Hanwha Vision

2024 H1

PRODUCT PORTFOLIO

HanwhaVision.com

Hanwha Group

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

Founded in 1952, Hanwha continues to grow by quickly anticipating and responding to rapidly changing business environments with a balanced business portfolio that includes aerospace, energy & materials, finance and retail & services. As of 2022, we are the seventh largest business enterprise in South Korea and a Fortune Global 500 company. Hanwha has become a global leader in a number of industries due to its culture of innovation, focused on breakthrough technologies, and sound financial structures.

Sales
2022

65.3 USD Billions

Business Enterprise in South Korea
Total asset basis, as of end of 2022

TOP 7

Years of History
Founded in 1952

71

Ranking on Fortune Global 500 in 2023

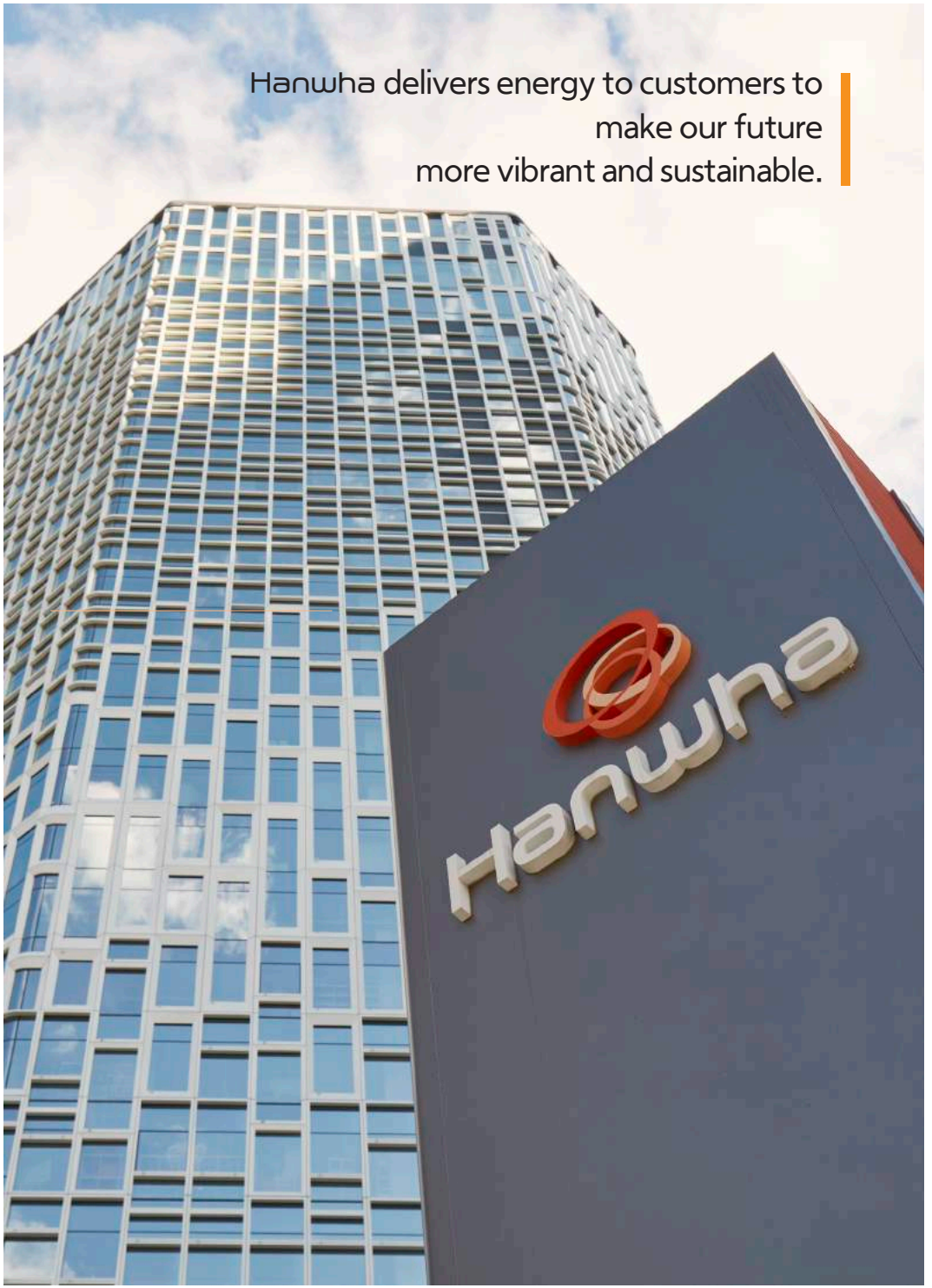
296

Domestic affiliates
As of end of June 2022

91

Global Networks
As of end of 2022

710



Global vision solution provider

Over the past 30 years, we have established ourselves as a global video security specialist based on world–class optical design, manufacturing, and image processing technology .
We have been ensuring safety and happiness around the world and across society with products and solutions with outstanding performance, high reliability, and industry–leading cyber security policies.
For the past 30 years, all of our consideration all started with the customer. Starting with the desire to protect the safety of our customers and what they consider important, we now want to give them answers to their concerns.
We want our solutions to reach the visions of our customers.
We add innovation to our competitiveness, take the first step of challenge, and are now leaping forward as a vision solution provider.

History

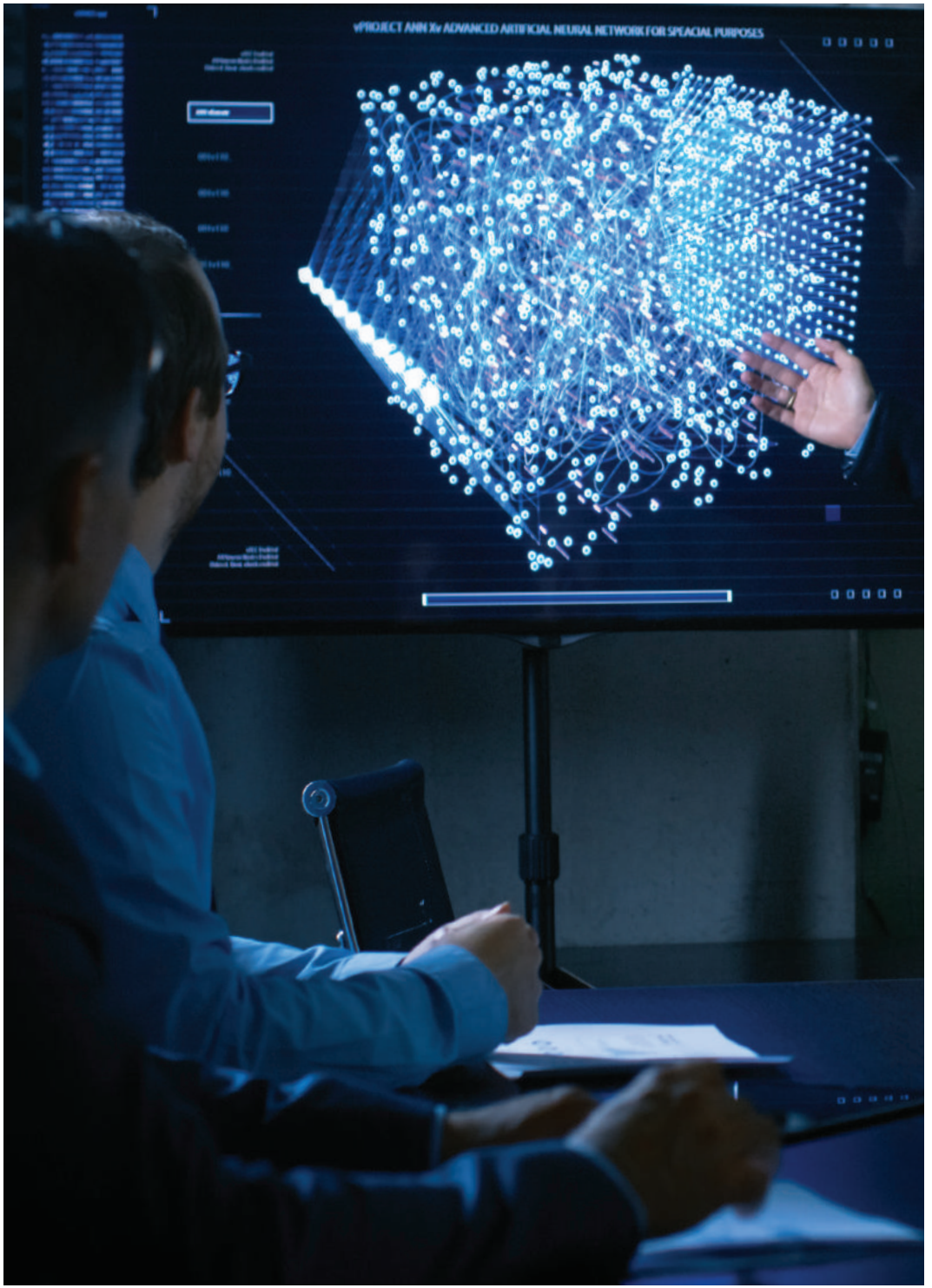
2023.03 – Changed company name to 'Hanwha Vision' Announced focus on becoming a vision solution provider
2022 – Launched IP audio system
2021 – Launched the X AI camera series
– Launched AI NVR and AI integrated solution
– Developed AI–based infectious disease response solutions
2020 – 30th anniversary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

R&D power

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

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

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



High-tech Powered in Vietnam

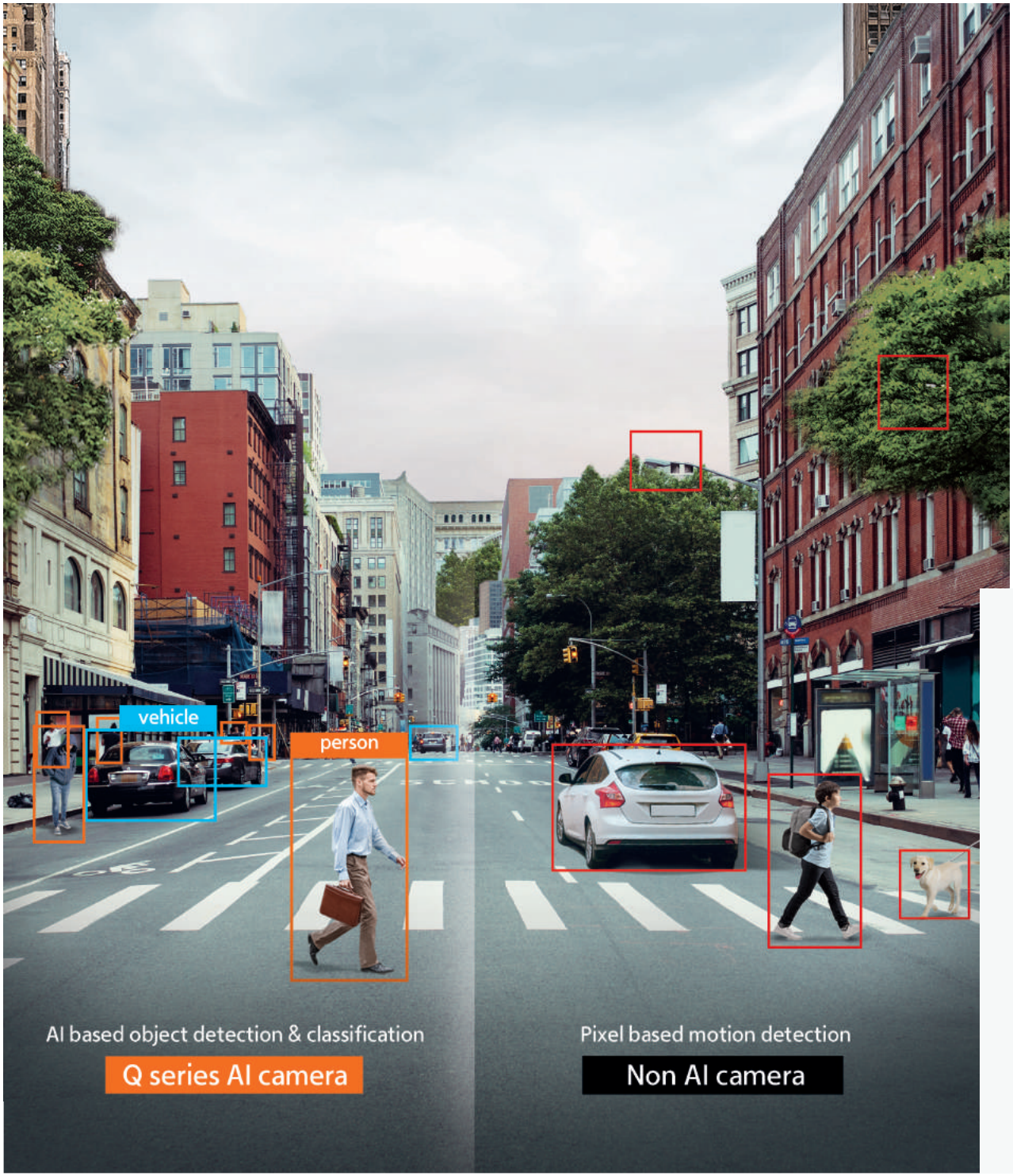
Hanwha Vision's manufacturing subsidiary in Vietnam (HVSV) has been in operation since 2018 in order to expand its global production capability as well as to strengthen cost competitiveness. Through automation and smart systems, Hanwha Vision has built sophisticated and fast-moving manufacturing lines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

End-to-end Cybersecurity

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

- Hanwha Vision Private Device Certification Root CA
- UL CAP, TPM 2.0 (FIPS 140-2)
- Secure Boot, Secure Storage, Secure OS
- Secure Open Platform
- S-CERT : Security Computer Emergency Response Team
  Please contact S-CERT by e-mail (secure.cctv@hanwha.com)

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



Q series AI Camera

Expand Q series with built-in AI

Increased accuracy of video analytics through people and vehicle detection

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

Q series AI

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

X series AI camera

X Plus · X Core lineup

AI-Enhanced X series Cameras

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

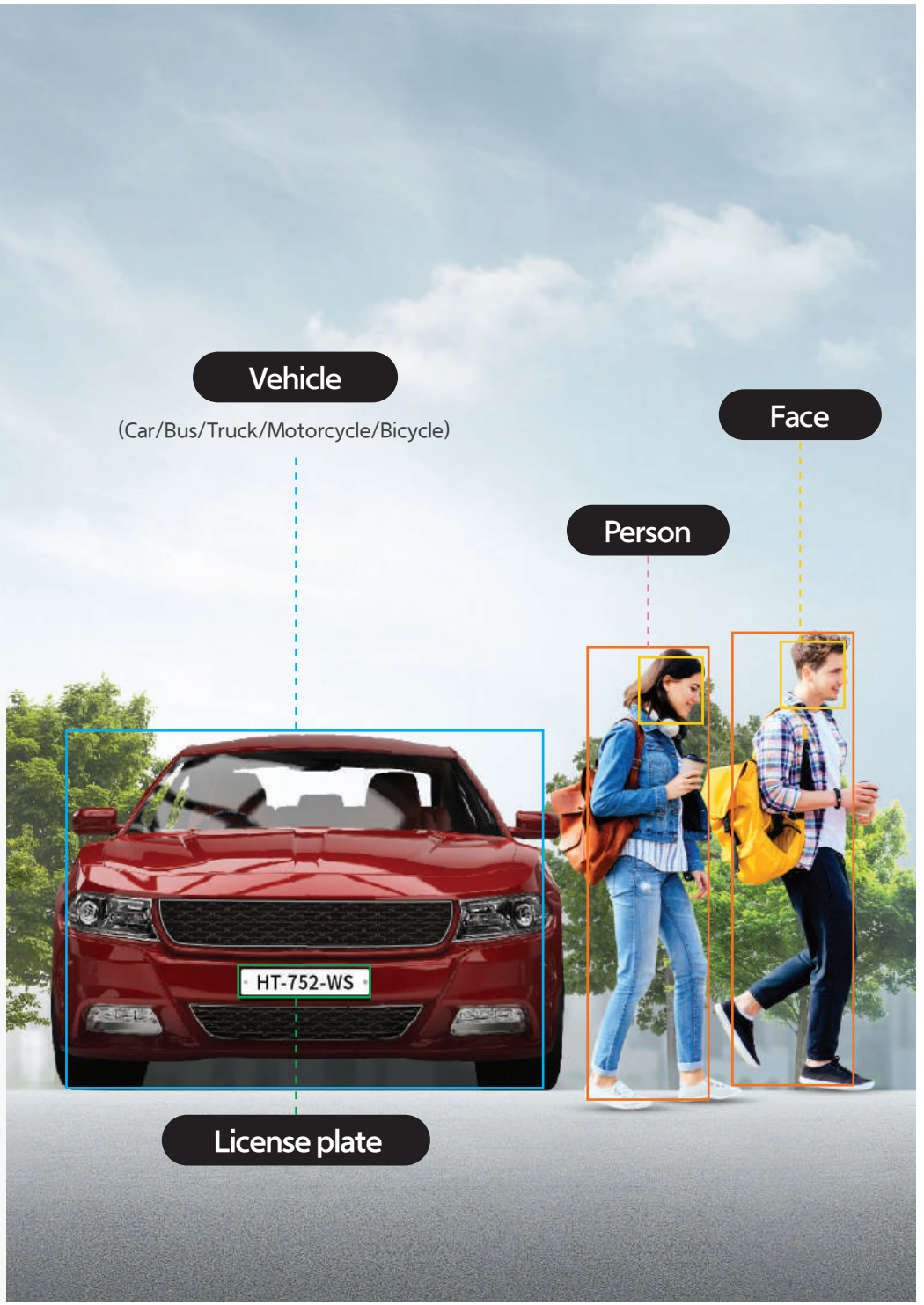
Featuring advanced artificial intelligence (AI) and deep-learning technologies, X series AI cameras offer industry-leading AI-based object detection for false alarm reduction analytics, AI-enhanced image quality and edge-based business intelligence.

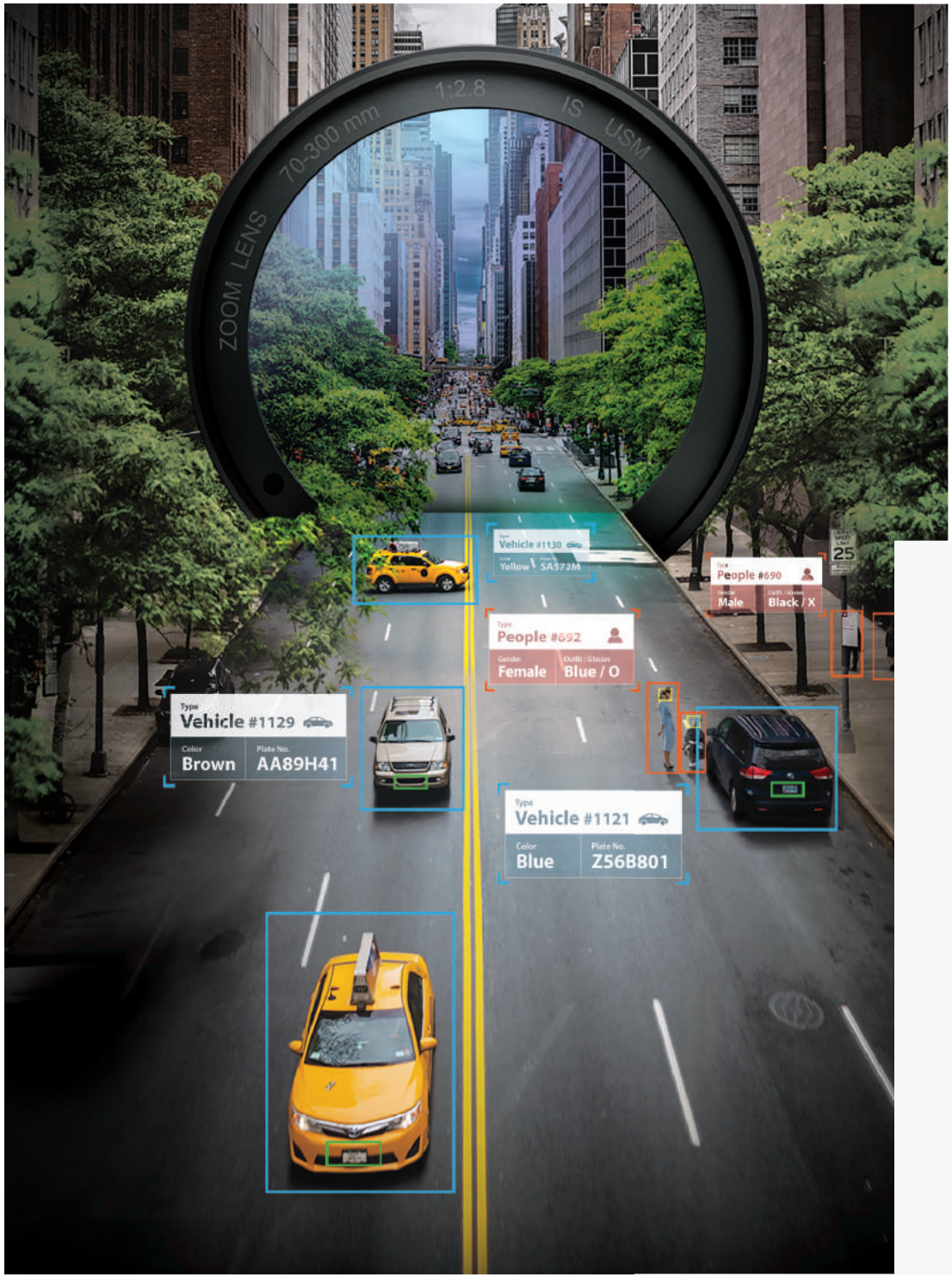
X PLUS

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

X Core

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





P series AI Camera & NVR

Precise Object Detection & Classification with AI

Person | Face | Vehicle | License plate

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

AI Camera Series 4K 2MP

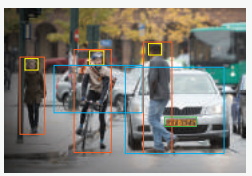
PNO-A9081R/A6081R, PNV-A9081R/A6081R,
PND-A9081RV/A6081RV
PNB-A9001/A9001LP/A6001

AI NVR Series

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

P series AI Cameras

Detect and classify objects real-time



VMS Plug-in for improved AI search

* Person, face, vehicle, license plate

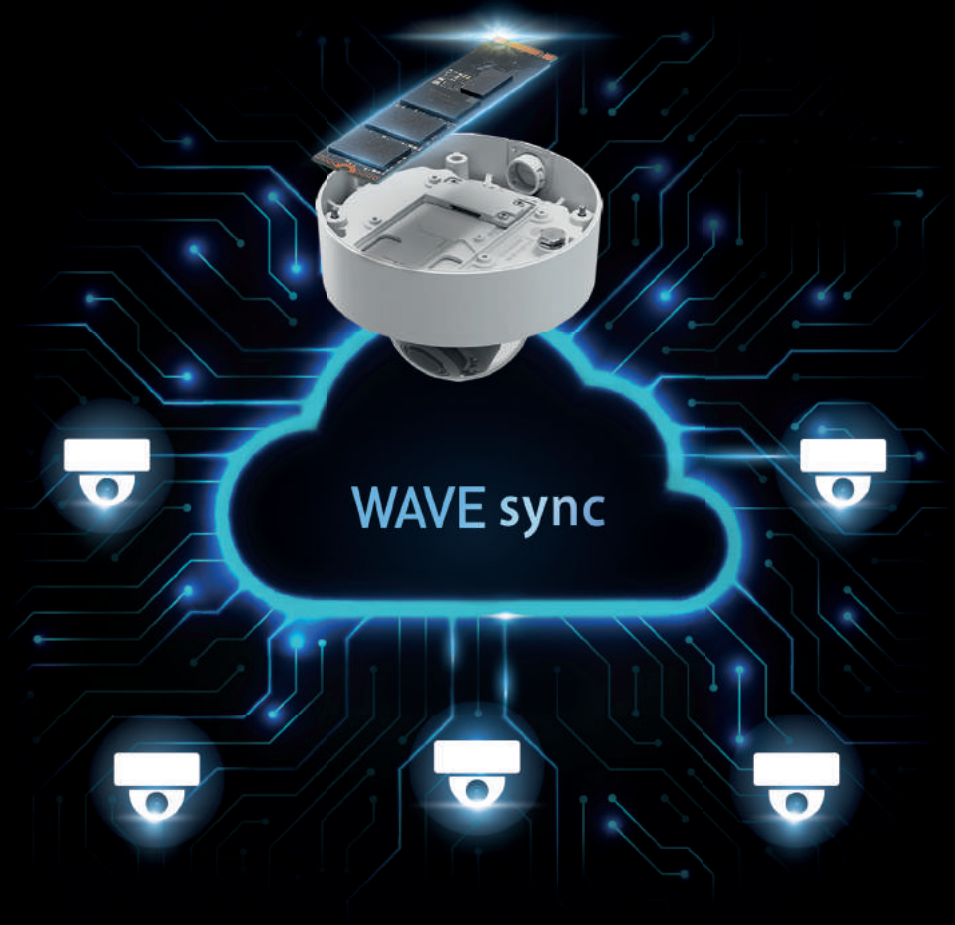
AI Search

Quickly search based on attributes

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

SolidEDGE

Serverless solution with built-in SSD drive



The Next Generation
Cloud Management
Security Solution

X series AI PTZ Plus

XNP-C6403R

AI-based object classification and improved auto-tracking function

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

4 Channel AI and IR multi-directional camera

PNM – C32083RVQ
PNM – C16083RVQ

5 Channel AI and
IR PTRZ multi-directional camera

PNM–C34404RQPZ

PNM–C32083RVQ / C16083RVQ

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

PNM–C34404RQPZ

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

GLOBAL NETWORK

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

Korea major PJT

Metropolitan subway station PJT
Major cuty safety / smart city PJT
Jeju island large hotel PJT

PRODUCT NAMING RULE

Camera

P N M – C 3 4 4 0 4 R Q P Z

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

Product Type
N : Network cam
C : Analog cam

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

Grade
A : AI
L : Lite
C : Core AI

Total Resolution
1 : Small sensor
2 : QQVGA
3 : QVGA
4 : VGA
5 : 1M
6 : 2M
7 : 3 ~ 4M
8 : 5 ~ 7M
9 : 8M ↑
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 (PTZ, Zoom)

Version
0 ~ 9

Feature
A : Revision
B : Black Color
C : Corner
D : Dual eye
E : Explosion Proof or PoE extender or Edge(SSD)
F : Flush or SFP LC (Fiber Channel)
H : Housing
I: White LED
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 : Modular design
Y : Body Temp
Z : PTRZ
LP : License plate
RV : IR + vandal
1T/2T Capacity of SSD

Recorder

P R N – 6 4 0 0 D B 4 – 1 0

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

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

S P D – 1 6 0 0 R

Series Name
S : Legacy

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

S L A – M 8 5 5 0 D N

Series Name
S : Legacy

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

S M T – 4 9 3 3

Series Name
S : Legacy

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

S L A – T 4 6 8 0 V

Series Name
S : Legacy

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
IP Audio Management System

ANALOG

Camera
DVR

PERIPHERAL

Monitor
Controller
Lens

INSTALLATION SOLUTION

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.HanwhaVision.com

AI Camera

	X Plus	X Plus	X Plus	X Plus	X Plus
	XNO-9083R **4K AI IR Bullet Camera**	**XNV-9083R** **4K AI IR Vandal Dome Camera**	**XNV-9083RZ** **4K AI IR PTRZ dome camera**	**XND-9083RV** **4K AI IR Dome Camera**	**XNB-9003** **4K AI Box Camera**
Imaging Device	1/1.8" progressive CMOS				
Resolution / Max. Frame Rate	8MP / 30fps				
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)				
Wide Dynamic Range	extremeWDR (120dB)				
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	**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	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				
WiseStream	WiseStream Ⅱ , WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support				
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform				
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control /w GORE vent	-50℃ ~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%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	-25℃ ~ +50℃ (-13℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non-condensing) Humidity control /w GORE vent	-10 ℃ ~ +55℃ (-14℉ ~ +131℉) 0~95%RH (non-condensing)
Certification	IP66, IP67, NEMA4X, IK10	IP66, IP67, IP6K9K, NEMA4X, IK10+	IP66, IP67, IP6K9K, NEMA4X, IK10+	IP52, IK10	–
Power Consumption	PoE+: Max 22.5W, typical 17.9W 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	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 D 165mm (3.19" x 2.64" x 6.48") 880g (1.94 lb)

AI Camera

	X Plus	X Plus	X Plus	X Plus	X Plus
	XNV-8093R 6MP AI IR Vandal Dome Camera	**XND-8093RV** 6MP AI IR Dome Camera	**XNO-8083R** 6MP AI IR Bullet Camera	**XNV-8083R** 6MP AI IR Vandal Dome Camera	**XNV-8083RZ** 4K AI IR PTRZ dome camera
Imaging Device	1/1.8" progressive CMOS				
Resolution / Max. Frame Rate	6MP/30fps				
Min. Illumination	Color: 0.06Lux (F1.7, 1/30sec) 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)				
Wide Dynamic Range	extremeWDR (120dB)				
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	**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	Based on AI engine: People counting
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	2 configurable I/O ports, DC 12V output (Max. 50mA)	–
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/built-in mic) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	–
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ , WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support				
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform				
Operating Temperature	-50℃ ~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control / w GORE vent	-25℃ ~ +50℃ (-13℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non-condensing) Humidity control / w GORE vent	-50℃ ~ +60℃ (-58℉ ~ +140℉) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control / w GORE vent	-50℃ ~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%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	X Plus	X Plus	X Plus	X Plus
	XNV-8083Z **4K AI IR PTRZ dome camera**	**XND-8083RV** **6MP AI IR Dome Camera**	**XNB-8003** **6MP AI Box Camera**	**XNO-6123R** **2MP AI IR Bullet Camera**	**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" progressive CMOS	1/2.8" progressive CMOS
Resolution / Max. Frame Rate	6MP/30fps	6MP/30fps	6MP/30fps	2MP / 120fps	2MP/120fps
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)				
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (150dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ				
Digital Image Stabilization	Support(built-in gyro sensor)				
Analytics	**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				
WiseStream	WiseStream Ⅱ , WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)				
Application Programming Interface	ONVIF Profile S/G/T/M 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) 0~95% RH (non-condensing) Humidity control / w GORE vent	-10℃ ~ +55℃ (-14°F ~ +131°F) 0~95%RH (non-condensing)	-40℃ ~ +60℃ (-40°F ~ +140°F) / 0~95% RH (Non-condensing) * Start up should be done at above -30℃ Maximum Temperature based on NEMA-TS 2 (2.2.7) : +74℃ (+165°F) Humidity control / w GORE vent	-50 ℃ ~ +60℃ (-58°F ~ +140°F) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control / w GORE vent
Certification	IP66, IP67, IP6K9K, NEMA 4X, IK10+	IP52, IK10	–	IP66, IP67, IK10, NEMA 4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IP67, NEMA 4X, 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	X Plus	X Plus	X Plus	X Plus
	XNV-6123R 2MP AI IR Vandal Dome Camera	**XNV-6083RZ** 2MP AI IR Vandal Dome Camera	**XNV-6083R** 2MP AI IR Vandal Dome Camera	**XNV-6083Z** 2MP AI Vandal Dome Camera	**XND-6083RV** 2MP AI IR Dome Camera
Imaging Device	1/2.8" progressive CMOS				
Resolution / Max. Frame Rate	2MP / 120fps				
Min. Illumination	Color: 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Color: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 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) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 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
Focal Length	5.2 ~ 62.4mm (12x) zoom	2.8~12mm(4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8~12mm(4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 55° (Wide) ~ 5° (Tele) V : 33° (Wide) ~ 3° (Tele) D : 62° (Wide) ~ 6° (Tele)	H: 120° (Wide)~27° (Tele) V: 63° (Wide)~15° (Tele) D: 143° (Wide)~32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H: 120° (Wide)~27° (Tele) V: 63° (Wide)~15° (Tele) D: 143° (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° ~ 80° / 0° ~ 355°	0° ~350° / 0° ~85° / 0° ~340°	0° ~360° / -45° ~ 80° / 0° ~ 355°	0° ~350° / 0° ~85° / 0° ~340°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°
IR Viewable Length	WiseIR 90m (295.28ft)	15m(42.91ft)	WiseIR 50m (164.04ft)	–	WiseIR 50m (164.04ft)
Day & Night	Auto (ICR)				
Wide Dynamic Range	extremeWDR(150dB)				
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	Support (built-in gyro sensor)	Support	Support (built-in gyro sensor)	Support	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	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine: People counting	Based on AI engine : People counting, Queue management, Heatmap
Alarm I/O	2 configurable I/O ports, DC 12V output (Max. 50mA)	–	2 configurable I/O ports, DC 12V output (Max. 50mA)	–	2 configurable I/O ports, DC 12V output (Max. 50mA)
Audio I/O	Selectable (mic in/line in) / Line out	–	Selectable (mic in/line in) / Line out	–	Selectable (mic in/line in/built-in mic) / Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ , WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles	Up to 10 profiles, 3 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉) / 0~95% 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℉) * Start up should be done at above -30℃ 0~95%RH(non-condensing)	-50℃~ +55℃ (-58℉ ~ +131℉) * Maximum temperature : +60℃ (intermittent) NEMA TS-2 : 74℃ * Start up should be done at above -30℃ 0~95%RH (non-condensing) Humidity control /w GORE vent	-50℃~+55℃(-58℉~+131℉) * Start up should be done at above -30℃ 0~95%RH(non-condensing)	-25℃ ~ +50℃ (-13℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 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+	IP66, IP67, IP6K9K, NEMA4X, IK10+"	IP66, IP67, IP6K9K, NEMA4X, IK10+	IP52, 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 11.0W	PoE+: Max 22.5W, typical 11.0W"	PoE+: Max 17.0W, typical 11.0W	PoE+: Max 17.0W, typical 11.0W
Dimensions (WxHxD) / Weight	Ø180 x 138mm(Ø7.09" x 5.43") 2.13kg (4.70 lb)	Ø180x135mm(Ø7.09x5.31") 2000g(4.41 lb)	Ø180 x 125mm(Ø7.09 x 4.92") 1.9kg (4.19 lb)	Ø180x135mm(Ø7.09x5.31"), 2000g(4.41 lb)	Ø180x135mm(Ø7.09x5.31"), 2000g(4.41 lb)

AI Camera

	X Plus	X Core	X Core	X Core	X Core
	XNB-6003 **2MP AI Box Camera**	**XNO-C9083R** **4K AI IR Bullet Camera**	**XNV-C9083R** **4K AI IR Vandal Dome Camera**	**XND-C9083RV** **4K AI IR Dome Camera**	**XNO-C8083R** **6MP AI IR Bullet Camera**
Imaging Device	1/2.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/1.8" progressive CMOS
Resolution / Max. Frame Rate	2MP / 120fps	8MP / 30fps	8MP / 30fps	8MP / 30fps	6MP / 30fps
Min. Illumination	Color: 0.007Lux (F1.2, 1/30sec, 30IRE) B/W : 0.0007Lux (F1.2, 1/30sec, 30IRE), 30/25fps	Color: 0.04Lux (F1.3, 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: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	–	4.4 ~ 9.3mm (2.1x) motorized varifocal	4.4 ~ 9.3mm (2.1x) motorized varifocal	4.4 ~ 9.3mm (2.1x) motorized varifocal	4.4 ~ 9.3mm (2.1x) motorized varifocal
Angular Field of View	–	H : 112.1° (Wide) ~ 47.5° (Tele) 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°	–
IR Viewable Length	–	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)	WiseIR 40m (131.23ft)
Day & Night	Auto (ICR)				
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	**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				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable (mic in/line in/built-in mic) / Line out				
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support				
Edge Storage	micro SD/SDHC/SDXC 2slot Max. 1TB (512GB * 2)				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform				
Operating Temperature	-10℃ ~ +55℃ (-14℉ ~ +131℉) 0~95%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	-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
Certification	–	IP66, IP67, NEMA4X, IK10	IP66, IP67, NEMA4X, IK10	IP52, IK08	IP66, IP67, NEMA4X, IK10
Power Consumption	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	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	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)	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)

AI Camera

	X Core	X Core	X Core	X Core	X Core
	XNV-C8083R **6MP AI IR Vandal Dome Camera**	**XND-C8083RV** **6MP AI Dome Camerav**	**XNO-C7083R** **4MP AI IR Bullet Camera**	**XNV-C7083R** **4MP AI IR Vandal Dome Camera**	**XND-C7083RV** **4MP AI IR Dome Camera**
Imaging Device	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	4MP / 60fps	4MP / 60fps	4MP / 60fps
Min. Illumination	Color: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	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				
Focal Length	4.4 ~ 9.3mm (2.1x) motorized varifocal	4.4 ~ 9.3mm (2.1x) motorized varifocal	2.8 ~ 10mm (3.6x) motorized varifocal	2.8 ~ 10mm (3.6x) motorized varifocal	2.8 ~ 10mm (3.6x) motorized varifocal
Angular Field of View	H : 112.1° (Wide) ~ 47.5° (Tele) 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: 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°	0° ~ 360° / -45° ~ 75° / 0° ~ 355°
IR Viewable Length	WiseIR 40m (131.23ft)				
Day & Night	Auto (ICR)				
Wide Dynamic Range	extremeWDR (120dB)				
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	**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				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable (mic in/line in) / Line out				
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support				
Edge Storage	micro SD/SDHC/SDXC 1slot 512GB				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) 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	-10℃ ~ +50℃ (14℉ ~ +122℉) * Maximum temperature : +55℃ (intermittent) 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	IP52, IK08
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 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") 1.45kg (3.20 lb)	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	X Core	X Core	X Plus
	XNO-C6083R **2MP AI IR Bullet Camera**	**XNV-C6083R** **2MP AI IR Vandal Dome Camera**	**XND-C6083RV** **2MP AI Dome Camera**	**XNF-9013RV** **12MP AI Fisheye Camera**
Imaging Device	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.3" 12MP CMOS
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 60fps	3008 x 3008 / 30fps
Min. Illumination	Color: 0.01Lux (F1.4, 1/30sec, 30IRE) 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			
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)	Wise IR, PoE : 8m(26.25ft), PoE+ : 13m(42.65ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (150dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ			
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	–
Analytics	**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			
Alarm I/O	2 configurable I/O ports			
Audio I/O	Selectable (mic in/line in) / Line out			
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)			
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 5 virtual channel support
Edge Storage	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 1slot 512GB	micro SD/SDHC/SDXC 2slots 1TB (512GBx2)
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) 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	−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℃ ~ +60℃ (−40℉ ~ +140℉) / 0~95% 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

	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus
	NEW				
	XNP-C9310R 8MP 31x AI PTZ Camera	**XNP-C9303RW** 8MP 30x AI PTZ Camera with wiper	**XNP-C9253R** 8MP 25x AI PTZ Camera	**XNP-C9253** 8MP 25x AI PTZ Camera	**XNP-C8303RW** 6MP 30x AI PTZ Camera with wiper
Imaging Device	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	8MP /30fps	8MP / 30fps	8MP / 30fps	8MP / 30fps	6MP / 30fps
Min. Illumination	Color: 0.06Lux(F1.36, 1/30sec, 30IRE) B/W : 0Lux(IR LED on)"	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: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (F1.6, 1/30sec)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	–	–	–	–	–
Focal Length	6.91~214.7mm(31x) zoom (digital 32x, total 992x zoom)	5~150mm(30x) zoom (digital 32x, total 960x zoom)	5~125mm (25x) zoom (digital 32x, total 800x zoom)	5~125mm (25x) zoom (digital 32x, total 800x zoom)	5~150mm(30x) zoom (digital 32x, total 960x zoom)
Angular Field of View	H : 60.6° (Wide) ~ 2.59° (Tele) V : 35.1° (Wide) ~ 1.45° (Tele) D : 68.8° (Wide) ~ 2.97° (Tele)	H: 57.42° (Wide)~2.19° (Tele) V: 33.54° (Wide)~1.25° (Tele)	H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele)	H: 57.42° (Wide)~2.71° (Tele) V: 33.54° (Wide)~1.55° (Tele)	H: 57.42° (Wide)~2.19° (Tele) V: 33.54° (Wide)~1.25° (Tele)
Pan / Tilt / Rotate	0° ~360° / -20° ~90°				
IR Viewable Length	WiseIR 250m(820ft)	Wise IR 200m (656.17ft)	Wise IR 200m(656.17ft)	–	Wise IR 200m(656.17ft)
Day & Night	Auto (ICR)/Color/BW/Schedule				
Wide Dynamic Range	extremeWDR(120dB)				
Digital Noise Reduction	WiseNR Ⅱ(Based on AI engine), SSNRⅤ				
Digital Image Stabilization	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**: Motion detection, Tampering, Fog detection, Audio detection, Sound classification(with NW I/O Box : SPM-4210), Shock detection, Virtual area(Appear/Disappear)				
Business Intelligence	–				
Alarm I/O	Compatible with NW I/O Box (Optional: SPM-4210)				
Audio I/O					
Video Compression	H.265/H.264, MJPEG				
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ(Based on AI engine)				
Streaming	Up to 10 profiles				
Edge Storage	Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform				
Operating Temperature	Normal: -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 Less than 95%RH(Non-condensing)	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30°C Less than 95%RH(Non-condensing)	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)
Certification	IP66, IP67, 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: Max 62W, typical 23W	Typical 26W, Max 46W	Typical 24W, Max 40W	Typical 24W, Max 25.5W	Typical 26W, Max 46W
Dimensions (WxHxD) / Weight	Ø188x264.9mm(Ø7.40x10.47") 4,400g (9.7lb)	Ø184.9x318.8mm(7.28x12.55") 5,600g (12.34lb)	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)	Ø184.9x318.8mm (7.28x12.55") 5,600g (12.34lb)
Additional Features	Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking

AI Camera

	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus
			NEW			
	XNP-C8253R 6MP 25x AI PTZ Camera	**XNP-C8253** 6MP 25x AI PTZ Camera	**XNP-C7310R** 4MP 31x AI PTZ Camera	**XNP-C6403RW** 2MP 40x AI PTZ Camera with wiper	**XNP-C6403R** 2MP 40x AI PTZ Camera	**XNP-C6403** 2MP 40x AI PTZ Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	6MP / 30fps	6MP / 30fps	4MP /60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
Min. Illumination	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Color: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (F1.6, 1/30sec)	Color: 0.04Lux(F1.36, 1/30sec, 30IRE) B/W : 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: 0.005Lux (F1.6, 1/30sec)
Video Output	–	–	–	–	–	–
Focal Length	5~125mm (25x) zoom (digital 32x, total 800x zoom)	5~125mm (25x) zoom (digital 32x, total 800x zoom)	6.91~214.7mm(31x) zoom (digital 32x, total 992x zoom)	4.25~170mm (40x) zoom (digital 32x, total 1280x zoom)	4.25~170mm (40x) zoom (digital 32x, total 1280x zoom)	4.25~170mm (40x) zoom (digital 32x, total 1280x 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 : 59.4° (Wide) ~ 2.54° (Tele) V : 35.8° (Wide) ~ 1.49° (Tele)	H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele)	H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele)	H: 65.66° (Wide)~1.88° (Tele) V: 39.4° (Wide)~1.09° (Tele)"
Pan / Tilt / Rotate	0° ~360° / -20° ~90°					
IR Viewable Length	Wise IR 200m(656.17ft)	–	WiseIR 300m(984ft)	Wise IR 200m (656.17ft)	Wise IR 200m (656.17ft)	–
Day & Night	Auto (ICR)/Color/BW/Schedule					
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR(150dB)	extremeWDR(150dB)	extremeWDR(150dB)
Digital Noise Reduction	WiseNR Ⅱ(Based on AI engine), SSNR Ⅴ					
Digital Image Stabilization	Support (built-in gyro sensor)					
Analytics	**Classified object type :** Person/Face/Vehicle/License plate **Attributes :** Vehicle(Type:car/bus/truck/motorcycle/bicycle) **Support Detection Shot** **Analytics events based on AI engine:** Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events:** Motion detection, Tampering, Fog detection, Audio detection, Sound classification(with NW I/O Box : SPM-4210), Shock detection, Virtual area(Appear/Disappear)					
Business Intelligence	–					
Alarm I/O Audio I/O	Compatible with NW I/O Box(Optional: SPM-4210)					
Video Compression	H.265/H.264, MJPEG					
WiseStream	Manual (5ea area), WiseStream Ⅱ, WiseStream Ⅲ(Based on AI engine)					
Streaming	Up to 10 profiles					
Edge Storage	Micro SD/SDHC/SDXC 2slots 1TB(512GBx2)					
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI (HTTP API) Wisenet open platform					
Operating Temperature	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)	-40° C~+55° C (-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2 (2.2.7) * Start up should be done at above -30°C Less than 95%RH(Non-condensing)	Normal: -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 Less than 95%RH(Non-condensing)	-40° C~+55° C(-40° F ~ +131° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)	-40° C~+50° C(-40° F ~ +122° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C Less than 95%RH(Non-condensing)	-40° C~+50° C(-40° F ~ +122° F) / +74° C(+165° F) (MAX) based on NEMA-TS 2(2.2.7) * Start up should be done at above -30° C 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, IP67, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2(2.2.8, 2.2.9)
Power Consumption	Typical 24W, Max 40W	Typical 24W, Max 25.5W	HPoE: Max 62W, typical 23W	Typical 26W, Max 46W	Typical 24W, Max 40W	Typical 24W, Max 25.5W
Dimensions (WxHxD) / Weight	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)	Ø188x264.9mm(Ø7.40x10.47")/ 4,400g (9.7lb)	Ø184.9x318.8mm (7.28x12.55"") 5,600g (12.34lb)	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)	Ø158x293.3mm (6.22x11.55") 3,200g (7.05lb)
Additional Features	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking, Quick zoom, Focus scan, Wise focus	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking	Upgraded preset accuracy, Object auto tracking, Target lock tracking

AI Camera

	PNO-A9311R 4K AI IR Bullet Camera	**PNO-A9081R** 4K AI IR Bullet Camera	**PNV-A9081R** 4K AI IR Vandal Dome Camera	**PND-A9081RV** 4K AI IR Dome Camera	**PND-A9081RF** 4K AI IR Dome Camera	**PNB-A9001** 4K AI Box Camera
Imaging Device	1/1.8" CMOS					
Resolution / Max. Frame Rate	8MP/30fps					
Min. Illumination	Color: 0.075Lux(F1.36, 1/30sec, 30IRE) BW: 0.0075Lux(F1.36, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Color: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Color: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 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					
Focal Length	6.91~214.7mm (31x) motorized varifocal	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: 60.92° (Wide)~2.2° (Tele) / V:35.26° (Wide)~1.24° (Tele) / D:69.18° (Wide)~2.52° (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)	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	WiseIR 70m(229.66ft)	WiseIR 30m(98.42ft)	WiseIR 30m(98.42ft)	WiseIR 30m(98.42ft)	WiseIR 30m(98.42ft)	-
Day & Night	Auto(ICR)					
Wide Dynamic Range	120dB	-	-	-	-	-
Digital Noise Reduction	WiseNR Ⅱ(Based on AI engine), SSNR Ⅴ					
Digital Image Stabilization	Support(built-in gyro sensor)					
Analytics	**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, Social distancing detection, Slip&Fall detection **Analytics events** - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area (Appear/Disappear) **Support WiseDetector for Adding custom objects**					
Business Intelligence	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap					
Alarm I/O	1/1					
Audio I/O	Line in / Line out					
Video Compression	H.265, H.264, MJPEG					
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ(using AI engine)					
Streaming	Up to 6 profiles	Up to 6 profiles	Up to 6 profiles	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 512GB(256GBx2)					
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included(Analytic based on AI, Business intelligence)					
Operating Temperature	-40°C ~ +55°C(-40°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30°C	-50℃ ~ +55℃(-58°F ~ +131°F) / Less than 90% RH * Start up should be done at above -30℃	-50℃ ~ +55℃(-58°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°C ~ +55°C(+14°F ~ +131°F) / Less than 90% RH
Certification	IP66, IP67, IK10, NEMA4X	IP66, IP67, IK10, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10, Plenum rate	-
Power Consumption	PoE+: Max 25.5W, typical 14.0W 12VDC: Max 24.0W, typical 12.7.W	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 16.50W, typical 12.50W 12VDC: Max 13.50W, typical 10.80W
Dimensions (WxHxD) / Weight	Ø136.2x358.7mm (Ø5.36"x14.12") (Without sunshield), 3200g(7.05lb)	Ø91.0x368.6mm (3.58" x 14.51") (Without sunshield), Weight : 2.48Kg (5.47lb)	Ø180x125mm(7.09x4.92"), Weight : 1.90Kg (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 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
Resolution / Max. Frame Rate	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps	2MP / 120fps
Min. Illumination	Color: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Color: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Color: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Color: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Color: 0.006Lux(F1.2, 1/30sec,30IRE) B/W : 0.0006Lux(F1.2, 1/30sec,30IRE), 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	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	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)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB	120dB
Digital Noise Reduction	WiseNR Ⅱ(Based on AI engine),SSNR Ⅴ				
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	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, Social distancing detection, Slip&Fall detection **Analytics events** - Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear) **Support WiseDetector for Adding custom objects**				
Business Intelligence	Based on AI engine : People counting, Queue management, Heatmap	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap	Based on AI engine: People/Vehicle/Crowd counting, Queue management, Heatmap
Alarm I/O	1/1	1/1	1/1	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
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ(using AI engine)				
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)	Unicast(6 users) / Multicast Multiple streaming(Up to 6 profiles)
Edge Storage	Micro SD/SDHC/SDXC 2slots 512GB				
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform - WiseAI application included (Analytic based on AI, Business intelligence)
Operating Temperature	-50℃ ~ +55℃(-58° 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 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W	PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W	PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W	PoE+: Max 19.50W, typical 16.00W 12VDC: Max 17.00W, typical 13.50W	PoE+: Max 17.5W, Typ 13.7W 12VDC: Max 14W, Typ 10.6W
Dimensions (WxHxD) / Weight	Ø91x 368.6mm(3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180x125mm(7.09x4.92"), Weight : 1.90Kg (4.19lb) TBD	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

	PNM-C34404RQPZ 4K 4CH PTRZ + 2MP 40x PTZ AI Camera		PNM-C16083RVQ 4MP x 4CH AI Camera	PNM-C32083RVQ 4K x 4CH AI Camera
Imaging Device	**1/2.8" CMOS x 4CH**	**1/2.8" CMOS x 1CH PTZ**	1/2.8" CMOS x 4CH	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	[AI On] 8MP Max. 15fps [AI Off] 8MP Max. 20 fps	2MP / 60fps	4MP / 30fps	[AI On] 8MP Max. 15fps [AI Off] 8MP Max. 20fps
Min. Illumination	Color: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.075Lux(F1.5, 1/30sec, 30IRE) BW: 0.0075Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Output	–		USB: Micro USB Type B, 1280x720 for installation	USB: Micro USB Type B, 1280x720 for installation
Focal Length	3.3~5.7mm(1.7x) motorized varifocal	4.25~170mm(40x) zoom(digital 32x, total 1280x zoom)	3.3~5.7mm(1.7x) motorized varifocal	3.3~5.7mm(1.7x) motorized varifocal
Angular Field of View	H: 109° (Wide)~56° (Tele) V: 55° (Wide)~31° (Tele) D: 136° (Wide)~65° (Tele)	H: 65.66° (Wide)~1.88° (Tele) V: 39.40° (Wide)~1.09° (Tele)	H: 99.8 ° (Wide)~53.0 ° (Tele) V: 53.8 ° (Wide)~30.7 ° (Tele) D: 124.3 ° (Wide)~61.8 ° (Tele)	H: 108.3 ° (Wide)~56.4 ° (Tele) V: 54.7 ° (Wide)~31.2 ° (Tele) D: 135.5 ° (Wide)~65.2 ° (Tele)
Pan / Tilt / Rotate	0° ~360° / 9° ~65° / 0° ~90° * Tilt angle with Shield IR: 40° ~65°	0° ~360° /-20° ~90°	0~360° / 0~73° /0~90°	0~360° / 0~73° /0~90°
IR Viewable Length	20m (65.62ft)	WiseIR 200m (656.17ft)	WiseIR 15m(49.21ft)	WiseIR 15m(49.21ft)
Day & Night	Auto (ICR)		Auto(ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (150dB)	120dB	120dB
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ		WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	–	Support	–	–
Analytics	**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)	**Analytics events**: Motion detection, Fog detection, Tampering, Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear), Virtual line(Crossing/Direction) Support Audio detection, Sound classification via optional I/O box(SPM-4210)	**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, Audio detection, Sound classification, Virtual area(Appear/Disappear)	
Business Intelligence	–	–	–	–
Alarm I/O	–	–	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box
Audio I/O	–	–	Selectable(mic in/line in) / –	Selectable(mic in/line in) / –
Video Compression	H.265/H.264, MJPEG	H.265/H.264, MJPEG	H.265/H.264, MJPEG	H.265/H.264, MJPEG
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)		Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Unicast(10 users) / Multicast Multiple streaming (Up to 3 profiles)	Unicast(20 users) / Multicast Multiple streaming (Up to 10 profiles)	Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel)	Unicast(10 users) / Multicast Multiple streaming(Up to 3 profiles per channel)
Edge Storage	Micro SD/SDHC/SDXC 2slot 1TB(512GBx2)		Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)	Micro SD/SDHC/SDXC 2slot Max. 2TB(1TBx2)
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform		ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI(HTTP API) Wisenet open platform
Operating Temperature	-40°C~+50°C(-40°F~+122°F) * Start up should be done at above -30°C 0~95% RH(non-condensing)		-40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control /w Air vent	-40°C~+55°C(-40°F~+131°F) * Start up should be done at above -35°C 0~95% RH(non-condensing) Humidity control /w Air vent
Certification	IP66, IK10, NEMA4X		IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	HPoE: Max 64.00W, typical 45.00W		PoE+: Max 25.5W, typical 22.0W PoE++: Max 33.0W, typical 22.0W	PoE+: Max 25.5W, typical 22.0W PoE++: Max 33.0W, typical 22.0W
Dimensions (WxHxD) / Weight	Ø140x110.2mm(Ø5.51x4.34"), 875g(1.93 lb)		Ø250x114.2mm(Ø9.84x4.50"), 2730g(6.02 lb)	Ø250x114.2mm(Ø9.84x4.50"), 2800g(6.17 lb)

AI Camera

	PNM-C16013RVQ **4MP x 4CH AI Camera**	**PNM-C12083RVD** **6MP x 2CH AI Multi-directional Camera**	**PNM-C7083RVD** **2MP x 2CH AI Multi-directional Camera**	**PNM-C9022RV** **2MP x 4CH AI Multi-directional Camera**
Imaging Device	1/2.8" CMOS x 4CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	4MP / 15fps	6MP / 15fps	2MP / 30fps	2MP / 20fps x 4CH
Min. Illumination	Color: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.16Lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Color: 0.035lux(F2.2, 1/30sec, 30IRE) BW: 0.0035lux(F2.2, 1/30sec, 30IRE), 0lux(IR LED on)	Color: 0.1Lux (F2.0, 1/30sec) BW: 0.01Lux (F2.0, 1/30sec), 0Lux (IR LED on)
Video Output	USB: Micro USB Type B, 2592x1520 for installation	Micro USB Type B	Micro USB Type B	Micro USB Type B
Focal Length	3.19mm fixed focal	3.54 ~ 6.69mm (1.9x) motorized varifocal	3 ~ 6mm (2x) motorized varifocal per CH	2.8mm fixed focal (x4)
Angular Field of View	H: 97° V: 54° D: 116°	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	0~360° (100° per CH) / 0~75° / 0~90°	0° ~ 355° /0° ~ 78° /0° ~180°	0° ~ 355° /0° ~78° /0° ~ 180°	0° ~ 360° / 0° ~ 65° / –
IR Viewable Length	20m(65.62ft)	25m (82ft)	25m (82ft)	20m (65.62ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ
Digital Image Stabilization	–			
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Vehicle (Type: Car/Bus/Truck/Motorcycle/Bicycle) **Support Detection shot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection, Tampering, Virtual area(Appear/Disappear) Audio detection, Sound classification (with NW I/O box SPM-4210)	**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, Audio detection, Sound classification, Virtual area(Appear/Disappear)		
Business Intelligence	–			
Alarm I/O	2 configurable I/O ports * Support extra alarm I/O via optional SPM-4210 I/O box	* 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	Selectable(mic in/line in) / –	* 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			
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 4 profiles per channel	Unicast (10 users) / Multicast 5 profiles per channel	Unicast(10 users) / Multicast 5 profiles per channel	Unicast(20 users) / Multicast Multiple streaming (Up to 3 profiles, 2 virtual channel support)
Edge Storage	Micro SD/SDHC/SDXC 2slot Max. 1TB(512GBx2)	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 2slot Max. 1TB(512GB * 2)
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API) Wisenet open platform	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° F~+131°F) * Start up should be done at above -35℃ 0~95% RH(non-condensing), Humidity control /w AIR vent	-40℃ ~ +55℃ (-40°F ~ +131°F) / 0~95% RH (Non-condensing)	-40℃~+55℃ (-40°F ~ +131°F) / Less than 95% RH(Non-condensing)	-40℃ ~ +55℃ (-40°F ~ +131°F) / 0 ~ 95% RH (non-condensing)
Certification	IP66, NEMA4X, IK09	IP66, IP67, NEMA4X, IK10	IP66, IP67, NEMA4X, IK10	IP66, IK10, NEMA4X
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	Ø200x80mm(7.87x3.15"), 1,380g (3.05 lb)	W 215 x H 135 x D 93.2mm (8.46"x5.31"x3.67") 1.33kg (2.93lb)	W 215 x H 135 x D 93.2mm (8.46"x5.31"x3.67") 1.33kg (2.93lb)	Ø253x170mm (Ø9.96"x 6.69")2.9kg (6.39lb)

AI Camera

	QNO-C9083R **8MP IR Bullet Camera**	**QNO-C8083R** **5MP IR Bullet Camera**	**QNO-C6083R** **2MP IR Bullet Camera**	**QNV-C9083R** **8MP IR Vandal Dome Camera**
Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	8MP / 30fps	5MP / 30fps	2MP / 30fps	8MP / 30fps
Min. Illumination	Color: 0.06Lux (F1.6, 1/30sec) B/W: 0.006Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.07Lux (F1.6, 1/30sec) B/W: 0.007Lux (F1.6, 1/30sec, 30ire), 0Lux(IR LED on)	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.06Lux (F1.6, 1/30sec) B/W: 0.006Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Output	USB: Micro USB Type B, 1280x720 for installation			
Focal Length	3.2~10.2mm (3.2x) motorized varifocal			
Angular Field of View	H: 104° (wide)~31° (tele) V: 55° (wide)~17° (tele) D: 124° (wide)~35° (tele)	H: 95° (wide)~29° (tele) V: 69° (wide)~21° (tele) D: 126° (wide)~36° (tele)	H: 103.1° (Wide)~31.5° (Tele) V: 54.5° (Wide)~17.7° (Tele) D: 123.1° (Wide)~36.1° (Tele)	H: 104° (wide)~31° (tele) V: 55° (wide)~17° (tele) D: 124° (wide)~35° (tele)
Pan / Tilt / Rotate	0° ~360° / 0° ~100° / 0° ~360°	0° ~360° / 0° ~100° / 0° ~360°	0° ~360° / 0° ~100° / 0° ~360°	0° ~350° / -35° ~70° / 0° ~355°
IR Viewable Length	30m(98.42ft)			
Day & Night	Auto (ICR)			
Wide Dynamic Range	120db			
Digital Noise Reduction	WiseNR II(Based on AI engine), SSNR V			
Digital Image Stabilization	–			
Analytics	**Classified object type :** Person/Vehicle **Attributes :** Vehicle(Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot** **Analytics events based on AI engine** : Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events :** Defocus detection, Tampering, Virtual area(Appear/Disappear)			
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap			
Alarm I/O	Input 1ea / Output 1ea	Input 1ea / Output 1ea	Input 1ea / Output 1ea	Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable (SPP-C7400)
Audio I/O	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out * Audio I/O is supported through an optional cable (SPP-C7400)
Video Compression	H.265/H.264, MJPEG			
WiseStream	Manual(5ea area), WiseStream III (Based on AI engine)			
Streaming	Up to 5 profiles			
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)			
Operating Temperature	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-40°C~+55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control"
Certification	IP66, IK10			
Power Consumption	PoE: Max 12W, typical 5.3W	PoE: Max 12W, typical 5.3W	PoE: Max 12W, typical 5.3W	PoE: Max 12.95W, typical 5.3W
Dimensions (WxHxD) / Weight	ø93.4x245.8mm(ø3.68x9.68"), 930g(2.05lb)	ø93.4x245.8mm(ø3.68x9.68"), 930g(2.05lb)	ø93.4x245.8mm(ø3.68x9.68"), 930g(2.05lb)	ø140x110.2mm(ø5.51x4.34"), 875g(1.93lb)

AI Camera

	QNV-C8083R **5MP IR Vandal Dome Camera**	**QNV-C9011R** **8MP IR Vandal Dome Camera**	**QNV-C8011R** **5MP IR Vandal Dome Camera**	**QNV-C8012** **5MP Vandal Dome Camera**
Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	5MP / 30fps	8MP / 30fps	5MP / 30fps	5MP / 30fps
Min. Illumination	Color: 0.07Lux (F1.6, 1/30sec) B/W: 0.007Lux (F1.6, 1/30sec, 30IRE), 0lux(IR LED on)	Color: 0.03Lux (F1.6, 1/30sec) B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.03Lux (F1.6, 1/30sec) B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0lux(IR LED on)	Color: 0.05Lux (F2.0, 1/30sec) BW: 0.005Lux (F2.0, 1/30sec, 30IRE)
Video Output	USB: Micro USB Type B, 1280x720 for installation			
Focal Length	3.2~10.2mm (3.2x) motorized varifocal	3.0mm fixed focal	3.0mm fixed focal	2.4mm fixed focal
Angular Field of View	H: 95° (wide)~29° (tele) V: 69° (wide)~21° (tele) D: 126° (wide)~36° (tele)	H: 108° / V: 59° / D: 127°	H: 100° / V: 73° / D: 129°	H: 123° / V: 91° / D: 159°
Pan / Tilt / Rotate	0° ~350° / -35° ~70° / 0° ~355°			
IR Viewable Length	30m(98.42ft)	20m(65.62ft)	20m(65.62ft)	-
Day & Night	Auto (ICR)			
Wide Dynamic Range	120db			
Digital Noise Reduction	WiseNR II(Based on AI engine), SSNR V			
Digital Image Stabilization	-			
Analytics	**Classified object type :** Person/Vehicle **Attributes :** Vehicle(Type:car/bus/truck/motorcycle/bicycle) **Support DetectionShot** **Analytics events based on AI engine :** Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events :** Defocus detection, Tampering, Virtual area(Appear/Disappear)			
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap			
Alarm I/O	Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable (SPP-C7400)	-	-	-
Audio I/O	Selectable(mic in/line in) / Line out * Audio I/O is supported through an optional cable (SPP-C7400)	-	-	-
Video Compression	H.265/H.264, MJPEG			
WiseStream	Manual(5ea area), WiseStream III (Based on AI engine)			
Streaming	Up to 5 profiles			
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)			
Operating Temperature	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-40°C~+55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control	-40°C~+55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control	-40°C~+55°C(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30°C Humidity control /w Air vapor control
Certification	IP66, IK10	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE: Max 12.95W, typical 5.3W	PoE: Max 8.5W, typical 4.9W	PoE: Max 8.5W, typical 4.9W	PoE: Max 7W, typical 4.9W
Dimensions (WxHxD) / Weight	ø140x110.2mm(ø5.51x4.34"), 875g(1.93 lb)	ø110x77mm(ø4.33x3.03"), 522g(1.15 lb)	ø110x77mm(ø4.33x3.03"), 522g(1.15 lb)	ø110x77mm(ø4.33x3.03"), 522g(1.15 lb)

AI Camera

	NEW	NEW	NEW	NEW
	QNV-C6083R **2MP IR Vandal Dome Camera**	**TNO-C8083E** **5MP AI Explosion-proof bullet camera**	**TNO-C3032TRA** **QVGA AI Thermal Radiometry Camera**	**TNO-C3022TRA** **QVGA AI Thermal Radiometry Camera**
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	Uncooled micro bolometer(17㎛)	Uncooled micro bolometer(17㎛)
Resolution / Max. Frame Rate	2MP / 30fps	5MP/30fps	384 x 288 (can be scaled up to 768 x 576)	384 x 288 (can be scaled up to 768 x 576)
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Color: 0.07Lux (F1.6, 1/30sec)	-	-
Video Output	USB: Micro USB Type B, 1280x720 for installation HDMI: 1080p@30/25fps (60/50Hz)	-	USB: Micro USB Type B, 768x576 for installation	USB: Micro USB Type B, 768x576 for installation
Focal Length	3.2~10.2mm(3.2x) motorized varifocal	3.2~10.2mm(3.2x) motorized varifocal	9.7mm fixed focal	6.6mm fixed focal
Angular Field of View	H: 103.1° (Wide)~31.5° (Tele) V: 54.5° (Wide)~17.7° (Tele) D: 123.1° (Wide)~36.1° (Tele)	H: 95° (Wide)~29° (Tele) V: 69° (Wide)~21° (Tele) D: 126° (Wide)~36° (Tele)	H: 37.9° / V: 28.7° / D: 46.7° (iFoV: 1.8 mRad)	H: 60° / V: 43.8° / D: 77.8° (iFoV: 2.6 mRad)
Pan / Tilt / Rotate	0° ~350° / -35° ~70° / 0° ~355°	-	0° ~350° / 0° ~90° / 0° ~350°	0° ~350° / 0° ~90° / 0° ~350°
IR Viewable Length	30m(98.42ft)	-	-	-
Day & Night	Auto (ICR)	Auto(ICR)	-	-
Wide Dynamic Range	120db	120dB	-	-
Digital Noise Reduction	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	WiseNR Ⅱ (Based on AI engine), SSNR Ⅴ	-	-
Digital Image Stabilization	-	-	-	-
Analytics	**Classified object type**: Person/Vehicle **Attributes**: Vehicle(Type:car/bus/truck/motorcycle/bicycle) **Support Detection Shot** **Analytics events based on AI engine** - Motion detection, Object detection, Virtual line(Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events** - Defocus detection, Tampering, Virtual area(Appear/Disappear)		**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** - WiseMD, Object detection, Virtual line(Crossing/Direction), Virtual area (Loitering/Intrusion/Enter/Exit) **Analytics events** - Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	
Business Intelligence	Based on AI engine: People counting, Vehicle counting, Queue management, Heatmap	Based on AI engine: People, Vehicle counting, Queue management, Heatmap	Support (Temperature Analysis)	Support (Temperature Analysis)
Alarm I/O	Input 1ea / Output 1ea * Alarm I/O is supported through an optional cable(SPP-C7400)	-	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
Video Compression	H.265/H.264, MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG
WiseStream	Manual(5ea area), WiseStream Ⅲ	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)
Streaming	Up to 5 profiles	Up to 5profiles	Up to 10profiles	Up to 10profiles
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB	-	Micro SD/SDHC/SDXC 1slot Max. 1TB	Micro SD/SDHC/SDXC 1slot Max. 1TB
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API)	ONVIF Profile S/T/M SUNAPI(HTTP API)	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	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-30°C~+55°C(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30°C Humidity control /w Air vent	-40°C~+60°C(-40°F~+140°F) 0~95% RH(non-condensing)	-40°C~+60°C(-40°F~+140°F) 0~95% RH(non-condensing)
Certification	IP66, IK10	IP66, IK10, IECEx, ATEX, JPEx, KCs CE2460, EX II 2 GD, Ex d IIC T6 Gb IP67 Ex tb IIIC T80° C Db	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE: Max 12.95W, typical 5.3W	PoE: Max 9.50W, typical 5.3W	PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W	PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W
Dimensions (WxHxD) / Weight	ø140x110.2mm(ø5.51x4.34"), 875g(1.93 lb)	-	ø93.8x233.5mm(ø3.69x/9.19"), 1700g(3.75 lb)	ø93.8x233.5mm(ø3.69x/9.19"), 1700g(3.75 lb)
Additioanl Features	-	-	Radiometry 10 polygonal ROI zones, Temperature detection -40 ~ 550℃	Radiometry 10 polygonal ROI zones, Temperature detection -40 ~ 550℃

AI Camera

	TNO-C3012TRA QVGA AI Thermal Radiometry Camera	TNO-C3030TRA QVGA AI Thermal Radiometry Camera	TNO-C3020TRA QVGA AI Thermal Radiometry Camera	TNO-C3010TRA QVGA AI Thermal Radiometry Camera
Imaging Device	Uncooled micro bolometer(17㎛)			
Resolution / Max. Frame Rate	384 x 288 (can be scaled up to 768 x 576) / 8fps			
Min. Illumination	–			
Video Output	USB: Micro USB Type B, 768x576 for installation			
Focal Length	4.4mm fixed focal	9.7mm fixed focal	6.6mm fixed focal	4.4mm fixed focal
Angular Field of View	H: 90° / V: 65.3° / D: 118.6° (iFoV: 3.9 mRad)	H: 37.9° / V: 28.7° / D: 46.7° (iFoV: 1.8 mRad)	H: 60° / V: 43.8° / D: 77.8° (iFoV: 2.6 mRad)	H: 90 / V: 65.3 / D: 118.6 (iFoV: 3.9 mRad)
Pan / Tilt / Rotate	0° ~350° / 0° ~90° / 0° ~350°			
IR Viewable Length	–			
Day & Night	–			
Wide Dynamic Range	–			
Digital Noise Reduction	–			
Digital Image Stabilization	–			
Analytics	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – WiseMD, Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection, Tampering, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)			
Business Intelligence	Support (Temperature Analysis)			
Alarm I/O	2 configurable I/O ports			
Audio I/O	Selectable(mic in/line in) / Line out			
Video Compression	H.265/H.264/MJPEG			
WiseStream	Manual(5ea area), WiseStream Ⅱ, WiseStream Ⅲ (Based on AI engine)			
Streaming	Up to 10profiles			
Edge Storage	Micro SD/SDHC/SDXC 1slot Max. 1TB			
Application Programming Interface	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform			
Operating Temperature	-40°C~+60°C(-40°F~+140°F) 0~95% RH(non-condensing)			
Certification	IP66, IK10, NEMA4X			
Power Consumption	PoE: Max 10.8W, typical 9W 12VDC: Max 9.4W, typical 7.7W			
Dimensions (WxHxD) / Weight	ø93.8x233.5mm(ø3.69x/9.19"), 1700g(3.75lb)			
Additioanl Features	Radiometry 10 polygonal ROI zones, Temperature detection -40~550℃			

	TNM-C4960TD Bi-spectrum AI Thermal Camera		TNM-C4950TD Bi-spectrum AI Thermal Camera	
Imaging Device	Thermal	Visible	Thermal	Visible
	VGA Uncooled micro bolometer(12㎛)	1/1.8" CMOS	VGA Uncooled micro bolometer (12㎛)	1/1.8" CMOS
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps
Min. Illumination	–	Color: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)	–	Color: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)
Video Output	USB: Micro USB Type B, 1280x720 for installation		USB: Micro USB Type B, 1280x720 for installation	
Focal Length	25mm fixed focal	10.9~29mm (2.6x) motorized varifocal	13.5mm fixed focal	10.9~29mm (2.6x) motorized varifocal
Angular Field of View	H: 17.4° / V: 13.1° / D: 21.6°	H:42° (Wide) ~ 15° (Tele) 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	–	WiseNR II, SSNR V	–	WiseNR II, SSNR V
Digital Image Stabilization	–	Support (built-in gyro sensor)	–	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection	**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, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection	**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, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)
Business Intelligence	Vehicle counting		Vehicle counting	
Alarm I/O	4 configurable I/O ports		4 configurable I/O ports	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG		H.265 / H.264, MJPEG	
WiseStream	WiseStream II	WiseStream III	WiseStream II	WiseStream III
Streaming	Up to 3 profiles		Up to 3 profiles	
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB		micro SD/SDHC/SDXC 2slots 512GB	
Application Programming Interface	ONVIF Profile S/T 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℃ 0~95% RH (non-condensing)		-40℃ ~ +60℃ (-58℉ ~ +140℉) * Start up should be done at above -30℃ 0~95% RH (non-condensing)	
Certification	IP66, IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)		IP66, IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)	
Power Consumption	PoE+ : Max 23.5W 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		TNM-C4942TDR Bi-spectrum AI Radiometry Thermal Camera	
Imaging Device	Thermal	Visible	Thermal	Visible
	VGA Uncooled micro bolometer(12㎛)	1/1.8" CMOS	VGA Uncooled micro bolometer(12㎛)	1/1.8" CMOS
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP/ 30fps	640 x 480 (can be scaled up to 1280 x 960) / 8fps	8MP / 30fps
Min. Illumination	–	Color: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)	–	Color: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)
Video Output	USB: Micro USB Type B, 1280x720 for installation		USB : Micro USB Type B, 1280x720 for installation	
Focal Length	9.1mm fixed focal	4.4 ~ 9.3mm (2.2x) motorized varifocal	9.1mm fixed focal	4.4~9.3mm(2.2x) motorized varifocal
Angular Field of View	H: 50.0 ° / V: 37.0 ° / D: 63.8 °	H:112.1° (Wide) ~ 47.5° (Tele) V:58° (Wide) ~ 26.6° (Tele) D:137.5° (Wide) ~ 54.6° (Tele)	H: 50.0 ° / V: 37.0 ° / D: 63.8 °	H:112.1° (Wide)~47.5° (Tele) / V:58.0° (Wide)~26.6° (Tele) / D:137.5° (Wide)~54.6° (Tele)
IR Viewable Length	–	30m (98.42ft)	–	30m (98.42ft)
Day & Night	–	Auto (ICR)	–	Auto(ICR)
Wide Dynamic Range	–	WDR (120dB)	–	WDR(120dB)
Digital Noise Reduction	–	WiseNR II, SSNR V	–	WiseNR II, SSNR V
Digital Image Stabilization	–	Support (built-in gyro sensor)	–	Support(built-in gyro sensor)
Analytics	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection	**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, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection	**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, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)
Business Intelligence	Vehicle counting		Temperature Analysis	
Alarm I/O	4 configurable I/O ports		4 configurable I/O ports	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG		H.265/H.264, MJPEG	
WiseStream	WiseStream II	WiseStream III	WiseStream II	Manual(5ea area), WiseStream III
Streaming	Up to 3 profiles		Up to 3 profiles	
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB		Micro SD/SDHC/SDXC 2slots 512GB	
Application Programming Interface	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform (visible channel only)		ONVIF Profile S/T/M SUNAPI(HTTP API) Wisenet open platform (visible channel only)	
Operating Temperature	-40℃ ~ +60℃ (-58℉ ~ +140℉) * Start up should be done at above -30℃ 0~95% RH (non-condensing)		-40℃ ~ +60℃(-58℉ ~ +140℉) * Start up should be done at above -30℃ 0~95% RH(non-condensing)	
Certification	IP66, IP67, IK10, NEMA4X, NEMA TS 2 (2.2.8, 2.2.9)		IP66, IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9)	
Power Consumption	PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W		PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W	
Dimensions (WxHxD) / Weight	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)		W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)	
Additional Features	–		Radiometry 6 polygonal ROI zones (TBD), Temperature detection -20 ~ 130 ℃	

AI Camera

	TNM-C4940TDR Bi-spectrum Radiometry Thermal Camera		TNM-C3622TDR Bi-spectrum Radiometry Thermal Camera	
Imaging Device	Thermal	Visible	Thermal	Visible
	VGA Uncooled micro bolometer(12㎛)	1/1.8" CMOS	Uncooled micro bolometer	1/2.8" CMOS
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps	320 x 240 (can be scaled up to 1280 x 960) / 8fps	2MP / 30fps
Min. Illumination	–	Color: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)	–	Color: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)
Video Output	USB : Micro USB Type B, 1280x720 for installation		CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB : Micro USB Type B, 1280x720 for installation	
Focal Length	9.1mm fixed focal	4.4~9.3mm(2.2x) motorized varifocal	4.7mm fixed focal	4mm fixed focal
Angular Field of View	H: 50.0 ° / V: 37.0 ° / D: 63.8 °	H:112.1° (Wide)~47.5° (Tele) / V:58.0° (Wide)~26.6° (Tele) / D:137.5° (Wide)~54.6° (Tele)	H: 50.0° / V: 36.4° / D: 65.3°	H: 87.6° / V: 46.4° / D: 104.5°
Pan / Tilt / Rotate	–		–	
IR Viewable Length	–	30m (98.42ft)	–	
Day & Night	–	Auto(ICR)	–	Auto(ICR)
Wide Dynamic Range	–	WDR(120dB)	–	extremeWDR(150dB)
Digital Noise Reduction	–	WiseNR II, SSNR V	–	SSNR V
Digital Image Stabilization	–	Support(built-in gyro sensor)	Support (built-in gyro sensor)	
Analytics	**Classified object type:** Person/Vehicle **Support BestShot** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** – Motion detection	**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, Audio detection, Sound classification, Shock detection, Virtual area(Appear/Disappear)	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection, detection shot, AI based Object detection (person/face, visible channel only)	
Business Intelligence	Temperature Analysis		Temperature Analysis	
Alarm I/O	4 configurable I/O ports		Input 1ea / Output 2ea	
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	
Video Compression	H.265/H.264, MJPEG		H.265/H.264, MJPEG	
WiseStream	WiseStream Ⅱ	WiseStream Ⅲ	WiseStream Ⅱ	Manual(5ea area), WiseStream Ⅱ
Streaming	Up to 3 profiles		Up to 6 profiles	
Edge Storage	Micro SD/SDHC/SDXC 2slots 512GB		Micro SD/SDHC/SDXC 1slot 256GB	
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API) Wisenet open platform (visible channel only)		ONVIF Profile S/T/M SUNAPI(HTTP API)	
Operating Temperature	-40°C ~ +60°C(-58°F ~ +140°F) * Start up should be done at above -30°C 0~95% RH(non-condensing)		-10°C~+55°C(+14°F~+131°F) Less than 95% RH	
Certification	IP66, IP67, IK10, NEMA4X, NEMA TS 2(2.2.8, 2.2.9)		–	
Power Consumption	PoE+ : Max 25.5W, Typ 16.0W / 12VDC : Max 21.5W, Typ 14.0W		PoE+: Max. 17.0W, typical 12.5W / 12VDC: Max. 14.5W, typical 11.0W	
Dimensions (WxHxD) / Weight	W 353.4 x H 287.5 x D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)		W135 x H75 x D188.5 mm, (5.31x2.95x7.42"), 1.7kg(3.77lb)	
Additional Features	Radiometry 6 polygonal ROI zones (TBD), Temperature detection -20 ~ 130℃		Radiometry 6 polygonal ROI zones (TBD), Temperature detection -20 ~ 130℃	

AI Camera

	TNM-C3620TDR Bi-spectrum Radiometry Thermal Camera		TNB-9000 8K Box Camera	TNV-C7013RC AI Corner Mount Camera
Imaging Device	Thermal Uncooled micro bolometer	Visible 1/2.8" CMOS	43.3mm Full-frame CMOS	1/1.8" progressive CMOS
Resolution / Max. Frame Rate	320 x 240 (can be scaled up to 1280 x 960) / 30fps	2MP / 30fps	8K/15fps	3MP / 30fps
Min. Illumination	–	Color: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)	Color : 0.015Lux (F1.4) BW : 0.0015Lux (F1.4)	Color: 0.04Lux(F2.0, 1/30sec, 30IRE) BW: 0.04Lux(F2.0, 1/30sec, 30IRE), 0Lux(IR LED on)
Video Output	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB : Micro USB Type B, 1280x720 for installation		HDMI	–
Focal Length	4.7mm fixed focal	4mm fixed focal	–	2.39mm fixed focal
Angular Field of View	H: 50.0° / V: 36.4° / D: 65.3°	H: 87.6° / V: 46.4° / D: 104.5°	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°	H: 128° / V: 100°
IR Viewable Length	–		–	Wise IR 15m (49.21ft), invisible 940mm wavelength
Day & Night	–	Auto(ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	–	extremeWDR(150dB)	–	extremeWDR (120dB)
Digital Noise Reduction	–	SSNR V	SSNR V	WiseNRII(Based on AI engine) , SSNR V
Digital Image Stabilization	Support(built-in gyro sensor)		–	Support
Analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection, Temperature detection, detection shot, AI based Object detection (person/face, visible channel only)		Intelligent analytics, Audio detection, Sound classification	**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, Audio detection, Sound classification, Virtual area(Appear/Disappear), Clothes color detection (Orange/Black/Red, @400lux)
Business Intelligence	Temperature Analysis		–	–
Alarm I/O	Input 1ea / Output 2ea		1 / 1	2 configurable I/O ports * Support Alarm via optional SPM-4210 I/O box
Audio I/O	Selectable (mic in/line in) / Line out		Selectable (mic in/line in) / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265/H.264, MJPEG			
WiseStream	WiseStream II	Manual(5ea area), WiseStream II	Manual(5ea area), WiseStream II	Manual(5ea area), WiseStream II , WiseStream III (Based on AI engine)
Streaming	Up to 6 profiles		Up to 3 Profiles	Up to 10 profiles, 3 virtual channel support
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB		micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot 1TB
Application Programming Interface	ONVIF Profile S/T/M SUNAPI(HTTP API)		ONVIF Profile S/G/T SUNAPI	ONVIF Profile S/G/T/M SUNAPI(HTTP API) Wisenet open platform
Operating Temperature	-10° C~+55° C(+14° F~+131° F) Less than 95% RH		0℃ ~ +45℃ (32℉ ~ +122℉)	-10°C ~ +55° C (14°F ~ +131°F) 0~95% RH(non-condensing)Humidity control /w AIR vent
Certification	–		EMC	IP66, IP6K9K, IK10+
Power Consumption	PoE+: Max. 17.0W, typical 12.5W / 12VDC: Max. 14.5W, typical 11.0W		PoE : Max 30W, typical 20W / 12VDC : Max 26W, typical 18W	PoE: Max 12.95W, typical 9.7W / DC : Max 12.7W, typical 9.0W
Dimensions (WxHxD) / Weight	W135 x H75 x D188.5 mm, (5.31x2.95x7.42"), 1.7kg(3.77lb)		W120 x H118.1 x D179mm, 2.1Kg(4.55 lb)	W198.3 x H104.8 x D198.6mm(7.87"x4.13"x7.82"), 1,935g (4.27lb)
Additional Features	Radiometry 6 polygonal ROI zones (TBD), Temperature detection -20 ~ 130℃		Super high resolution, Canon EF mount	–

AI ANPR 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	TNO-7180RLP 3MP License Plate Capture Camera	
Imaging Device	1/1.8" CMOS		1/1.8" CMOS		1/1.8" CMOS	1/1.8" CMOS, Global Shutter	
Resolution / Max. Frame Rate	8MP / 30fps		8MP / 30fps		8MP / 30fps	3MP / 55fps	
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) 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)	Color 0.1 Lux (1/30sec, gain 48dB)	
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation USB: Micro USB Type B, 1280x720 for installation	
Focal Length	4.5~10mm (2.2x) motorized varifocal		4.5~10mm (2.2x) motorized varifocal		-	6.8~120mm(18x) motorized varifocal	
Angular Field of View	H:101.4° (Wide) ~ 45.5° (Tele) 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: 54.5 º (Wide)~3.4 º (Tele) V: 42.3 º (Wide)~2.5 º (Tele)	
Pan / Tilt / Rotate	-		0° ~ 360° / -45° ~ 85° / 0° ~ 355°		-	-	
IR Viewable Length	30m (98.42ft)		30m (98.42ft)		-	WiseIR 50m (164ft)	
Day & Night	Auto (ICR)		Auto (ICR)		Auto (ICR)	Auto (ICR)	
Wide Dynamic Range	-		-		-	-	
Digital Noise Reduction	SSNR V		SSNR V		SSNR V	SSNR V	
Digital Image Stabilization	Stabilization Support (built-in gyro sensor)		Stabilization Support (built-in gyro sensor)		Stabilization Support (built-in gyro sensor)	Support	
Analytics	Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Shock detection					Analytics events -Motion detection, Tampering, Virtual line(Crossing/Direction), Virtual Area(Loitering/Intrusion/Enter/Exit, Appear/Disappear)	
Business Intelligence	-		-		-	-	
Alarm I/O	1/1		1/1		1/1	4 configurable I/O ports	
Audio I/O	Selectable (mic in/line in/built-in mic) / Line out		Line in / Line out		Line in / Line out	Selectable(mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG						
WiseStream	Manual(5ea area), WiseStream II		Manual(5ea area), WiseStream II		Manual(5ea area), WiseStream II	WiseStream II	
Streaming	Unicast(6 users) / Multicast Multiple streaming(Up to 3 profiles)					Up to 10 Profiles	
Edge Storage	Pre-installed with 32GB Micro SD to support 10,000 LPR images					Micro SD/SDHC/SDXC 1slot (32GB Card preinstalled)	
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform					ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform v3.60	
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~90% RH * Start up should be done at above -30℃		-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~90% RH * Start up should be done at above -30℃		-10℃ ~ +55℃ (+14℉ ~ +131℉) / Less than 90% RH	Normal : -40°C~+55°(-40°F ~ +131°F) / Intermittent : -40°C~+60°C(-40° F ~ +140°F) Cold start : -40°C Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165° F) Less than 95% RH(Non-condensing)	
Certification	IP66, IP67, IK10, NEMA4X		IP66, IP67, IP6K9K, IK10+, NEMA4X		-	IP66, IK10, NEMA 4X, NEMA TS 2(2.2.8, 2.2.9)	
Power Consumption	PoE+: Max 20W, typical 17W 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	PoE : Max 50W, Typical 27W 12VDC : Max 47.5W, Typical 25W	
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)	186.9(W) x259.3(H) x 293.7(D) (mm) / 4.8kg (10.5 lb)	
	Road AI		Road AI		Road AI	Road AI	
Solution	Community Traffic Observation	Parking Application	Community Traffic Observation	Parking Application	City Traffic	City Traffic Observation	Highways
Speed Description	Moderate Speed	Low speed	Moderate Speed	Low speed	Regular Speed	Regular Speed	High Speed
Lane Coverage	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	1 lane (3.6m/12ft Wide)	Up to 2 lanes	Up to 2 lanes	Up to 2 lanes
Speed limit	Up to 70kmh (45mph)	Up to 70kmh (45mph)	Up to 70kmh (45mph)	Up to 40kmh (25mph)	Up to 100kmh (65mph)	Up to 120kmh (75mph) for 2 lanes	Up to 200kmh (125mph) for 2 lanes
Min. Forward Distance	12m (38ft)	10m (33ft)	12m (38ft)	10m (33ft)	16m (52ft)	16m (52ft)	27m (90ft)
Max. Forward Distance	12m (40ft)	13m (45ft)	12m (40ft)	13m (45ft)	36m (120ft)	46m (150ft)	46m (150ft)
Max. Horizontal Angle	25°	30°	25°	30°	25°	25°	15°
Max. Vertical Angle	25°	30°	25°	30°	25°	25°	15°
Horizontal Offset	Up to 5m (18ft)	Up to 7m (24ft)	Up to 5m (18ft)	Up to 7m (24ft)	Up to 7m (24ft)	Up to 7m (24ft)	Up to 4m (12ft)
Camera Height	Up to 5m (18ft)	Up to 7m (24ft)	Up to 5m (18ft)	Up to 7m (24ft)	Up to 7m (24ft)	Up to 11m (39ft)	Up to 11m (39ft)
Vehicle Recognition	Make : 70+ / Model : 600+ / Color : 11		Make : 70+ / Model : 600+ / Color : 11		Make : 70+ / Model : 600+ / Color : 11	Make : 70+ / Model : 600+ / Color : 11	

	XNO-9082R **4K IR Bullet Camera**	**XNV-9082R** **4K IR Vandal Dome Camera**	**XND-9082RF** **4K IR Dome Camera**	**XND-9082RV** **4K IR Dome Camera**	**XNB-9002** **4K Box Camera**
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	4K / 30fps				
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)				
Video Output	Micro USB Type B				
Focal Length	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	2.8 ~ 8.4mm (3x) motorized varifocal	–
Angular Field of View	H: 114° (Wide) ~ 40.2° (Tele) 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)				
Wide Dynamic Range	extremeWDR (120dB)				
Digital Noise Reduction	SSNRⅤ				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection, Face/upper body detection				
Business Intelligence	People counting, Queue management, Heatmap				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable (mic in/line in) / 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				
WiseStream	WiseStreamⅡ				
Streaming	Up to 10 profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform				
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) / 0~95% RH (non condensing) * Start up should be done at above -30℃	-50℃ ~ +60℃ (-58℉ ~ +140℉) / 0~95% RH (non condensing) * Start up should be done at above -30℃	-25℃ ~ +60℃ (-13℉ ~ +140℉) / 0~95% RH (non condensing)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / 0~95% RH (non condensing)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% RH (non condensing)
Certification	IP66, IP67, IK10, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	–
Power Consumption	PoE : Max 12.95W, typical 10.5W 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)	W 81 x H 67 x D165mm(3.19" x 2.64" x 6.48") 880g (1.94lb)
Additional Features	UL CAP, Secure by Default				

	XNO-8082R **6MP IR Bullet Camera**	**XNV-8082R** **6MP IR Vandal Dome Camera**	**XND-8082RF** **6MP IR Dome Camera**	**XND-8082RV** **6MP IR Dome Camera**	**XNB-8002** **6MP Box Camera**
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	6MP / 30fps				
Min. Illumination	Color: 0.05Lux (F1.2, 1/30sec) 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				
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)				
Wide Dynamic Range	extremeWDR				
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support (built-in gyro sensor)				
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback Shock detection, Face/upper body detection				
Business Intelligence	People counting, Queue management, Heatmap				
Alarm I/O	2 configurable I/O ports				
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in/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				
WiseStream	WiseStream II				
Streaming	Up to 10 profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform				
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) / 0~95% RH (non condensing) * Start up should be done at above -30℃	-50℃~+60℃ (-58℉ ~ +140℉) / 0~95% RH (non condensing) * Start up should be done at above -30℃	-25℃~ +60℃ (-13℉ ~ +140℉) / 0~95% RH (non condensing)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / 0~95% RH (non condensing)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% RH (non condensing)
Certification	IP66, IP67, IK10, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA4X	IP52, Plenum rate, IK10	IP52, IK10	–
Power Consumption	PoE : Max 12.95W, typical 10.5W 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 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)	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				

	XND-8081VZ **5MP Dome Camera**	**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**
Imaging Device	1/1.8" CMOS				
Resolution / Max. Frame Rate	5MP / 30fps				
Min. Illumination	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	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)
Video Output	Micro USB Type B	Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	Micro USB Type B
Focal Length	3.6 ~ 9.4mm (2.6x) motorized varifocal	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
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 : 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)
Pan / Tilt / Rotate	± 175° / 0 ~ 85° / ± 175° (Remote)	± 175° / 0 ~ 85° / ± 175° (Remote)	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	± 175° / 0 ~ 85° / ± 175° (Remote)
IR Viewable Length	–	–	50m (164.04ft)	50m (164.04ft)	–
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNRⅤ				
Digital Image Stabilization	Support (Built-in Gyro sensor)				
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection				
Business Intelligence	–				
Alarm I/O	1 / 1				
Audio I/O	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉) / 0~90% RH	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)
Certification	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max 11W 12VDC : Max 9W	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
Dimensions (WxHxD) / Weight	Ø160 x 125mm (Ø6.3" x 4.92") 1.45kg (3.20lb)	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)
Additional Features	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ

	XNV-8081R **5MP IR Vandal Dome Camera**	**XND-6081V** **2MP Dome Camera**	**XND-6081F** **2MP Flush Mount Dome Camera**	**XND-6081VZ** **2MP Dome Camera**	**XND-6081FZ** **2MP Flush Mount Dome Camera**
Imaging Device	1/1.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	5MP / 30fps	2MP / 60fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
Min. Illumination	Color: 0.07Lux (F1.3) BW: 0Lux (IR LED)	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)
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	Micro USB type B	Micro USB type B
Focal Length	3.9 ~ 9.4mm (2.4x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal	2.8 ~ 12mm (4.3x) motorized varifocal
Angular Field of View	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)	H : 119.5° (Wide) ~ 27.9° (Tele) V : 62.8° (Wide) ~ 15.7° (Tele) D : 142.1° (Wide) ~ 32° (Tele)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	± 175° / 0 ~ 85° / ± 175° (Remote)	± 175° / 0 ~ 85° / ± 175° (Remote)
IR Viewable Length	50m (164.04ft)	-	-	-	-
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB	150dB	150dB	150dB	150dB
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection				
Business Intelligence	-				
Alarm I/O	1 / 1				
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream II				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, Plenum rate	IP52, IK10	IP52, Plenum rate
Power Consumption	PoE : Max 12.95W 12VDC : Max 11.7W 24VAC : Max 14.9W	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
Dimensions (WxHxD) / Weight	Ø180 x 125mm(Ø7.1" x 4.9") 1.75kg (3.86lb)	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)
Additional Features	Modular structure	Modular structure, Anti dust	Modular structure, Anti dust	Modular structure, Motorized PTRZ, Anti dust	Modular structure, Motorized PTRZ, Anti dust

	XND-6081RV **2MP IR Dome Camera**	**XND-6081RF** **2MP Flush Mount IR Dome Camera**	**XNV-6081Z** **2MP Vandal Dome Camera**	**XNV-6081R** **2MP IR Vandal Dome Camera**
Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps			
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	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)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0Vp-p, Micro USB type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal			
Angular Field of View	H : 119.5° (Wide) ~ 27.9° (Tele) 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)	0° ~ 360° / -45° ~ 85° / 0° ~ 355
IR Viewable Length	50m (164.04ft)	50m (164.04ft)	-	50m (164.04ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	150dB			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support (Built-in Gyro sensor)			
Analytics	Intelligent analytics, Audio detection, Sound classification, Audio Playback, Shock detection			
Business Intelligence	-			
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) / Line out
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream II			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC			
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform			
Operating Temperature	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-25℃ ~ +60℃ (-13℉ ~ +140℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)
Certification	IP52, IK10	IP52, Plenum rate	IP67, IP66, IP6K9K, IK10+, NEMA4X	IP67, IP66, IP6K9K, IK10+, NEMA4X
Power Consumption	PoE : Max 12.95W 12VDC : Max 10.8W	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
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)	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 design, Anti dust	Modular design, Anti dust	Modular structure, Motorized PTRZ	Modular structure

	XNV-6081 **2MP Vandal Dome Camera**	**XNB-8000** **5MP Box Camera**	**XNO-8080R** **5MP IR Bullet Camera**	**XNO-8020R/8030R/8040R** **5MP IR Bullet Camera**
Imaging Device	1/2.8" CMOS	1/1.8" CMOS	1/1.8" CMOS	1/1.8" CMOS
Resolution / Max. Frame Rate	2MP / 60fps	5MP / 30fps	5MP / 30fps	5MP / 30fps
Min. Illumination	Color : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Color : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Color : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0Vp-p, Micro USB type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p, Micro USB Type B
Focal Length	2.8 ~ 12mm (4.3x) motorized varifocal	–	3.7 ~ 9.4mm (2.5x) motorized varifocal	3.7mm fixed (XNO-8020R) 4.6mm fixed (XNO-8030R) 7.0mm fixed (XNO-8040R)
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 : 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)
Pan / Tilt / Rotate	0° ~ 360° / -45° ~ 85° / 0° ~ 355°	–	–	–
IR Viewable Length	–	–	50m (164.04ft)	30m (98.43ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	150dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification Audio Playback Shock detection	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification
Business Intelligence	–	–	–	People counting, Queue management, Heatmap
Alarm I/O	1 / 1			
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream II			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC			
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform			
Operating Temperature	-50℃ ~ +60℃ (-58℉ ~ +140℉) * Start up above -35℃ (-31℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)
Certification	IP67, IP66, IP6K9K, IK10+, NEMA4X	–	IP67, IP66, NEMA4X, IK10	IP67, IP66, NEMA4X, IK10
Power Consumption	PoE : Max 7W 12VDC : Max 5.4W 24VAC : Max 7.1W	PoE : Max 8.5W 12VDC : Max 7.5W 24VAC : Max 8.5W	PoE : Max 12.95W 12VDC : Max 12.5W 24VAC : Max 14.5W	PoE : Max 10.3W 12VDC : Max 9.3W
Dimensions (WxHxD) / Weight	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)	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)
Additional Features	Modular structure	Handover, Hallway View	Handover, Hallway View	Handover, Hallway View

	XND-8080R/8080RV **5MP IR Dome Camera**	**XND-8020R/8030R/8040R** **5MP IR Dome Camera**	**XND-8020F** **5MP Flush Mount Dome Camera**	**XNV-8080R** **5MP IR Vandal Dome Camera**
Imaging Device	1/1.8" CMOS			
Resolution / Max. Frame Rate	5MP / 30fps			
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 : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Color : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p, Micro USB type B	CVBS 1.0Vp-p, Micro USB type B	Micro USB type B	CVBS 1.0 Vp-p, Micro USB type B
Focal Length	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	3.9 ~ 9.4mm (2.4x) 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 : 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°	H : 92.1° (Wide) ~ 38.7° (Tele) V : 67.2° (Wide) ~ 29° (Tele) D : 119.9° (Wide) ~ 48.6° (Tele)
Pan / Tilt / Rotate	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°	0° ~ 355° / 0° ~ 47° / 0° ~ 353°	0° ~ 354° / 0° ~ 67° / 0° ~ 355°
IR Viewable Length	30m (98.43ft)	30m (98.43ft)	–	50m (164.04ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (Electrical)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	–	120dB
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	Support	Support
Analytics	Intelligent analytics 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
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out	Built-in mic / –	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream II			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC			
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-40℃ ~ +55℃ (-40℉ ~ +131℉)
Certification	IK08	IK08	–	IP67, IP66, NEMA4X, IK10
Power Consumption	PoE : Max 10W 12VDC : Max 9W	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W
Dimensions (WxHxD) / Weight	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)	Ø160 x 118.5mm (Ø6.3" x 4.67") 1.01kg (2.23lb)
Additional Features	Handover, Hallway View			

	 XNV-8080RSA **5MP Stainless IR Vandal Dome Camera**	 **XNV-8020R/8030R/8040R** **5MP IR Vandal Dome Camera**	 **XNF-9010RV/9010RVM** **12MP IR Fisheye Camera**
Imaging Device	1/1.8" CMOS	1/1.8" CMOS	1/2.3" 12MP CMOS
Resolution / Max. Frame Rate	5MP / 30fps	5MP / 30fps	3008 x 3008 / 30fps
Min. Illumination	Color : 0.07Lux (F1.3) 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		
Focal Length	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 : 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°	–
IR Viewable Length	50m (164.04ft)	30m (98.43ft)	10m (32.8ft), Wise IR
Day & Night	Auto (ICR)		
Wide Dynamic Range	120dB	120dB	extremeWDR (120dB)
Digital Noise Reduction	SSNRV		
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	–
Analytics	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	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), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG		
WiseStream	WiseStream II		
Streaming	Up to 10 Profiles		
Edge Storage	micro SD/SDHC/SDXC		
Application Programming Interface	ONVIF profile S/G, SUNAPI 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℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉) / 0~95% RH
Certification	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 9W 12VDC: Max 8W	PoE: Max 12.95W, typical 11W 12VDC: Max 11W, typical 9.1W
Dimensions (WxHxD) / Weight	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	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-6002** **2MP x 1CH Remote Head Camera**	**XNB-6000** **2MP Box Camera**
Imaging Device	1/2.3" 12MP CMOS	1/1.8" CMOS	1/2" CMOS	–	1/2.8" CMOS
Resolution / Max. Frame Rate	3008 x 3008 / 30fps	2048 x 2048 / 30fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
Min. Illumination	Color: 0.39 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				
Focal Length	1.08mm fixed focal	1.6mm fixed	–	–	–
Angular Field of View	H: 187° / V: 187° / D: 187°	H : 192° / V : 192° / D : 192°	–	–	–
Pan / Tilt / Rotate	–	–	–	–	–
IR Viewable Length	9m (29.53ft), Wise IR	15m (49.21ft)	–	–	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (electrical)	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	120dB	150dB	extremeWDR (120dB)	150dB
Digital Noise Reduction	SSNR V	SSNR V	SSNR V	SSNR V , WiseNR	SSNR V
Digital Image Stabilization	–	–	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	**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)	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	2 configured I/O	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), 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				
WiseStream	WiseStream II				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform	ONVIF profile S/G, SUNAPI, Wisenet open platform
Operating Temperature	-40℃ ~ +50℃ (-40℉ ~ +122℉) / 0~95% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉)(XNF-8010R) -40℃ ~ +55℃ (-40℉ ~ +131℉) (XNF-8010RV/8010RVM)	-10℃ ~ +55℃ (+14℉ ~ +131℉)	-10℃ ~ +55℃(+14℉ ~ +131℉)/ 0 ~ 90% RH (non-condensing)	-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 10.5W, typical 7.4W 12VDC: Max 8.6W, typical 5.8W Power redundancy failover	PoE : Max 7.5W 12VDC : Max 6.5W 24VAC : Max 8W
Dimensions (WxHxD) / Weight	Ø 167.9 x 72.1mm (Ø66.1" x 28.38") 2.98kg (6.57lb)	Ø 146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R) Ø 146 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 131.1 x H 33.5 x D 86mm (5.16" x 1.32" x 3.39") 420g	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	compatible lens : SLA-T1080FA, SLA-T2480A, SLA-T2480VA, SLA-T4680A, SLA-T4680VA	Handover, Hallway View

	XNB-6001 **2MP Remote Head Camera**	**SLA-T4680/T4680V** **2MP lens for XNB-6001**	**SLA-T2480/T2480V** **2MP lens for XNB-6001**	**SLA-T1080F** **2MP lens for XNB-6001**
Imaging Device	-	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	2MP / 60fps	-	-	-
Min. Illumination	-	Color : 0.06Lux (F2.5) 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	-	-	-
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℉)			
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
Resolution / Max. Frame Rate	2MP / 60fps				
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				
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)				
Wide Dynamic Range	150dB				
Digital Noise Reduction	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				
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	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				

	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
Resolution / Max. Frame Rate	2MP / 60fps				
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				
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)				
Wide Dynamic Range	–	150dB	150dB	120dB	120dB
Digital Noise Reduction	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				
WiseStream	WiseStream II				
Streaming	Up to 10 Profiles				
Edge Storage	SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC
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				
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			
Resolution / Max. Frame Rate	2MP / 60fps			
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			
Digital Image Stabilization	Support	Support	Support	Support (Built-in Gyro sensor)
Analytics	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			
WiseStream	WiseStream II			
Streaming	Up to 10 Profiles			
Edge Storage	SD/SDHC/SDXC	SD/SDHC/SDXC	micro SD/SDHC/SDXC	SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G, SUNAPI, 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	Ø 110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø 98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61lb)	Ø 140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb)	Ø 160 x 128.5mm (Ø6.3" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)
Additional Features	Handover, Hallway View			

	XNV-6085 2MP Vandal Dome Camera (extraLUX)	**XNV-6080** 2MP Vandal Dome Camera	**XNV-6080R** 2MP IR Vandal Dome Camera	**XNV-6080RSA** 2MP Stainless IR Vandal Dome Camera	**XNV-L6080** 2MP Vandal Dome Camera
Imaging Device	1/2" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS
Resolution / Max. Frame Rate	2MP / 60fps				
Min. Illumination	Color : 0.004Lux (F0.94) 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				
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)				
Wide Dynamic Range	150dB	150dB	150dB	150dB	120dB
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics 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				
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	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				

	XNV-L6080R **2MP IR Vandal Dome Camera**	**XNV-6022R/6022RM** **2MP Mobile IR Flat Camera**	**XNV-6020R** **2MP IR Vandal Dome Camera**	**XNV-6013M** **2MP Mobile Camera**	**XNV-6012M/6012** **2MP Mobile Flat Camera**
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP / 60fps				
Min. Illumination	Color : 0.03Lux (F1.6) 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				
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				
WiseStream	WiseStream II				
Streaming	Up to 5 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles	Up to 10 Profiles
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform				
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃(-4℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉) * Start up above -30℃ (-22℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)
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

			PTZ PLUS	PTZ PLUS	PTZ PLUS
	XNV-6011 2MP Vandal Dome Camera	**XNV-6010** 2MP Vandal Dome Camera	**XNP-9300RW** 4K 30x Wiper + IR PTZ Camera	**XNP-8300RW** 6MP 30x Wiper + IR PTZ Camera	**XNP-6400RW** 2MP 40x Wiper + IR PTZ Camera
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	8MP / 30fps	6MP / 30fps	2MP / 60fps
Min. Illumination	Color : 0.055Lux (F2.0) 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)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	150dB	150dB	extremeWDR(120dB)	extremeWDR(120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	Support	Support	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics 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				
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	-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℃ 0~95% 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℃ 0~95% 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℃ 0~95% RH (Non-condensing)
Certification	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)	IP66, IK10, NEMA4X, NEMA-TS 2 (2.2.8, 2.2.9)
Power Consumption	PoE : Max 6.5W	PoE : Max 6W 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(Based on AI engine), Target lock tracking. Included SFP slot in HPoE injector		

	PTZ PLUS **XNP-9250R** 4K 25x IR PTZ Camera	PTZ PLUS **XNP-8250R** 6MP 25x IR PTZ Camera	PTZ PLUS **XNP-6400R** 2MP 40x IR PTZ Camera	PTZ PLUS **XNP-9250** 4K 25x PTZ Camera	PTZ PLUS **XNP-8250** 6MP 25x PTZ Camera	PTZ PLUS **XNP-6400** 2MP 40x PTZ Camera
Imaging Device	1/2.8" CMOS					
Resolution / Max. Frame Rate	8MP / 30fps	6MP / 30fps	2MP / 60fps	8MP / 30fps	6MP / 30fps	2MP / 60fps
Min. Illumination	Color: 0.1Lux (F1.6, 1/30sec) 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°) / –					
IR Viewable Length	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR	200m (656.17ft), Wise IR	–	–	–
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)/Color/BW/Schedule	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNR V					
Digital Image Stabilization	Support (built-in gyro sensor)					
Analytics	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM-4210)					
Business Intelligence	–					
Alarm I/O	Compatible with NW I/O Box (Optional)					
Audio I/O	Compatible with NW I/O Box (Optional)					
Video Compression	H.265 / H.264, MJPEG					
WiseStream	WiseStream II					
Streaming	Up to 10 profiles					
Edge Storage	micro SD/SDHC/SDXC					
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, 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℃ 0~95% 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℃ 0~95% 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℃ 0~95% 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℃ 0~95% 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℃ 0~95% 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℃ 0~95% RH (Non-condensing)
Certification	IP66, IK10, NEMA4X, NEMA TS-2 (2.2.8, 2.2.9)					
Power Consumption	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	HPoE (Camera only): Typical 20W, Max 40W	PoE+ (IEEE802.3at, Class4): Typical 20W, Max 25W	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)					
Additional Features	1 Terminal & Cable, Upgraded preset accuracy, Built-in wiper, Object auto tracking(Based on AI engine), Target lock tracking. Included SFP slot in HPoE injector			1 Terminal & Cable, Upgraded preset accuracy, Object auto tracking(Based on AI engine), Target lock tracking		

	XNP-6550RH **2MP 55x IR PTZ Camera**	**XNP-6371RH** **2MP 37x IR PTZ Camera**	**XNP-6120H** **2MP 12x PTZ Camera**	**XNP-6040H** **2MP 4.3x PTZ Camera**
Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps			
Min. Illumination	Color : 0.02Lux (F1.6) 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)			
Wide Dynamic Range	120dB	150dB	150dB	150dB
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	Support (Built-in Gyro sensor)			
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Defog detection	Intelligent analytics Audio detection Sound classification Shock detection Defog detection	Intelligent analytics Audio detection Sound classification Defog detection	Intelligent analytics Audio detection Sound classification Defog detection
Business Intelligence	-			
Alarm I/O	4 / 2	4 / 2	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in) / Line out			
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream II			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC			
Application Programming Interface	ONVIF profile S/G, SUNAPI, 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℉) / 0~90% RH	-30℃ ~ +55℃ (-22℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉)
Certification	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	Auto tracking (Based on MD)			

			SolidEDGE	SolidEDGE
	XNZ-6320A **2MP 32x Zoom Camera**	**XNZ-L6320A** **2MP 32x Zoom Camera**	**PNV-A6081R-E1T** **2MP Camera with 1TB Rugged SSD**	**PNV-A6081R-E2T** **2MP Camera with 2TB Rugged SSD**
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" CMOS	1/2" CMOS
Resolution / Max. Frame Rate	2MP/ 60fps	2MP / 60fps	2MP / 120fps	2MP / 120fps
Min. Illumination	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Color: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Color: 0.008Lux(F1.3, 1/30sec, 30IRE) BW: 0.0008Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps Color: 0.016Lux(F1.3, 1/60sec, 30IRE) BW: 0.0016Lux(F1.3, 1/60sec, 30IRE), 0Lux(IR LED on), 60/50fps Color: 0.032Lux(F1.3, 1/120sec,30IRE) BW: 0.0032Lux(F1.3, 1/120sec, 30IRE), 0Lux(IR LED on), 120/100fps	
Video Output	CVBS 1.0 Vp-p, Micro USB Type B	CVBS 1.0 Vp-p	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation	CVBS: 1.0 Vp-p / 75Ω composite, 720x480(N), 720x576(P) for installation
Focal Length	4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom)	4.44 ~ 142.6mm (Optical 32X) (digital 32x, total 1024x zoom)	4.38~9.33mm(2.13x) motorized varifocal	4.38~9.33mm(2.13x) motorized varifocal
Angular Field of View	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 64.66° (Wide) ~ 2.29° (Tele) V: 38.08° (Wide) ~ 1.3° (Tele)	H: 104° (Wide)~44° (Tele) V: 55° (Wide)~24° (Tele) D: 124° (Wide)~51° (Tele)	H: 104° (Wide)~44° (Tele) V: 55° (Wide)~24° (Tele) D: 124° (Wide)~51° (Tele)
Pan / Tilt / Rotate	–	–	0° ~360° / -45° ~85° / 0° ~355°	0° ~360° / -45° ~85° / 0° ~355°
IR Viewable Length	–	–	Wise IR 40m (131.23ft)	Wise IR 40m (131.23ft)
Day & Night	Auto (ICR)	Auto (ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	120dB	120dB	120dB	120dB
Digital Noise Reduction	SSNR V	SSNR V	WiseNR, SSNR V	WiseNR, SSNR V
Digital Image Stabilization	Support	Support	–	–
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Defog detection	Intelligent analytics Audio detection Sound classification Shock detection Defog detection	**Analytics events**: Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit/Appear/Disappear) **Digital auto tracking**	
Business Intelligence	–	–	–	–
Alarm I/O	1 / 2	1 / 1	Input 1ea / Output 1ea	Input 1ea / Output 1ea
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable(mic in/line in) / Line out	Selectable(mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG	H.265 / H.264, MJPEG	H.265/H.264, MJPEG	H.265/H.264, MJPEG
WiseStream	WiseStream II	WiseStream II	Manual (5ea area), WiseStream II	Manual (5ea area), WiseStream II
Streaming	Up to 10 profiles	Up to 10 profiles	Up to 5 profiles	Up to 5 profiles
Edge Storage	micro SD/SDHC/SDXC 2 slot 512GB	micro SD/SDHC/SDXC 1slot 256GB	1TB SSD included (WAVE pre-installed)	2TB SSD included (WAVE pre-installed)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T/M SUNAPI(HTTP API)	ONVIF Profile S/T/M SUNAPI(HTTP API)
Operating Temperature	-10℃ ~ +55℃ (-14℉ ~ +131℉) / 0~90% RH	-10℃ ~ +55℃ (-14℉ ~ +131℉) / 0~90% RH	-30° C~+55° C(-22° F~+131° F) / 0~95%RH(non-condensing) * Start up should be done at above -20° C Humidity control /w AIR vent	-30°C~+55°C(-22°F~+131°F) / 0~95%RH(non-condensing) * Start up should be done at above -20° C Humidity control /w AIR vent
Certification	–	–	IP66, IP67, IP6K9K, NEMA4X, IK10	IP66, IP67, IP6K9K, NEMA4X, IK10
Power Consumption	PoE: Max 7.5W, Typical 4.5W 12VDC: Max 7W, Typical 4W	PoE: Max 7.5W, Typ 5W 12VDC: Max 5.7W, Typ 3.7W	PoE+: Max 19.2W, typical 14.4W 12VDC: Max 17.5W, typical 12.7W	PoE+: Max 19.2W, typical 14.4W 12VDC: Max 17.5W, typical 12.7W
Dimensions (WxHxD) / Weight	W 96 x H 76 x D 143.5mm (3.78" x 2.99" x 5.65") 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)	Ø 180x130mm (Ø 7.09x5.12") 1900g (4.19 lb)	Ø 180x130mm (Ø 7.09x5.12") 1900g (4.19 lb)
Additional Features	Auto tracking (Based on MD)	Auto tracking (Based on MD)	Connect and record up to 5 additional cameras **Pre-licensed with 1x Wave channel, purchase additional licenses to suit number of connected cameras**	

	PNM-9031RV **15MP 192° IR Panoramic Camera**	**PNM-9022V** **8.3MP 180°/209° Panoramic Camera**	**PNM-9085RQZ1** **5MP x 4CH IR PTRZ Multi-directional Camera**	**PNM-9084RQZ1** **2MP x 4CH IR PTRZ Multi-directional Camera**	**PNM-9084QZ1** **2MP x 4CH PTRZ Multi-directional Camera**
Imaging Device	1/2.8" 5MP CMOS (x4)	1/2.8" 4CH	1/1.8" 5MP CMOS x 4CH	1/2.8" CMOS x 4CH	1/2.8" CMOS x 4CH
Resolution / Max. Frame Rate	15MP / 20fps	8.3MP / 30fps	8MP / 60Hz	8MP / 60fps	8MP / 60fps
Min. Illumination	Color: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Color: 0.3Lux (F1.6) Color: 0.03Lux (F1.6)	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	Micro USB Type B	Micro USB Type B	–	–	–
Focal Length	4.3mm Fixed	2.8mm fixed focal	4.13~9.4mm (2.3x)motorized varifocal	3.2~10mm (3.1x) motorized varifocal	3~6mm (2x) motorized varifocal
Angular Field of View	H: 196° / V: 64° (Min distance 5m) H: 197° / V: 64° (Max distance 100m)	H: 209° / V: 83.3°	H: 87.58° (Wide)~37.34° (Tele) V: 64.58° (Wide)~28.04° (Tele) D: 112.46° (Wide)~46.85° (Tele)	H: 109° (Wide)~33.2° (Tele) V: 57.4° (Wide)~18.7° (Tele) D: 132° (Wide)~38° (Tele)	H: 107° (Wide)~56.3° (Tele) V: 57° (Wide)~31.5° (Tele) D: 126° (Wide)~64.3° (Tele)
Pan / Tilt / Rotate	0°~355° / 0°~60° / –	0°~355° / 0°~60° / –	Remote adjustment (Max. 200cycles) 0~360° / 35~80° / 0~90°	Remote adjustment (Max. 200cycles) 0~360° / 35~80° / 0~90°	Remote adjustment (Max. 200cycles) 0~360° / 35~80° / 0~90°
IR Viewable Length	20m (65.62ft)	–	30m (98.43ft)	30m (98.43ft)	–
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB	extremeWDR (120dB)	120dB	120dB	120dB
Digital Noise Reduction	SSNR V				
Digital Image Stabilization	–	–	Support	Support	Support
Analytics	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Motion detection, Appear/Disappear, Enter/Exit, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	Heatmap	Heatmap	–	–	–
Alarm I/O	2 / 1	1 / 1	1 / 1	1 / 1	1 / 1
Audio I/O	Selectable (mic in/line in)	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream II				
Streaming	Up to 3 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC 2slots 512GB (256GBx2)	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 4slot 256GB (each CH)	micro SD/SDHC/SDXC 4slot 256GB (each CH)	micro SD/SDHC/SDXC 4slot 256GB (each CH)
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)	ONVIF Profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform	ONVIF Profile S/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	−40℃~+55℃ (−40℉~+131℉) * Startup should be above −30℃ 0~95% RH (Non-condensing)	−40℃~+60℃ (−40℉~+131℉) / 0~95% RH (Non-condensing) * Maximum temperature : +60℃ (intermittent)	−40℃~+55℃ (−40℉~+131℉) / 0~90% RH	−40℃~+55℃ (−40℉~+131℉) / 0~90% RH	−40℃~+55℃ (−40℉~+131℉) / 0~90% RH *Start up should be above at −35℃
Certification	IP66, IK10, NEMA4X				
Power Consumption	PoE+: Max 23.5W, Typical 18W 12VDC: Max 20.5W, Typical 16W	PoE+: Max 18W, Typical 10.4W 12VDC: Max 16W, Typical 9W	PoE++: Max. 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	PoE++: Max. 33W, Typical 20W
Dimensions (WxHxD) / Weight	Ø253 x 170mm 2.6kg (4.7lb)	Ø253 x 165mm (Ø9.96" x 6.5") 3.2kg (7.1lb)	Ø315 x 145.9 mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø315 x 145.9 mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø251 x 116.5mm 3kg (6.6lb)
Additional Features	–	4CH Stitching	Motorized PTRZ	Motorized PTRZ	Motorized PTRZ

	PNM-8082VT **2MP x 3CH Multi-directional Camera**	**PNM-12082RVD** **6MP x 2CH Multi-directional Camera**	**PNM-7082RVD** **2MP x 2CH Multi-directional Camera**
Imaging Device	1/2.8" CMOS 3CH	1/2.8" CMOS x 2CH	1/2.8" CMOS x 2CH
Resolution / Max. Frame Rate	2MP / 30fps	6MP / 15fps	2MP / 30fps
Min. Illumination	Color: 0.04lux(F2.2) 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)		
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		
WiseStream	WiseStream II		
Streaming	Up to 10 profiles		
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot Max. 512GB	micro SD/SDHC/SDXC 1slot Max. 512GB
Application Programming Interface	ONVIF Profile S/G/T 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℉) / 0~95% 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**	**SLA-T4680A/T4680VA** **2MP lens**	**SLA-T2480WA/T2480WDA** **2MP Waterproof lens**	**SLA-T2480A/T2480VA** **2MP lens**	**SLA-T1080FA** **2MP lens**
Imaging Device	–	1/2.8" 2MP CMOS	1/2.8" CMOS	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS
Resolution / Max. Frame Rate	2MP / 30fps	–	–	–	–
Min. Illumination	–	Color: 0.06Lux (F2.5)	Color: 0.045Lux (F2.0, 1/30sec, 30IRE) BW: 0.045Lux(F2.0, 1/30sec, 30IRE) * with PNM-9000QB, XNB-6002	Color: 0.045Lux (F2.0)	Color: 0.03Lux (F1.6)
Video Output	HDMI (1920x1080, Quad view support)	–	–	–	–
Focal Length	–	4.6mm fixed focal	2.4mm fixed focal	2.4mm fixed focal	1.6mm fixed focal
Angular Field of View	–	H: 73° / V: 39° / D: 85°	H: 138° / V: 73° / D: 165°	H: 138° / V: 73° / D: 165°	H: 187° / V: 113.9°
Pan / Tilt / Rotate	–	–	0°~350° / 0°~70° / 0°~355°	–	–
IR Viewable Length	–	–	–	–	–
Day & Night	Auto (electrical)	–	–	–	–
Wide Dynamic Range	extremeWDR (150dB)	–	–	–	–
Digital Noise Reduction	SSNR V	–	–	–	–
Digital Image Stabilization	Support	–	–	–	–
Analytics	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	–	–	–	–
Business Intelligence	–	–	–	–	–
Alarm I/O	1 / 1	–	–	–	–
Audio I/O	Selectable (mic in/line in) / Line out	–	–	–	–
Video Compression	H.265 / H.264, MJPEG	–	–	–	–
WiseStream	WiseStream II	–	–	–	–
Streaming	Up to 10 profiles	–	–	–	–
Edge Storage	micro SD/SDHC/SDXC	–	–	–	–
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API) Wisenet open platform	–	–	–	–
Operating Temperature	-10℃ ~ +45℃ (-40℉ ~ +113℉) / 0~95% RH (Non condensing)	–	-30℃~+55℃(-22° F~+131° F) / 0~95% RH * Start up should be done at above -30℃	–	–
Certification	–	–	IP66, NEMA 4X, IP66, NEMA 4X, IK10	–	–
Power Consumption	PoE : Max 22W, Typical 16.70W DC : Max 19W, Typical : 14W	–	–	–	–
Dimensions (WxHxD) / Weight	W 200 x H 37 x D 146mm (7.87" x 1.46" x 5.75") 715g (1.58lb)	Ø24 x L49.8mm, 310g (SLA-T4680A) W 30 x H 27.9 x D 45mm, 321g (SLA-T4680VA)	Ø24x49.8mm(ø0.94x1.96"), 101g(0.22lb) / Ø110.0x77.0mm(ø3.54x2.36"), 450g(0.99lb)	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 camera: XNB-6002/PNM-9000QB	Compatible camera: XNB-6002/PNM-9000QB	Compatible camera: XNB-6002/PNM-9000QB	Compatible camera: XNB-6002/PNM-9000QB

	QNO-8080R **5MP IR Bullet Camera**	**QNO-8020R** **5MP IR Bullet Camera**	**QNO-8010R** **5MP IR Bullet Camera**	**QND-8080R** **5MP IR Dome Camera**	**QND-8020R** **5MP IR Dome Camera**
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	5MP / 30fps				
Min. Illumination	Color : 0.15Lux (F1.6) 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 0.1.0Vp-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)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	–				
Analytics	Intelligent analytics				
Business Intelligence	–				
Alarm I/O	1 / 1				
Audio I/O	–				
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ				
Streaming	Up to 3 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	-30℃ ~ +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				

			Q mini		Q mini
	QND-8010R 5MP IR Dome Camera	**QND-8012** 5MP/4MP Dome Camera	**QND-8021** 5MP Dome Camera	**QND-8022** 5MP/4MP Dome Camera	**QND-8011** 5MP Dome Camera
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	5MP / 30fps	5MP/4MP / 30fps	5MP / 30fps	5MP/4MP / 30fps	5MP / 30fps
Min. Illumination	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color: 0.15Lux(F2.0, 1/30sec, 30IRE) BW: 0.15Lux(F2.0, 1/30sec, 30IRE)	Color : 0.15Lux (F1.6)	Color: 0.15Lux(F1.6, 1/30sec, 30IRE) BW: 0.15Lux(F1.6, 1/30sec, 30IRE)	Color : 0.15Lux (F2.0)
Video Output	CVBS 1.0 Vp-p	Micro HDMI: 1080p@30/25fps(60/50Hz)	Micro HDMI	Micro HDMI: 1080p@30/25fps(60/50Hz)	Micro HDMI
Focal Length	2.8mm fixed	2.8mm fixed focal	4mm fixed	4.0mm fixed focal	2.8mm fixed
Angular Field of View	H : 104.7° / V : 76.5° / D : 136°	H: 105° / V: 77° / D: 137°	H : 80.1° / V : 58° / D : 105.8°	H: 81° / V: 58° / D: 106°	H : 104.4° / V : 76.7° / D : 136.1°
Pan / Tilt / Rotate	0° ~ 350° / 0° ~ 67° / 0° ~ 355°	0° ~350° / 0° ~69° / 0° ~355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°	0° ~ 350° / 0° ~ 69° / 0° ~ 355°
IR Viewable Length	20m (65.62ft)	-	-	-	-
Day & Night	Auto (ICR)	Auto(Electrical)	Auto (Electrical)	Auto(Electrical)	Auto (Electrical)
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	-				
Analytics	Intelligent analytics	Defocus detection, Motion detection, Tampering	Intelligent analytics	Defocus detection, Motion detection, Tampering	Intelligent analytics
Business Intelligence	-	People counting	People counting	People counting	People counting
Alarm I/O	1 / 1	-	-	-	-
Audio I/O	-				
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ				
Streaming	Up to 3 Profiles				
Edge Storage	micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot 128GB	micro SD/SDHC/SDXC
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform
Operating Temperature	-10℃ ~ +50℃ (+14°F ~ +122°F)	-10℃~+40℃(+14°F~+104°F) 0~90% RH(non-condensing)	-10℃ ~ +40℃ (+14°F ~ +104°F)	-10℃~+40℃(+14°F~+104°F) 0~90% RH(non-condensing)	-10℃ ~ +40℃ (+14°F ~ +104°F)
Certification	-	IP42, IK08	IP42, IK08	IP42, IK08	IP42, IK08
Power Consumption	PoE : Max 7.5W, typical 5.8W	PoE: Max 5.00W, typical 4.00W	PoE : Max 5W, typical 4W	PoE: Max 5.00W, typical 4.00W	PoE : Max 5W, typical 4W
Dimensions (WxHxD) / Weight	Ø110.6 x 89.5mm (Ø4.35" x 3.52") 360g (0.794lb)	Ø99.0x56.0mm (Ø3.9x2.2"), 165g(0.36 lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)	Ø99.0x56.0mm (Ø3.9x2.2"), 165g(0.36 lb)	Ø99 x 56mm (Ø3.9" x 2.2") 165g (0.364lb)
Additional Features	Hallway View	Hallway View	Super compact design, Hallway View	Hallway View	Super compact design, Hallway View

	QNV-8080R 5MP IR Vandal Dome Camera	**QNV-8020R** 5MP IR Vandal Dome Camera	**QNV-8010R** 5MP IR Vandal Dome Camera	**QNB-8002** 5MP Box Camera	**QNE-8011R** 5MP IR Flateye Camera
Imaging Device	1/2.8" CMOS				
Resolution / Max. Frame Rate	5MP / 30fps				
Min. Illumination	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Color : 0.07Lux (F1.2)	Color : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p				
Focal Length	3.2 ~ 10mm (3.1x) motorized varifocal	4.0mm fixed	2.8mm fixed	–	2.8mm fixed
Angular Field of View	H : 100.3° (Wide) ~ 31.2° (Tele) V : 72.3° (Wide) ~ 23.5° (Tele) D : 133.1° (Wide) ~ 38.8° (Tele)	H : 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° ~ 67° / 0° ~ 355°	–	0° ~ 350° / 0° ~ 75° / 0° ~ 360°
IR Viewable Length	30m (98.42ft)	25m (82.02ft)	20m (65.62ft)	–	20m (65.62ft)
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	–				
Analytics	Intelligent analytics				
Business Intelligence	–				
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	–
Audio I/O	–	–	–	Line in / Line out	–
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStream Ⅱ				
Streaming	Up to 3 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, 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℃ ~ +55℃ (+14℉ ~ +131℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	–	IP67, IK10
Power Consumption	PoE : Max 8.9W, typical 6.6W	PoE : Max 7.2W, typical 5.4W	PoE : Max 7.5W, typical 5.8W	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE : Max 7.4W, typical 5.5W
Dimensions (WxHxD) / Weight	Ø137 x 106.1mm (Ø5.39" x 4.18") 700g (1.543lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74" x 3.61") 510g (1.124lb)	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				

	 QNO-7082R **4MP IR Bullet Camera**	 **QNO-7022R** **4MP IR Bullet Camera**	 **QNO-7012R** **4MP IR Bullet Camera**
Imaging Device	1/3" CMOS		
Resolution / Max. Frame Rate	4MP / 30fps		
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		
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)		
Wide Dynamic Range	120dB		
Digital Noise Reduction	SSNR		
Digital Image Stabilization	–		
Analytics	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)
Business Intelligence	–		
Alarm I/O	1/1		
Audio I/O	Line in / –	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –
Video Compression	H.265 / H.264, MJPEG		
WiseStream	WiseStream Ⅱ		
Streaming	Up to 3 Profiles		
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB		
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)		
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~95% RH * Start up should be done at -30℃ or above		
Certification	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)

	QNO-6082R/6082R1 **2MP IR Bullet Camera**		**QNO-6072R/6072R1** **2MP IR Bullet Camera**		**QNO-6022R/6022R1** **2MP IR Bullet Camera**		**QNO-6012R/6012R1** **2MP IR Bullet Camera**	
Imaging Device	1/2.8" CMOS							
Resolution / Max. Frame Rate	2MP / 30fps							
Min. Illumination	Color : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)							
Video Output	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)							
Wide Dynamic Range	120dB							
Digital Noise Reduction	SSNR							
Digital Image Stabilization	–							
Analytics	Intelligent analytics							
Business Intelligence	–							
Alarm I/O	1 / 1							
Audio I/O	Selectable (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							
WiseStream	WiseStream Ⅱ							
Streaming	Up to 3 Profiles							
Edge Storage	micro SD/SDHC/SDXC							
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform							
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) * Start up above -20℃ (-4℉)							
Certification	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							

	QND-7082R **4MP IR Dome Camera**	**QND-7022R** **4MP IR Dome Camera**	**QND-7012R** **4MP IR Dome Camera**
Imaging Device	1/3" CMOS		
Resolution / Max. Frame Rate	4MP / 30fps		
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		
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°		
IR Viewable Length	20m (65.62ft)		
Day & Night	Auto (ICR)		
Wide Dynamic Range	120dB		
Digital Noise Reduction	SSNR		
Digital Image Stabilization	–		
Analytics	Motion detection, Tampering, Defocus detection , Virtual area(Intrusion/Enter/Exit), Virtual line(Crossing/Direction)		
Business Intelligence	–		
Alarm I/O	1/1		
Audio I/O	Built-in mic / –		
Video Compression	H.265 / H.264, MJPEG		
WiseStream	WiseStream Ⅱ		
Streaming	Up to 3 Profiles		
Edge Storage	micro SD/SDHC/SDXC 1slot 128GB		
Application Programming Interface	ONVIF Profile S/G/T, SUNAPI (HTTP API)		
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% 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)

	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							
Resolution / Max. Frame Rate	2MP / 30fps							
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							
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°							
IR Viewable Length	20m (65.62ft)							
Day & Night	Auto (ICR)							
Wide Dynamic Range	120dB							
Digital Noise Reduction	SSNR							
Digital Image Stabilization	–							
Analytics	Intelligent analytics							
Business Intelligence	–							
Alarm I/O	1 / 1							
Audio I/O	Buit-in mic	–	Buit-in mic	–	Buit-in mic	–	Buit-in mic	–
Video Compression	H.265 / H.264, MJPEG							
WiseStream	WiseStream Ⅱ							
Streaming	Up to 3 Profiles							
Edge Storage	micro SD/SDHC/SDXC							
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform							
Operating Temperature	-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							

	Q mini	Q mini	
	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
Resolution / Max. Frame Rate	2MP / 30fps	2MP / 30fps	4MP / 30fps
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	–	–	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		
Digital Noise Reduction	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		
WiseStream	WiseStream Ⅱ		
Streaming	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℉) / 0~95% 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	
Resolution / Max. Frame Rate	4MP / 30fps	4MP / 30fps	2MP / 30fps		2MP / 30fps	
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					
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°					
IR Viewable Length	25m (82.02ft)	20m (65.62ft)	30m (98.42ft)		30m (98.42ft)	
Day & Night	Auto (ICR)					
Wide Dynamic Range	120dB					
Digital Noise Reduction	SSNR					
Digital Image Stabilization	–					
Analytics	Intelligent analytics					
Business Intelligence	–					
Alarm I/O	1 / 1					
Audio I/O	Selectable (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					
WiseStream	WiseStreamII Ⅱ					
Streaming	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℉) / 0~95% RH * Start up should be done at -30℃ or above	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~95% 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					
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			
Resolution / Max. Frame Rate	2MP / 30fps			
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)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNR	SSNR	SSNR	SSNR V
Digital Image Stabilization	–	–	–	Support (built-in gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics	Intelligent analytics	Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection
Business Intelligence	–	–	–	–
Alarm I/O	1 / 1	1 / 1	–	4 / 2
Audio I/O	Selectable (mic in/line in) / –	Selectable (mic in/line in) / –	Selectable(mic in/line in/built-in mic)/ Line out	Selectable (mic in/line in) / Line out
Video Compression	H.265 / H.264, MJPEG			
WiseStream	WiseStream II			
Streaming	Up to 3 Profiles	Up to 3 Profiles	Up to 3 Profiles	Up to 10 profiles
Edge Storage	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 256GB
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-30℃ ~ +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℉) / 0~95% 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 D100mm (3.89" x 2.05" x 3.94") 295g (0.65lb)	Ø152 x 218mm (Ø5.98" x 8.58") 1.7kg (3.75 lb)
Additional Features	Hallway View	Hallway View	M12 connector, Hallway View	Auto tracking(Based on MD)

	QNP-6320R **2MP 32x IR PTZ Camera**	**QNP-6320H** **2MP 32x PTZ Camera**	**QNP-6250** **2MP 25x PTZ Camera**	**QNP-6250R** **2MP 25x IR PTZ Camera**
Imaging Device	1/2.8" CMOS			
Resolution / Max. Frame Rate	2MP / 60fps			
Min. Illumination	Color: 0.05Lux (F1.6, 1/30sec) 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)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNR V			
Digital Image Stabilization	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			
WiseStream	WiseStream Ⅱ			
Streaming	Up to 10 profiles			
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB			
Application Programming Interface	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℃ 0~95% RH (Non-condensing)	Normal : -35℃ ~ +55℃ (-31℉ ~ +131℉) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% RH	Normal : -35℃ ~ +55℃ (-31℉ ~ +131℉) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)
Certification	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	–	IP66, IK10, NEMA4X
Power Consumption	Max. 25.5W, Typ. 14.7W	Max. 23W, Typ. 14W	Max. 14.5W, Typ. 12W	Max. 25.5W, Typ. 14.7W
Dimensions (WxHxD) / Weight	Ø158 x 293.3mm 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)
Additional Features	Auto tracking(Based on MD)			

	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
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 30fps	9MP / 30fps	4MP / 30fps
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				
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)	Compatible with NW I/O Box (Optional)	1 / 1	–	–
Audio I/O	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Line in / Line out	–	–
Video Compression	H.265 / H.264, MJPEG				
WiseStream	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	-35℃ ~ +55℃ (-31℉ ~ +131℉) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-35℃ ~ +55℃ (-31℉ ~ +131℉) / * Start up should be done at above -25℃ 0~95% RH (Non-condensing)	-10℃ ~ +55℃ (-14℉ ~ +131℉)	-10℃ ~ +40℃ (+14℉ ~ +104℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉)
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	Auto tracking(Based on MD)	Auto tracking(Based on MD)	Hallway View	Panorama view, Busieness Intelligence	Panorama view, Busieness Intelligence

	 TNV-7011RC **3MP Corner Mount Camera**	 **TNV-8011C** **5MP Corner Mount Camera**
Imaging Device	1/2.8" CMOS	
Resolution / Max. Frame Rate	3MP / 30fps	5MP / 30fps
Min. Illumination	Color: 0.3 lux (F2.0, 1/30sec) 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	CVBS: 1.0 Vp-p, Micro USB Type B
Focal Length	2.8mm fixed focal	2.3mm fixed focal
Angular Field of View	H: 102° / V: 75° / D: 129°	H: 131° / V: 93.4° / D: 174°
Pan / Tilt / Rotate	- / 30° ~ 60° / -	-
IR Viewable Length	10m (32.8ft)	-
Day & Night	Auto (ICR)	
Wide Dynamic Range	120dB	
Digital Noise Reduction	SSNR V	SSNR
Digital Image Stabilization	Support	
Analytics	Tampering, Loitering, Directional detection, Defocus detection, Fog detection, Virtual line, Enter/Exit, Appear/Disappear, Audio detection, Face detection, Motion detection, Digital auto tracking, Sound classification, Shock detection	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line, Audio detection
Business Intelligence	-	
Alarm I/O	1 / 1	
Audio I/O	Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG	
WiseStream	WiseStream II	
Streaming	Up to 10 profiles	Up to 3 profiles
Edge Storage	micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC 1slot 128GB
Application Programming Interface	SUNAPI (HTTP API) Wisenet open platform	SUNAPI (HTTP API) Wisenet open platform
Operating Temperature	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% RH
Certification	IP66, IP6K9K, IK10+	IP66, IP6K9K, IK10
Power Consumption	PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W	PoE: Max 6.49W, typical 4.6W
Dimensions (WxHxD) / Weight	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	-	

	TNO-6322ER **2MP Explosion-proof IR Camera**	**TNU-6322E** **2MP Explosion-proof Camera**	**TNU-6322ER** **2MP Explosion-proof IR Camera**
Imaging Device	1/2.8" CMOS		
Resolution / Max. Frame Rate	2MP / 60fps		
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: 0Lux (IR LED on)
Video Output	–		
Focal Length	4.44 ~ 142.6mm (32X) zoom		
Angular Field of View	H: 61.8° (Wide) ~ 2.19° (Tele) V: 36.2° (Wide) ~ 1.24° (Tele)		
Pan / Tilt / Rotate	–	360° Endless / 180° (−90° ~ 90°) / –	360° Endless / 180° (−90° ~ 90°) / –
IR Viewable Length	70m	–	200m
Day & Night	Auto (ICR)		
Wide Dynamic Range	120dB		
Digital Noise Reduction	SSNR Ⅴ		
Digital Image Stabilization	Support		
Analytics	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		
Audio I/O	Selectable (mic in/line in) / Line out		
Video Compression	H.265 / H.264, MJPEG		
WiseStream	WiseStream Ⅱ		
Streaming	Up to 10 Profiles		
Edge Storage	–		
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
Operating Temperature	IR Off: −40°C~+60°C(−40°F ~ +140°F) / 0~95% RH IR On: −40°C~+55°C(−40°F ~ +131°F) / 0~95% RH	−40℃ ~ +60℃ (−40℉ ~ +140℉) / 0~95% RH	−40℃ ~ +60℃ (−40℉ ~ +140℉) / 0~95% RH
Certification	IP67, IK10, ATEX, IECEx, KCs		
Power Consumption	24VAC : Max 45W	24VAC: Max. 99W	24VAC: Max. 99W (Camera) 24VAC: Max. 50W (IR)
Dimensions (WxHxD) / Weight	W175 x H242.5 x D320mm (6.89x9.59x12.59") / 11.5kg(25.35lb)	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)
Additional Features	Stainless(SUS316L) housing, Built in wiper	–	–

	 TNU-6321 **2MP Positioning PTZ Camera**	 **TNU-4041T / 4051T** **VGA Thermal Positioning Camera**
Imaging Device	VGA Uncooled micro bolometer (12㎛)	Uncooled Micro bolometer
Resolution / Max. Frame Rate	2MP / 60fps	640 x 480 / 30fps
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	
Focal Length	4.44 ~ 142.6mm (32x) zoom	19mm / 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°
Pan / Tilt / Rotate	360° Endless / (130°) -90° ~ 40° / –	360° Endless / -90° ~ 40° / –
IR Viewable Length	200m with SPI-50 (Optional)	–
Day & Night	Auto (ICR)	–
Wide Dynamic Range	120dB	–
Digital Noise Reduction	SSNR Ⅴ	–
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)
Analytics	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Temperature ditection, Sound classification, Shock detection
Business Intelligence	–	
Alarm I/O	1 / 1	1/2
Audio I/O	Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG	
WiseStream	WiseStream Ⅱ	
Streaming	Up to 10 profiles	
Edge Storage	micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot 256GB
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform	
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~90% RH	
Certification	IP66, Safety (UL, KC-SDOC), EMC (FCC, CE, VCCI, RCM, KC)	IP66, NEMA 4X, IK10
Power Consumption	Max 100W (Heater On), typical 25W (Heater Off)	24VAC: Max 84W(Heater on), Max 62W(Heater off)
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)
Additional Features	–	Various color palettes

	 TNO-4050T **VGA Thermal Bullet Camera**	 **TNO-4040T** **VGA Thermal Bullet Camera**
Imaging Device	Uncooled Micro bolometer	
Resolution / Max. Frame Rate	640 x 480 / 30fps	
Min. Illumination	–	
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	
Focal Length	35mm fixed	19mm fixed
Angular Field of View	H : 17.2° / V : 13° / D : 22°	H : 32° / V : 24.3° / D : 39.2°
Pan / Tilt / Rotate	–	
IR Viewable Length	–	
Day & Night	–	
Wide Dynamic Range	–	
Digital Noise Reduction	–	
Digital Image Stabilization	Support (Built-in Gyro sensor)	
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change detection	
Business Intelligence	–	
Alarm I/O	1 / 2	
Audio I/O	Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG	
WiseStream	WiseStream Ⅱ	
Streaming	Up to 10 Profiles	
Edge Storage	micro SD/SDHC/SDXC	
Application Programming Interface	ONVIF profile S/G, SUNAPI, Wisenet open platform	
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉)	
Certification	IP66, NEMA 4X	IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	
Dimensions (WxHxD) / Weight	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0 lb)	
Additional Features	Various color palettes	

	 TNO-4040TR **VGA Radiometric Thermal Bullet Camera**	 **TNO-4030T** **VGA Thermal Bullet Camera**
Imaging Device	Uncooled Micro bolometer	
Resolution / Max. Frame Rate	640 x 480 / 30fps	
Min. Illumination	–	
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	
Focal Length	19mm fixed	13mm fixed
Angular Field of View	H : 32° / V : 24.3° / D : 39.2°	H : 48.6° / V : 36.4° / D : 61.6°
Pan / Tilt / Rotate	–	
IR Viewable Length	–	
Day & Night	–	
Wide Dynamic Range	–	
Digital Noise Reduction	–	
Digital Image Stabilization	Support (Built-in Gyro sensor)	
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection	
Business Intelligence	–	
Alarm I/O	1 / 2	
Audio I/O	Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG	
WiseStream	WiseStream Ⅱ	
Streaming	Up to 10 Profiles	
Edge Storage	micro SD/SDHC/SDXC	
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform	
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉)	
Certification	IP66, NEMA 4X, IK10	
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W	
Dimensions (WxHxD) /Weight	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12kg (6.89lb)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0lb)
Additional Features	Various color palettes Spot temperature reading	Various color palettes

	 TNO-3020T QVGA Thermal Bullet Camera	 **TNO-3030T** QVGA Thermal Bullet Camera	 **TNO-3040T** QVGA Thermal Bullet Camera
Imaging Device	Uncooled Micro bolometer		
Resolution / Max. Frame Rate	320 x 240 / 30fps		
Min. Illumination	–		
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B		
Focal Length	4.7mm fixed focal	13.7mm fixed focal	19mm fixed focal
Angular Field of View	H:50° / V:36.4° / D:65.3°	H:16° / V:12° / D:20°	H: 11.5° / V: 8.7° / D: 14.4°
Pan / Tilt / Rotate	–		
IR Viewable Length	–		
Day & Night	–		
Wide Dynamic Range	–		
Digital Noise Reduction	–		
Digital Image Stabilization	Support (Built-in Gyro sensor)		
Analytics	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature detection		
Business Intelligence	–		
Alarm I/O	1 / 2		
Audio I/O	Selectable (mic in/line in) / Line out		
Video Compression	H.265 / H.264, MJPEG		
WiseStream	WiseStream Ⅱ		
Streaming	Up to 10 Profiles		
Edge Storage	micro SD/SDHC/SDXC		
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform		
Operating Temperature	-40℃ ~ +60℃ (-40℉ ~ +140℉)		
Certification	IP66, NEMA 4X, IK10		
Power Consumption	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 375.3mm (Ø5.81x14.78") 2.51kg (5.538lb)		
Additional Features	Various color palettes		

	TNO-3050T **QVGA Thermal Bullet Camera**	**TNO-L3030T** **QVGA Thermal Bullet Camera**	**TNO-L4030T** **VGA Thermal Bullet Camera**	**TID-600R** **2MP Network Intercom Station**
Imaging Device	Uncooled Micro bolometer	Uncooled Micro bolometer	Uncooled Micro bolometer	1/2.8" CMOS
Resolution / Max. Frame Rate	320 x 240 / 30fps	320 x 240 / 8fps	640 x 480 / 8fps	2MP / 60fps
Min. Illumination	–	–	–	Color: 0.018lux (F1.6, 1/30sec) BW: 0 Lux (IR LED On)
Video Output	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS : 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p
Focal Length	35mm fixed focal	13.7mm fixed focal	13mm fixed focal	1.6mm fixed focal
Angular Field of View	H: 6.3° / V: 4.7° / D: 7.8°	H:16°, V:12°, D:20°	H: 48.6°, V: 36.4°, D : 61.6°	H: 180° / V: 114° / D: 180°
Pan / Tilt / Rotate	–			
IR Viewable Length	–	–	–	5m
Day & Night	–	–	–	Auto (ICR)
Wide Dynamic Range	–	–	–	WDR (150dB)
Digital Noise Reduction	–	–	–	SSNR Ⅴ
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
Analytics	Intelligent analytics Audio detection Sound classification Shock detection Temperature detection	Directional detection, motion detection, appear/disappear, enter/exit, loitering, tampering, virtual line, audio detection, temperature detection, sound classification, shock detection	Directional detection, motion detection, appear/disappear, enter/exit, loitering, tampering, virtual line, audio detection, temperature detection, sound classification, shock detection	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			
WiseStream	WiseStream Ⅱ			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC	micro SD/SDHC/SDXC 1slot 256GB
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, 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℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-40℃ ~ +60℃ (-40℉ ~ +140℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) 0~95% RH
Certification	IP66, NEMA 4X	IP66, NEMA 4X, IK10	IP66, NEMA 4X, IK10	IP65, IK08, NEMA4X, Safety (UL), EMC (FCC, CE)
Power Consumption	PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W	PoE: Max. 8.7W, typical 7.5W 12VDC: Max. 7.8WW, typical 6.7W 24VAC: Max. 9.2W, typical 8.0W	PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W	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 401.3mm (Ø5.81"x15.79") 2.74kg (6.05lb)	Ø147.51 x 375.3mm (58.07" x 147.76") 2,512g (5.538lb)	Ø101.97x401.8mm (4.01"x15.82") 3,124g(6.89 lb)	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

	TNO-3010T **QVGA Thermal Bullet Camera**	**TNO-4030TR** **VGA Radiometric Thermal Bullet Camera**	**TNO-L4030TR** **VGA Radiometric Thermal Bullet Camera**
Imaging Device	Uncooled micro bolometer		
Resolution/ Max. FrameRate	640x480 / 30fps	640x480 / 30fps	640x480 / 8fps
NETD	<60mK		
Pixel Size	12㎛		
Video Out	CVBS 1.0 Vp-p, Micro USB Type B, 1280x720 for installation		
Focal Length (Zoom Ratio)	2.7mm fixed focal		
Angular Field of View	H:92.0 ° / V:65.5 ° / D:125.7 °		
Min. Object Distance	0.3m(0.98ft)		
Digital Image Stabilization	Support(built-in gyro sensor)		
Analytics	Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Abnormal Temperature change ditection, Sound classification, Shock detection		
Temperature Detect Range	-		
Temperature Accuracy	-		
Temperature Detection	3 Rectanglular ROI zones		
Alarm I/O	1 / 2		
Audio I/O	Selectable (mic in/line in) / Line out		
Video Compression	H.265/H.264: Main/Baseline/High, MJPEG		
WiseStream	WiseStream Ⅱ		
Streaming	Up to 10Profiles		
Edge Storage	Micro SD/SDHC/SDXC 1slot 256GB		
Application Programming Interface	ONVIF Profile S/G/T SUNAPI(HTTP API) Wisenet open platform"		
Power Consumption	-	PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W	PoE: Max. 10W, typical 8.6W 12VDC: Max. 9W, typical 7.5W 24VAC: Max. 10.5W, typical 8.9W
Product dimensions / weight	Φ147.51x375.3mm(58.07x147.76") / 2512g(5.538lb)		
Additional Features	Various Color Palettes, Hybrid palettes, Spot temperature reading, Handover		
Power Consumption	PoE : Max 10W 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	Ø101.97 x 401.8mm (Ø4.01" x 15.82") 3.12kg (6.89lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)	Ø147.51 x 375.3mm (Ø5.81" x 14.78") 2.51kg (5.538lb)
Additional Features	Various color palettes Spot temperature reading	Various color palettes	Various color palettes

	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				
Resolution / Max. Frame Rate	2MP / 30fps				
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)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNR				
Digital Image Stabilization	–				
Analytics	Motion detection, Tampering				
Business Intelligence	–				
Alarm I/O	–				
Audio I/O	–				
Video Compression	H.264, MJPEG				
WiseStream	WiseStream Ⅱ				
Streaming	Up to 3 profiles				
Edge Storage	micro SD/SDHC 1slot 32GB				
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)				
Operating Temperature	-30℃ ~ +55℃ (-22℉ ~ +131℉) / 0~90% RH * Start up should be done at above -20℃ (-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) / 0~90% RH * Start up should be done at above -20℃(-4℉)	-30℃ ~ +55℃ (-22℉ ~ +131℉) / 0~90% RH * Start up should be done at above -20℃ (-4℉)	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH
Certification	IP66	IP66	IP66	–	–
Power Consumption	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			
Resolution / Max. Frame Rate	2MP / 30fps			
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°			
IR Viewable Length	20m (65.62ft)	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNR			
Digital Image Stabilization	–			
Analytics	Motion detection, Tampering			
Business Intelligence	–			
Alarm I/O	–			
Audio I/O	–			
Video Compression	H.264, MJPEG			
WiseStream	WiseStream Ⅱ			
Streaming	Up to 3 profiles			
Edge Storage	micro SD/SDHC 1slot 32GB			
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API)			
Operating Temperature	-10℃~+55℃ (+14℉~+131℉) / 0~90% RH	-30℃~+55℃ (-22℉~+131℉) / 0~90% RH * Start up should be done at above -20℃ (-4℉)	-30℃~+55℃ (-22℉~+131℉) / 0~90% RH * Start up should be done at above -20℃ (-4℉)	-30℃~+55℃ (-22℉~+131℉) / 0~90% RH * Start up should be done at above -20℃ (-4℉)
Certification	–	IP66, IK10	IP66, IK10	IP66, IK10
Power Consumption	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)

High performance NVR

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

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

Monitor all sub channels without registering them all

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

Registered channel
Recording and monitoring

CAMERA A
Channel #01

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

Unregistered channel
Monitoring sub channels without recording

CAMERA A
Channel
#02

CAMERA A
Channel #03

CAMERA A
Channel #04

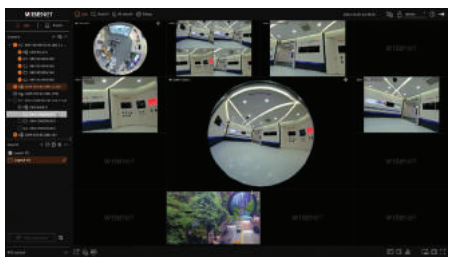
Installation Wizard for easy auto recognition and setup

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

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.



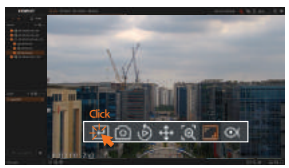
Code your own event action with SUNAPI command and Integrate with the Software Key

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.

1. Code event action* and integrate with the Software key

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

2. Click the Software key to initiate the event action



AI NVR

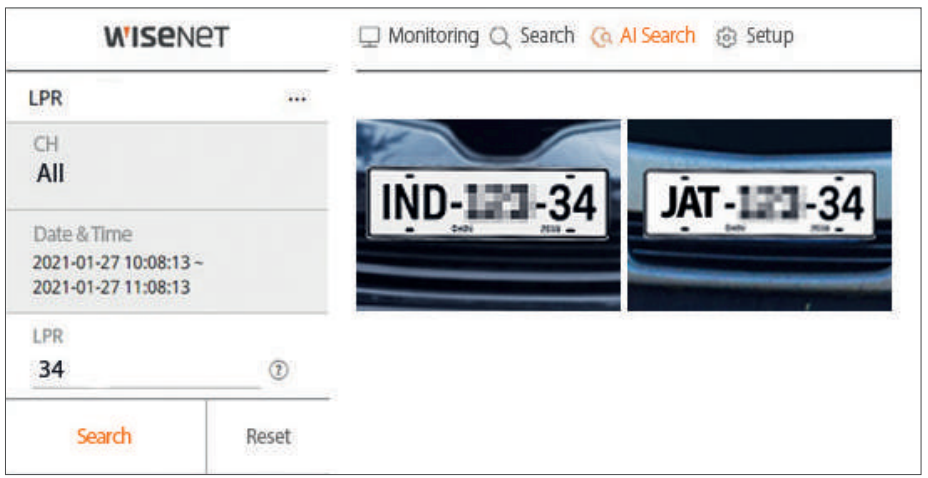
AI enhances accuracy and efficiency

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

License Plate Recognition LPR (Search)

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

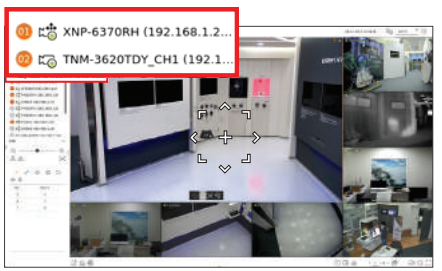
* Attributes : People (Clothing colors for top and bottom/ Wearing or carrying a bag) / Face (Age group, gender, mask/glasses wearing) when integrated with Wisenet cameras, Vehicle (Types, colors) / License plate (Optical technology converts images into texts for storage, supporting search in text



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

Live monitoring and bookmarks

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



Live monitoring and PTZ control

Bookmark setup and event search

	PRN-6400DB4 64CH AI NVR	**PRN-6400B4** 64CH AI NVR	**PRN-3200B4** 32CH AI NVR	**PRN-3200B2** 32CH AI NVR	**PRN-1600B2** 16CH AI NVR
OS	Linux				
Supported Compression	H.265 / H.264, MJPEG, WiseStream				
Max. Recording Bit Rate	400Mbps	400Mbps	400Mbps	400Mbps	250Mbps
Max # of Cameras	64CH	64CH	32CH	32CH	16CH
Network Camera Resolution	32MP ~ CIF				
HDD Slot	16SATA(10TB per HDD), Hot-swap	16SATA(10TB per HDD), Hot-swap	16SATA(10TB per HDD), Hot-swap	8SATA(10TB per HDD), Hot-swap	8SATA(10TB per HDD), Hot-swap
Record Mode	Normal, Dual Stream, Schedule (Continuous/Event), Event (Pre/Post), Bookmark				
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event				
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown				
External Storage	iSCSI	iSCSI	iSCSI	iSCSI storage	iSCSI storage
RAID	RAID 5/6				
Hot Swap	Yes				
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile,Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS				
Local Monitor	Support dual monitor HDMI 1 (Up to 4K), HDMI 2 (FHD)				
Network Camera Protocol	SUNAPI, ONVIF				
Power Input	100 ~ 240 VAC ± 10%, 50/60 Hz (Dual SMPS)	100 ~ 240 VAC ± 10%, 50/60 Hz	100 ~ 240 VAC ± 10% 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.1A	100 ~ 240 VAC ± 10%; 50/60 Hz, 2.1A
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, Vehicle, License plate – with AI cameras) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view				

	XRN-6420DB4/6420B4 **64CH NVR**	**XRN-6410DB4/6410B4** **64CH NVR**	**XRN-6410RB2** **64CH NVR**	**XRN-6410B2** **64CH NVR**
OS	Linux			
Supported Compression	H.265, H.264, MJPEG	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	520Mbps	400Mbps	400Mbps	400Mbps
Max # of Cameras	64CH			
Network Camera Resolution	32MP ~ CIF			
HDD Slot	16SATA(10TB per HDD)	16SATA(10TB per HDD)	8SATA(10TB per HDD)	8SATA(10TB per HDD)
Record Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark			
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event			
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shotdown			
External Storage	iSCSI storage	iSCSI	iSCSI	iSCSI
RAID	RAID-5/6	RAID 5/6	RAID 5/6	-
Hot Swap	Yes	Yes	Yes	-
Network Viewer Software	SSM, WAVE, Webviewer, Wisenet Viewer, Wisenet mobile 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	Dynamic layout, Virtual channel view [Web] Dynamic layout	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
Power Consumption	-	Max. 265W (16 HDD)	Max. 160w (8HDD)	Max. 138W (8 HDD)
PoE Budget	-			
Additional Features	• N+1 failover supported • AI search (BestShot, Attribute) - When integrated with 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 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 AI cameras • PTZ camera configuration and control • Dynamic layout • Virtual channel view • Fisheye dewarping	• N+1 failover supported • AI search (BestShot, Attribute) - When integrated with AI cameras • PTZ camera configuration and control • Dynamic layout • Fisheye dewarping

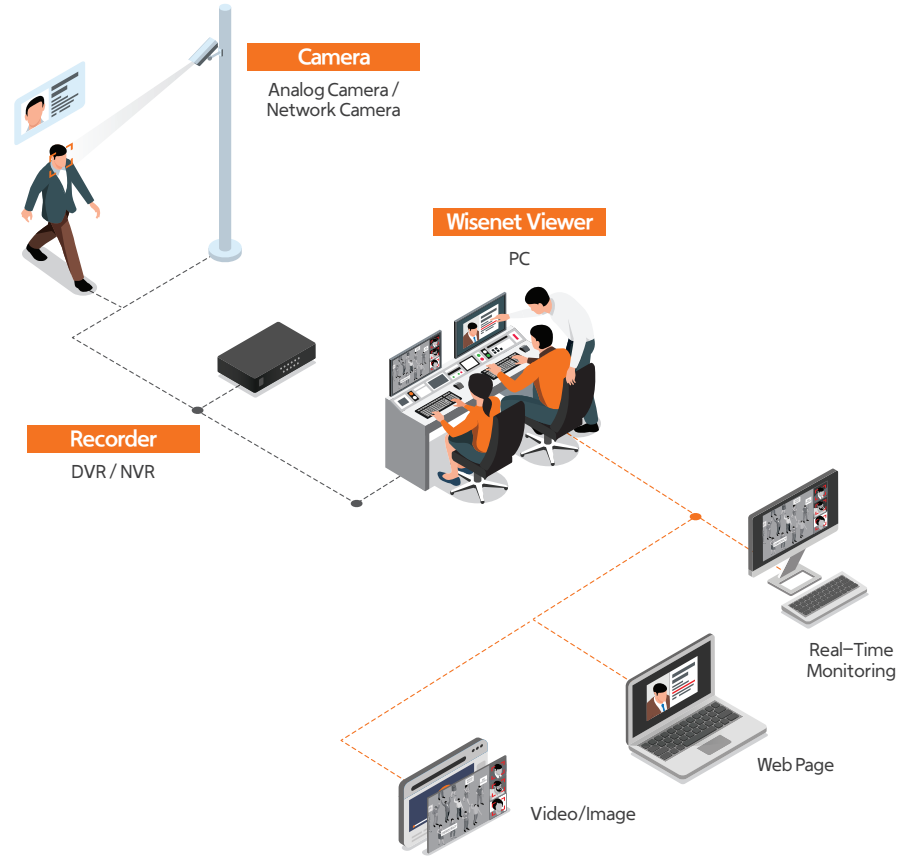
	NEW **XRN-3220B4** 32CH NVR	 **XRN-3210B4** 32CH NVR	 **XRN-3210RB2** 32CH NVR	 **XRN-3210B2** 32CH NVR
OS	Linux			
Supported Compression	H.265, H.264, MJPEG	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream
Max. Recording Bit Rate	520Mbps	400Mbps	400Mbps	400Mbps
Max # of Cameras	32CH			
Network Camera Resolution	32MP ~ CIF			
HDD Slot	16SATA(10TB per HDD)	16SATA(10TB per HDD)	8SATA(10TB per HDD)	8SATA(10TB per HDD)
Record Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark			
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event			
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shotdown			
External Storage	iSCSI storage	iSCSI	iSCSI	iSCSI
RAID	RAID-5/6	RAID 5/6	RAID 5/6	-
Hot Swap	Yes	Yes	Yes	-
Network Viewer Software	SSM, WAVE, Webviewer, Wisenet Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS			
Local Monitor	Dynamic layout, Virtual channel view [Web] Dynamic layout	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	100 ~ 240 VAC ± 10%, 50/60 Hz	100 ~ 240 VAC ± 10%, 50/60 Hz
Power Consumption	-	Max. 265W (16 HDD)	Max. 160W (8 HDD)	Max. 138W (8 HDD)
PoE Budget	-			
Additional Features	• N+1 failover supported • AI search (BestShot, Attribute) - When integrated with AI cameras • PTZ camera configuration and control • Fisheye dewarping			

	XRN-1620SB1 16CH NVR	**XRN-1620B2** 16CH NVR	**XRN-1620B2** 16CH NVR	**XRN-820S** 8CH NVR	**XRN-815S** 8CH NVR
OS	Linux				
Supported Compression	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG, WiseStream	H.265 / H.264, MJPEG
Max. Recording Bit Rate	140Mbps	140Mbps	140Mbps	100Mbps	100Mbps
Max # of Cameras	16CH	16CH	16CH	8CH	8CH
Network Camera Resolution	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	32MP ~ CIF	12MP ~ CIF
HDD Slot	Up to 4 SATA (Max. 24TB)	Up to 4 SATA (Max. 24TB)	Up to 8 SATA (Max. 80TB)	Up to 2 SATA (Max. 12TB)	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)	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				
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown				
External Storage	–				
RAID	–				
Hot Swap	–				
Network Viewer Software	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'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)	HDMI1: 3840x2160(30Hz), HDMI2: 1920x1080(60Hz)
Network Camera Protocol	SUNAPI, ONVIF				
Power Input	100 ~ 240 VAC ± 10%, 50/60 Hz				
Power Consumption	Max. 310W	Max. 310W	Max. 130W	Max. 160W	Max 165W (2HDD, PoE On)
PoE Budget	200W	200W	–	100W	100W
Additional Features	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) – When integrated with AI cameras • PTZ camera configuration and control				

	XRN-420S 4CH NVR	**QRN-1630S** 16CH NVR	**QRN-830S** 8CH NVR	**QRN-430S** 4CH NVR
OS	Linux			
Supported Compression	H.265/H.264, MJPEG			
Max. Recording Bit Rate	50Mbps	128Mbps	Max. 80Mbps	40Mbps
Max # of Cameras	4CH	16CH	8CH	4CH
Network Camera Resolution	8MP~CIF			
HDD Slot	Up to 1 SATA (Max.6TB)	Up to 2 SATA (Max. 20TB)	Up to 1 SATA (Max. 6TB)	Up to 1 SATA (Max. 6TB)
Record Mode	Normal, Dual Stream, Schedule(Continuous/Event), Event(Pre/Post), Bookmark			
Event Trigger	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event (Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event	Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event
Event Action	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown	e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out
External Storage	–			
RAID	–			
Hot Swap	–			
Network Viewer Software	WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS	SSM, Webviewer, Smart Viewer, Wisenet mobile, Wisenet Viewer, Support CGI (SUNAPI) for integration to 3'rd party VMS
Local Monitor	HDMI: 3840x2160 , VGA: 1920x1080	HDMI1: 3840 x 2160(30Hz), HDMI2: 1920 x 1080(60Hz)	HDMI :3840 x 2160 (30Hz)	HDMI 1 (Up to 4K)
Network Camera Protocol	SUNAPI, ONVIF			
Power Input	100 ~ 240 VAC ± 10%; 50/60 Hz	100 ~ 240 VAC ± 10%; 50/60 Hz	54VDC / 1.55A	100 ~ 240 VAC ± 10%; 50/60 Hz
Power Consumption	Max 67W(1HDD, PoE On)	Max. 200W (2HDD, PoE ON)	Max 84W (1HDD, PoE ON)	Max 52W (1HDD, PoE On)
PoE Budget	50W	130W	65W	35W
Additional Features	• PoE supported • N+1 failover supported • AI search (BestShot, Attribute) – When integrated with AI cameras • PTZ camera configuration and control	• 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))

Wisenet Viewer

Costless yet powerful NVR·DVR Management Software



Monitoring with PC gets easier

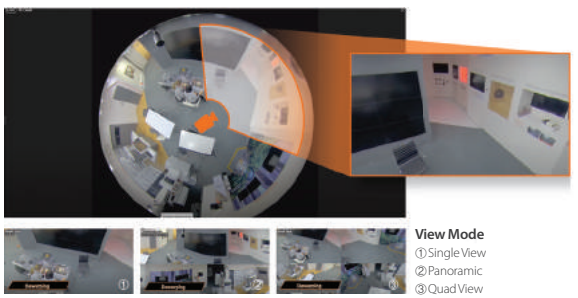
- Supports multiple OS (Windows, macOS)
- Flexible channel division and custom layout
- AI search (Person, Face, Vehicle, LPR)
- Fisheye de-warping
- Displays web pages (ex. NVR web-viewer) and video tutorials
- Allows videos to be directly saved to PC
- Event trigger and action rule management
- Remote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

* Available on Windows, macOS

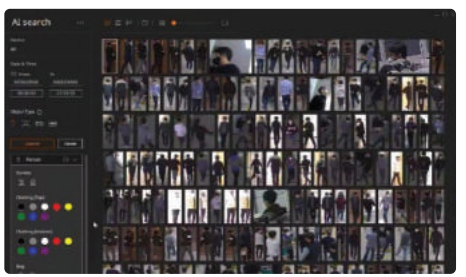
Effective monitoring with essential features

Customizable channel layout & Timeline

Easy monitoring with **Fisheye Dewarping**



Intelligent monitoring powered by **AI Search**



Encoder

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

Decoder

	SPD-152 1 Monitor Decoder
Video Out	HDMI (2ea)
Resolution	HDMI#1 up to 4K, HDMI#2 up to 1080p
Display	Max. 64ch decoding Decoding performance : 8M@60fps, 2M@360fps
Power	Dual Power : 12VDC, PoE (IEEE802.3af)
Additional Features	Multi adapter for monitor back mount (VESA)

Wisenet WAVE

Video Management System

Intuitive and Easy to Use

- An intuitive 'drag & drop' tool makes it extremely easy for operators to set up a display of live and recorded images on a single screen or video wall, with customizable layouts and sizes.
- Zoom windows which, with just simple clicks of a mouse, enables operators to zoom in to see close up detail of any suspicious activity.
- Motion detection and video analytics support can be configured to generate alerts when user defined incidents occur.
- A wide range of smart, keyword, calendar and preview search options facilitate rapid retrieval of recorded video.

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

An Operating System to Suit Your Needs

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

WAVE Sync

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

Desktop

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

Mobile

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

Server

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

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

Cloud

Wisenet WAVE Sync Simplifies Everything

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

Setup in Seconds

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

Wisenet WAVE

Desktop

The Ultimate Flexibility

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

Mobile

Smart Phone. Smart Video.

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

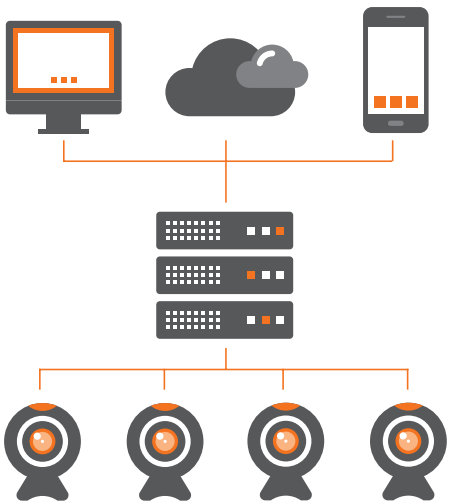
Server

Lightweight. Powerful. Server Hive.

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

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

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



Server Hive

Connect to any Server w/ any Client
- Instant synchronization
- No single point of failure
- Automatic failover
- One-click upgrades

Wisenet SSM

Ideal choice for integrated monitoring

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

Cost Competitiveness	High reliability	Convenient Operation
Off er major features of video surveillance in reasonable price	Superb device compatibility off ered as a VMS of device manufacturer	A single manufacturer providing unifi ed 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 Hanwha AI cameras to SSM for various search features adopting AI algorithms.

• Best Shot search using unique attributes

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

Hanwha SSM search
Support quick search using attributes

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

Parking management solution

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

• Vehicle management & event search

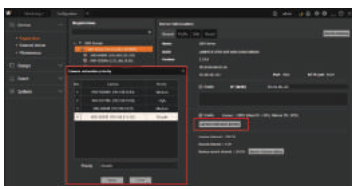
Hanwha SSM's parking management solution utilizes ANPR (Automatic number plate recognition) cameras off ering real-time parking entrance/exit monitoring. Users can register and manage vehicles without additional parking management software, while simple search feature quickly searches and retrieves vehicle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

Stable monitoring

SSM provides safe and stable monitoring environment through Failover.

• Vehicle management & event search

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



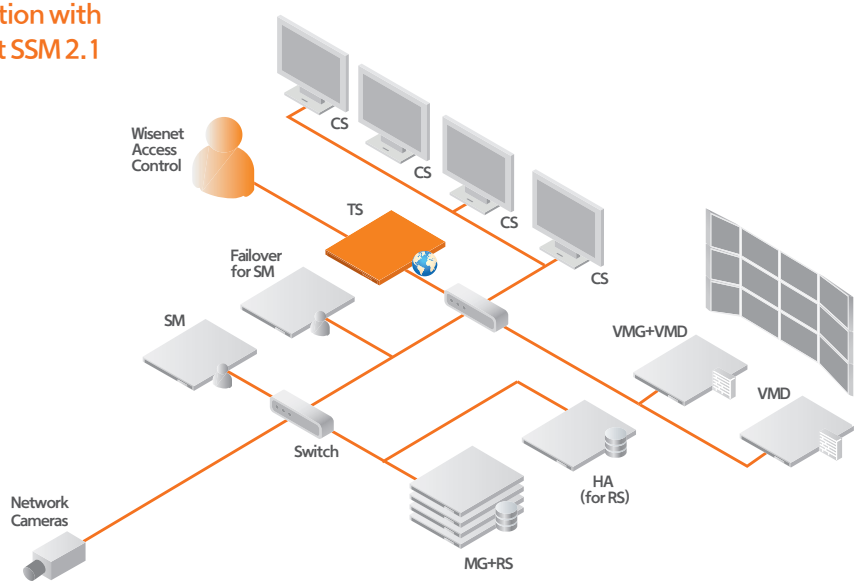
	 XRP-4310DB4 128CH Server NVR (SSM Appliance)	 **XRP-4210B4** 72CH Server NVR (SSM Appliance)
OS	Windows 10 IoT Enterprise (SSM preinstalled)	
Supported Compression	H.265 / H.264, MJPEG, WiseStream	
Max. Recording Bit Rate	400Mbps	
Max # of Cameras	128CH (If clustering, 132CH)	72CH (If clustering, 132CH)
Network Camera Resolution	32MP ~ CIF	
HDD Slot	SATA 16ea (3.5" 16ea Hot Swap – Volume 2ea)	
Record Mode	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)	
Event Action	Instant Viewer, Preset, Alarm Out, Pop-up, Sound and E-mail notification	
External Storage	–	
RAID	RAID 1 / 5 / 6 / 10 / 50	
Hot Swap	Yes	
Network Viewer Software	SSM Client, SSM Mobile	
Local Monitor	Dual if Full HD monitor Single if UHD monitor	
Network Camera Protocol	Wisenet, ONVIF	
Power Input	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

Integration with Wisenet SSM 2.1



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

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 Vision'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	

Configuration

Monitoring

Mustering Report

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)	W410 x H410 x D97mm (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 Vision unique format (Elite)	• Bluetooth/NFC via mobile device (Android, IOS)	• Long range card (3~5m)

IP Audio System

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

TTS
Text To Speech

PoE & PoE+
Dual Support +

SIP
PBX integration

Scheduler
Day, Week, Month and Year

IP Speakers

SPA-C110B/SPA-C110W
Ceiling Speaker

SPA-C100B / SPA-C100W
Ceiling Speaker

SPA-P100B/SPA-P100W
Pendant speaker

SPA-W100B / SPA-W100W
Wall speaker

SPA-H100B/SPA-H100W
Horn speaker

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

IP Audio Module

SPA-D1000
Audio Module

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

SIP Microphone

SPA-M2000
Microphone

Ethernet	10/100 Base-T
Operating Temperature	-10~+40℃ (+14° F~+104° F)
Operating Humidity	10~85% RH (Non-Condensing)

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

IP Audio Bridge

SPA-B1000
IP Audio Bridge

Ethernet	10/100 Base-T
Operating Temperature	-20~+50℃ (-4° F~+122° F)
Operating Humidity	10~85% RH (Non-Condensing)

	HCB-7000A QHD Box Camera	**HCO-7070RA** QHD IR Bullet Camera	**HCO-7010RA/20RA/30RA** QHD IR Bullet Camera	**HCD-7070RA** QHD IR Dome Camera	**HCD-7010RA/20RA/30RA** QHD IR Dome Camera
Imaging Device	1/3" CMOS				
Resolution	2560 x 1440				
Min. Illumination	Color : 0.16Lux (F1.2) 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)				
Backlight Compensation	BLC/HLC/DWDR				
Digital Noise Reduction	2D DNR				
Motion detection	Support				
Privacy Masking	2 Zones				
Alarm I/O	0/1	0/1	0/1	0/1	MD Output 1
Protocol	AHD : ACP (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)	Ø 78 x 259.8mm (Ø 3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø 70 x 246mm (Ø 2.76" x 9.69") (Without sunshield) 670g (1.48lb)	Ø 119.8 x 98.5mm (Ø 4.72" x 3.88") 320g (0.71lb)	Ø 110.1 x 86.1mm (Ø 4.33" x 3.39") 240g (0.53 lb)
Additional Features	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)				
Backlight Compensation	BLC / HLC / DWDR	BLC/HLC/DWDR	WDR (120dB)	WDR (120dB)	WDR (120dB)
Digital Noise Reduction	2D DNR	2D DNR	SSNRⅣ	SSNRⅣ	SSNRⅣ
Motion detection	Support				
Privacy Masking	2 Zones	2 Zones	4 Zones	8 Zones	8 Zones
Alarm I/O	MD Output 1				
Protocol	AHD : ACP (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)				

	HCO-6070R **1080p HD IR Bullet Camera**	**HCO-6020R** **1080p HD IR Bullet Camera**	**HCD-6080R/6070R** **1080p HD IR Dome Camera**	**HCD-6020R** **1080p HD IR Dome Camera**
Imaging Device	1/2.8" CMOS			
Resolution	1920 x 1080			
Min. Illumination	Color : 0.11Lux (F1.6) 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)			
Backlight Compensation	WDR (120dB)			
Digital Noise Reduction	SSNRⅣ			
Motion detection	Support			
Privacy Masking	8 Zones			
Alarm I/O	MD Output 1	–	MD Output 1	–
Protocol	AHD : ACP (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)			

	HCD-6010 **1080p HD Dome Camera**	**HCV-6080R/6070R** **1080p HD IR Vandal Dome Camera**	**SCB-6005** **1080p HD Box Camera**	**SCO-6085R** **1080p HD IR Bullet Camera**
Imaging Device	1/2.8" CMOS			
Resolution	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)			
Backlight Compensation	WDR (120dB)			
Digital Noise Reduction	SSNRⅣ			
Motion detection	Support			
Privacy Masking	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℉) / 0~90% 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)			

	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			
Resolution	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)			
Backlight Compensation	BLC, HLC, DWDR			
Digital Noise Reduction	SSNRⅣ			
Motion detection	Support			
Privacy Masking	8 Zones			
Alarm I/O	0 / 1	0 / 1	0 / 1	–
Protocol	ACP (AHD Coax Protocol) CVBS: Pelco-C (Coaxitron)			
Operating Temperature	-30℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH * Start up should be done at above -10℃	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH	-30℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% 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 165.2 mm (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	Video transmisstion up to 500m (5C2V Coaxial Cable)			

	HRX-1635 16CH 8MP Pentabrid Recorder	**HRX-1634** 16CH 8MP Pentabrid Recorder	**HRX-835** 8CH 8MP Pentabrid Recorder	**HRX–435** 4CH 8MP Pentabrid Recorder	**HRX–434** 4CH 8MP Pentabrid Recorder
OS	Linux				
Compression	H.264, H.265, MJPEG				
Signal Type	Analog (AHD, TVI, CVI, CVBS) & N/W Camera				
Inputs	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 16CH, N/W Camera 2CH (up to 18CH)	Analog 8CH, N/W Camera 2CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)	Analog 4CH, N/W Camera 6CH (up to 10CH)
Record Rate	8MP 8/8fps, 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, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Web Viewer, Wisenet Viewer, Wisenet Mobile	SSM, Webviewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS	SSM, Webviewer, Wisenet mobile SUNAPI for integration to 3'rd party VMS
Local Display	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA (Dual Monitor)	1 HDMI, 1 VGA	1 HDMI, 1 VGA
Audio In/Out	16 / 1	4 / 1	8 / 1	4 / 1	1 / 1
Alarm In/Out	16 / 4	16 / 4	8 / 4	4 / 2	4 / 1
N/W Camera Support	SUNAPI, ONVIF				
Additional Features	Easy configuration (Setup Wizard, P2P (QR Code)) Coaxial Control support (CVBS and AHD/CVI/TVI) RS–485 USB (2ports)				

LED Monitor

	SMT-4343 43" LED Monitor	SMT-3240 32" LED Monitor	SMT-3234 32" LED Monitor	SMT-2740 27'' LED Monitor	SMT-2710 27'' LED Monitor	SMT-2431 24" LED Monitor	SMT-2212 22" LED Monitor
Screen Size	43"	32"	32"	27''	27''	24"	22"
Max. Resolution	3840 x 2160	3840 x 2160	1920 x 1080	3840 x 2160, 60Hz (UHD)	1920 x 1080, 60Hz (FHD)	1920 x 1080	1920 x 1080
Brightness	300 cd/m²	300 cd/m²	300 cd/m²	300 cd/m²	250 cd/m²	250 cd/m²	250 cd/m²
Contrast Ratio	1000:1	1000:1	2250:1	1200:1	4000:1	4000:1	3000 : 1
Aspect Ratio	16:9						
Viewing Angle(H/V)	178°/178°						
Response Time	8.5ms	14ms	8ms	–	6.5ms	14ms	6.5ms
Interface	HDMI (1), DP (1)	HDMI 2.0(1), DP1.2(1)	HDMI (1), VGA (1), DVI (1), BNC(1)	HDMI 2.0(2), DP1.4(1), two windows PIP/PBP	VGA(1), HDMI 1.4(1), DP 1.2(1)	HDMI (1), VGA (1)	HDMI(1), VGA(1)
Audio In/Out	–/1	–/1	–/1	–/–	1/1	–/–	–/–
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	100V~240V AC	100V ~ 240V AC	DC 12V 5A
Stand	Optional	Yes	Optional	Yes	Yes	Yes	Yes
Tempered Glass Screen	–						
Additional Features	Remote Controller	–	Remote Controller	–	–	–	–

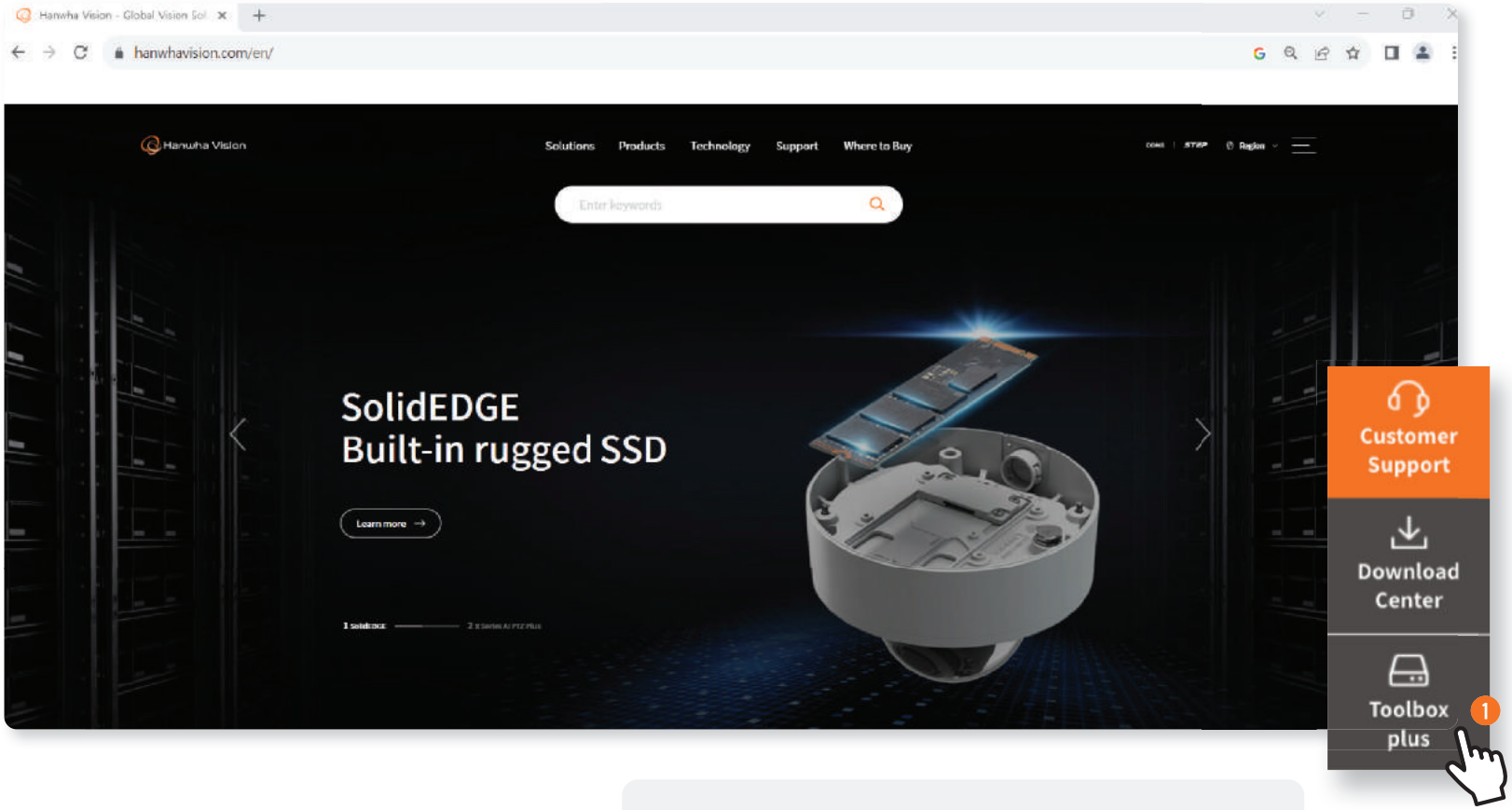
Controller

	SPC-7000 System Controller	SPC-2010 PTZ / DVR System Controller	SPC-2001 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	• 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 / 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)

Toolbox Plus



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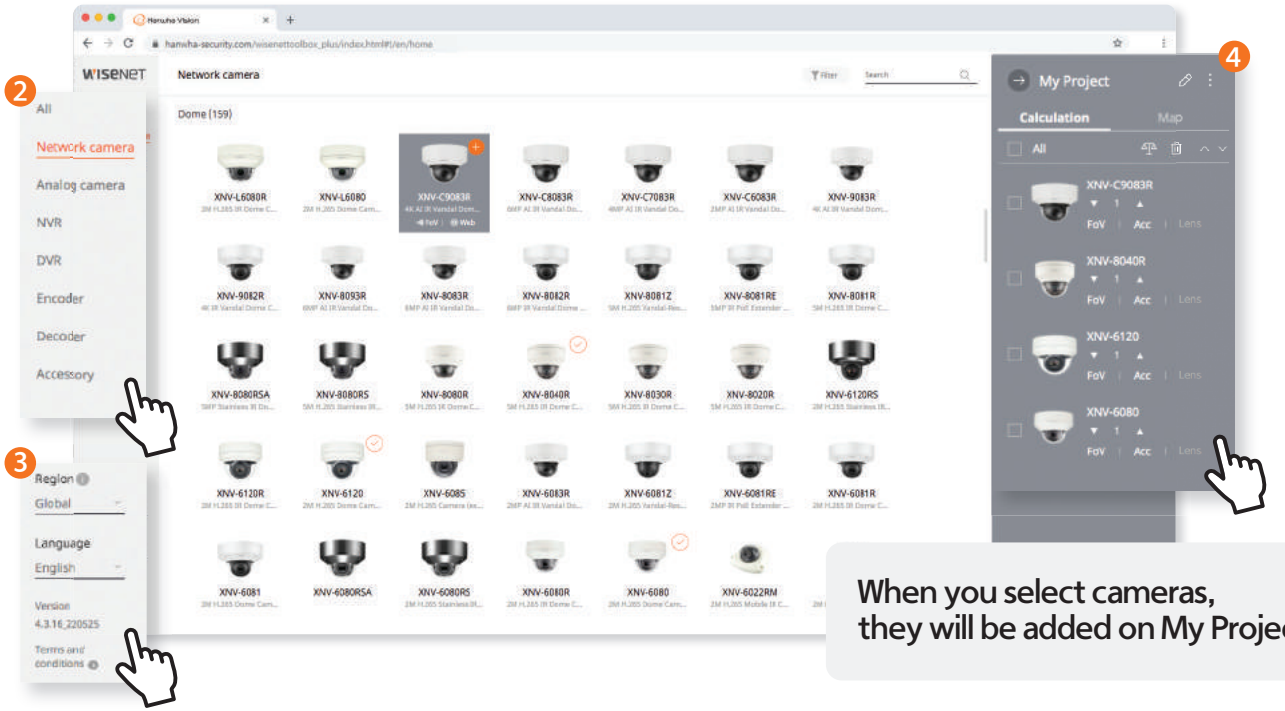
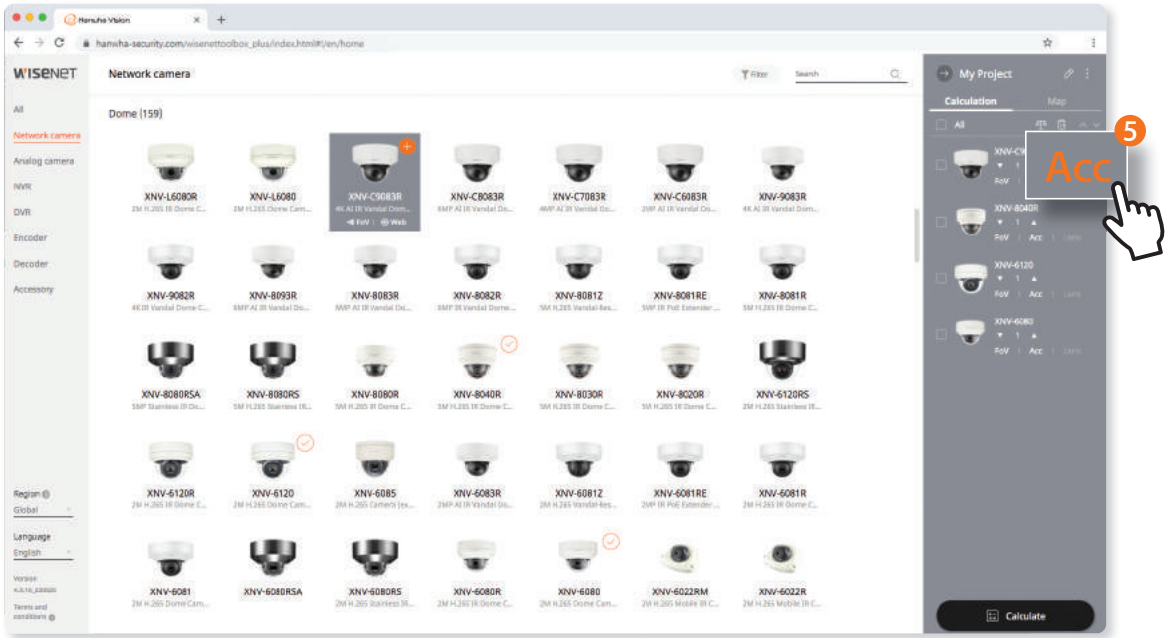
(https://www.hanwhavision.com/wisenettoolbox_plus)

Choose product you are interested in

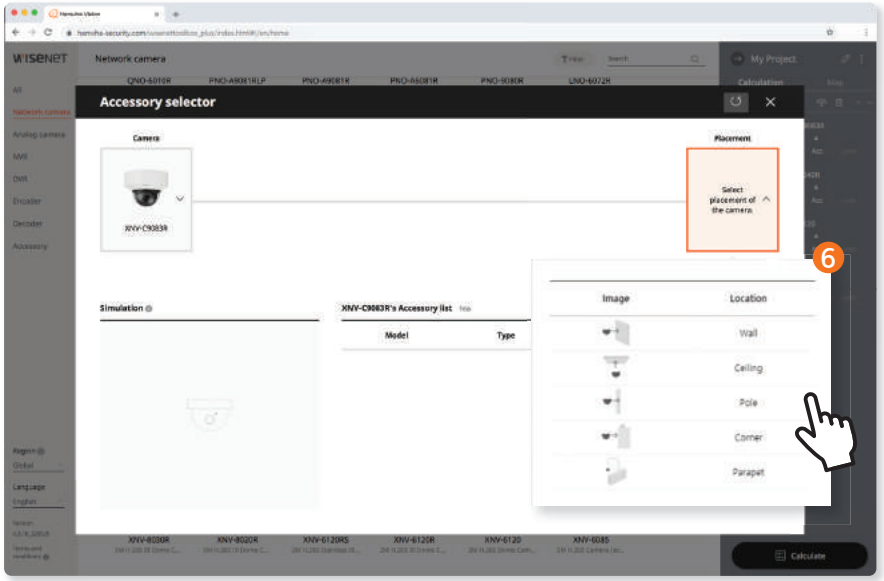
Select region and language



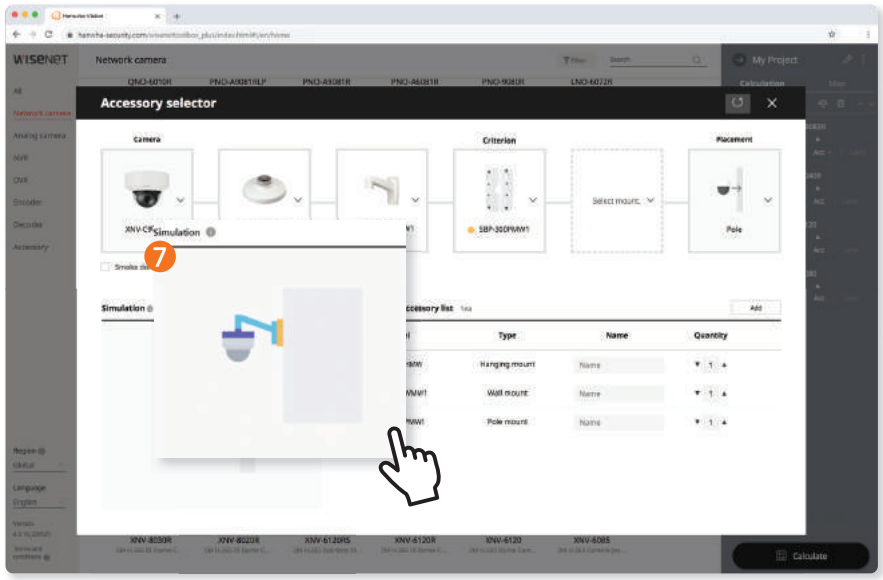
When you select cameras, they will be added on My Project



Click the Acc to find compatible accessories

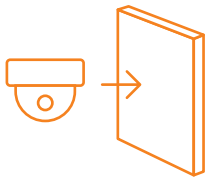


Accessory Selector pops up.
All compatible accessories are shown

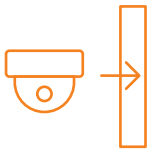


Choose accessories then the simulation
intuitively shows all connected accessories

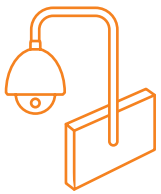
WM Wall mounts



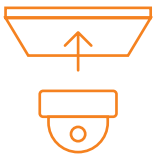
PM Pole mounts



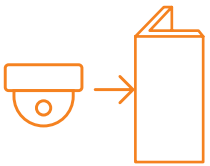
LM Parapet mounts



CM Ceiling mounts

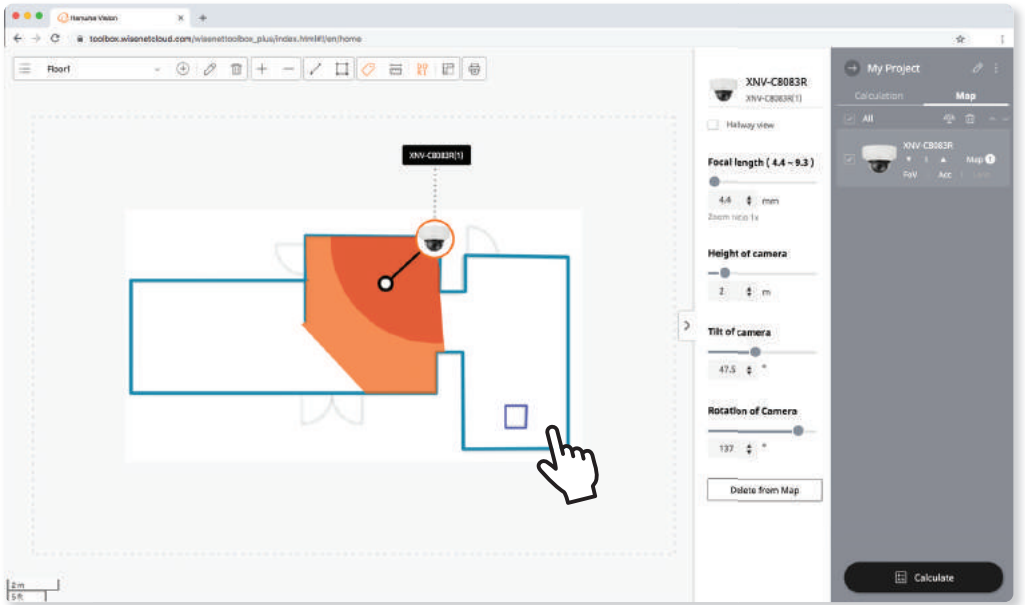


KM Corner mounts

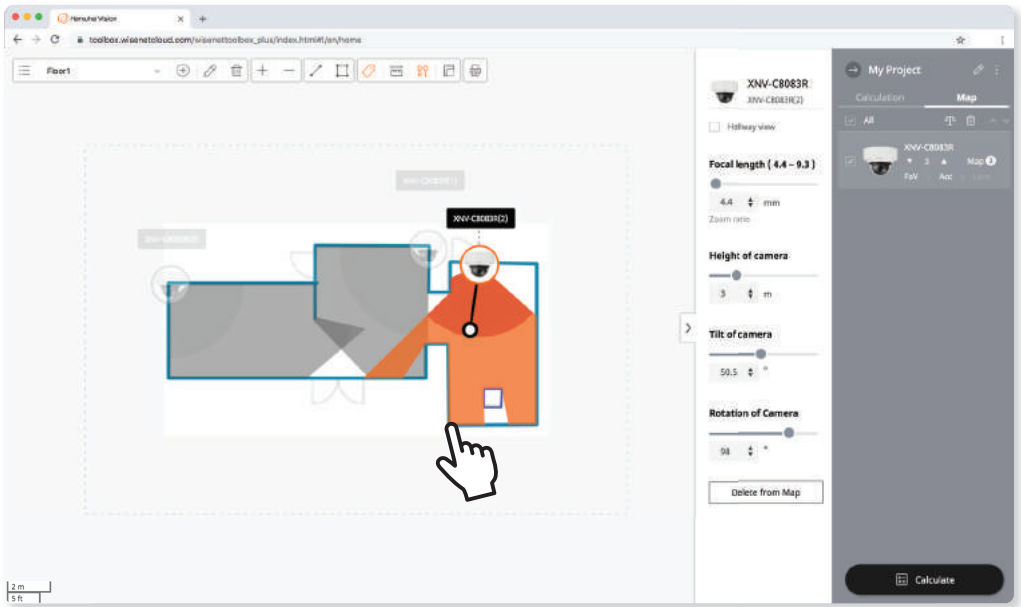


Newly updated in Toolbox Plus: Simulate on the map

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



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



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

MEMO

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