : Max 26W, typical 18W
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 120 x H 118.5 x D 179mm (4.72" x 4.66" x 7.04") 2.2kg (4.85lb)
Additional Features	–		Super high resolution, Canon EF mount

	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	1/2.8" CMOS	1/2.8" CMOS	1/2.8"CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	-
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	-
Pan / Tilt / Rotate	-	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	-
IR Viewable Length	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	ExtremeWDR (120dB)
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection Face/upper body detection
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) Supply voltage: 2.5VDC (4mA), Input impedance: 2K Ohm
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps	4K / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) / Less than 95% RH (non condensing) * Start up should be done at above -30℃	-50℃ ~ +60℃ (-58℉ ~ +140℉) / Less than 95% RH (non condensing) * Start up should be done at above -30℃	-25℃ ~ +60℃ (-13℉ ~ +140℉) / Less than 95% RH (non condensing)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / Less than 95% RH (non condensing)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH (non condensing)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	-
Power Consumption	PoE : Max 12.95W, typical 10.5W 12VDC : Max 12.5W, typical 9.4W 24VAC : Max 14.5W, typical 11.2W	PoE : Max 12.95W, typical 10.5W 12VDC : Max 12.5W, typical 9.4W 24VAC : Max 14.5W, typical 11.2W	PoE : Max 12.95W, typical 10.7W 12VDC : Max 11.5W, typical 9W	PoE : Max 12.95W, typical 10.7W 12VDC : Max 11.5W, typical 9W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.52lb)	W81 x H67 x D165mm (3.19" x 2.64" x 6.48") 880g (1.94lb)
Additional Features	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default

	XNO-8082R **6MP IR Bullet Camera**	**XNV-8082R** **6MP IR Vandal Dome Camera**	**XND-8082RF** **6MP IR Dome Camera**	**XND-8082RV** **6MP IR Dome Camera**	**XNB-8002** **6MP Box Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	–
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	H: 114° (Wide) ~ 40.2° (Tele) V: 62° (Wide) ~ 22.5° (Tele) D: 133° (Wide) ~ 46.3° (Tele)	–
Pan / Tilt / Rotate	–	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	–
IR Viewable Length	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	40m (131.23ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	extremeWDR	extremeWDR	extremeWDR	extremeWDR	extremeWDR
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback Shock detection, Face/upper body detection				
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports	2 configurable I/O ports
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out	Selectable (mic in/line in/Built-in mic) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps	6MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) / Less than 95% RH (non condensing) * Start up should be done at above -30℃	-50℃~+60℃ (-58℉ ~ +140℉) / Less than 95% RH (non condensing) * Start up should be done at above -30℃	-25℃~ +60℃ (-13℉ ~ +140℉) / Less than 95% RH (non condensing)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / Less than 95% RH (non condensing)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH (non condensing)
Certification	IP66/IP67, IK10, NEMA4X	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	–
Power Consumption	PoE : Max 12.95W, typical 10.5W 12VDC : Max 12.5W, typical 9.4W 24VAC : Max 14.5W, typical 11.2W	PoE : Max 12.95W, typical 10.7W 12VDC : Max 11.5W, typical 9W 24VAC : Max 13.5W, typical 11W	PoE : Max 12.95W, typical 10.7W 12VDC : Max 11.5W, typical 9W	PoE : Max 12.95W, typical 10.7W 12VDC : Max 11.5W, typical 9W	PoE: Max 12.95W, typical 8.2W 12VDC: Max 11.5W, typical 7.5W 24VAC: Max 13.5W, typical 8.9W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø180 x125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.52lb)	W 81 x H 67 x D 165mm (3.19" x 2.64" x 6.48") 880g (1.94lb)
Additional Features	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default	UL CAP, Secure by Default

	XNV-8081RE **5MP IR Vandal Dome Camera**	**XND-8081REV** **5MP IR Dome Camera**	**XNV-6081RE** **2MP IR Vandal Dome Camera**	**XND-6081REV** **2MP IR Dome Camera**	**XND-8081VZ** **5MP Dome Camera**
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.07Lux (F1.3, 1/30sec) BW: 0Lux (IR LED)	Color: 0.07Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.015Lux (F1.4, 1./30sec) BW: 0Lux (IR LED)	Color: 0.015Lux (F1.4, 1./30sec) BW: 0Lux (IR LED)	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)
Video Output	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.6 ~ 9.4mm (2.6x) motorized varifocal
Angular Field of View	H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele)	H: 92.1° (Wide) ~ 38.7° (Tele) V: 67.2° (Wide) ~ 29° (Tele) D: 119.9° (Wide) ~ 48.6° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H: 119.5° (Wide) ~ 27.9° (Tele) V: 62.8° (Wide) ~ 15.7° (Tele) D: 142.1° (Wide) ~ 32° (Tele)	H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	± 175° / 0 ~ 85° / ± 175° (Remote)
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	50m (164.04ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	150dB	150dB	120dB
Digital Noise Reduction	SSNRⅤ	SSNRⅤ	SSNRⅤ	SSNRⅤ	SSNRⅤ
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	2MP / 60fps	2MP / 60fps	5MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) / Less than 90% RH * Start up should be done at above -35℃	-25℃ ~ +60℃ (-13℉ ~ +140℉) Less than 90% RH	-50℃ ~ +60℃ (-58℉ ~ +140℉) / Less than 90% RH * Start up should be done at above -35℃	-25℃ ~ +60℃ (-13℉ ~ +140℉) / Less than 90% RH	-25℃ ~ +60℃ (-13℉ ~ +140℉)
Certification	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP66/IP67/IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10
Power Consumption	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25. W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	Max 25.5W (Main CAM + Extension CAM) Typical 10.2W (Main CAM) * PoE Out: Max 12.95W at 80meters using CAT5/5E cable	PoE : Max 11W 12VDC : Max 9W
Dimensions (WxHxD) / Weight	Ø180 x 125mm (Ø7.09" x 4.92") 1.75kg (3.86lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.75kg (3.86lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)
Additional Features	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	PoE Extender Camera	Modular structure, Motorized PTRZ, Anti dust

	 XND-8081FZ **5MP Flush Mount Dome Camera**	 **XND-8081RV** **5MP IR Dome Camera**	 **XND-8081RF** **5MP IR Flush Mount Dome Camera**	 **XNV-8081Z** **5MP Vandal Dome Camera**	 **XNV-8081R** **5MP IR Vandal Dome Camera**
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.07 Lux (F1.2) B/W : 0.007 Lux (F1.2)	Color: 0.07Lux (F1.3) BW: 0Lux (IR LED)
Video Output	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB type B
Focal Length	3.6 ~ 9.4mm (2.6x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.6 ~ 9.4mm (2.6x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal
Angular Field of View	H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 102.5° (Wide) ~ 38.7° (Tele) V : 74.2° (Wide) ~ 29° (Tele) D : 135.5° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	±175° / 0 ~ 85° / ±175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	50m (164.04ft)	50m (164.04ft)	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / Less than 90% RH	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)
Certification	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max 11W 12VDC : Max 9W	PoE : Max 12.95W 12VDC : Max 11.7W	PoE : Max 12.95W 12VDC : Max 11.7W	PoE : Max 12.3W 12VDC : Max 10W 24VAC : Max 12.3W	PoE : Max 12.95W 12VDC : Max 11.7W 24VAC : Max 14.9W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.1") 1.85kg (4.08lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)	Ø205 x 155mm (Ø8.07" x 6.1") 1.8kg (3.97lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)
Additional Features	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ	Modular structure

	XND-6081V 2MP Dome Camera	XND-6081F 2MP Flush Mount Dome Camera	XND-6081VZ 2MP Dome Camera	XND-6081FZ 2MP Flush Mount Dome Camera	XND-6081RV 2MP IR Dome Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	± 175° / 0 ~ 85° / ± 175° (Remote)	± 175° / 0 ~ 85° / ± 175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	-	-	-	-	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)
Certification	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate	IP52, IK10
Power Consumption	PoE : Max 7W 12VDC : Max 5.4W	PoE : Max 7W 12VDC : Max 5.4W	PoE : Max 10W 12VDC : Max 8.5W	PoE : Max 10W 12VDC: Max 8.5W	PoE : Max 12.95W 12VDC : Max 10.8W
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.1") 1.8kg (3.97lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)	Ø205 x 155mm (Ø8.07" x 6.1") 1.85kg (4.08lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.2lb)
Additional Features	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular design, Anti dust

	 XND-6081RF **2MP Flush Mount IR Dome Camera**	 **XNV-6081Z** **2MP Vandal Dome Camera**	 **XNV-6081R** **2MP IR Vandal Dome Camera**	 **XNV-6081** **2MP Vandal Dome Camera**	 **XNB-8000** **5MP Box Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.015 lux (F1.4) B/W : 0.0015 Lux (F1.4)	Color : 0.015Lux (F1.4) BW : 0Lux (IR LED)	Color : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB Type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	-
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	-
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355	± 175° / 0° ~ 85° / ± 175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	-
IR Viewable Length	50m (164.04ft)	-	50m (164.04ft)	-	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	5MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X	-
Power Consumption	PoE : Max 12.95W 12VDC : Max 10.8W	PoE : Max 11W 12VDC : Max 9.5W 24VAC : Max 11W	PoE : Max 12.95W 12VDC : Max 10.8W 24VAC : Max 13.3W	PoE : Max 7W 12VDC : Max 5.4W 24VAC : Max 7.1W	PoE : Max 8.5W 12VDC : Max 7.5W 24VAC : Max 8.5W
Dimensions (WxHxD) / Weight	Ø205 x 155mm (Ø8.07" x 6.1") 1.8kg (3.97lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.75kg (3.86lb)	Ø180 x 125mm (Ø7.1" x 4.9") 1.45kg (3.20lb)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)
Additional Features	Modular design, Anti dust	Modular structure, Motorized PTRZ	Modular structure	Modular structure	Handover, Hallway View

	 XNO-8080R **5MP IR Bullet Camera**	 **XNO-8020R/8030R/8040R** **5MP IR Bullet Camera**	 **XND-8080R/8080RV** **5MP IR Dome Camera**	 **XND-8020R/8030R/8040R** **5MP IR Dome Camera**	 **XND-8020F** **5MP Flush Mount Dome Camera**
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B
Focal Length	3.7 ~ 9.4mm (2.5x) motorized varifocal	3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R)	3.9 ~ 9.4m (2.4x) motorized varifocal	3.7mm fixed (XND-8020R) 4.6mm fixed (XND-8030R) 7.0mm fixed (XND-8040R)	3.7mm fixed
Angular Field of View	H : 100.2° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 97.5° / V : 71.9° / D : 126.2° (XNO-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XNO-8030R) H : 50.7° / V :37.8° / D : 63.8° (XNO-8040R)	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 97.5° / V : 71.9° / D : 126.2° (XND-8020R) H : 77.9° / V : 57.9° / D : 98.7° (XND-8030R) H : 50.7° / V : 37.8° / D : 63.8° (XND-8040R)	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	–	–	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°
IR Viewable Length	50m (164.04ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	–
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	–	People counting, Queue management, Heatmap	–	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	–
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IK08	IK08	–
Power Consumption	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 10.3W 12VDC : Max 9.3W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø6.3" x 4.67") 2.18kg (4.81lb)	Ø70 x 296mm (Ø2.76" x 11.65") 1.22kg (2.69lb)	Ø140.8 x 113mm (Ø5.54" x 4.45") 628g (1.38lb) (XND-8080R) 732g (1.61lb) (XND-8080RV)	Ø110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129.1mm (Ø3.89" x 5.08") 275g (0.61lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	XNV-8080R **5MP IR Vandal Dome Camera**	**XNV-8080RSA** **5MP Stainless IR Vandal Dome Camera**	**XNV-8020R/8030R/8040R** **5MP IR Vandal Dome Camera**	**XNF-9010RV/9010RVM** **12MP IR Fisheye Camera**
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/2.3" 12MP CMOS
Min. Illumination	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color: 0.39 Lux (F2.2) BW : 0Lux (IR LED on)
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	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.9 ~ 9.4mm (2.4x) motorized varifocal	3.7mm fixed (XNV-8020R) 4.6mm fixed (XNV-8030R) 7.0mm fixed (XNV-8040R)	1.08mm fixed focal
Angular Field of View	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 97.5°/ V : 71.9°/ D : 126.2° (XNV-8020R) H : 77.9°/ V : 57.9°/ D : 98.7° (XNV-8030R) H : 50.7°/ V : 37.8°/ D : 63.8° (XNV-8040R)	H: 187° / V: 187° / D: 187°
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	-
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	30m (98.43ft)	10m (32.8ft), Wise IR
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	extremeWDR (120dB)
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support	Support	Support (Built-in Gyro sensor)	-
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	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) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	3008 x 3008 / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF profile S/G, SUNAPI Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 95% RH
Certification	IP67, IP66, NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IP67, IK10	IP66, IK10, NEMA4X, EN50155 class T3 (XNF-9010RVM only)
Power Consumption	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 9W 12VDC: Max 8W	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W
Dimensions (WxHxD) / Weight	Ø160 x 118.5mm (Ø6.3" x 4.67") 1.01kg (2.23lb)	Ø160 X 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	Ø160 x 72mm (Ø6.38" x 2.83") 1.1kg (2.43lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Various mode support (Original, Double panorama, Single panorama, Quad view) M12 Connector (XNF-9010RVM)

	XNF-9010RS **12MP Stainless IR Fisheye Camera**	**XNF-8010R/8010RV/8010RVM** **6MP IR Fisheye Camera**	**XNB-6005** **2MP Box Camera (extraLUX)**	**XNB-6000** **2MP Box Camera**
Imaging Device	1/2.3" 12MP CMOS	1/1.8" CMOS	1/2" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.39 Lux (F2.2, 1/30sec) BW : 0Lux (IR LED on)	Color : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.006Lux (F1.2) B/W : 0.0006Lux (F1.2)	Color : 0.01Lux (F1.2) B/W : 0.001Lux (F1.2)
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B
Focal Length	1.08mm 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 (ICR)
Wide Dynamic Range	extremeWDR (120dB)	120dB	150dB	150dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	-	-	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-	-
Alarm I/O	2 configured I/O	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	3008 x 3008 / 30fps	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +50℃ (-40℉ ~ +122℉) / Less than 95% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) (XNF-8010R) -40℃ ~ +55℃ (-40℉ ~ +131℉) (XNF-8010RV/8010RVM)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP66, IP67, IP6K9K, NEMA4X, IK10, IK10+ (it can resist impacts of 40 joules), NSF/ANSI Standard 169 - Special Purpose Food Equipment and Devices.	IP66, IK10 (XNF-8010RV/8010RVM)	-	-
Power Consumption	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W	PoE : Max 12W, 12VDC : Max 11W (XNF-8010R) PoE : Max 12.95W, 12VDC : Max 12W (XNF-8010RV/8010RVM)	PoE : Max. 8.5W 12VDC : Max 8W 24VAC : Max 9W	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W
Dimensions (WxHxD) / Weight	Ø167.9 x 72.1mm (Ø66.1" x 28.38") 2.98kg (6.57lb)	Ø146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73lb) (XNF-8010RV) 790g (1.74lb) (XNF-8010RVM)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)
Additional Features	Various mode support (Original, Double panorama, Single panorama, Quad view)	M12 Connector (XNF-8010RVM), Built-in MIC, On board dewarpping	Handover, Hallway View	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-T1080FA 2MP lens for XNB-6001
Imaging Device	–	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	–	Color : 0.06Lux (F2.5) B/W : 0.06Lux (F2.5)	Color : 0.45Lux (F2.0) B/W : 0.45Lux (F2.0)	Color : 0.03Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	–	–	–
Focal Length	–	4.6mm Pinhole	2.4mm fixed	1.6mm fisheye
Angular Field of View	–	H : 73° / V : 39° / D : 85°	H : 138° / V : 73° / D : 168°	H : 187° / V : 113.9°
Pan / Tilt / Rotate	–	–	–	–
IR Viewable Length	–	–	–	–
Day & Night	–	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	–	–	–
Digital Noise Reduction	SSNR Ⅴ	–	–	–
Digital Image Stabilization	Support	–	–	–
Analytics	Intelligent analytics Audio detection	–	–	–
Business Intelligence	People counting, Queue management, Heatmap	–	–	–
Alarm I/O	1 / 1	–	–	–
Audio I/O	Selectable (mic in/line in) / Line out	–	–	–
Video Compression	H.265 / H.264, MJPEG	–	–	–
Resolution / Max. Frame Rate	2MP / 60fps	–	–	–
WiseStream	WiseStream Ⅱ	–	–	–
Streaming	Up to 10 Profiles	–	–	–
Edge Storage	SD/SDHC/SDXC	–	–	–
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	–	–	–
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	–	–	–	–
Power Consumption	PoE : Max 6W 12VDC : Max 6.5W	–	–	–
Dimensions (WxHxD) / Weight	W 131.1 x H 28 x D 86mm (5.16" x 1.1" x 3.39") 245g (0.54lb)	Ø24 x 42mm (Ø0.94" x 1.65") (Lens) 8m (314.96") (Cable) 310g (0.68lb) (SLA-T4680) 30 x 20.2 x 45mm (1.18" x 0.8" x 1.77") (Lens) 8m (314.96") (Cable) 321g (0.71lb) (SLA-T4680V)	Ø24 x 49.8mm (Ø0.94" x 1.96") (Lens) 8m (314.96") (Cable) 318g (0.70lb) (SLA-T2480) 30 x 27.9 x 45mm (1.18" x 0.1" x 1.77") (Lens) 8m (314.96") (Cable)328g (0.72lb) (SLA-T2480V)	Ø35 x 68.9mm (Ø1.38" x 2.71") (Lens) 8m (314.96") (Cable) 321g (0.71lb)
Additional Features	Handover, Hallway View	–	–	–

	XNO-6120R **2MP IR Bullet Camera**	**XNO-6085R** **2MP IR Bullet Camera (extraLUX)**	**XNO-6080R** **2MP IR Bullet Camera**	**XNO-L6080R** **2MP IR Bullet Camera**	**XNO-6010R/6020R** **2MP IR Bullet Camera**
Imaging Device	1/2.8" CMOS	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03ux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.055lux (F2.0) (XNO-6010R) Color : 0.015lux (F1.4) (XNO-6020R) B/W: 0 Lux (IR LED On)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	5.2 ~ 62.4mm (Optical 12x)	4.1 ~ 16.4mm (Optical 4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal	2.4mm fixed (XNO-6010R) 4mm fixed (XNO-6020R)
Angular Field of View	H : 54.58° (Wide) ~ 5.3° (Tele) V : 32.19° (Wide) ~ 3° (Tele) D : 61.4° (Wide) ~ 6.06° (Tele)	H : 100° (Wide) ~ 26.2° (Tele) V : 54° (Wide) ~ 14.8° (Tele) D : 116° (Wide) ~ 30° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide)) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 139° / V : 73° / D : 167° (XNO-6010R) H : 88.6° / V : 47.5° / D : 104.8° (XNO-6020R)
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	70m (229.66ft)	70m (229.66ft)	50m (164.04ft)	30m (98.42ft)	20m (65.62ft) (XNO-6010R) 30m (98.43ft) (XNO-6020R)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	120dB	150dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics	Intelligent analytics Audio detection Sound classification
Business Intelligence	-	-	-	-	People counting, Queue management, Heatmap
Alarm I/O	1 / 1	1 / 1	1 / 1	-	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	-	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -35℃ (-31℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -35℃ (-31℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-30℃~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA 4X, IK10	IP66, IK10	IP67, IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 12.95W	PoE : Max 12.95W 12VDC : Max 12W 24VAC : Max 15W	PoE : Max. 11W	PoE : Max 9.7W 12VDC : Max 8.8W
Dimensions (WxHxD) / Weight	Ø91 x 368.6mm (Ø3.58" x 14.51") 2.18kg (4.81lb)	Ø91 x 388.6mm (Ø3.58" x 15.3") 2.35kg (5.18lb)	Ø91 x 368.6.mm (Ø3.58" x 14.51") 2.18kg (4.81lb)	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.29kg (4.25lb)	Ø70 x 301.5mm (Ø2.76" x 11.87") (XNO-6010R) Ø70 x 296mm (Ø2.76" x 11.65") (XNO-6020R) 1.22kg (2.69lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	XND-6085/6085V **2MP Dome Camera (extraLUX)**	**XND-6080/6080V** **2MP Dome Camera**	**XND-6080R/6080RV** **2MP IR Dome Camera**	**XND-L6080R/L6080RV** **2MP IR Dome Camera**	**XND-L6080V** **2MP Dome Camera**
Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Color : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.1~16.4mm (Optical 4x)	2.8~12mm (4.3x) motorized varifocal	2.8~12mm (4.3x) motorized varifocal	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) motorized varifocal
Angular Field of View	H : 100° (Wide) ~ 26.2° (Tele) V : 54° (Wide) ~ 14.8° (Tele) D : 116° (Wide) ~ 30° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)
Pan / Tilt / Rotate	±175° / ±73° / ±175°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	-	-	30m (98.43ft)	30m (98.42ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	-	150dB	150dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	-	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in), Built-in mic / Line out	-	-
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles	Up to 5 Profiles
Edge Storage	SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -10℃ (+14℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IK08	IK08	IK08	IK08	IK08
Power Consumption	PoE : Max 10.2W 12VDC : Max 8.6W	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max 10W 12VDC : Max 9W	PoE : Max 8W	PoE : Max 6W
Dimensions (WxHxD) Weight	Ø160 x 140mm (Ø6.3" x 5.51") 1.1 kg (2.43lb) (XND-6085) 1.25 kg (2.76lb) (XND-6085V)	Ø140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb) (XND-6080) 714g (1.57lb) (XND-6080V)	Ø140.8 x 113mm (Ø5.54" x 4.45") 624g (1.38lb) (XND-6080R) 724g (1.60lb) (XND-6080RV)	Ø140.8 x 113mm (Ø5.54" x 4.45") 580g (1.28lb) (XND-L6080R) 690g (1.52lb) (XND-L6080RV)	Ø140.8 x 113mm (Ø5.54" x 4.45") 675g (1.49lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Defog, Hallway View	Defog, Hallway View

	XND-6020R 2MP IR Dome Camera	XND-6011F 2MP Flush Mount Dome Camera	XND-6010 2MP Dome Camera	XNV-6120/6120R 2MP Vandal / IR Vandal Dome Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.03Lux (F1.6), B/W : 0.003Lux (F1.6) (XNV-6120) Color : 0.03Lux (F1.6), B/W : 0Lux (IR LED on) (XNV-6120R)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4mm fixed	2.8mm fixed	2.4mm fixed	5.2 ~ 62.4mm (Optical 12x)
Angular Field of View	H : 88.6° / V : 47.5° / D : 104.8°	H : 112° / V : 62° / D : 130°	H : 139° / V : 73° / D : 167°	H : 54.58° (Wide) ~ 5.3° (Tele) V : 32.19° (Wide) ~ 3° (Tele) 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	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	-
Alarm I/O	1 / 1	-	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / -	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -35℃ (-31℉)
Certification	IK08	-	IK08	IP67, IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max. 7.8W, 12V DC : Max 7W, 24V AC : Max. 8.2W (XNV-6120) PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W (XNV-6120R)
Dimensions (WxHxD) / Weight	Ø110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61lb)	Ø140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb)	Ø160 x 128.5mm (Ø6.3" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	 XNV-6085 **2MP Vandal Dome Camera (extraLUX)**	 **XNV-6080** **2MP Vandal Dome Camera**	 **XNV-6080R** **2MP IR Vandal Dome Camera**	 **XNV-6080RSA** **2MP Stainless IR Vandal Dome Camera**	 **XNV-L6080** **2MP Vandal Dome Camera**
Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Color : 0.015Lux (F1.4) B/W : 0.015Lux (F1.4)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	4.1 ~ 16.4mm (Optical 4x)	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 100° (Wide) ~ 26.2° (Tele) V : 54° (Wide) ~ 14.8° (Tele) D : 116° (Wide) ~ 30° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) 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)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics
Business Intelligence	–	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	–
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	–
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 5 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) * Start up above -35℃ (-31℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA4X, IK10	IP67/IP66/NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IK10
Power Consumption	PoE : Max 12.1W 12VDC : Max 11.1W 24VAC : Max 13.5W	PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 8W
Dimensions (WxHxD) / Weight	Ø160 x 140mm (Ø6.3" x 5.51") 1.4kg (3.09lb)	Ø160 x 118.5mm (Ø6.3" x 4.67") 985g (2.17lb)	Ø160 x 118.5mm (Ø6.3" x 4.67") 995g (2.19lb)	Ø160 x 120.5mm (Ø6.38" x 4.74") 2.8kg (6.17lb)	Ø160 x 118.5mm (Ø6.3" x 4.67") 940g (2.1lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	XNV-L6080R **2MP IR Vandal Dome Camera**	**XNV-6022R/6022RM** **2MP Mobile IR Flat Camera**	**XNV-6020R** **2MP IR Vandal Dome Camera**	**XNV-6013M** **2MP Mobile Camera**	**XNV-6012M/6012** **2MP Mobile Flat Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.04Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Color : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Color : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)
Video Output	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB Type B	Micro USB type B
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.6mm fixed	4mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 94.8° / V : 49.3° / D : 114.3°	H : 88.6° / V : 47.5° / D : 104.8°	H : 107.4° / V : 62.2° / D : 122°	H : 135.4° / V : 71.2° / D : 161.6°
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	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	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 Audio detection Sound classification (w/ external MIC)	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification (w/ external MIC)
Business Intelligence	-	-	People counting, Queue management, Heatmap	-	-
Alarm I/O	-	-	1 / 1	-	-
Audio I/O	-	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/ SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃(-4°F)	-40℃ ~ +60℃ (-40°F ~ +140°F) * Start up above -30℃ (-22°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-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 12V DC : Max 8W	PoE : Max 7.2W	PoE : Max 6.5W
Dimensions (WxHxD) / Weight	Ø160 x 118.5mm (Ø6.3" x 4.67") 940g (2.07lb)	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 615g (1.36lb)	W 103.7 x H 72.3 x D 126.8mm (4.08" x 2.85" x 4.99") 478g (1.04lb)	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)
Additional Features	Handover, Hallway View	M12 Connector (XNV-6022RM) Handover, Hallway View	Handover, Hallway View	M12 Connector Handover, Hallway View	M12 Connector (XNV-6012M) Handover, Hallway View

	 XNV−6011 **2MP Vandal Dome Camera**	 **XNV−6010** **2MP Vandal Dome Camera**	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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.0055Lux (F2.0)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	CVBS 1.0Vp−p, Micro USB type B	CVBS 1.0Vpp, Micro USB type B	−	−	−
Focal Length	2.8mm fixed	2.4mm fixed	5 ~ 150mm (30x) zoom	5 ~ 150mm (30x) zoom	4.25 ~ 170mm (40x) zoom
Angular Field of View	H : 112° / V : 62° / D : 130°	H : 139° / V : 73° / D : 167°	H: 57.42° (Wide) ~ 2.19° (Tele) V: 33.54° (Wide) ~ 1.25° (Tele)	H: 57.42° (Wide) ~ 2.19° (Tele) V: 33.54° (Wide) ~ 1.25° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) V: 39.4° (Wide) ~ 1.09° (Tele)
Pan / Tilt / Rotate	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)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule
Wide Dynamic Range	150dB	150dB	extremeWDR(120dB)	extremeWDR(120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	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 Audio detection Sound classification	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	−	−	−
Alarm I/O	−	1 / 1	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Audio I/O	−	Selectable (mic in/line in) / Line out	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264,MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	4K / 30fps	6MP / 30fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −20℃ (−4℉)	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −20℃ (−4℉)	Normal : −40℃ ~ +55℃(−40℉ ~ +131℉) / Maximum Temperature based on NEMA−TS 2(2.2.7) : +74℃ (+165℉) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	Normal : −40℃~ +55℃ (−40℉ ~ +131℉) / Maximum Temperature based on NEMA−TS 2(2.2.7) : +74℃(+165℉) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	Normal : −40℃ ~ +55℃ (−40℉ ~ +131℉) / Maximum Temperature based on NEMA−TS 2(2.2.7) : +74℃ (+165℉) * Start up should be done at above −30℃ Less than 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 12V DC : Max 5.5W	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W	HPoE (Camera only): Max 42W, typical 20W
Dimensions (WxHxD) / Weight	Ø112.8 x 63.7mm (Ø4.44" x 2.51") 420g (0.93lb)	Ø120 x 97.5mm (Ø4.72" x 3.84") 625g (1.38lb)	Ø184.9 x 318.8mm (Ø7.28" x 12.55") 5.4kg(11.9lb)	Ø184.9 x 318.8m (Ø7.28" x 12.55") 5.4kg(11.9lb)	Ø184.9 x 318.8mm (Ø7.28" x 12.55") 5.4kg(11.9lb)
Additional Features	Handover, Hallway View	Handover, Hallway View	1 Terminal & Cable, Upgraded preset accuracy, built−in wiper, object auto tracking, 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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (IR LED On)	Color: 0.05Lux (F1.6, 1/30sec) 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) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) V: 39.4° (Wide) ~ 1.09° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 57.42° (Wide) ~ 2.71° (Tele) V: 33.54° (Wide) ~ 1.55° (Tele)	H: 65.66° (Wide) ~ 1.88° (Tele) V: 39.4° (Wide) ~ 1.09° (Tele)
Pan / Tilt / Rotate	360° Endless / 110° (−20° ~ 90°) / −	360° Endless / 110° (−20° ~ 90°) / −	360° Endless / 110° (−20° ~ 90°) / −	360° Endless / 110° (−20° ~ 90°) / −	360° Endless / 110° (−20° ~ 90°) / −	360° Endless / 110° (−20° ~ 90°) / −
IR Viewable Length	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR	−	−	−
Day & Night	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule	Auto (ICR)/Color/BW/Schedule
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)	Support (built−in gyro sensor)
Analytics	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM−4210)
Business Intelligence	−	−	−	−	−	−
Alarm I/O	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Audio I/O	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4K / 30fps	6MP / 30fps	2MP / 60fps	4K / 30fps	6MP / 30fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	−40℃ ~ +55℃ (−40℉ ~ +131℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	−40℃ ~ +55℃ (−40℉ ~ +131℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	−40℃ ~ +50℃ (−40℉ ~ +122℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	−40℃ ~ +55℃ (−40℉ ~ +131℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	−40℃ ~ +55℃ (−40℉ ~ +131℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)	−40℃ ~ +50℃ (−40℉ ~ +122℉) / +74℃ (+165℉) (MAX) based on NEMA−TS 2 (2.2.7) * Start up should be done at above −30℃ Less than 95% RH (Non−condensing)
Certification	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA TS−2 (2.2.8, 2.2.9)
Power Consumption	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	PoE+ (IEEE802.3at, Class4): Typical 20W, Max 25W	PoE+ (IEEE802.3at, Class4): Typical 20W, Max 25W	PoE+ (IEEE802.3at, Class4): Typical 20W, Max 25W
Dimensions (WxHxD) / Weight	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)	Ø158 x 293.3mm (Ø6.22" x11.55") 3.2kg (7.05lb)
Additional Features	1 Terminal & Cable, Upgraded preset accuracy, object auto tracking, Target lock tracking Included SFP slot in HPoE injector			1 Terminal & Cable, Upgraded preset accuracy, object auto tracking, Target lock tracking		

	 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	1/2" 2MP CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.02Lux (F1.6) B/W : 0Lux (IR LED on)	Color: 0.01Lux (F1.5, 1/30sec) BW: 0Lux (IR LED)	Color : 0.03Lux (F1.6) B/W : 0.003Lux (F1.6)	Color : 0.015Lux (F1.4) 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) V : 34.8° (Wide) ~ 0.71° (Tele)	H: 59.3° (Wide) ~ 1.9° (Tele) V: 35.8° (Wide) ~ 1.1° (Tele)	H : 54.58° (Wide) ~ 5.3° (Tele) V : 32.19° (Wide) ~ 3° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) 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)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (built-in gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification
Business Intelligence	-	-	-	-
Alarm I/O	4 / 2	4 / 2	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDH C/SDXC	Micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-50℃ ~ +55℃ (-122℉ ~ +131℉) * Start up above -30℃ (HPoE Mode)	-50℃ ~ +55℃ (-122℉~+131℉) / Less than 90% RH	-30℃ ~ +55℃ (-22℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	HPoE : 60W 24VAC : Max 92W	24VAC: Max 90W	PoE, 12VDC : Max 12W	PoE : Max 9.6W 12VDC : Max 8.6W
Dimensions (WxHxD) / Weight	Ø236.9 x 407.7mm (Ø9.33" x 16.05") 7.1kg (15.65lb)	Ø236.9 x 407.7mm (9.33" x 16.05") 7.1kg (15.65 lb)	Ø168 x 161.5mm (Ø6.61" x 6.36") 1.9kg (4.19 lb)	Ø136.1 x 106.1mm (Ø5.36" x 4.18") 0.78kg (1.72 lb)
Additional Features	Defog, Auto tracking	Defog, Auto tracking	Defog, Auto tracking	Defog, Auto tracking

	 XNZ-6320A **2MP 32x Zoom Camera**	 **XNZ-L6320A** **2MP 32x Zoom Camera**	 **PNM-9031RV** **15MP 192° IR Panoramic Camera**	 **PNM-9022V** **8.3MP 180° /209° Panoramic Camera**
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 5MP CMOS (x4)	1/2.8" 4CH
Min. Illumination	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.3Lux (F1.6) Color: 0.03Lux (F1.6)
Video Output	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p	Micro USB Type B	Micro USB Type B
Focal Length	4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom)	4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom)	4.3mm Fixed	2.8mm fixed focal
Angular Field of View	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 196° / V: 64° (Min distance 5m) H: 197° / V: 64° (Max distance 100m)	H: 209° / V: 83.3°
Pan / Tilt / Rotate	-	-	0° ~ 355° / 0° ~ 60° / -	0° ~ 355° / 0° ~ 60° / -
IR Viewable Length	-	-	20m (65.62ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	extremeWDR (120dB)
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support	Support	-	-
Analytics	Intelligent analytics Audio detection Sound classification Shock detection	Intelligent analytics Audio detection Sound classification Shock detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection
Business Intelligence	-	-	Heatmap	Heatmap
Alarm I/O	1 / 2	1 / 1	2 / 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)	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP/ 60fps	2MP / 60fps	15MP / 20fps	8.3MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 3 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC 2 slot 512GB	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 2slots 512GB (256GBx2)	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +55°C (-14°F ~ +131°F) / Less than 90% RH	-10°C ~ +55°C (-14°F ~ +131°F) / Less than 90% RH	-40°C ~ +55°C (-40°F ~ +131°F) * Startup should be above -30°C Less than 95% RH (Non-condensing)	-40°C ~ +60°C (-40°F ~ +131°F) / Less than 95% RH (Non-condensing) * Maximum temperature : +60°C (intermittent)
Certification	-	-	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE: Max 7.5W, Typical 4.5W 12VDC: Max 7W, Typical 4W	PoE: Max 7.5W, Typ 5W 12VDC: Max 5.7W, Typ 3.7W	PoE+: Max 23.5W, Typical 18W 12VDC: Max 20.5W, Typical 16W	PoE+: Max 18W, Typical 10.4W 12VDC: Max 16W, Typical 9W
Dimensions (WxHxD) / Weight	W 96 x H 76 x D 143.5mm (3.78" x 2.99" x 5.65") 578g (1.27 lb)	W 72 x H 63.9 x D 135.4mm (2.83" x 2.52" x 5.33") 480g (1.06 lb)	Ø253 x 170mm 2.6kg (4.7lb)	Ø253 x 165mm (Ø9.96" x 6.5") 3.2kg (7.1lb)
Additional Features	Defog	Defog	-	4CH Stitching

	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	1/1.8" 5MP CMOS x 4CH	1/2.8" CMOS x 4CH	1/2.8" CMOS x 4CH
Min. Illumination	Color: 0.11lux (F1.92, 30 IRE) BW: 0Lux (IR LED on)	Color: 0.05lux (F1.6,30 IRE) BW: 0Lux (IR LED on)	Color: 0.04lux (F2.2, 1/30sec) BW: 0.004lux (F2.2, 1/30sec)
Video Output	-	-	-
Focal Length	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: 87.58° (Wide) ~ 37.34° (Tele) V: 64.58° (Wide) ~ 28.04° (Tele) D: 112.46° (Wide) ~ 46.85° (Tele)	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 107° (Wide) ~ 56.3° (Tele) V: 57° (Wide) ~ 31.5° (Tele) D: 126° (Wide) ~ 64.3° (Tele)
Pan / Tilt / Rotate	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°	Remote adjustment (Max. 200cycles) 0 ~ 360° / 35 ~ 80° / 0 ~ 90°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	-
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V
Digital Image Stabilization	Support	Support	Support
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	8MP / 60Hz	8MP / 60fps	8MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	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/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH *Start up should be above at -35℃
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE: Max. 45 W, Typical 33.7 W 12VDC: Max. 42 W, Typical 32 W	PoE: Max. 42 W, Typical 30 W 12VDC: Max. 38 W, Typical 28.2 W	Max. 33W, Typical 20W
Dimensions (WxHxD) / Weight	Ø315 x 145.9mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø315 x 145.9mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø251 x 116.5mm 3kg (6.6lb)
Additional Features	Motorized PTRZ	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
Min. Illumination	Color: 0.04lux(F2.2) BW: 0.004lux(F2.2)	Color: 0.16lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.035lux (F2.2, 1/30sec, 30IRE) BW: 0lux (IR LED on)
Video Output	CVBS: 1.0 Vp-p	micro USB Type B	micro USB Type B
Focal Length	3 ~ 6mm (2x) motorized varifocal	3.54 ~ 6.69mm (1.9x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal
Angular Field of View	H: 107° (Wide) ~ 56.3° (Tele) V: 57° (Wide) ~ 31.5° (Tele) D: 126° (Wide) ~ 64.3° (Tele)	H: 96° (Wide) ~ 47° (Tele) V: 51° (Wide) ~ 26° (Tele) D: 113° (Wide) ~ 54° (Tele)	H: 107° (Wide) ~ 56° (Tele) V: 57° (Wide) ~ 31° (Tele) D: 126° (Wide) ~ 64° (Tele)
Pan / Tilt / Rotate	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)	Auto (ICR)	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, Motion detection, Enter/Exit, Tampering, Virtual line	**Analytics events*** : Defocus detection, Motion detection, Tampering, Virtual line (Crossing/Direction), Virtual area (Loitering/Enter/Exit) * Support Audio detection, Sound classification via optional SPM-4210 I/O box	**Analytics events*** : Defocus detection, Motion detection, Tampering, Virtual line (Crossing/Direction), Virtual area (Loitering/Enter/Exit) * Support Audio detection, Sound classification via optional SPM-4210 I/O box
Business Intelligence	-	-	-
Alarm I/O	-	* Support Alarm via optional SPM-4210 I/O box	* Support Alarm via optional SPM-4210 I/O box
Audio I/O	-	* Audio in/out via optional SPM-4210 I/O box	* Audio in/out via optional SPM-4210 I/O box
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	6MP / 15fps	2MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	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 SUNAPI (HTTP API)	ONVIF Profile S/T SUNAPI (HTTP API) Open platform	ONVIF Profile S/T SUNAPI (HTTP API) Open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH (Non condensing) *Start up should be above at -35℃	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH (Non-condensing) * Start up should be above at -35℃	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH (Non-condensing) * Start up should be above at -35℃
Certification	IP66, IK10, NEMA4X	IP66/IP67, NEMA4X, IK10	IP66/IP67, NEMA4X, IK10
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 (Ø9.88" x 4.59") 3kg (6.6lb)	W 215 x D 135 x H 93.2mm (8.46"x5.31"x3.67") 1.33kg (2.9lb)	W 215 x D 135 x H 93.2mm (8.46" x 5.31" x 3.67") 1.33kg (2.9lb)
Additional Features	3CH Multi-directional	-	-

	PNM-9000QB 2MP x 4CH Remote Head Camera	XNB-6002 2MP x 1CH Remote Head Camera	SLA-T4680A/T4680VA 2MP lens for PNM-9000QB	SLA-T2480A/T2480VA 2MP lens for PNM-9000QB	SLA-T1080FA 2MP lens for PNM-9000QB
Imaging Device	-	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	-	Color: 0.06Lux (F2.5)	Color: 0.045Lux (F2.0)	Color: 0.03Lux (F1.6)
Video Output	HDMI (1920x1080, Quad view support)	CVBS 1.0 Vp-p, Micro USB type B	-	-	-
Focal Length	-	-	4.6mm fixed focal	2.4mm fixed focal	1.6mm fixed focal
Angular Field of View	-	-	H: 73° / V: 39° / D: 85°	H: 138° / V: 73° / D: 165°	H: 187° / V: 113.9°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (electrical)	Auto (electrical)	-	-	-
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (120dB)	-	-	-
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ, WiseNR	-	-	-
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	-	-	-
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Analytic events - Defocus detection, Motion detection, Tampering, Fog detection, Audio detection, Sound classification, Face detection, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Virtual line(Crossing/Direction)	-	-	-
Business Intelligence	-	People counting, Queue management, Heatmap	-	-	-
Alarm I/O	1 / 1	1 / 1	-	-	-
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	-	-	-
Video Compression	H.265 / H.264, MJPEG	H.265, H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 60fps	-	-	-
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	-	-	-
Streaming	Up to 10 profiles	Up to 10 Profiles	-	-	-
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot Max. 1TB	-	-	-
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	-	-	-
Operating Temperature	-10℃ ~ +45℃ (-40°F ~ +113°F) / Less than 95% RH (Non condensing)	-10℃ ~ +55℃(+14°F ~ +131°F)/ 0 ~ 90% RH (non-condensing)	-	-	-
Certification	-	-	-	-	-
Power Consumption	PoE : Max 22W, Typical 16.70W DC : Max 19W, Typical : 14W	PoE: Max 10.5W, typical 7.4W 12VDC: Max 8.6W, typical 5.8W Power redundancy failover	-	-	-
Dimensions (WxHxD) / Weight	W 200 x H 37 x D 146mm (7.87" x 1.46" x 5.75") 715g (1.58lb)	W 131.1 x H 33.5 x D 86mm (5.16" x 1.32" x 3.39") 420g	Ø24 x L49.8mm, 310g (SLA-T4680A) W 30 x H 27.9 x D 45mm, 321g (SLA-T4680VA)	Ø24 x L49.8mm, 318g (SLA-T2480A) W 30 x H 27.9 x D 45mm, 328g (SLA-T2480VA)	Ø35 x L68.9mm 430g (0.95lb)
Additional Features	Optional pinhole/fixed lens	compatible lens : SLA-T1080FA, SLA-T2480A, SLA-T2480VA, SLA-T4680A, SLA-T4680VA	-	-	-

	PNM-9322VQP **2MP/5MP x 4CH + 2MP 32 x PTZ**	**SLA-5M7000P** **5MP lens for PNM-9322VQP**	**SLA-5M4600P** **5MP lens for PNM-9322VQP**	**SLA-5M3700P** **5MP lens for PNM-9322VQP**
Imaging Device	1/2.8" CMOS (PTZ)	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	depeding on lens	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	4.44~142.6mm (32x) zoom (PTZ)	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	depeding on lens	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	-	± 90° / +12° ~ +93° / ± 180°	± 90° / +21° ~ +85° / ± 180°	± 90° / +36° ~ +73° / ± 180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	2MP 150dB, 5MP 120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	Selectable (mic in/line in) / Line out (PTZ)	-	-	-
Video Compression	H.265 / H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps, 5MP 30fps	-	-	-
WiseStream	WiseStream Ⅱ	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S SUNAPI (HTTP API)	-	-	-
Operating Temperature	-35℃ ~ +55℃ (-31°F ~ +131°F) Less than 90% RH	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	HPoE: Max 65W	-	-	-
Dimensions (WxHxD) / Weight	Ø367.8 x 335.7mm (Ø14.48" x 13.22") 7.05kg (16.1 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 35g (0.08 lb)
Additional Features	Exchangeable 4ea x 2MP / 5MP lens modules, Hallway view, Defog	-	-	-

	SLA-2M6000P 2MP lens for PNM-9322VQP	SLA-2M3600P 2MP lens for PNM-9322VQP	SLA-2M2800P 2MP lens for PNM-9322VQP	SLA-2M2400P 2MP lens for PNM-9322VQP	SLA-2M1200P 2MP lens for PNM-9322VQP
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	–	–	–	–	–
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed	12mm fixed
Angular Field of View	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122°	H : 135.4° / V : 71.2° / D : 161.6°	H : 26.3° / V : 14.9° / D : 30°
Pan / Tilt / Rotate	±90° / +10° ~ +95° / ±180°	±90° / +22° ~ +84° / ±180°	±90° / +26° ~ +80° / ±180°	±90° / +52° ~ +56° / ±180°	±90° / +10° ~ +97° / ±180°
IR Viewable Length	–	–	–	–	–
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	–	–	–	–	–
Digital Image Stabilization	–	–	–	–	–
Analytics	–	–	–	–	–
Business Intelligence	–	–	–	–	–
Alarm I/O	–	–	–	–	–
Audio I/O	–	–	–	–	–
Video Compression	–	–	–	–	–
Resolution / Max. Frame Rate	–	–	–	–	–
WiseStream	–	–	–	–	–
Streaming	–	–	–	–	–
Edge Storage	–	–	–	–	–
Application Programming Interface	–	–	–	–	–
Operating Temperature	–	–	–	–	–
Certification	–	–	–	–	–
Power Consumption	–	–	–	–	–
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)
Additional Features	–	–	–	–	–

	PNM-9002VQ 2MP/5MP x 4CH Multi-directional Camera	SLA-5M7000Q 5MP lens for PNM-9002VQ	SLA-5M4600Q 5MP lens for PNM-9002VQ	SLA-5M3700Q 5MP lens for PNM-9002VQ
Imaging Device	–	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	–	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p (Multi)	–	–	–
Focal Length	–	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	–	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	–	±90° / 40° ~89° / ±180°	±90° / 50° ~80° / ±180°	±90° / 59° ~66° / ±180°
IR Viewable Length	–	–	–	–
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	2MP 150dB, 5MP 120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	–	–	–
Digital Image Stabilization	Support	–	–	–
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	–	–	–
Business Intelligence	–	–	–	–
Alarm I/O	–	–	–	–
Audio I/O	–	–	–	–
Video Compression	H.265 / H.264, MJPEG	–	–	–
Resolution / Max. Frame Rate	5MP / 30fps, 2MP / 60fps	–	–	–
WiseStream	WiseStream Ⅱ	–	–	–
Streaming	Up to 10 profiles	–	–	–
Edge Storage	micro SD/SDHC/SDXC	–	–	–
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	–	–	–
Operating Temperature	-40℃ ~ +55℃ (-40°F ~ +131°F) / Less than 90% RH	–	–	–
Certification	IP66, IK10	–	–	–
Power Consumption	Max 25.5W	–	–	–
Dimensions (WxHxD) / Weight	Ø253 x 130mm (Ø9.96" x 5.11") 3kg (6.61lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)
Additional Features	Defog	–	–	–

	 SLA-2M6000Q **2MP lens for PNM-9002VQ**	 **SLA-2M3600Q** **2MP lens for PNM-9002VQ**	 **SLA-2M2800Q** **2MP lens for PNM-9002VQ**	 **SLA-2M2400Q** **2MP lens for PNM-9002VQ**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Color : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)
Video Output	-	-	-	-
Focal Length	6.0mm fixed	3.6mm fixed	2.8mm fixed	2.4mm fixed
Angular Field of View	H : 50.4° / V : 28.8° / D : 58.1°	H : 94.8° / V : 49.3° / D : 114.3°	H : 107.4° / V : 62.2° / D : 122°	H : 135.4° / V : 71.2° / D : 161.6°
Pan / Tilt / Rotate	±90° / 30° ~89° / ±180°	±90° / 37° ~ 89° / ±180°	±90° / 40° ~ 89° / ±180°	±90° / 62° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	150dB	150dB	150dB	150dB
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	-	-	-	-
Analytics	-	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	-	-	-	-
Resolution / Max. Frame Rate	-	-	-	-
WiseStream	-	-	-	-
Streaming	-	-	-	-
Edge Storage	-	-	-	-
Application Programming Interface	-	-	-	-
Operating Temperature	-	-	-	-
Certification	-	-	-	-
Power Consumption	-	-	-	-
Dimensions (WxHxD) / Weight	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)	Ø35.5 x 35.9 mm (Ø1.39" x 1.41") 30g (0.07lb)
Additional Features	-	-	-	-

	 PNM-9000VD **10MP 2CH Multi-directional Camera**	 **SLA-5M7000D** **5MP lens for PNM-9000VD**	 **SLA-5M4600D** **5MP lens for PNM-9000VD**	 **SLA-5M3700D** **5MP lens for PNM-9000VD**
Imaging Device	-	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Min. Illumination	-	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)
Video Output	CVBS 1.0 Vp-p	-	-	-
Focal Length	-	7.0mm fixed	4.6mm fixed	3.7mm fixed
Angular Field of View	-	H : 50.7° / V : 37.8° / D : 63.8°	H : 77.9° / V : 57.9° / D : 98.7°	H : 97.5° / V : 71.9° / D : 126.2°
Pan / Tilt / Rotate	-	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°	±90° / 36° ~ 73° / ±180°
IR Viewable Length	-	-	-	-
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	-	-	-
Digital Image Stabilization	Support	-	-	-
Analytics	Intelligent analytics	-	-	-
Business Intelligence	-	-	-	-
Alarm I/O	-	-	-	-
Audio I/O	-	-	-	-
Video Compression	H.265 / H.264, MJPEG	-	-	-
Resolution / Max. Frame Rate	5MP / 30fps	-	-	-
WiseStream	WiseStream Ⅱ	-	-	-
Streaming	Up to 10 Profiles	-	-	-
Edge Storage	micro SD/SDHC/SDXC	-	-	-
Application Programming Interface	ONVIF Profile S/G, SUNAPI, Wisenet open platform	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-	-	-
Certification	IP66, IK10	-	-	-
Power Consumption	PoE : 12.95W	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1.25kg (2.76lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)	Ø35.5 x 35.9mm (Ø1.39" x 1.41") 35g (0.08lb)
Additional Features	Exchangeable 2ea x 5MP lens modules, Hallway view, Defog	-	-	-

	PNM-7002VD **4MP x 2CH Multi-directional Camera**	**SLA-2M2402D** **2MP lens for PNM-7002VD**	**SLA-2M2802D** **2MP lens for PNM-7002VD**	**SLA-2M3602D** **2MP lens for PNM-7002VD**	**SLA-2M6002D** **2MP lens for PNM-7002VD**
Imaging Device	-	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Min. Illumination	-	Color: 0.055Lux (F2.0, 1/30sec) B/W: 0.055Lux (F2.0, 1/30sec)	Color: 0.055Lux (F2.0, 1/30sec) B/W: 0.055Lux (F2.0, 1/30sec)	Color: 0.055Lux (F2.0, 1/30sec) B/W: 0.055Lux (F2.0, 1/30sec)	Color: 0.055Lux(F2.0, 1/30sec) B/W: 0.055Lux(F2.0, 1/30sec)
Video Output	CVBS 1.0 Vp-p (Multi)	-	-	-	-
Focal Length	-	2.4mm fixed focal	2.8mm fixed focal	3.6mm fixed focal	6.0mm fixed focal
Angular Field of View	-	H:135.4° / V:71.2° / D:161.6°	H:107.4° / V:62.2° / D:122°	H:94.8° / V: 49.3° / D: 114.3°	H:50.4° / V: 28.8° / D: 58.1°
Pan / Tilt / Rotate	-	-	-	-	-
IR Viewable Length	-	-	-	-	-
Day & Night	Auto (Electrical)	-	-	-	-
Wide Dynamic Range	150dB	-	-	-	-
Digital Noise Reduction	SSNR Ⅴ	-	-	-	-
Digital Image Stabilization	Support	-	-	-	-
Analytics	Defocus detection, Directional detection, Face detection, Fog detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	-	-	-	-
Business Intelligence	-	-	-	-	-
Alarm I/O	-	-	-	-	-
Audio I/O	-	-	-	-	-
Video Compression	H.265 / H.264, MJPEG	-	-	-	-
Resolution / Max. Frame Rate	2MP / 60fps	-	-	-	-
WiseStream	WiseStream Ⅱ	-	-	-	-
Streaming	Up to 10 profiles	-	-	-	-
Edge Storage	micro SD/SDHC/SDXC	-	-	-	-
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	-	-	-	-
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH	-	-	-	-
Certification	IP66, IK10	-	-	-	-
Power Consumption	Typical: 12W, Max: 12.95W	-	-	-	-
Dimensions (WxHxD) / Weight	Ø197.6 x 84mm (Ø7.78" x 3.31") 1.25kg (2.76lb)	Ø35.5 x 35.9mm 30g (0.07lb)	Ø35.5 x 35.9mm 30g (0.07lb)	Ø35.5 x 35.9mm 30g (0.07lb)	Ø35.5 x 35.9mm 30g (0.07lb)
Additional Features	Defog	-	-	-	-

	 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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 0.15 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	4.0mm fixed	2.8mm fixed	3.2 ~ 10mm (3.1x) motorized varifocal	4.0mm fixed
Angular Field of View	H : 100.3° (Wide) ~ 31.2° (Tele) V : 72.3° (Wide) ~ 23.5° (Tele) D : 133.1° (Wide) ~ 38.8° (Tele)	H : 79.8° / V : 58.1° / D : 105.9°	H : 104.7° / V : 76.5° / D : 136°	H : 100.3° (Wide) ~ 31.2° (Tele) V : 72.3° (Wide) ~ 23.5° (Tele) D : 133.1° (Wide) ~ 38.8° (Tele)	H : 79.8° / V : 58.1° / D : 105.9°
Pan / Tilt / Rotate	-	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	25m (82.02ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	-	-	-	-	-
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-10℃ ~ +50℃ (+14℉ ~ +122℉)	-10℃ ~ +50℃ (+14℉ ~ +122℉)
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	PoE : Max 6.8W, typical 5W
Dimensions (WxHxD) / Weight	Ø91 x 322.9mm (Ø3.58" x 12.71") 1.19kg (2.624lb)	Ø70 x 246mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø70 x 246mm (Ø2.76" x 9.69") 680g (1.499lb)	Ø120.3 x 102mm (Ø4.74" x 4.02") 430g (0.948lb)	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View	Hallway View

	 QND-8010R **5MP IR Dome Camera**	Q mini **QND-8021** **5MP Dome Camera**	Q mini **QND-8011** **5MP Dome Camera**	 **QNV-8080R** **5MP IR Vandal Dome Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6)	Color : 0.15Lux (F2.0)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	Micro HDMI	Micro HDMI	CVBS 1.0 Vp-p
Focal Length	2.8mm fixed	4mm fixed	2.8mm fixed	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 104.7° / V : 76.5° / D : 136°	H : 80.1° / V : 58° / D : 105.8°	H : 104.4° / V : 76.7° / D : 136.1°	H : 100.3° (Wide) ~ 31.2° (Tele) V : 72.3° (Wide) ~ 23.5° (Tele) D : 133.1° (Wide) ~ 38.8° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	-	-	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (Electrical)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	People counting	People counting	-
Alarm I/O	1 / 1	-	-	1 / 1
Audio I/O	-	-	-	-
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10°C ~ +50°C (+14°F ~ +122°F)	-10°C ~ +40°C (+14°F ~ +104°F)	-10°C ~ +40°C (+14°F ~ +104°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	-	IP42, IK08	IP42, IK08	IP66, IK10
Power Consumption	PoE : Max 7.5W, typical 5.8W	PoE : Max 5W, typical 4W	PoE : Max 5W, typical 4W	PoE : Max 8.9W, typical 6.6W
Dimensions (WxHxD) / Weight	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 700g (1.543lb)
Additional Features	Hallway View	Super compact design, Hallway View	Super compact design, Hallway View	Hallway View

	 QNV-8020R **5MP IR Vandal Dome Camera**	 **QNV-8010R** **5MP IR Vandal Dome Camera**	 **QNB-8002** **5MP Box Camera**	 **QNE-8011R** **5MP IR Flateye Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.2)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	–
Focal Length	4.0mm fixed	2.8mm fixed	–	2.8mm fixed
Angular Field of View	H : 79.8° / V : 58.1° / D : 105.9°	H : 104.7° / V : 76.5° / D : 136°	–	H : 104.4° V : 76.7° D : 136.1°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	–	0° ~ 350° / 0° ~ 75° / 0° ~ 360°
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	–	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	–
Audio I/O	–	–	Line in / Line out	–
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)	-10℃ ~ +55℃ (-14°F ~ +131°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)
Certification	IP66, IK10	IP66, IK10	–	IP67, IK10
Power Consumption	PoE : Max 7.2W, typical 5.4W	PoE : Max 7.5W, typical 5.8W	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE : Max 7.4W, typical 5.5W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	W 73.8 x H 66.6 x D 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø125 x 87.35mm (Ø4.92" x 3.44") 645g (1.422lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View

	QNO-7082R **4MP IR Bullet Camera**	**QNO-7022R** **4MP IR Bullet Camera**	**QNO-7012R** **4MP IR Bullet Camera**
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS
Min. Illumination	Color : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2~10mm (3.1x) motorized varifocal	4mm fixed focal	2.8mm fixed focal
Angular Field of View	H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele)	H : 78.2° V : 41.2° D : 92°	H : 107.5° V : 59.7° D : 122°
Pan / Tilt / Rotate	–	–	–
IR Viewable Length	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–
Alarm I/O	1/1	1/1	1/1
Audio I/O	Line in / –	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	4MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above
Certification	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE: Max 11.4W, typical 8W 12VDC: Max 9.6W, typical 7W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W	PoE: Max 10.7W, typical 8W 12VDC: Max 9.1W, typical 6.8W
Dimensions (WxHxD) / Weight	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984 lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543 lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line

	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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) manual varifocal	4mm fixed	2.8mm fixed
Angular Field of View	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°
Pan / Tilt / Rotate	–	–	–	–
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	25m (82.02ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) –	Selectable (mic in/line in) –	Selectable (mic in/line in) –	Selectable (mic in/line in) –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W, typical 4.8W	PoE : Max 7.4W, typical 5.4W 12VDC : Max 6.5W, typical 4.8W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W	PoE : Max 7W, typical 5.2W 12VDC : Max 6.1W, typical 4.5W
Dimensions (WxHxD) / Weight	Ø78 x 259.8mm (Ø3.07" x 10.23") 900g (1.984lb)	Ø70 x 246mm (Ø2.76" x 9.69") 730g (1.609lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)	Ø70 x 246mm (Ø2.76" x 9.69") 700g (1.543lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View

	 QND-7082R **4MP IR Dome Camera**	 **QND-7022R** **4MP IR Dome Camera**	 **QND-7012R** **4MP IR Dome Camera**
Imaging Device	1/3" CMOS	1/3" CMOS	1/3" CMOS
Min. Illumination	Color : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	3.2~10mm (3.1x) motorized varifocal	4mm fixed focal	2.8mm fixed focal
Angular Field of View	H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele)	H : 78.2° V : 41.2° D : 92°	H : 107.5° V : 59.7° D : 122°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	-	-	-
Alarm I/O	1 / 1	1 / 1	1 / 1
Audio I/O	Built-in mic / -	Built-in mic / -	Built-in mic / -
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	4MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)
Operating Temperature	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH	−10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH
Certification	-	-	-
Power Consumption	PoE: Max 8.6W, typical 6.3W 12VDC: Max 7.6W, typical 5.4W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W	PoE: Max 7.9W, typical 6.1W 12VDC: Max 7.1W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562 lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562 lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line		

	QND–6082R/6082R1 **2MP IR Dome Camera**	**QND–6072R/6072R1** **2MP IR Dome Camera**	**QND–6022R/6022R1** **2MP IR Dome Camera**	**QND–6012R/6012R1** **2MP IR Dome Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp–p	CVBS 1.0 Vp–p	CVBS 1.0 Vp–p	CVBS 1.0 Vp–p
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) manual varifocal	4mm fixed	2.8mm fixed
Angular Field of View	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Buit–in mic –	Buit–in mic –	Buit–in mic –	Buit–in mic –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	–	–	–	–
Power Consumption	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Hallway View	Hallway View	Hallway View	Hallway View

Q mini

QND-6021
2MP Dome Camera

Q mini

QND-6011
2MP Dome Camera

QNV-7082R
4MP IR Vandal Dome Camera

	QND-6021 2MP Dome Camera	QND-6011 2MP Dome Camera	QNV-7082R 4MP IR Vandal Dome Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/3" CMOS
Min. Illumination	Color : 0.03Lux (F1.6)	Color : 0.03Lux (F2.0)	Color : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	Micro HDMI	Micro HDMI	CVBS 1.0 Vp-p
Focal Length	4mm fixed	2.8mm fixed	3.2~10mm (3.1x) motorized varifocal
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 98.6° (Wide) ~ 30.8° (Tele) V : 52.3° (Wide) ~ 17.3° (Tele) D : 115.7° (Wide) ~ 35.3° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~350° / 0° ~67° / 0° ~355°
IR Viewable Length	-	-	30m (98.42ft)
Day & Night	Auto (Electrical)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR
Digital Image Stabilization	-	-	-
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	People counting	People counting	-
Alarm I/O	-	-	1 / 1
Audio I/O	-	-	Line in / -
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	4MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T, SUNAPI (HTTP API)
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above
Certification	IP42, IK08	IP42, IK08	IP66, IK10
Power Consumption	PoE : Max 4.8W, typical 2.8W	PoE : Max 4.8W, typical 2.8W	PoE: Max 11.4W, typical 8.5W 12VDC: Max 9.6W, typical 7.2W
Dimensions (WxHxD) / Weight	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb)	Ø99 x 56mm (Ø3.9" x 2.2") 145g (0.320lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565 lb)
Additional Features	Super compact design, Hallway View	Super compact design, Hallway View	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line

	 QNV-7022R **4MP IR Vandal Dome Camera**	 **QNV-7012R** **4MP IR Vandal Dome Camera**	 **QNV-6082R/6082R1** **2MP IR Vandal Dome Camera**	 **QNV-6072R/6072R1** **2MP IR Vandal Dome Camera**
Imaging Device	1/3" CMOS	1/3" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p
Focal Length	4mm fixed focal	2.8mm fixed focal	3.2 ~ 10mm (3.1x) motorized varifocal	3.2 ~ 10mm (3.1x) manual varifocal
Angular Field of View	H : 78.2° / V : 41.2° / D : 92°	H : 78.2° / V : 41.2° / D : 92°	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)	H : 109° (Wide) ~ 33.2° (Tele) V : 57.4° (Wide) ~ 18.7° (Tele) D : 132° (Wide) ~ 38° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	30m (98.42ft)	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –	Selectable (mic in/line in) –	Selectable (mic in/line in) –
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStreamII Ⅱ	WiseStreamII Ⅱ	WiseStreamII Ⅱ	WiseStreamII Ⅱ
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI (HTTP API)	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 95% RH * Start up should be done at -30℃ or above	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W	PoE: Max 10.7W, typical 8.1W 12VDC: Max 9.1W, typical 6.5W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 710g (1.565lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Hallway View	Hallway View

	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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	–
Focal Length	4mm fixed	2.8mm fixed	3.6mm fixed	4.44 ~ 142.6mm (32x) zoom
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 94.8° / V : 49.3° / D : 114.3°	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.30° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	± 5° /0 ~ 67° / ± 90°	–
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	15m (49.21ft)	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	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 (Built-in mic) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	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℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH
Certification	IP66, IK10	IP66, IK10	IP66, IK10, NEMA4X	–
Power Consumption	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W	PoE : Max 6.7W, typical 5W	Max. 14.5W, Typ. 12W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124 lb)	W 98.9 x H 52 x D 100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75 lb)
Additional Features	Hallway View	Hallway View	M12 connector, Hallway View	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection

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

	 QNP–6250H **2MP 25x PTZ Camera**	 **QNP–6320HS** **2MP 32x PTZ Camera**	 **QNB–6002** **2MP Box Camera**	 **QNF–9010** **12MP Fisheye Camera**	 **QNF–8010** **6MP Fisheye Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.3" CMOS	1/1.8" CMOS
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Color : 0.01Lux (F1.2)	Color: 0.39 Lux (F2.2, 1/30sec)	Color : 0.2 Lux (F2.5)
Video Output	–	–	CVBS 1.0 Vp–p	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) V: 38.08° (Wide) ~ 1.68° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) 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 (ICR)	Auto (Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR	SSNR Ⅴ	SSNR Ⅴ
Digital Image Stabilization	Support (built–in gyro sensor)	Support (built–in gyro sensor)	–	–	–
Analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NW I/O Box)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line * Audio detection(with NW I/O Box)	Intelligent analytics	Defocus detection, Motion detection, Tampering	Intelligent analytics
Business Intelligence	–	–	–	People counting, Heatmap	People counting, Heatmap
Alarm I/O	Compatible with NW I/O Box (Optional)	–	1 / 1	–	–
Audio I/O	Compatible with NW I/O Box (Optional)	–	Line in / Line out	–	–
Video Compression	H.265 / H.264, MJPEG	H.265/H.264,MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 30fps	9MP / 30fps	4MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 3 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	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	Normal : –35℃ ~ +55℃ (–31°F ~ +131°F) / * Start up should be done at above –30℃ Less than 95% RH (Non–condensing)	–35℃ ~ +55℃ (–31°F ~ +131°F) / * Start up should be done at above –25℃ Less than 95% RH (Non–condensing)	–10℃ ~ +55℃ (–14°F ~ +131°F)	–10℃ ~ +40℃ (+14°F ~ +104°F)	–10℃ ~ +55℃ (+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 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE: Max 7.7W, typical 6.4W	PoE : Max 6.4W, typical 4.6W
Dimensions (WxHxD) / Weight	Ø204.3 x 265mm (Ø8.04" x 10.43") 2.7kg (5.95lb)	Ø227 x 299.2mm (Ø8.94" x 11.78") 5.4 kg (11.93 lb)	W 73.8 x H 66.6 x D 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 370g (0.82lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 320 g (0.705lb)
Additional Features	–	–	Hallway View	Panorama view, Busieness Intelligence	Panorama view, Busieness Intelligence

	TNM-3620TDY **Temperature Detection Thermal Camera**		**TNV-7011RC** **3MP Corner Mount Camera**	**TNV-8011C** **5MP Corner Mount Camera**
	Thermal	Visible		
Imaging Device	Uncooled micro bolometer	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	–	Color : 0.05 lux (F1.6, 1/30sec) B/W : 0.005 lux (F1.6, 1/30sec)	Color: 0.3 lux (F2.0, 1/30sec) B/W: 0 lux (F2.0, 1/30sec)	Color: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec)
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	4.7mm fixed focal	4mm fixed focal	2.8mm fixed focal	2.3mm fixed focal
Angular Field of View	H : 50° / V : 36.4° / D : 65.3°	H : 87.6° / V : 46.4° / D : 104.5°	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)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	–	extremeWDR (150dB)	120dB	120dB
Digital Noise Reduction	–	SSNR Ⅴ	SSNR Ⅴ	SSNR
Digital Image Stabilization	Support (built-in gyro sensor)		Support	Support
Analytics	**Normal mode :** Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection **EBT mode :** Temperature detection, Blackbody abnormality		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 / 2		1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG		H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	1920 x 1080 / 30fps	3MP / 30fps	5MP / 30fps
WiseStream	WiseStream Ⅱ		WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 6 Profiles		Up to 10 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC/SDXC		micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	ONVIF Profile S/T, SUNAPI		SUNAPI (HTTP API) Wisenet open platform	SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	EBT mode : +10℃ ~ +35℃ (+50℉~ +95℉) / Less than 95% RH Normal mode : -10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH		-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 95% RH
Certification	–		IP66, IP6K9K, IK10+	IP66, IP6K9K, IK10
Power Consumption	PoE+: Max. 17W, typical 12.5W 12VDC: Max. 14.5W, typical 11W		PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W	PoE: Max 6.49W, typical 4.6W
Dimensions (WxHxD) / Weight	W 135 x H 75 x D 188.5mm (5.31" x 2.95" x 7.42") 1.71kg (3.77lb)		Ø295.5 x 113.5mm (Ø11.6" x 4.47") 2.1kg (4.63lb)	W 170 x H 165 x D 78.8mm (6.69" x 6.49" x 3.1") 830g (1.83lb)
Additional Features	Bi-spectrum camera, Two temperature detection mode, Face detection, Blackbody (SPI-35B) is optional		–	–

	TNO-6322ER **2MP Explosion-proof Camera**	**TNO-6321E** **2MP Explosion-proof Camera**	**TNU-6322E** **2MP Explosion-proof Camera**	**TNU-6322ER** **2MP Explosion-proof IR Camera**	**TNU-6320E** **2MP Explosion-proof PTZ Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.05Lux (1/30sec, F1.6) B/W: 0Lux (IR LED on)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0Lux (IR LED on)	Color : 015Lux (F1.6) B/W : 0.015Lux (F1.6)
Video Output	–	–	–	–	–
Focal Length	4.44 ~ 142.6mm (Optical 32x)	4.44 ~ 142.6mm (32X) zoom	4.44 ~ 142.6mm (32X) zoom	4.44 ~ 142.6mm (32X) zoom	4.44 ~ 142.6mm (Optical 32x)
Angular Field of View	H: 61.8° (Wide) ~ 2.19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)	H: 61.8° (Wide) ~ 2.19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)	H: 61.8° (Wide) ~ 2.19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)	H: 61.8° (Wide) ~ 2 .19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)	H : 62.8° (Wide) ~ 2.23° (Tele) V : 36.8° (Wide) ~ 1.26° (Tele)
Pan / Tilt / Rotate	–	–	360° Endless / 180° (-90° ~ 90°) / –	360° Endless / 180° (-90° ~ 90°) / –	360° Endless / 180° (-90° ~ 90°) / –
IR Viewable Length	–	–	–	200m	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅴ	SSNR Ⅲ
Digital Image Stabilization	Support	Support	Support	Support	Support
Analytics	Intelligent analytics, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	–	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	–	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	–
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
WiseStream	WiseStream Ⅱ	WiseStreamI Ⅱ	WiseStreamI Ⅱ	WiseStreamI Ⅱ	–
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	–	–	–	–	–
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 (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 90% RH * Start up should be done at above -30℃	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 95% RH	-40℃ ~ +60℃ (-40℉ ~ +140℉) / Less than 95% RH	-30℃ ~ +60℃ (-22℉ ~ +140℉)
Certification	IP67, IK10, ATEX, IECEx	IP67, IK10 CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67 Ex tb IIIC T80° C Db	IECEx, ATEX, KCs, KC, CE IP67, IK10	IECEx, ATEX, KCs, KC, CE IP67, IK10	IP67, IK10, CE2460,EX II 2 GD, Ex d IIC T6 Gb IP67, Ex tb IIIC T80℃ Db
Power Consumption	24VAC : Max 45W	24VAC: Max 28W	24VAC: Max. 99W	24VAC: Max. 99W (Camera) 24VAC: Max. 50W (IR)	24VAC : Max 49W
Dimensions (WxHxD) / Weight	W 175 x H 243.5 x D 320mm (6.89" x 9.59" x 12.59") 10.5kg (23.15lb)	Ø162 x 244mm (Ø6.38" x 9.61") 7kg (15.43 lb)	W 355 x H 427 x D 235mm (13.97" x 16.81" x 9.25") 25kg (55.12lb)	W 611 x H 438 x D 235mm (24.06" x 17.24" x 9.25") 36kg (79.37lb)	W 384 x H 402 x D 250mm (15.12" x 15.83" x 9.84") 35kg (77.16lb)
Additional Features	Stainless(SUS316L) housing, Built in wiper	–	–	–	Stainless (SUS316L) housing, Built in wiper

	TNU-6321 2MP Positioning PTZ Camera	TNU-4041T / 4051T VGA Thermal Positioning Camera	TNO-4051T VGA Thermal Bullet Camera	TNO-4050T VGA Thermal Bullet Camera
Imaging Device	1/2.8" CMOS	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) B/W: 0.005 Lux (F1.6, 1/30sec)	–	–	–
Video Output	CVBS: 1.0 Vp-p	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p	CVBS : 1.0 Vp-p, Micro USB Type B
Focal Length	4.44~142.6mm (32x) zoom	19mm / 35mm fixed	35mm fixed	35mm fixed
Angular Field of View	H: 61.8° (Wide) ~ 2.19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)	H : 32° / V : 24.3° / D : 39.2° H : 17.2° / V : 13° / D : 22°	H : 17.2° / V : 13° / D : 22°	H : 17.2° / V : 13° / D : 22°
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)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 60fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / Less than 90% RH	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)
Certification	IP66, Safety (UL, KC-SDOC), EMC (FCC, CE, VCCI, RCM, KC)	IP66, NEMA 4X, IK10	IP66, NEMA 4X	IP66, NEMA 4X
Power Consumption	Max 100W (Heater On), typical 25W (Heater Off)	24VAC : Max 84W – Heater On Max 62W – Heater Off	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W
Dimensions (WxHxD) / Weight	W 219 × H 528.2 × D 460mm (8.62" x 20.79" x 18.11") 14kg (30.86lb)	W 219 x H 528 x D 335mm (8.62" x 20.79" x 13.19") 11.7kg (25.79lb)	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.5kg (5.51 lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0 lb)
Additional Features	Tampering, Audio detection	Various color palettes	Various color palettes PT type	Various color palettes

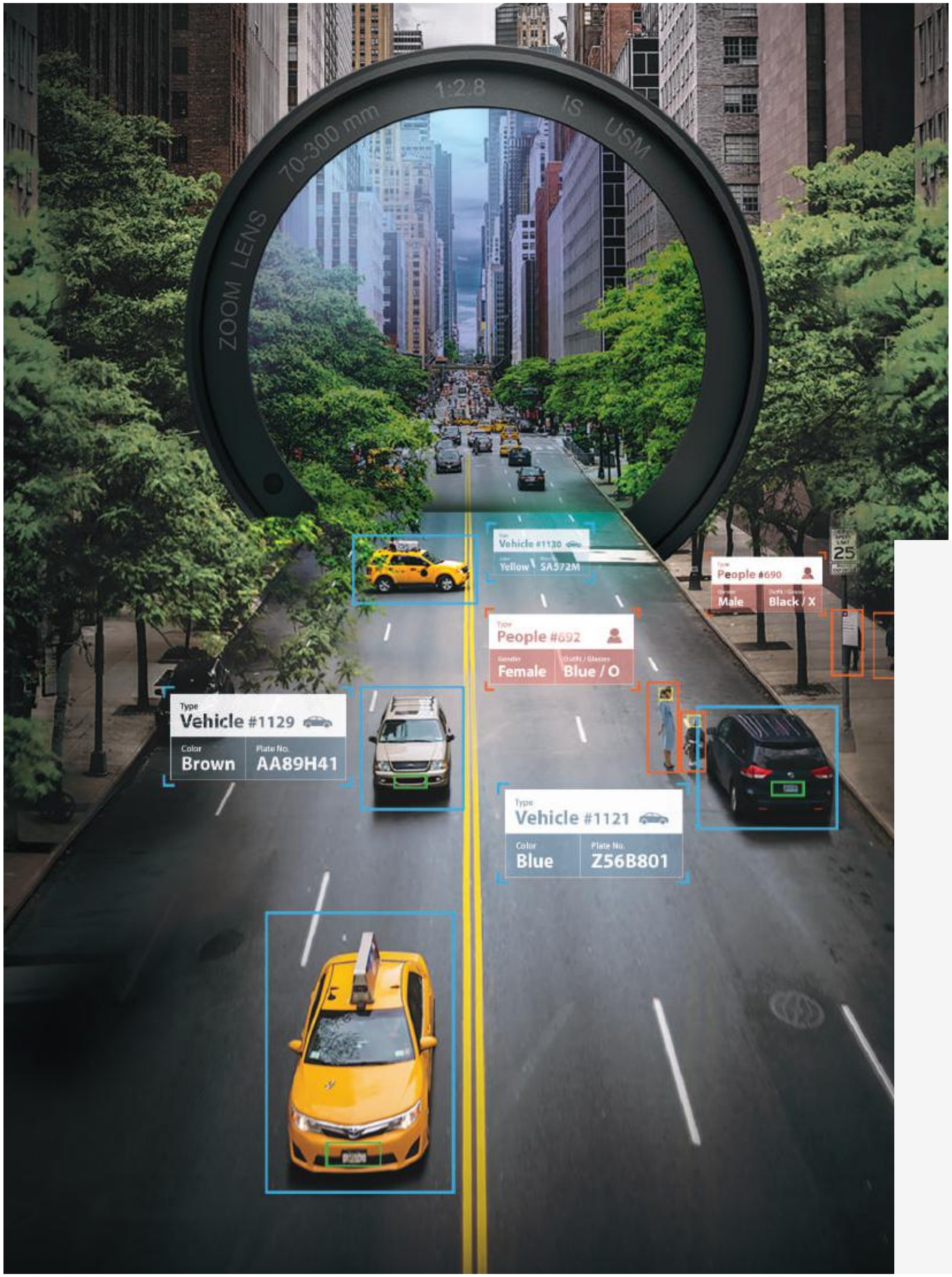
	 TNO-4041T **VGA Thermal Bullet Camera**	 **TNO-4041TR** **VGA Radiometric Thermal Bullet Camera**	 **TNO-4040T** **VGA Thermal Bullet Camera**	 **TNO-4040TR** **VGA Radiometric Thermal Bullet Camera**
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	-	-	-	-
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	19mm fixed	19mm fixed	19mm fixed	19mm fixed
Angular Field of View	H : 32° / V : 24.3° / D : 39.2°	H : 32° / V : 24.3° / D : 39.2°	H : 32° / V : 24.3° / D : 39.2°	H : 32° / V : 24.3° / D : 39.2°
Pan / Tilt / Rotate	-	-	-	-
IR Viewable Length	-	-	-	-
Day & Night	-	-	-	-
Wide Dynamic Range	-	-	-	-
Digital Noise Reduction	-	-	-	-
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature change detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection
Business Intelligence	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps	640 x 480 / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W
Dimensions (WxHxD) / Weight	Ø101.97 x 309mm (Ø4.01" x 12.17") 2.5kg (5.51 lb)	Ø101.97 x 309mm (Ø4" x 12.17") 2.45kg (5.41lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12kg (6.89lb)
Additional Features	Various color palettes PT type	Various color palettes Spot temperature reading PT type	Various color palettes	Various color palettes Spot temperature reading

	 TNO-4030T **VGA Thermal Bullet Camera**	 **TNO-4030TR** **VGA Radiometric Thermal Bullet Camera**	 **TNO-3010T** **QVGA Thermal Bullet Camera**	 **TNO-3020T** **QVGA Thermal Bullet Camera**
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer
Min. Illumination	–	–	–	–
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B
Focal Length	13mm fixed	13mm fixed	2.7mm fixed focal	4.7mm fixed focal
Angular Field of View	H : 48.6° / V : 36.4° / D : 61.6°	H : 48.6° / V : 36.4° / D : 61.6°	H :92° / V :65.5° / D :125.7°	H :50° / V :36.4° / D :65.3°
Pan / Tilt / Rotate	–	–	–	–
IR Viewable Length	–	–	–	–
Day & Night	–	–	–	–
Wide Dynamic Range	–	–	–	–
Digital Noise Reduction	–	–	–	–
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection
Business Intelligence	–	–	–	–
Alarm I/O	1 / 2	1 / 2	1 / 2	1 / 2
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	640 x 480 / 30fps	640 x 480 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	−40℃ ~ +60℃ (−40℉ ~ +140℉)	−40℃ ~ +60℃ (−40℉ ~ +140℉)	−40℃ ~ +60℃ (−40℉ ~ +140℉)	−40℃ ~ +60℃ (−40℉ ~ +140℉)
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W
Dimensions (WxHxD) / Weight	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0lb)	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12kg (6.89lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81x14.78") 2.51kg (5.538lb)
Additional Features	Various color palettes	Various color palettes Spot temperature reading	Various color palettes	Various color palettes

	TNO-3030T QVGA Thermal Bullet Camera	TNO-3040T QVGA Thermal Bullet Camera	TNO-3050T QVGA Thermal Bullet Camera	TID-600R 2MP Network Intercom Station
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	1/2.8" CMOS
Min. Illumination	-	-	-	Color: 0.018lux (F1.6, 1/30sec) 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	13.7mm fixed focal	19mm fixed focal	35mm fixed focal	1.6mm fixed focal
Angular Field of View	H:16° / V:12° / D:20°	H: 11.5° / V: 8.7° / D: 14.4°	H: 6.3° / V: 4.7° / D: 7.8°	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 Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification
Business Intelligence	-	-	-	-
Alarm I/O	1 / 2	1 / 2	1 / 2	Input 2ea / Output 1ea , Relay out 1ea (12VDC Max. 550mA with 2A adapter) 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	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Resolution / Max. Frame Rate	320 x 240 / 30fps	320 x 240 / 30fps	320 x 240 / 30fps	2MP / 60fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	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 SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +60℃ (-40°F ~ +140°F)	-40℃ ~ +60℃ (-40°F ~ +140°F)	-40℃ ~ +60℃ (-40°F ~ +140°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) Less than 95% RH
Certification	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP66, NEMA 4X	IP65, IK08, NEMA4X, Safety (UL), EMC (FCC, CE)
Power Consumption	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W	PoE: Max 12.95W, typical 9.1W 12VDC: Max 17.6W, typical 7W * 12VDC power consumption includes 12VDC/550mA relay out
Dimensions (WxHxD) / Weight	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 401.3mm (Ø5.81"x15.79") 2.74kg (6.05lb)	W 49 x H 165 x D 48mm (1.93" x 6.5" x 1.89") 490g (1.08lb)
Additional Features	Various color palettes	Various color palettes	Various color palettes	SIP, Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification

	LNO-6012R **2MP IR Bullet Camera**	**LNO-6022R** **2MP IR Bullet Camera**	**LNO-6072R** **2MP IR Bullet Camera**	**LND-6012R** **2MP IR Dome Camera**	**LND-6022R** **2MP IR Dome Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.03Lux (F2.0, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F2.0, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F1.6, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F2.0, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F1.6, 1/30sec) BW : 0Lux (IR LED on)
Video Output	–	–	–	–	–
Focal Length	2.8mm fixed focal	4.0mm fixed focal	3.2~10mm (3.1x) manual varifocal	2.8mm fixed focal	4.0mm fixed focal
Angular Field of View	H: 113.7° / V: 61.5° / D: 134.4°	H: 84.3° / V: 45.6° / D: 98.3°	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide)~ 38° (Tele)	H: 113.7° / V: 61.5° / D: 134.4°	H: 84.3° / V: 45.6° / D: 98.3°
Pan / Tilt / Rotate	–	–	–	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–	–
Analytics	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering
Business Intelligence	–	–	–	–	–
Alarm I/O	–	–	–	–	–
Audio I/O	–	–	–	–	–
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream II	WiseStream II	WiseStream II	WiseStream II	WiseStream II
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)
Operating Temperature	-30℃ ~ +55℃ (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20℃(-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20℃ (-4°F)	-10℃ ~ +55℃ (+14°F ~ +131°F) / Less than 90% RH	-10℃ ~ +55℃ (+14°F ~ +131°F) / Less than 90% RH
Certification	IP66	IP66	IP66	–	–
Power Consumption	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W
Dimensions (WxHxD) / Weight	Ø78 x 262mm (Ø3.07" x 10.31") 390g (0.86lb)	Ø78 x 262mm (Ø3.07" x 10.31") 390g (0.86lb)	Ø78 x 262mm (Ø3.07" x 10.31") 420g (0.93lb)	Ø110 x 86mm (Ø4.33" x 3.39") 270g (0.59lb)	Ø110 x 86mm (Ø4.33" x 3.39") 270g (0.59lb)

	 LND-6072R **2MP IR Dome Camera**	 **LNV-6012R** **2MP IR Vandal Dome Camera**	 **LNV-6022R** **2MP IR Vandal Dome Camera**	 **LNV-6072R** **2MP IR Vandal Dome Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Min. Illumination	Color: 0.03Lux (F1.6, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F2.0, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F2.0, 1/30sec) BW : 0Lux (IR LED on)	Color: 0.03Lux (F1.6, 1/30sec) BW : 0Lux (IR LED on)
Video Output	–	–	–	–
Focal Length	3.2 ~ 10mm (3.1x) manual varifocal	2.8mm fixed focal	4.0mm fixed focal	3.2 ~ 10mm (3.1x) manual varifocal
Angular Field of View	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide) ~ 18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)	H: 113.7° / V: 61.5° / D: 134.4°	H: 84.3° / V: 45.6° / D: 98.3°	H: 109° (Wide) ~ 33.2° (Tele) V: 57.4° (Wide)~18.7° (Tele) D: 132° (Wide) ~ 38° (Tele)
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°	0° ~ 350° / 0° ~ 67° / 0° ~355°
IR Viewable Length	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR
Digital Image Stabilization	–	–	–	–
Analytics	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering	Motion detection, Tampering
Business Intelligence	–	–	–	–
Alarm I/O	–	–	–	–
Audio I/O	–	–	–	–
Video Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	2MP / 30fps	2MP / 30fps
WiseStream	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ	WiseStream Ⅱ
Streaming	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB	micro SD/SDHC 1slot 32GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T SUNAPI (HTTP API)
Operating Temperature	-10°C ~ +55°C (+14°F ~ +131°F) / Less than 90% RH	-30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) / Less than 90% RH * Start up should be done at above -20°C (-4°F)
Certification	–	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W	Max 6.4W, Typical 5W
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 315g (0.69lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 410g (0.9lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 410g (0.9lb)	Ø137.8x106.1mm (Ø5.43" x 4.18") 525g (1.16lb)


1:2.8
70-300 mm
IS
USM
ZOOM LENS
Vehicle #1130
Yellow
SA572M
People #690
Male
Black / X
Type
People #692
Gender
Female
Outfit / Glasses
Blue / O
Type
Vehicle #1129
Color
Brown
Plate No.
AA89H41
Type
Vehicle #1121
Color
Blue
Plate No.
Z56B801
25

P series AI Camera & NVR

Precise Object Detection & Classification with AI

Person | Face | Vehicle | License plate

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

AI Camera Series 4K 2MP

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

* See more at P21, 22

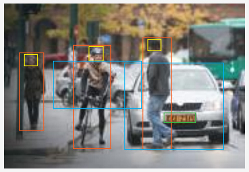
AI NVR Series

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

* See more at P78

Wisenet AI Camera

Detect and classify objects real–time



* Person, face, vehicle, license plate

VMS Plug–in for improved AI search

Wisenet AI Search

Quickly search based on attributes

milestone
Genetec

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

High performance NVR

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

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

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

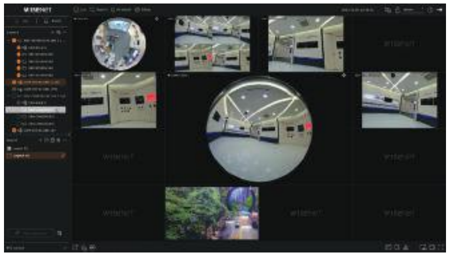
Local/web based installation wizard with a single UI provides easy and quick auto camera recognition and registration as well as configuration of each channel.

Local

Web

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.

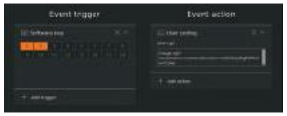


Code your own event action with SUNAPI command and Integrate with the Software Key

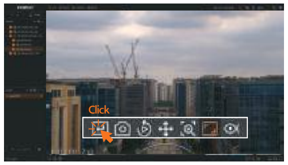
Users can code their own event action using SUNAPI commands and integrate it with the Software Key. Then, a simple click on the Software Key appears on the channel display will run the event action. Customized codes run separately.

❶ Code event action* and integrate with the Software key

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



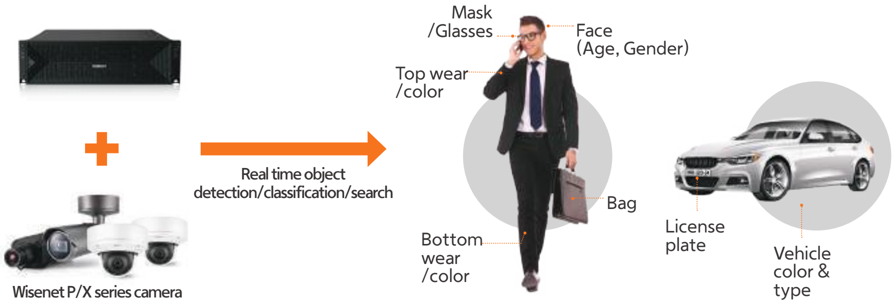
❷ Click the Software key to initiate the event action



AI NVR

AI enhances accuracy and efficiency

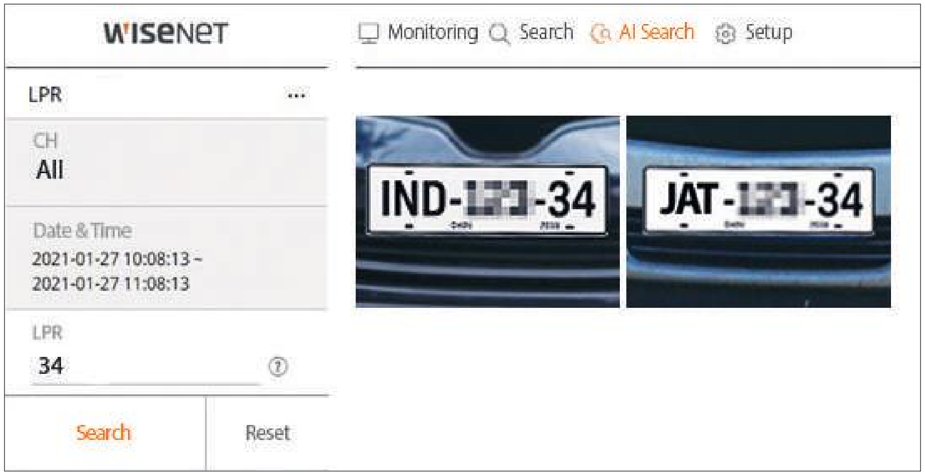
Wisenet AI NVR with AI algorithms provides accurate object detection/ classification/search, increasing the efficiency of monitoring operation.


Real time object detection/classification/search
Wisenet P/X series camera
Mask /Glasses
Face (Age, Gender)
Top wear /color
Bag
Bottom wear /color
License plate
Vehicle color & type

License Plate Recognition LPR (Search)

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

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

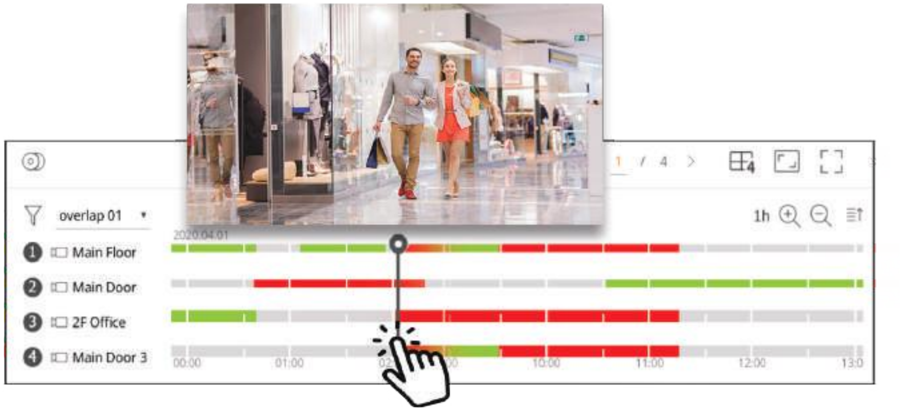

WISENET
Monitoring
Search
AI Search
Setup
LPR
IND-[redacted]-34
JAT-[redacted]-34
Search
Reset

CH
All

Date & Time
2021-01-27 10:08:13 ~
2021-01-27 11:08:13

LPR
34

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

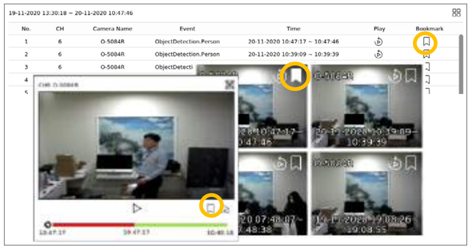

1 / 4
overlap 01
1h
2020.04.01
1 Main Floor
2 Main Door
3 2F Office
4 Main Door 3
00:00
01:00
10:00
11:00
12:00

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.

XNP-6370RH (192.168.1.2...
TNM-3620TDY_CH1 (192.1...

Live monitoring and PTZ control



Bookmark setup and event search

	 PRN-6400DB4 **64CH AI NVR**	 **PRN-6400B4** **64CH AI NVR**	 **PRN-3200B4** **32CH AI NVR**	 **PRN-3200B2** **32CH AI NVR**	 **PRN-1600B2** **16CH AI NVR**
OS	Linux	Linux	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps	400Mbps	250Mbps
Max # of Cameras	64CH	64CH	32CH	32CH	16CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 16 SATA (Max. 160TB)	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB, Non-RAID mode)	Up to 8 SATA (Max. 80TB, Non-RAID mode)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
External Storage	iSCSI	iSCSI	iSCSI	iSCSI storage	iSCSI storage
RAID	RAID 5/6	RAID 5/6	RAID 5/6	RAID 5/6	RAID 5/6
Hot Swap	Yes	Yes	Yes	Yes	Yes
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%, 50/60 Hz (Dual SMPS)	100 ~ 240 VAC ± 10%, 50/60 Hz	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. 265W (16 HDD)	Max. 205W (With 10TB HDDs 8EA)	Max. 205W (With 10TB HDDs 8EA)
PoE Budget	-	-	-	-	-
Additional Features	• LPR search (English, Numbers) • AI search attribute (Person, Face - with Wisenet AI camera, Vehicle, Lisence plate) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view	• LPR search (English, Numbers) • AI search attribute (Person, Face - with Wisenet AI camera, Vehicle, Lisence plate) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view	• LPR search (English, Numbers) • AI search attribute (Person, Face - with Wisenet AI camera, Vehicle, Lisence plate) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view	• LPR search (English, Numbers) • AI search attribute (Person, Face - with Wisenet AI camera, Vehicle, Lisence plate) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view	• LPR search (English, Numbers) • AI search attribute (Person, Face - with Wisenet AI camera, Vehicle, Lisence plate) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view

	XRN–6410DB4/6410B4 **64CH NVR**	**XRN–6410RB2** **64CH NVR**	**XRN–6410B2** **64CH NVR**	**XRN–3210B4** **32CH NVR**
OS	Linux	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps	400Mbps
Max # of Cameras	64CH	64CH	64CH	32CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF
HDD Slot	Up to 16 SATA (Max. 160TB)	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)	Up to 16 SATA (Max. 160TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
Event Action	e–Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e–Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e–Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e–Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
External Storage	iSCSI	iSCSI	iSCSI	iSCSI
RAID	RAID 5/6	RAID 5/6	–	RAID 5/6
Hot Swap	Yes	Yes	–	Yes
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A (Dual SMPS / XRN–6410B4)	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.7A
Power Consumption	Max. 265W (16 HDD)	Max. 138W (8 HDD)	Max. 138W (8 HDD)	Max. 265W (16 HDD)
PoE Budget	–	–	–	–
Additional Features	• N+1 failover supported • AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras • PTZ camera configuration and control • Dual SMPS (6410DB4) • Dynamic layout • Virtual channel view • Fisheye dewarping	• N+1 failover supported • AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras • PTZ camera configuration and control • Dual SMPS (6410DB4) • Dynamic layout • Virtual channel view • Fisheye dewarping	• N+1 failover supported • AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras • PTZ camera configuration and control • Dynamic layout • Fisheye dewarping	• N+1 failover supported • AI search (BestShot, Attribute) – When integrated with Wisenet AI cameras • PTZ camera configuration and control • Fisheye dewarping

	XRN-3210RB2 **32CH NVR**	**XRN-3210B2** **32CH NVR**	**XRN-1620SB1** **16CH NVR**
OS	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps	140Mbps
Max # of Cameras	32CH	32CH	16CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF
HDD Slot	Up to 8 SATA (Max. 80TB)	Up to 8 SATA (Max. 80TB)	Up to 4 SATA (Max. 24TB)
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post)
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
External Storage	iSCSI	iSCSI	-
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	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%, 50/60 Hz	100 ~ 240 VAC ± 10%, 50/60 Hz	100 ~ 240 VAC ± 10%, 50/60 Hz
Power Consumption	Max. 160W (8 HDD)	Max. 138W (8 HDD)	Max. 310W
PoE Budget	-	-	200W
Additional Features	• N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control • Fisheye dewarping	• N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control • Fisheye dewarping	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control

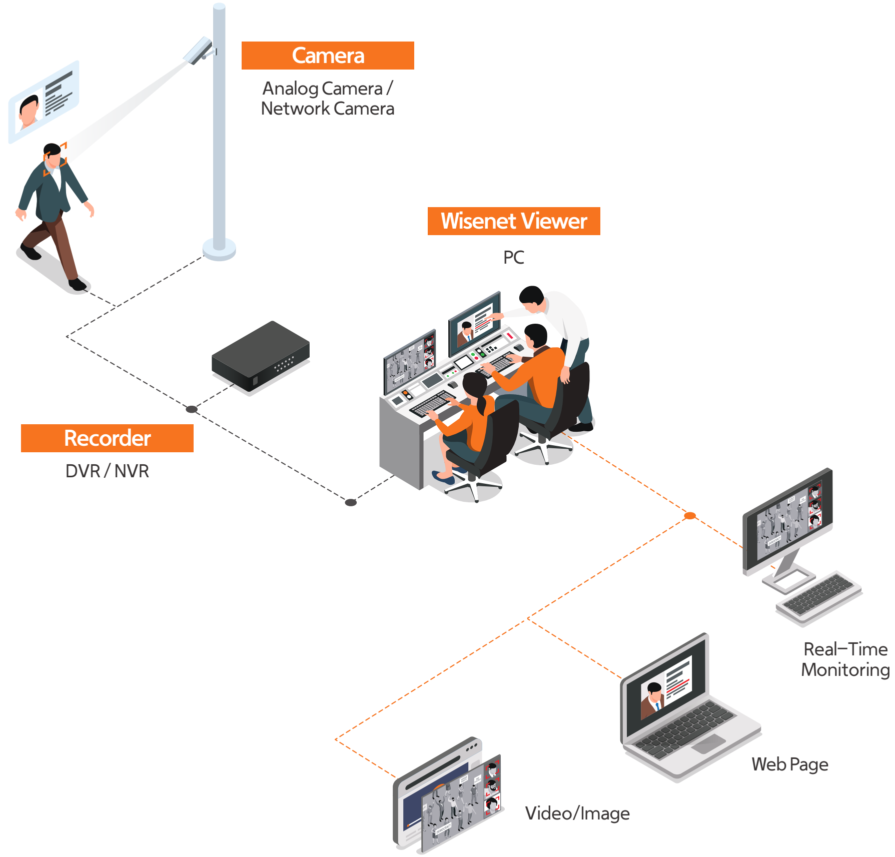
	XRN-1620B2 **16CH NVR**	**XRN-820S** **8CH NVR**	**XRN-815S** **8CH NVR**
OS	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG
Max. Recording Bit Rate	140Mbps	100Mbps	100Mbps
Max # of Cameras	16CH	8CH	8CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	12MP ~ CIF
HDD Slot	Up to 8 SATA (Max. 80TB)	Up to 2 SATA (Max. 12TB)	Up to 2 SATA (Max. 20TB)
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), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown
External Storage	-	-	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%, 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz
Power Consumption	Max. 130W	Max. 160W	Max 165W (2HDD, PoE On)
PoE Budget	-	100W	100W
Additional Features	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) - When integrated with Wisenet AI cameras • PTZ camera configuration and control

	 QRN-1630S **16CH NVR**	 **QRN-830S** **8CH NVR**	 **QRN-430S** **4CH NVR**
OS	Linux	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG
Max. Recording Bit Rate	128Mbps	Max. 80Mbps	40Mbps
Max # of Cameras	16CH	8CH	4CH
Network Camera Resolution	8MP ~ CIF	8MP ~ CIF	8MP ~ CIF
HDD Slot	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	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	-	-	-
RAID	-	-	-
Hot Swap	-	-	-
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 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	HDMI1: 3840 x 2160(30Hz), HDMI2: 1920 x 1080(60Hz)	HDMI :3840 x 2160 (30Hz)	HDMI 1 (Up to 4K)
Network Camera Protocol	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz	54VDC / 1.55A	100 ~ 240 VAC ± 10%; 50/60 Hz
Power Consumption	Max. 200W (2HDD, PoE ON)	Max 84W (1HDD, PoE ON)	Max 52W (1HDD, PoE On)
PoE Budget	130W	65W	35W
Additional Features	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))	• PoE supported • N+1 failover supported • ARB (Auto Recovery Backup) redundancy supported • PTZ camera configuration and control • Easy configuration (Setup Wizard, P2P (QR Code))

	TRM-810S **8CH Mobile NVR**	**TRM-410S** **4CH Mobile NVR**
OS	Linux	Linux
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	80Mbps	50Mbps
Max # of Cameras	8 (8 PoE, RJ-45)	4 (4 PoE, RJ-45)
HDD Slot	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)	Up to 2 SATA (Front-Swap) Max. 2TB (HDD) / Max. 4TB (SSD)
RAID	RAID 1	-
Hot Swap	Yes (RAID 1)	-
Network Viewer Software	Wisenet TMS, WebViewer, Wisenet Mobile	Wisenet TMS, WebViewer, Wisenet Mobile
Local Monitor	HDMI, VGA	HDMI, VGA
Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	• GPS supported • Wi-fi supported • Standards approval for transportation (EN50155) • Wide operating temperature range -25℃ to +55℃ (-13°F to +13°F)	• GPS supported • Wi-fi supported • Standards approval for transportation (EN50155) • Wide operating temperature range -25℃ to +55℃ (-13°F to +13°F)

WISENET Viewer

Costless yet powerful NVR·DVR Management Software


Camera
Analog Camera / Network Camera
Wisenet Viewer
PC
Recorder
DVR / NVR
Real-Time Monitoring
Web Page
Video/Image

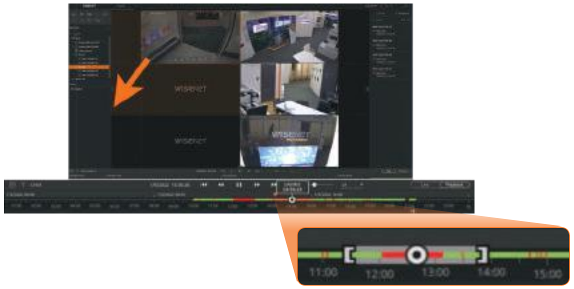
Monitoring with PC gets easier

- 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)

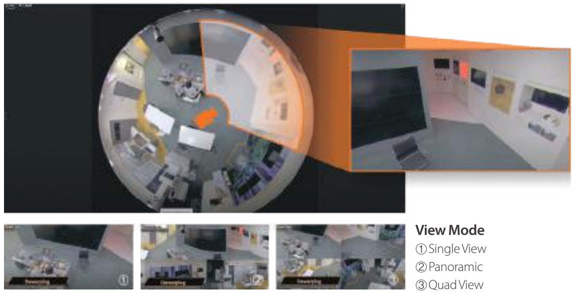
* Available on Windows, macOS

Effective monitoring with essential features

Customizable channel layout & Timeline

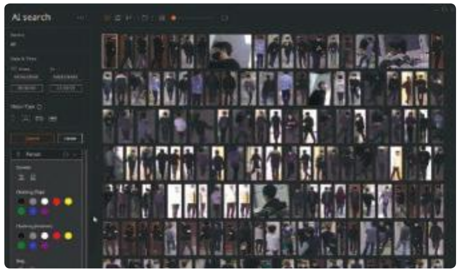

11:00
12:00
13:00
14:00
15:00

Easy monitoring with **Fisheye Dewarping**



View Mode
① Single View
② Panoramic
③ Quad View

Intelligent monitoring powered by **AI Search**



Encoder

	SPE–1630 **16CH Encoder**	**SPE–420** **4CH Encoder**	**SPE–410** **4CH Encoder**	**SPE–110** **1CH Encoder**
Max. # of Cameras	16	4	4	1
Supported Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Max. Resolution	5MP/4MP/1080p/720p/WD1/4CIF/CIF	5MP/4MP/1080p/720p/WD1/4CIF/CIF	4MP/1080p/720p/WD1/4CIF/CIF	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)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)	4MP : 15fps 1080p/720p/WD1/4CIF/CIF : 30fps(N), 25fps(P)
Bi–Directional Audio	Support	Support	Support	–
RS–485	Support	Support	Support	Support
Alarm I/O	4 / 1	4 / 2	4 / 2	–
Application Programming Interface	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI	ONVIF profile S, SUNAPI
Power	MAX : 20W (12V, 1.67A)	MAX : 5W (PoE & 12VDC)	PoE & 12VDC : Max 9.6W	PoE : Max 4W 12VDC : Max 3.6W

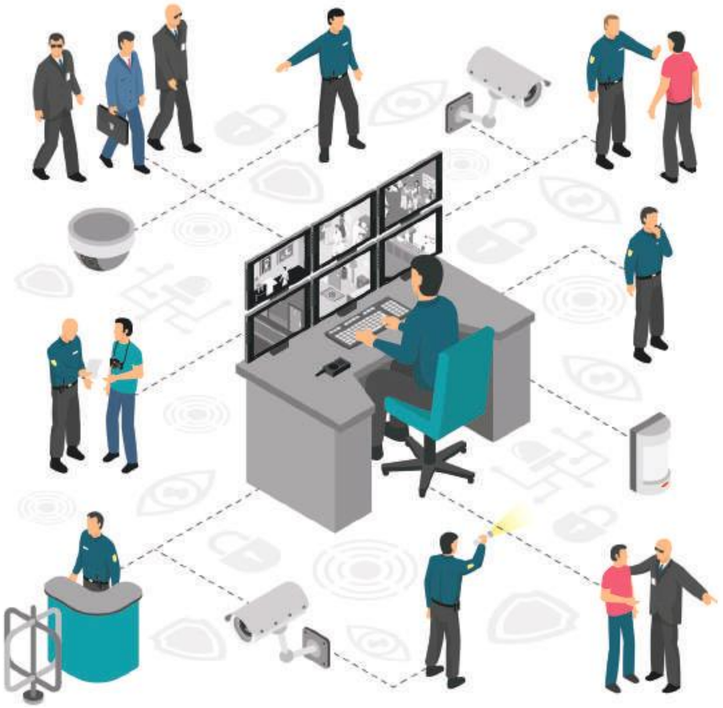
Decoder

	SPD–152 **1 Monitor Decoder**	**SPD–1660R** **16 Monitor Decoder**	**SPD–260B** **Monitor Decoder Board for SPD–1660R**
Video Out	HDMI (2ea)	HDMI (16ea), VGA (16ea)	HDMI (2ea), VGA (2ea)
Resolution	HDMI#1 up to 4K, HDMI#2 up to 1080p	HDMI up to 4K, VGA up to 1080p	HDMI up to 4K, VGA up to 1080p
Display	Max. 64ch decoding Decoding performance : 8M@60fps, 2M@360fps	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)	1 / 4 / 6 / 8 / 9 / 13 / 16 / 2V / 3V (Up to 20 layouts and sequence)
Power	Dual Power : 12VDC, PoE (IEEE802.3af)	100 ~ 240V AC	–
Additional Features	Multi adapter for monitor back mount (VESA)	Monitor merge – 1 x 2, 2 x 1, 2 x 2, 2 x 3, 3 x 2, 2 x 4, 2 x 5, 4 x 2, 3 x 3, 3 x 4, 4 x 3, 4 x 4, 3 x 5, 5 x 3, 5 x 2 SSM, WebViewer supported	Board of SPD–1660R

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 Techwin** provides video surveillance products and also in-house developed Wisenet software to monitor whole systems. It provides seamless system integration and central monitoring with cost effectiveness and reliability.



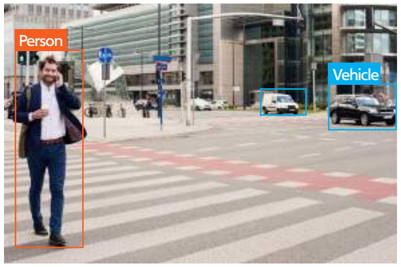
Cost Competitiveness	High reliability	Convenient Operation
Offer major features of video surveillance in reasonable price	Superb device compatibility offered as a VMS of device manufacturer	A single manufacturer providing unified user experience
One time licensing cost (No cost for upgrades and maintenance)	Integrated operation of H/W and S/W for efficient maintenance and management	Be the first to use the latest device features
High quality VMS features for the price	Dashboard that can monitor device status	Offer various solutions for user environments

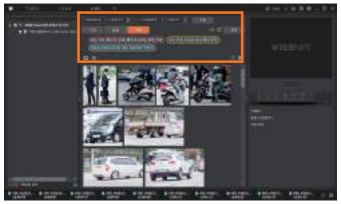
AI video search

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

• Best Shot search using unique attributes

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





Wisenet SSM search
Support quick search using attributes

Face
Vehicle
License plate

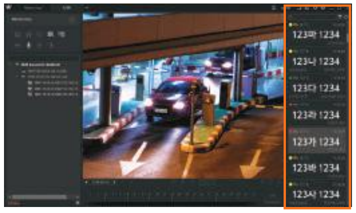
Best Shot
Object detection & classification (Person, face, vehicle, license plate)

Parking management solution

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

• Vehicle management & event search

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

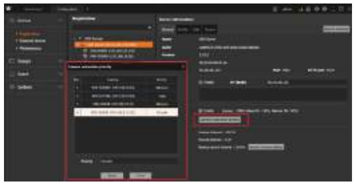


Stable monitoring

Wisenet SSM provides safe and stable monitoring environment through Failover.

• Vehicle management & event search

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



	XRP–4310DB4 **128CH Server NVR (SSM Appliance)**	**XRP–4210B4** **72CH Server NVR (SSM Appliance)**
OS	Windows 10 IoT Enterprise (SSM preinstalled)	Windows 10 IoT Enterprise (SSM preinstalled)
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	400Mbps	400Mbps
Max # of Cameras	128CH (If clustering, 132CH)	72CH (If clustering, 132CH)
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF
HDD Slot	SATA 16ea (3.5" 16ea Hot Swap – Volume 2ea)	SATA 16ea (3.5" 16ea Hot Swap – Volume 2ea)
Record Mode	Normal, Schedule (Continuous / Event), Event (Pre / Post), Event Profile, ARB, Dual–Track	Normal, Schedule (Continuous / Event), Event (Pre / Post), Event Profile, ARB, Dual–Track
Event Trigger	Video loss, Camera event (Sensor, MD, Passing, Entering, Exiting, Disappearing (Appearing), Tampering, Tracking, Face Detection, Audio Detection, ANPR, Bestshot), AI Event (Face, Appearance, Face mask, Vehicle)	Video loss, Camera event (Sensor, MD, Passing, Entering, Exiting, Disappearing (Appearing), Tampering, Tracking, Face Detection, Audio Detection, ANPR, Bestshot), AI Event (Face, Appearance, Face mask, Vehicle)
Event Action	Instant Viewer, Preset, Alarm Out, Pop–up, Sound and E–mail notification	Instant Viewer, Preset, Alarm Out, Pop–up, Sound and E–mail notification
External Storage	–	–
RAID	RAID 1 / 5 / 6 / 10 / 50	RAID 1 / 5 / 6 / 10 / 50
Hot Swap	Yes	Yes
Network Viewer Software	SSM Client, SSM Mobile	SSM Client, SSM Mobile
Local Monitor	Dual if Full HD monitor Single if UHD monitor	Dual if Full HD monitor Single if UHD monitor
Network Camera Protocol	Wisenet, ONVIF	Wisenet, ONVIF
Power Input	100 ~ 240VAC, 50 ~ 60Hz	100 ~ 240VAC, 50 ~ 60Hz
Power Consumption	250W Dual	250W Single
PoE Budget	–	–
Additional Features	• SSM Preinstalled • Redundant Power Support • ARB (Auto Recovery Backup) redundancy supported • AI Event (Face, Appearance, Face mask, Vehicle) Trigger	• SSM Preinstalled • ARB (Auto Recovery Backup) redundancy supported • AI Event (Face, Appearance, Face mask, Vehicle) Trigger

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.

ACS Monitoring	Fire Alarm	Lift Control

Key Features

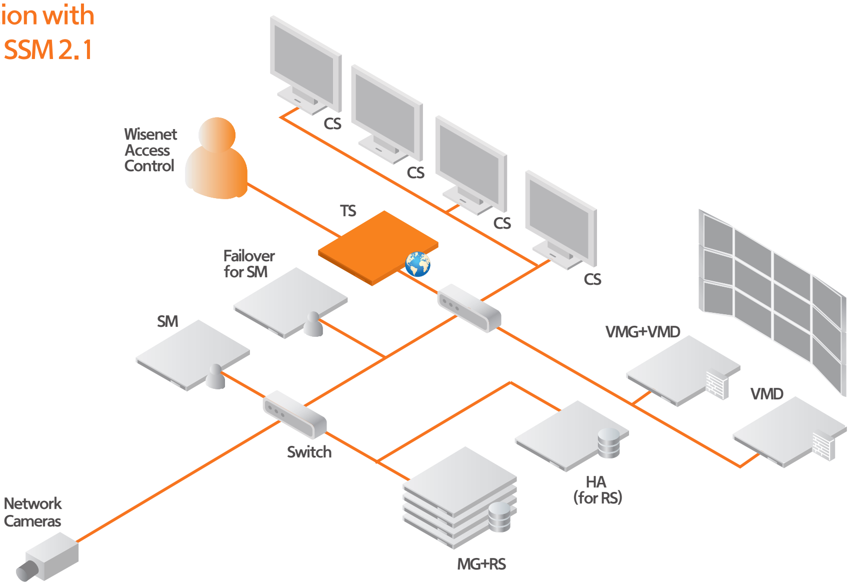
- **Interlocking**
  Control the locking of two or more doors
  If one door is opened or unlocked, the remaining doors refuse access
- **Mustering Report**
  Provide information of the occupants in the fire grouping area based in Fire event
- **Role Based Access**
  Configure Role–based rules to provide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

Configuration

Monitoring

Mustering Report

Integration with Wisenet SSM 2.1



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

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 Profle : 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℃ ~ 66℃ (−31℉ ~ 150℉)	−35℃ ~ +65℃ (−31℉ ~ +150℉)	−20℃ ~ +50℃ (−4℉ ~ +122℉)	−10℃ ~ +50℃ (+14℉ ~ +122℉)
Ingress Protection	IP65	IP65	IP67	–
Impact Protection	–	–	IK08	–
Panel Connnection	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**
Communication	Ethernet (10/100)/ RS−485	RS−485
Reader interface	2ea	2ea / –
Max. expansion board	32ea	–
Max. card holders	250,000	–
Max. Event buffers	50,000	–
Input port	7ea	7ea/ 19ea/ 3ea
Output port	4ea	4ea/ 2ea/ 12ea
Operating Temperature	0℃ ~ 70℃ (32℉ ~158℉)	0℃ ~ 70℃ (32℉ ~158° F)
PoE	–	–
Color	Gray	Gray
OSDP	Yes	Yes

Peripheral

	SSA−X300 **Power Package**
Controller/ Interface On Board	Max. 2ea Boards in enclosure
Input Power	100 ~ 240V AC (50Hz/60Hz) / 2.0A
Power Consumption	13.5V ±5%, 4.7A (Strobe, Horn 12.5V DC ±5%)
Charging Current	700mA
Back up Battery	12V, 18Ah, rechargeable
SMPS Status Transmission	AC loss, Battery fail (Non battery)
AC Input Protection	by Fuse in input port
Operation Temperature	0℃ ~ +45℃ (+32℉ ~ +113℉)
Case Lock	Lock on front door with keys
Dimension (mm)	W 410 x H 410 x D 97mm (16.14" x 16.14" x 3.82")

Card

iCLASS SEOS (Elite) **13.56MHz**	**Mobile Subscription**	**UHF Card** **902−928 MHz Card**
• 13.56Mhz • Compatible with Signo 20 (K)/40K, R10 EXP • Encoded by Hanwha Techwin unique format (Elite)	• Bluetooth/NFC via mobile device (Android, IOS)	• Long range card (3~5m)

WISENET

Audio Management System

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

Main features

TTS
Text To Speech

PoE & PoE+
Dual Support + (up to 101dB)

SIP
PBX integration

Scheduler
Day, Week, Month and Year

IP Speakers

	SPA-C100B / SPA-C100W **Ceiling Speaker**	**SPA-P100B/W** **Pendant speaker**	**SPA-W100B / SPA-W100W** **Wall speaker**	**SPA-H100B/W** **Horn speaker**
Amplifier	Built in 10W Class D	Built in 10W Class D	Built in 10W Class D	Built in 10W Class D
Ethernet	10/100 Base-T	10/100 Base-T	10/100 Base-T	10/100 Base-T
Internal Memory	1 GBytes	1 GBytes	1 GBytes	1 GBytes
Max. Sound Pressure Level	100dB	101dB	101dB	125dB
Frequency Range (-10dB)	120Hz~20kHz	130Hz~20kHz	120Hz~20kHz	650Hz~5.3kHz
Sensitivity (1Watt)	90dB	91dB	91dB	111dB
Power	PoE / PoE+			
TTS	Korean, English(US, UK), German, French, Spanish, Russian			

IP Audio Module

	SPA-D1000 **Audio Module**
Amplifier	Built in 10W Class D
Ethernet	10/100 Base-T
Internal Memory	1 GBytes

IP Audio Server

	SPA-S1000 **Audio Server**
Ethernet	100/1000 Base-T
Power	AC 120-240V, 50/60Hz, 10W DC 24V, 350mA
Functional Monitoring	Connection verification, Built-in system logging

IP Microphone

	SPA-M1000 **Microphone**
Ethernet	100/1000 Base-T
Mic Input Sensitivity	-50dBV ± 3dB
Mic Frequency Response	100Hz ~ 18kHz
Power	Max. 10W, DC24V PoE (IEEE 802.3 af type 1 Class 3)
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	1/3" CMOS	1/3" CMOS	1/3" CMOS	1/3" CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440	2560 x 1440
Min. Illumination	Color : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.26Lux (F1.8) (HCD-7010RA) 0.27Lux (F2.0) (HCD-7020R/7030RA) B/W : 0Lux (IR LED on)
Focal Length	–	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCO-7010R) 4.0mm fixed (HCO-7020R) 6.0mm fixed (HCO-7030R)	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCD-7010RA) 4.0mm fixed (HCD-7020RA) 6.0mm fixed (HCD-7030RA)
Angular Field of View	–	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020RA) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030RA)	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020RA) H : 49.02° / V : 27.61° / D : 55.6° (HCD-7030RA)
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) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)	20m (65.62ft) (HCD-7010RA) 25m (82.02ft) (HCD-7020RA) 30m (98.43ft) (HCD-7030RA)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR	BLC/HLC/DWDR
Digital Noise Reduction	2D DNR	2D DNR	2D DNR	2D DNR	2D DNR
Motion detection	Support	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	2 Zones	2 Zones	2 Zones
Alarm I/O	MD Output 1	MD Output 1	–	MD Output 1	–
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron) RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−30℃ ~ +55℃ (−22℉ ~ +131℉) * Start up above −10℃ (+14℉)	−30℃ ~ +55℃ (−22℉ ~ +13℉) * Start up above −10℃ (+14℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)	−10℃ ~ +55℃ (+14℉ ~ +131℉)
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 × H 68.4 × 92.7mm (2.35" × 2.69" × 3.65") 186g (0.41lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø70 x 246mm (Ø2.76" x 9.69") (Without sunshield) 670g (1.48lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.71lb)	Ø110.1 x 86.1mm (Ø4.33" x 3.39") 240g (0.53 lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)

	 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**
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) B/W : 0Lux (IR LED on)	Color : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Color : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Color : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Color : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	-	-	3.2 ~ 10mm (3.1x) motorized varifocal
Angular Field of View	H : 93.48° (Wide) ~ 29.44° (Tele) V : 50.47° (Wide) ~ 16.64° (Tele) D : 112.53° (Wide) ~ 33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	-	-	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)
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) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	-	-	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	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	Support	Support	Support	Support
Privacy Masking	2 Zones	2 Zones	4 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1	-	0 / 1, External D/N 1	0 / 1, External D/N 1	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -10℃ (+14℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -10℃ (+14℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -10℃ (+14℉)
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 × 106.1mm (Ø5.39" × 4.18") 715g (1.58 lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.12lb)	W 130.9 × H 73.1 × D 67.2mm (5.15" × 2.88" × 2.65") 287g (0.63 lb)	W 68.4 × H 59.6 × D 92.7mm (2.69" × 2.35" × 3.65") 186g (0.41 lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)	Video Transmission up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2 ~ 10mm (3.1x) varifocal	4mm fixed (F1.6)	3.2 ~ 10mm (3.1x) motorized varifocal (HCD-6080R) varifocal (HCD-6070R)	4mm fixed (F1.6)
Angular Field of View	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°
Pan / Tilt / Rotate	-	-	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	20m (65.62ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	SSNRⅣ	SSNRⅣ	SSNRⅣ	SSNRⅣ
Motion detection	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1	-	MD Output 1	-
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) *Start up above -10℃ (+14℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) *Start up above -10℃ (+14℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
Certification	IP66, IK10	IP66	-	-
Power Consumption	12VDC & 24VAC : Max 6W	12VDC : Max 5.4W	12VDC & 24VAC : Max 5.8W (HCD-6080R) 12VDC & 24VAC : Max 4.2W (HCD-6070R)	12VDC : Max 5.4W
Dimensions (WxHxD) / Weight	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.5") (Without sunshield) 279g (0.62 lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71lb)
Additional Features	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (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	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color : 0.27Lux (F2.0) B/W : 0.017 Lux (F2.0)	Color : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Color: 0.04Lux (F1.2, 1/30sec) BW: 0.004Lux (F1.2)	Color : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	2.8mm fixed (F2.0)	3.2 ~ 10mm (3.1x) motorized varifocal (HCV-6080R) varifocal (HCV-6070R)	-	3.2 ~ 10mm (3.1x) manual varifocal
Angular Field of View	H : 113.7° / V : 61.5° / D : 134.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	-	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	0° ~350° / 0° ~67° / 0° ~355°	0° ~350° / 0° ~67° / 0° ~355°	-	-
IR Viewable Length	-	30m (98.43ft)	-	30m (98.42ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	WDR (120dB)	WDR (120dB)	BLC, HLC, DWDR	BLC, HLC, DWDR
Digital Noise Reduction	SSNRⅣ	SSNRⅣ	SSNRⅣ	SSNRⅣ
Motion detection	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	-	MD Output 1	0 / 1	0 / 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -10℃ (+14℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH	-30℃ ~ +55℃ (-22℉ ~ +131℉)
Certification	-	IP66, IK10	-	IP66, IK10
Power Consumption	12VDC : Max 3.6W	12VDC & 24VAC : Max 5.8W (HCV-6080R) 12VDC & 24VAC : Max 4.2W (HCV-6070R)	AC 24V / 0.37A (Max 3.6W) DC 12V / 0.32A (Max 3.5W)	24VAC: Max 5.4W, typical 3.4W 12VDC: Max 5.4W, typical 3.4W
Dimensions (WxHxD) / Weight	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) (HCV-6080R) 715g (1.58lb) (HCV-6070R)	W 68.4 x H 59.6 x D 92.7mm (2.69" x 2.35" x 3.65") 186g (0.41lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") 887g (1.95lb)
Additional Features	Video transmisstion up to 500m (5C2V Coaxial Cable)	Video transmisstion up to 500m (5C2V Coaxial Cable)	Defog	Defog

	 SCO-6025R **1080p HD IR Bullet Camera**	 **SCD-6085R** **1080p HD IR Dome Camera**	 **SCD-6025R** **1080p HD IR Dome Camera**	 **SCV-6085R** **1080p HD IR Vandal Dome Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Min. Illumination	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.17Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.11Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)
Focal Length	4mm fixed	3.2~10mm (3.1x) varifocal	4mm fixed	3.2~10mm (3.1x) varifocal
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 110.2° (Wide) ~ 32° (Tele) V : 55.4° (Wide) ~ 18° (Tele) D : 128.4° (Wide) ~ 36.6° (Tele)
Pan / Tilt / Rotate	–	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~ 350° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.42ft)	20m (65.62ft)	20m (65.62ft)	30m (98.43ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Backlight Compensation	BLC, HLC, DWDR	BLC, HLC, DWDR	BLC, HLC, DWDR	BLC, HLC, DWDR
Digital Noise Reduction	SSNR Ⅳ	SSNR Ⅳ	SSNR Ⅳ	SSNR Ⅳ
Motion detection	Support	Support	Support	Support
Privacy Masking	8 Zones	8 Zones	8 Zones	8 Zones
Alarm I/O	0 / 1	0 / 1	0 / 1	–
Protocol	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)
Operating Temperature	-30℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH * Start up should be done at above -10℃	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH	-30℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH * Start up should be done at above -10℃
Certification	IP66	–	–	IP66, IK10
Power Consumption	DC 12V/0.45A (Max 5.4W)	AC 24V / 0.45A DC 12V / 0.46A	DC 12V/0.45A (Max 5.4W)	AC 24V / 0.45A DC 12V / 0.46A
Dimensions (WxHxD) / Weight	Ø58.6 x 165.2mm (Ø 2.31" x 6.5") (without sunshield) 279g (0.62lb)	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 320g (0.7lb)	Ø110 x 86mm (Ø4.33" x 3.39") 227g (0.5lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 715g (1.57lb)
Additional Features	Defog	Defog	Defog	Defog

	 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**
OS	Linux	Linux	Linux	Linux	Linux
Compression	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG	H.264, H.265, MJPEG
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera	Analog (AHD, TVI, CVI, CVBS) & N/W Camera
Inputs	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 8CH, N/W Camera 2CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)
Record Rate	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH	8MP 8/8fps, 5MP 12/12fps, 4MP 15/12fps, 2MP 30/25fps NTSC/PAL *per CH
HDD Slot	SATA 8ea (Max 48TB)	SATA 2ea (Max 12TB)	SATA 4ea (Max 24TB)	Up to 2 SATA (Max 12TB)	Up to 1 SATA (Max 6TB)
Viewer Software	SSM, Webviewer, Wisenet Viewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Web Viewer, Wisenet Viewer, Smart Viewer, Wisenet Mobile	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA
Audio In/Out	16 / 1	4 / 1	8 / 1	4 / 1	1 / 1
Alarm In/Out	16 / 4	16 / 4	8 / 4	4 / 2	4 / 1
N/W Camera Support	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF	SUNAPI, ONVIF
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (3ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS-485 USB (2ports)

LED Monitor

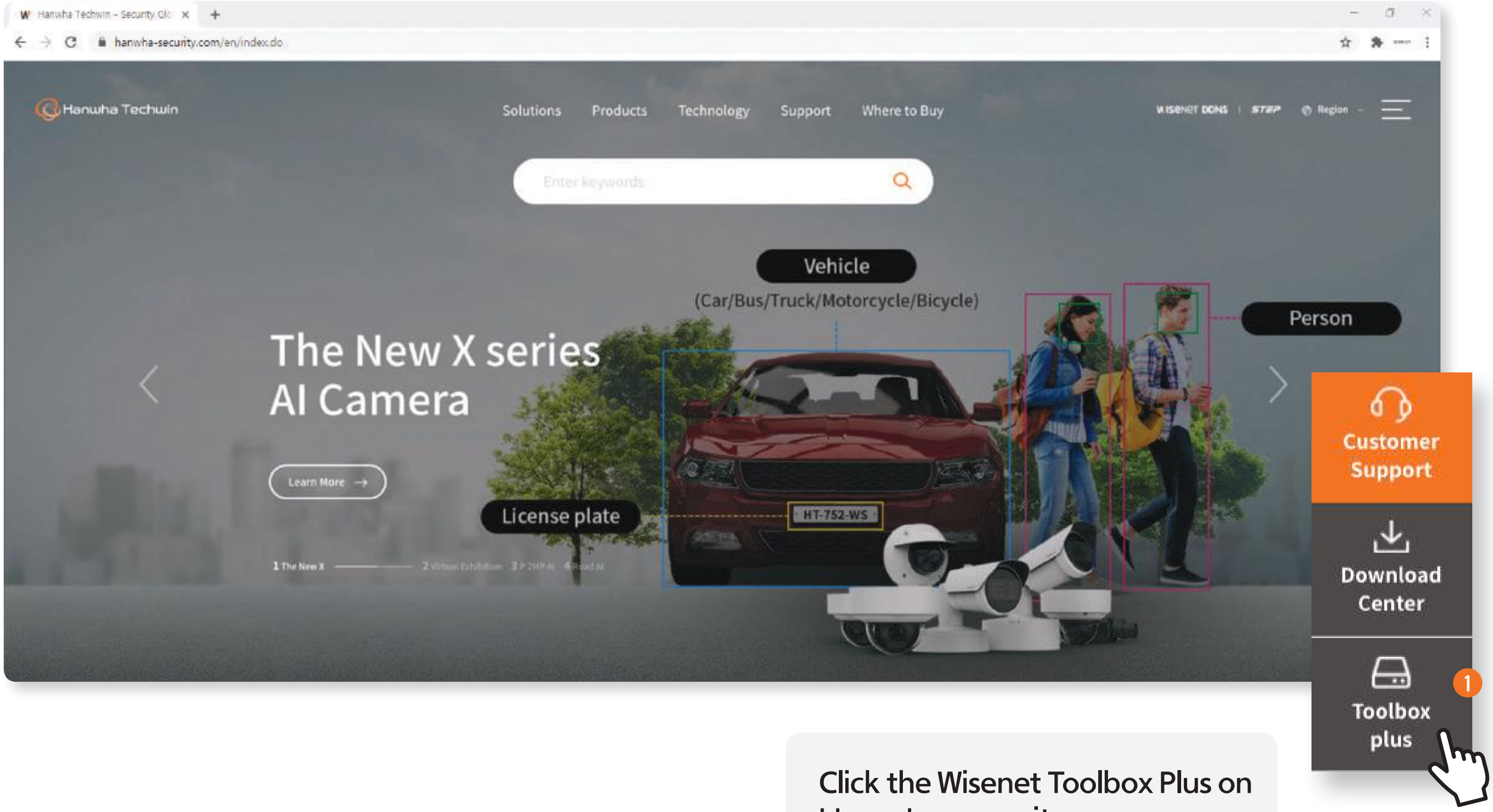
	SMT–4343 **43" LED Monitor**	**SMT–3240** **32" LED Monitor**	**SMT–3234** **32" LED Monitor**	**SMT–2431** **24" LED Monitor**	**SMT–2212** **22" LED Monitor**	**SMT–1935** **19" LED Monitor**	**SMT–1914** **19" LED Monitor**
Screen Size	43"	32"	32"	24"	22"	19"	19"
Max. Resolution	3840 x 2160	3840 x 2160	1920 x 1080	1920 x 1080	1920 x 1080	1280 x 1024	1280 x 1024
Brightness	300 cd/m²	300 cd/m²	300 cd/m²	250 cd/m²	250 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	1000:1	1000:1	2250:1	4000:1	3000 : 1	1000:1	1000:1
Aspect Ratio	16:9	16:9	16:9	16:9	16:9	4:3	4:3
Viewing Angle(H/V)	178° / 178°	178° / 178°	178° / 178°	178° / 178°	178° / 178°	170° / 160°	170° / 160°
Response Time	8.5ms	14ms	8ms	14ms	6.5ms	5ms	5ms
Interface	HDMI (1), DP (1)	HDMI 2.0(1), DP 1.2(1)	HDMI (1), VGA (1), DVI (1), BNC(1)	HDMI (1), VGA (1)	HDMI(1), VGA(1)	HDMI (1), VGA (1), BNC (2)	VGA (1)
Audio In/Out	–/1	–/1	–/1	–/–	–/–	2/–	–/–
Built–in Speakers	Yes	Yes	Yes	–	–	Yes	Yes
VESA Mount(mm)	100*100/400*200	100*100	100*100	100*100	100*100	100*100	100*100
Power	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	DC 12V 5A	100V ~ 240V AC	100V ~ 240V AC
Stand	Optional	Yes	Optional	Yes	Yes	Yes	Yes
Tempered Glass Screen	–	–	–	–		Yes	Yes
Additional Features	Remote Controller	–	Remote Controller	–	–	–	–

Controller

	SPC–7000 **System Controller**	**SPC–2000** **Network Controller**	**SPC–2010** **PTZ / DVR System Controller**	**SPC–1010** **PTZ Control Keyboard**
Features	• 5" TFT Touch LCD • Network Camera / SSM / Analog Camera / DVR Control • User–Friendly Design and Easy–to–Use Keypad • 3 Axis Joystick to Control PTZ Function • Detachable Joystick / Jogshuttle for Universe Use (Right / Left Hand Use) • USB Interface Support (1ea for SSM, 1ea for Image Snapshot / Upgrade) • Fast Camera–Tile Mapping, Config Import / Export	• Superior System Compatibility • 3D Joystick Control • Quick and Easy Installation • SSM Support	• Control up to 255 PTZ Cameras / DVRs • Built–in 3 Axis Twist Zoom Joystick • Built–in Jog Shuttle • 16 x 2 Character LCD Display • RS–485 and RS–422 Interface	• Control up to 255 PTZ Cameras • Multi Protocols Supports • OSD Menu, 3D Joystick Control • RS–485 and RS–422 Interface

Lens

Model	Image	Mount	Image Format	Resolution	Focal Length	Back Focal Length	Zoom Ratio	F. No	Angle of View	Operation			Dimensions W x H x D (mm / inch)	Weight (g / lb)
										Iris	Focus	Zoom		
SLA-M8550D		CS	1 / 2.8"	3Megapixel	8.5 ~ 50mm (0.33" ~ 1.97")	9.4 ~ 10.7mm (0.37" ~ 0.42")	5.9	F1.6	42.3° ~ 7.5°	DC	Manual	Manual	W 46 x H 60 x D 58.2mm (1.81" x 2.36" x 2.29")	80g (0.17 lb)
SLA-M2890DN					2.8 ~ 9mm (0.11" ~ 0.35")	7.5 ~ 15.9mm (0.3" ~ 0.63")	3.2	1.2	134.2° ~ 42.7°				W 45 x H 51.5 x D 54.3mm (1.77" x 2.03" x 2.14")	84g (0.19 lb)
SLA-M2890PN										P-Iris				82.1g (0.18 lb)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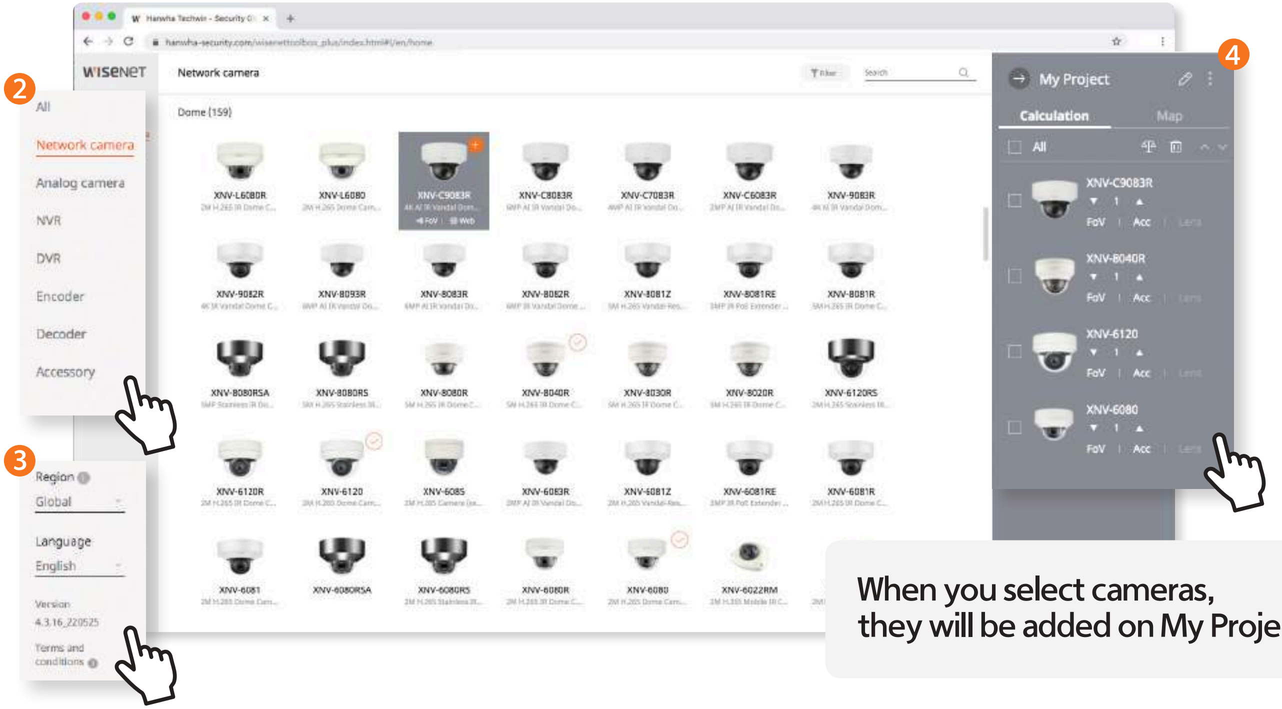
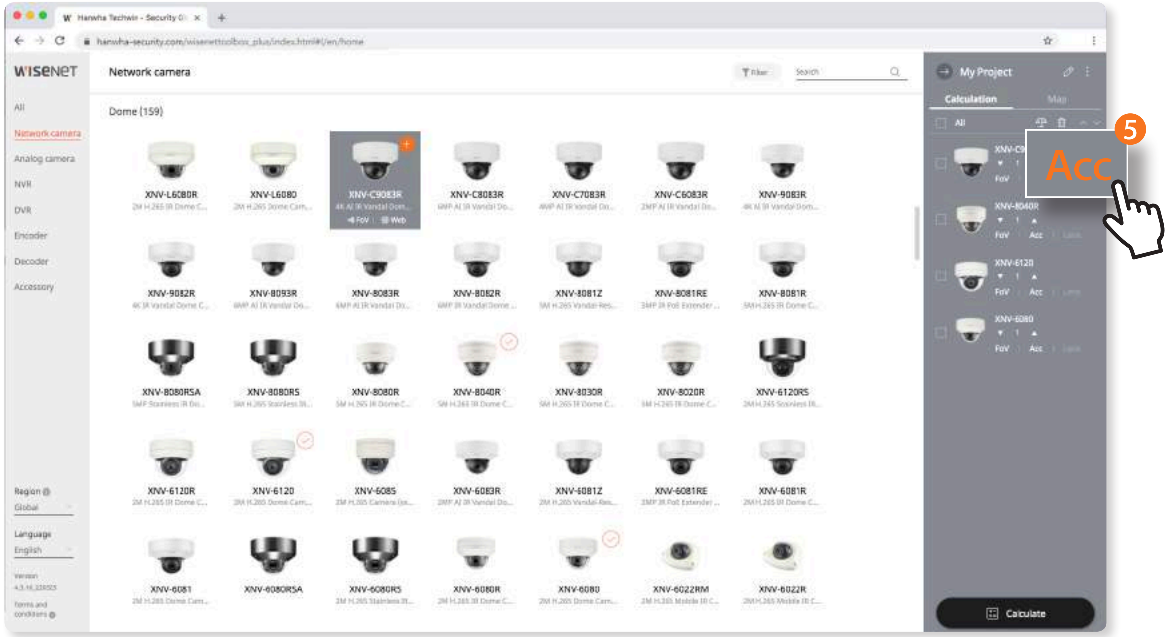
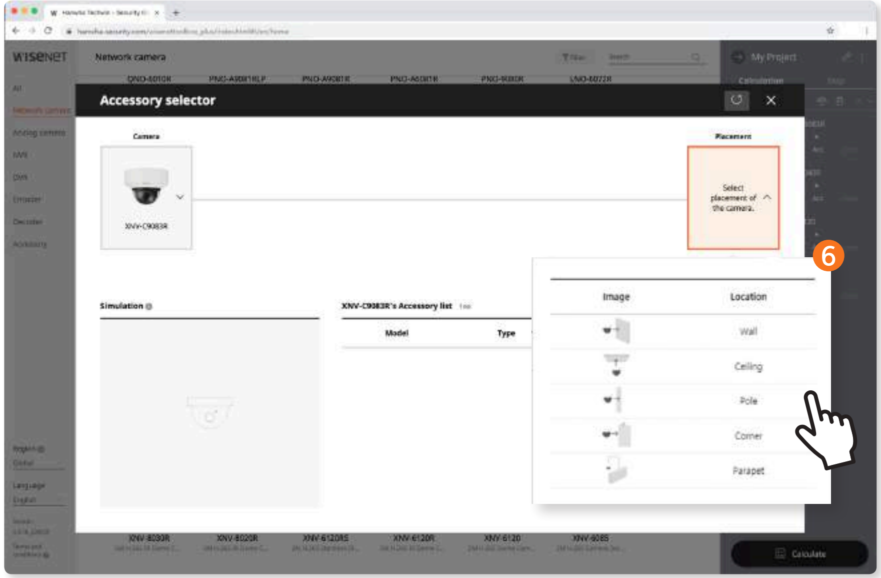

Hanwha Techwin - Security
hanwha-security.com/wisenettoolbox_plus/index.html#/en/home
WISENET
Network camera
Filter
Search
2
All
Network camera
Analog camera
NVR
DVR
Encoder
Decoder
Accessory
Dome (159)
XNV-L6080R
XNV-L6080
XNV-C9083R
XNV-C8083R
XNV-C7083R
XNV-C6083R
XNV-9083R
XNV-9082R
XNV-8093R
XNV-8083R
XNV-8082R
XNV-8081Z
XNV-8081RE
XNV-8081R
XNV-8080RSA
XNV-8080RS
XNV-8080R
XNV-8040R
XNV-8030R
XNV-8020R
XNV-6120RS
XNV-6120R
XNV-6120
XNV-6085
XNV-6083R
XNV-6081Z
XNV-6081RE
XNV-6081R
XNV-6081
XNV-6080RSA
XNV-6080RS
XNV-6080R
XNV-6080
XNV-6022RM
3
Region
Global
Language
English
Version
4.3.16_220525
Terms and conditions
4
My Project
Calculation
Map
All
XNV-C9083R
XNV-8040R
XNV-6120
XNV-6080
FoV
Acc
Lens

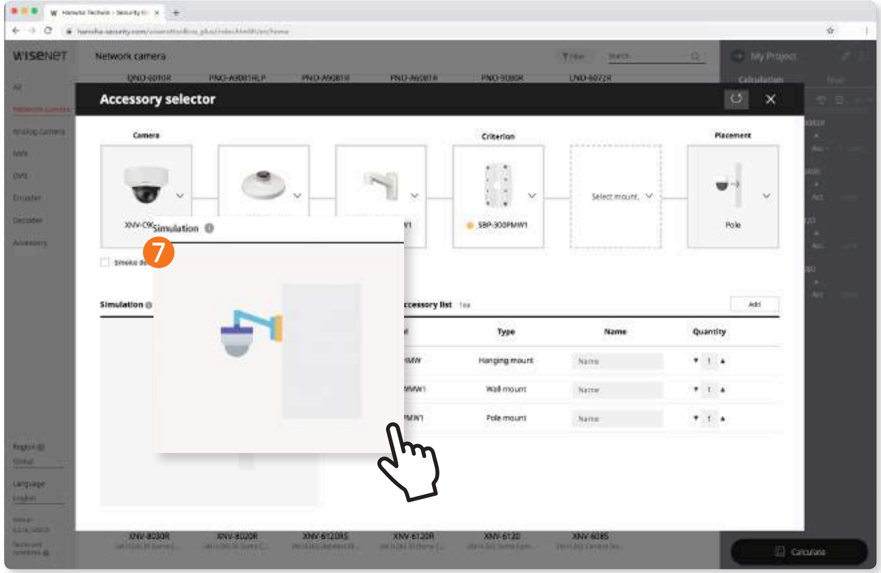
When you select cameras, they will be added on My Project


WISENET
Network camera
Dome (159)
My Project
Calculation
Map
All
5
Acc
Calculate

Click the Acc to find compatible accessories

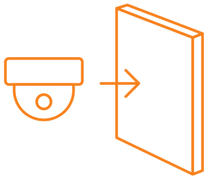

Wisenet
Network camera
Accessory selector
Camera
XNV-C9083R
Placement
Select placement of the camera.
6
Simulation
XNV-C9083R's Accessory list
Model
Type
Image
Location
Wall
Ceiling
Pole
Corner
Parapet
Calculate

Accessory Selector pops up.
All compatible accessories are shown

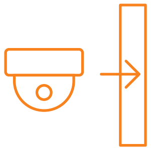

Wisenet
Network camera
Accessory selector
Camera
Criterion
Placement
Select mount
SBP-300PMW1
Pole
Simulation
7
Type
Name
Quantity
Hanging mount
Wall mount
Pole mount
Add
Calculate

Choose accessories then the simulation intuitively shows all connected accessories

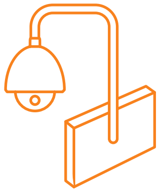
WM Wall mounts



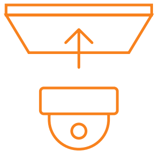
PM Pole mounts



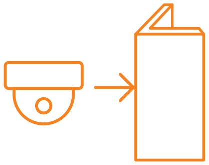
LM Parapet mounts



CM Ceiling mounts

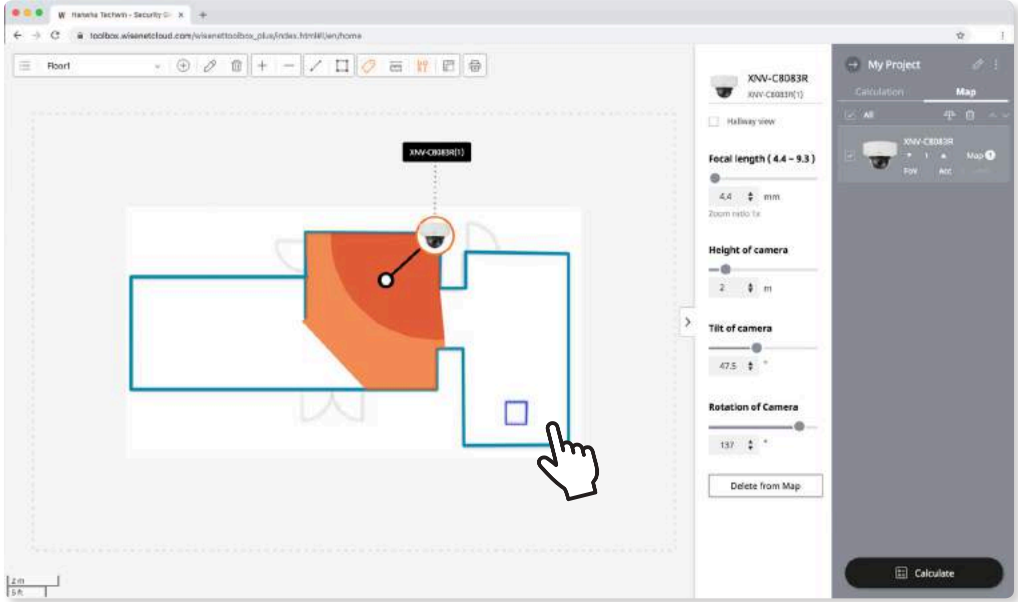


CM Corner mounts



Newly updated in Toolbox Plus: Simulate on the map

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


Floor1
XNV-C8083R(1)
My Project
Calculation
Map
All
XNV-C8083R
FoV
Acc
Map
Calculate
2 m
5 ft

XNV-C8083R
XNV-C8083R(1)

☐ Hallway view

Focal length (4.4 – 9.3): 4.4 mm
Zoom ratio 1x

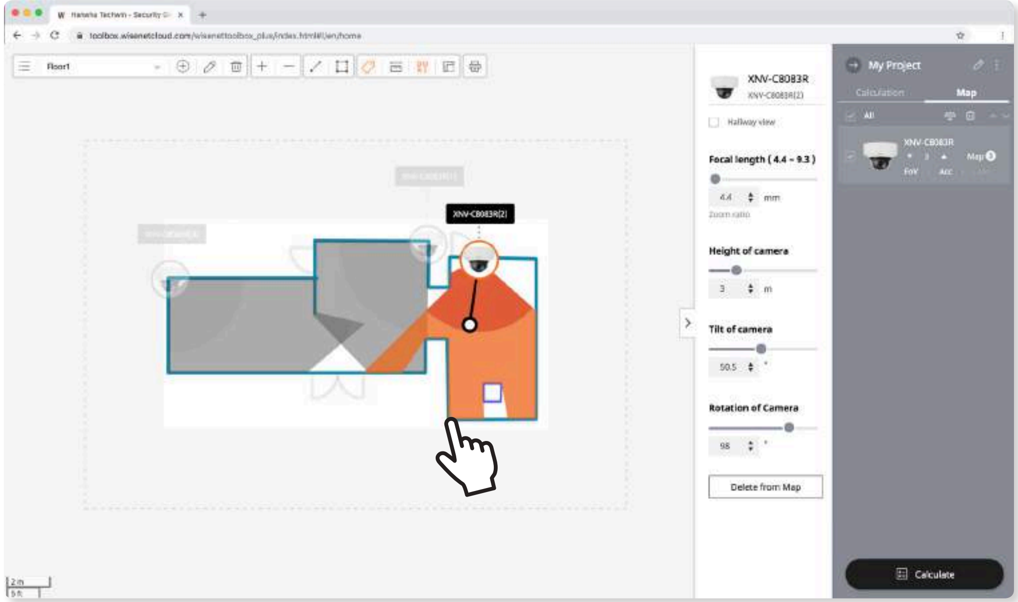
Height of camera: 2 m

Tilt of camera: 47.5 °

Rotation of Camera: 137 °

Delete from Map

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


Floor1
XNV-C8083R(2)
My Project
Calculation
Map
All
XNV-C8083R
FoV
Acc
Map
Calculate
2 m
5 ft

XNV-C8083R
XNV-C8083R(2)

☐ Hallway view

Focal length (4.4 – 9.3): 4.4 mm
Zoom ratio

Height of camera: 3 m

Tilt of camera: 50.5 °

Rotation of Camera: 98 °

Delete from Map

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

MEMO

MEMO

HEAD OFFICE

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Gyeonggi-do, 13488 South KOREA Tel : 1588-5772
For more information, please visit our website hanwha-security.com

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Scan this QR code to see
details of global network

Hanwha Techwin

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12-2022 (M.H)