Hanwha Vision

2024 H1 − Hanwha Vision Europe

PRODUCT PORTFOLIO

hanwhavision.eu

Hanwha Group

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

Founded in 1952, Hanwha continues to grow by anticipating and responding to 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	**Business Enterprise in South Korea** Total assets, as of end of 2022
65.3 USD Billions	**TOP 7**
Years of History Founded in 1952	**Ranking on Fortune Global 500 in 2023**
71	**296**
Domestic affiliates As of end of June 2022	**Global Networks** As of end of 2022
91	**710**

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

Global vision solution provider

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

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

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

Our investment in innovation and continually pushing the boundaries of what's possible in video is core to our competitiveness.

History

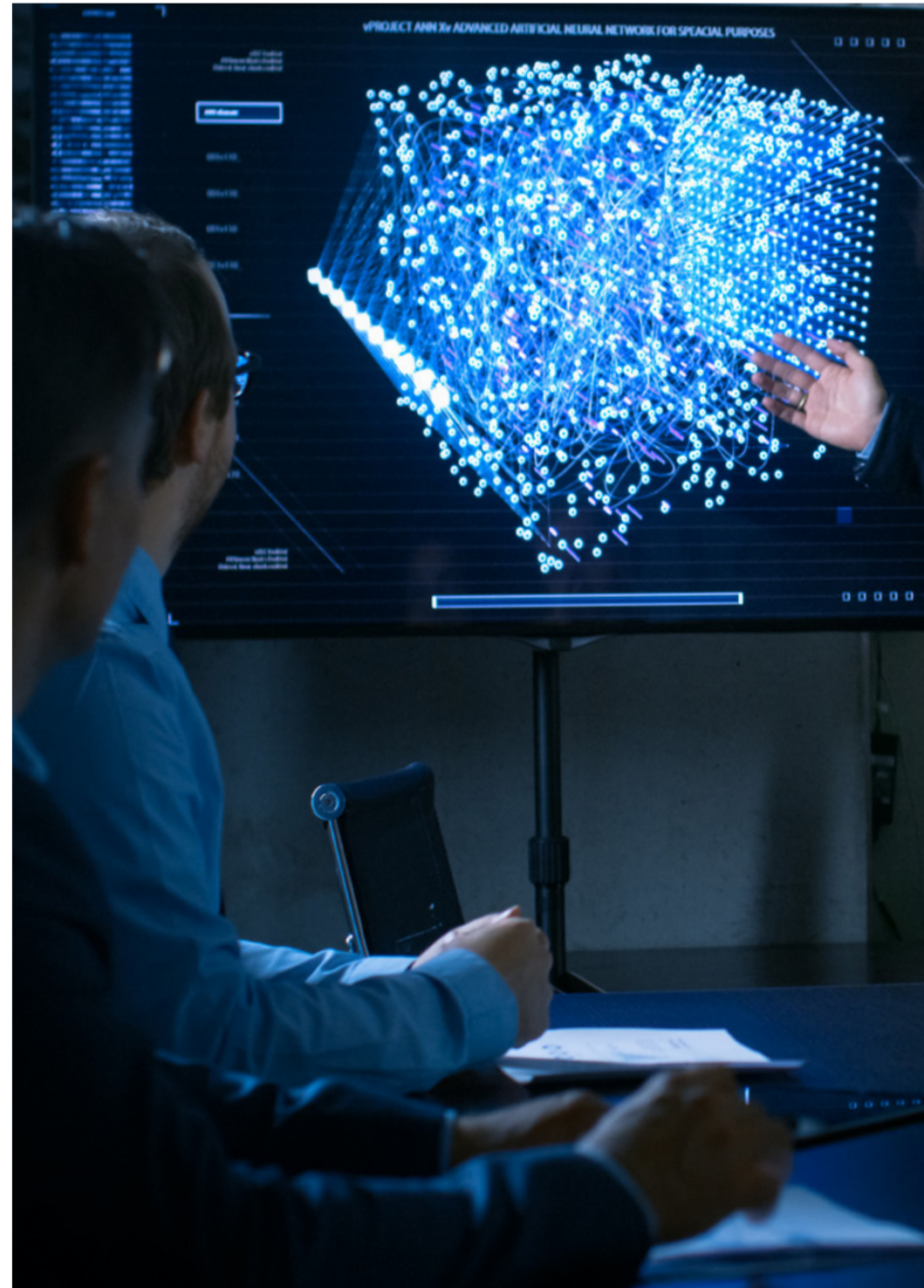|	
2023.03	Changed name to 'Hanwha Vision' Announced focus on becoming a vision solution provider
2022	Launched IP audio system
2021	Launched the X AI camera series
	Launched AI NVR and AI integrated solution
	Developed AI–based infectious disease response solutions
2020	30th anniversary of the video 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
	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 cybersecurity certification
2016	Establishment of Hanwha Techwin Middle East FZE
2015	Launched Hanwha Techwin
2013	Wisenet 3 SoC and camera series with Wisenet 3 SoC are launched
2012	Launched the world's first 37x IR PTZ camera
2009	Establishment of Hanwha Techwin Tianjin and Shanghai
2008	Launched the world's first 37x PTZ camera
2005	Developed advanced intruder automatic location tracking system
2004	Developed Winner 3 Analog ISP chip
2001	Establishment of Hanwha Techwin Europe
1997	Launched the world's best ultra–low illumination video surveillance camera
1993	Developed Korea's first Auto Iris lens for CCTV
1990	Started video surveillance business, establishment of Hanwha Techwin America

R&D power

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

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

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

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

American Innovation Centre

Headquarters R&D Centre
(Pangyo, Korea)

AI Lab

uPROJECT ANN Xe ADVANCED ARTIFICIAL NEURAL NETWORK FOR SPEACIAL PURPOSES

To ensure 24/7 reliability of our products, we leverage a smart manufacturing system.

High-tech Powered in Vietnam

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

End-to-end Cybersecurity

Hanwha Vision offers best-in-class cybersecurity 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 in development as well as manufacturing.

- Hanwha Vision Private Device Certification Root CA
- UL CAP, TPM 2.0 (FIPS 140-2), NIS2
- 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

Next level Cybersecurity

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)
- False alarm reduction
- Assist forensic search
- WiseNRII, SSNRV, WiseStreamIII

AI based object detection & classification
Q series AI camera

Pixel based motion detection
Non AI camera

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

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

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

Vehicle
(Car/Bus/Truck/Motorcycle/Bicycle)

Face

Person

Licence plate

HT-752-WS
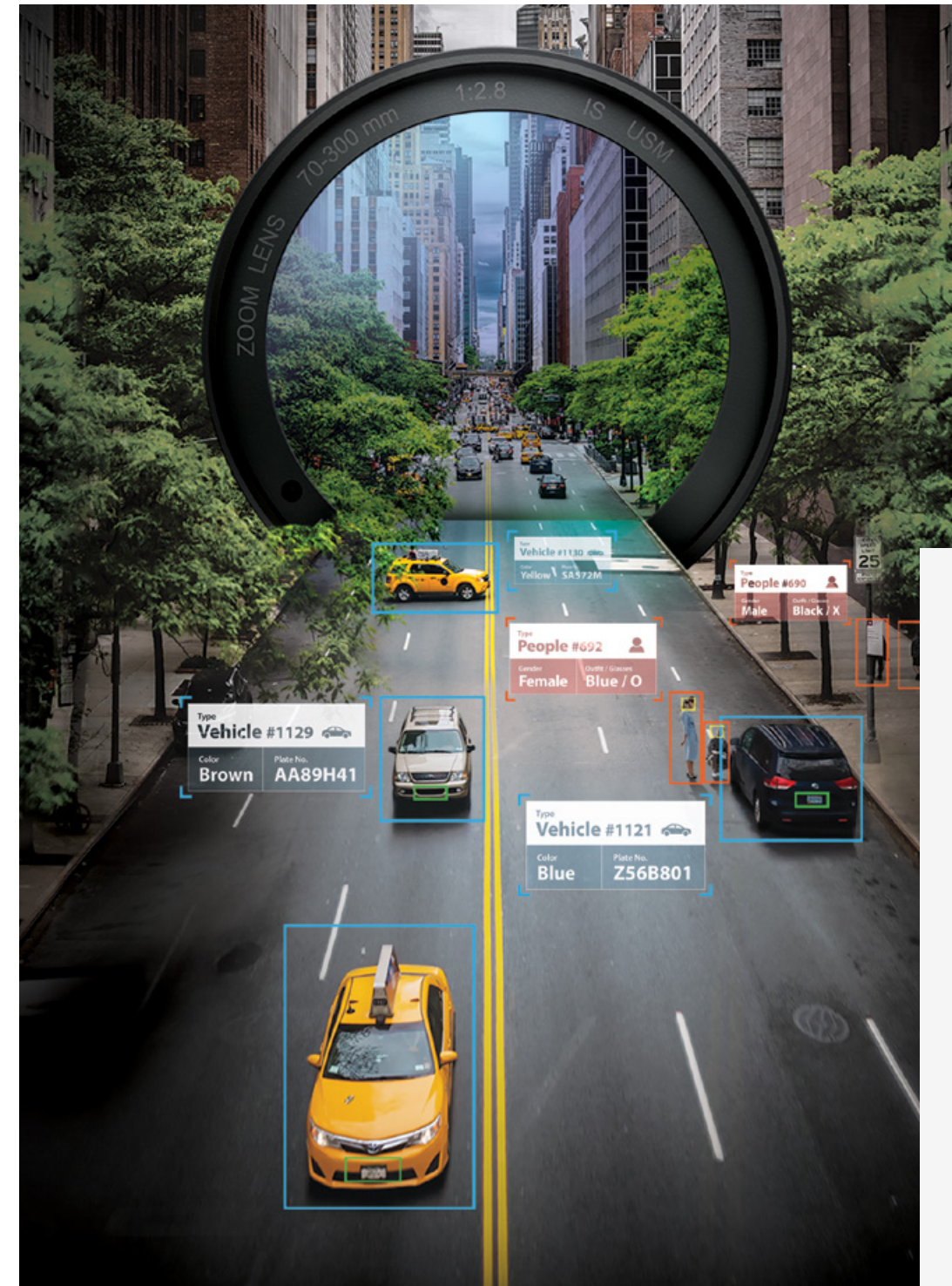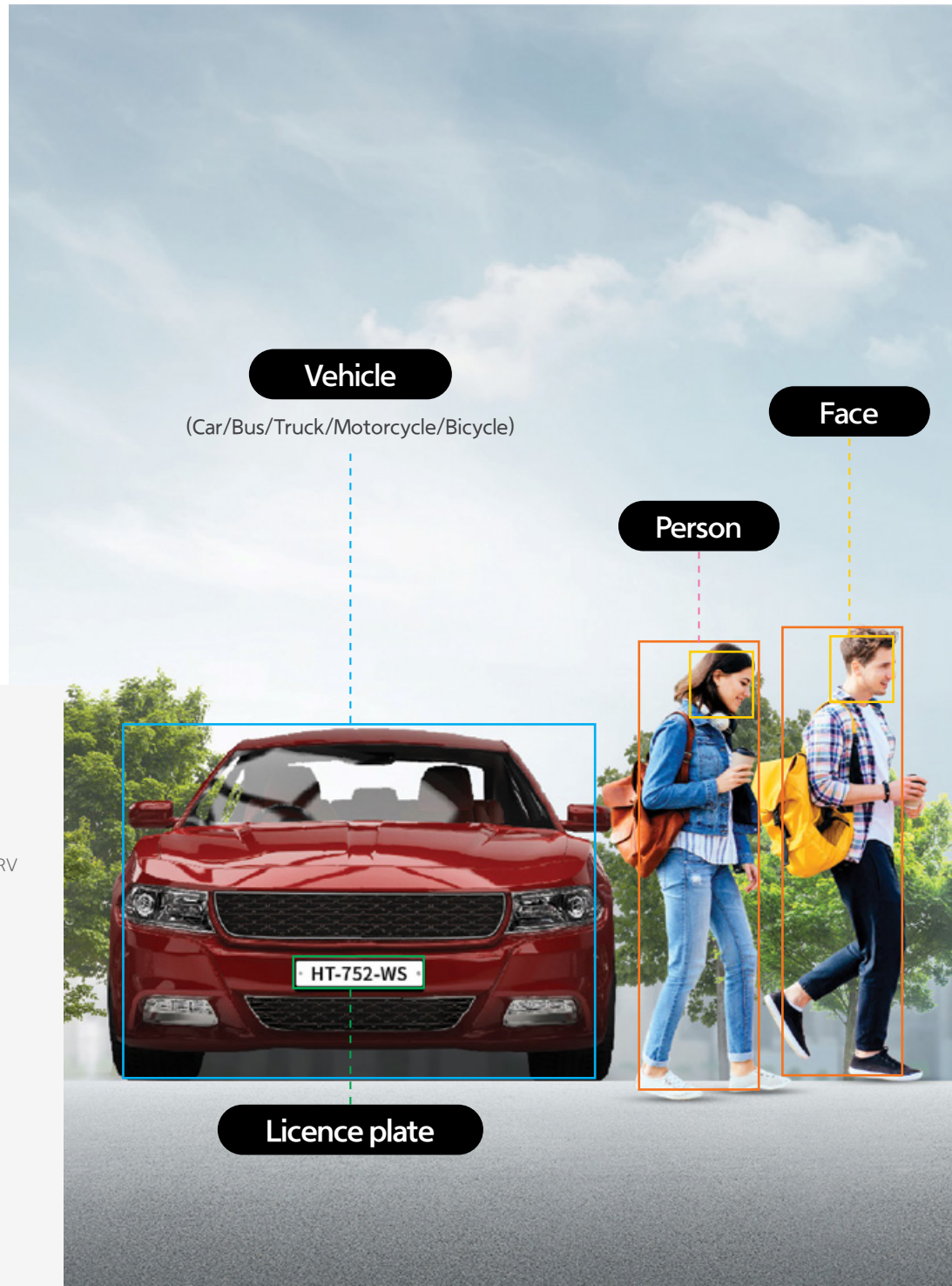
P series AI Camera & NVR
Precise Object Detection & Classification with AI

- WiseDetector
- Slip and Fall
- MQTT
- Crowd/Vehicle Counting

Equipped with a powerful artificial intelligence 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 licence plates, whilst reducing false alarms. This 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
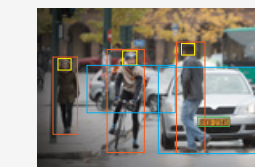
VMS Plug-in for improved AI search

* Person, face, vehicle, licence plate

AI Search
Quickly search based on attributes

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

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

Person
Face
Person
Person
Face
Bicycle

SolidEDGE: Serverless VMS On the Edge

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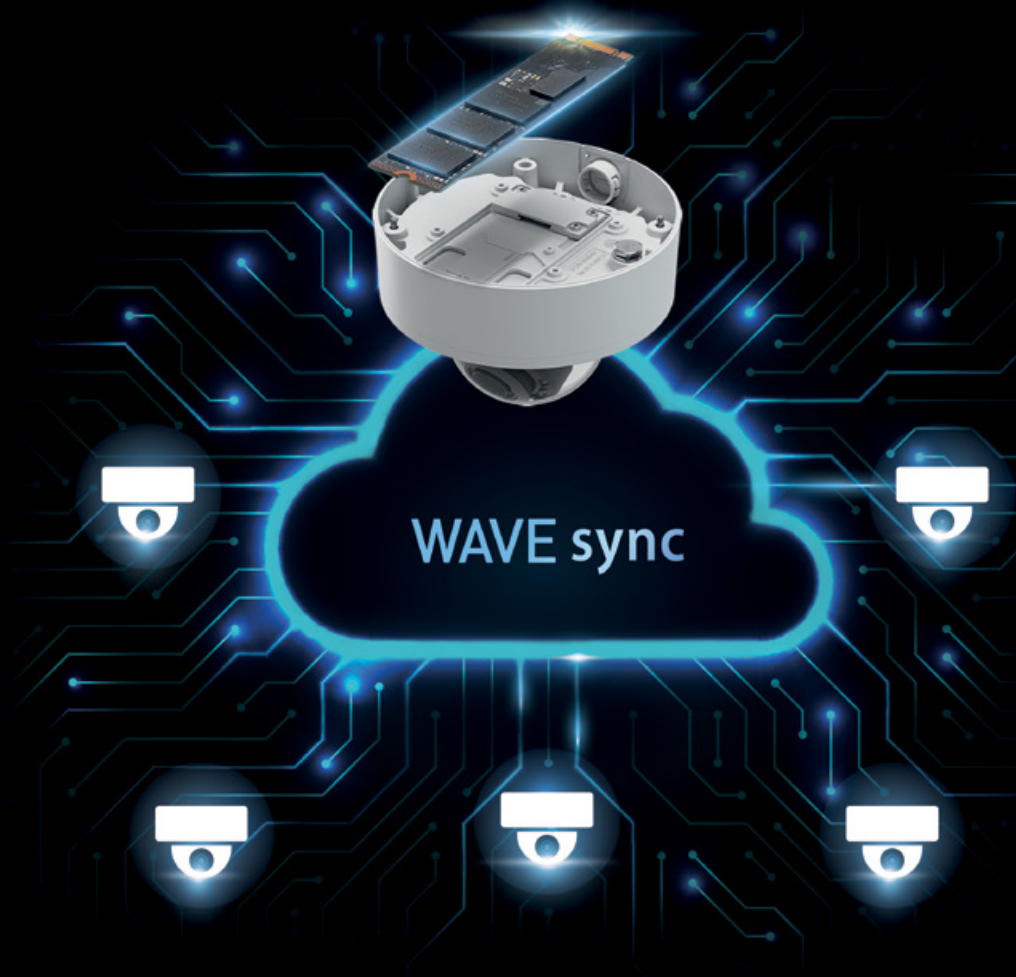
- Edge-based VMS recording solution
- Cloud video management
- Supports up to 5 additional cameras

CH1
CH2
CH4
CH3

Compact design, 360° coverage

4CH AI IR MULTI-DIRECTIONAL CAMERA
PNM-C16013RVQ

- Ideal for sites with lower ceilings
- 360° object detection and classification powered by AI
- AI-based analytics, including virtual line and area detection
- False alarm reduction, ignores irrelevant motion
- 65% smaller and lighter compared with previous model
- Advanced cybersecurity

200MM DIAMETER

80MM HEIGHT
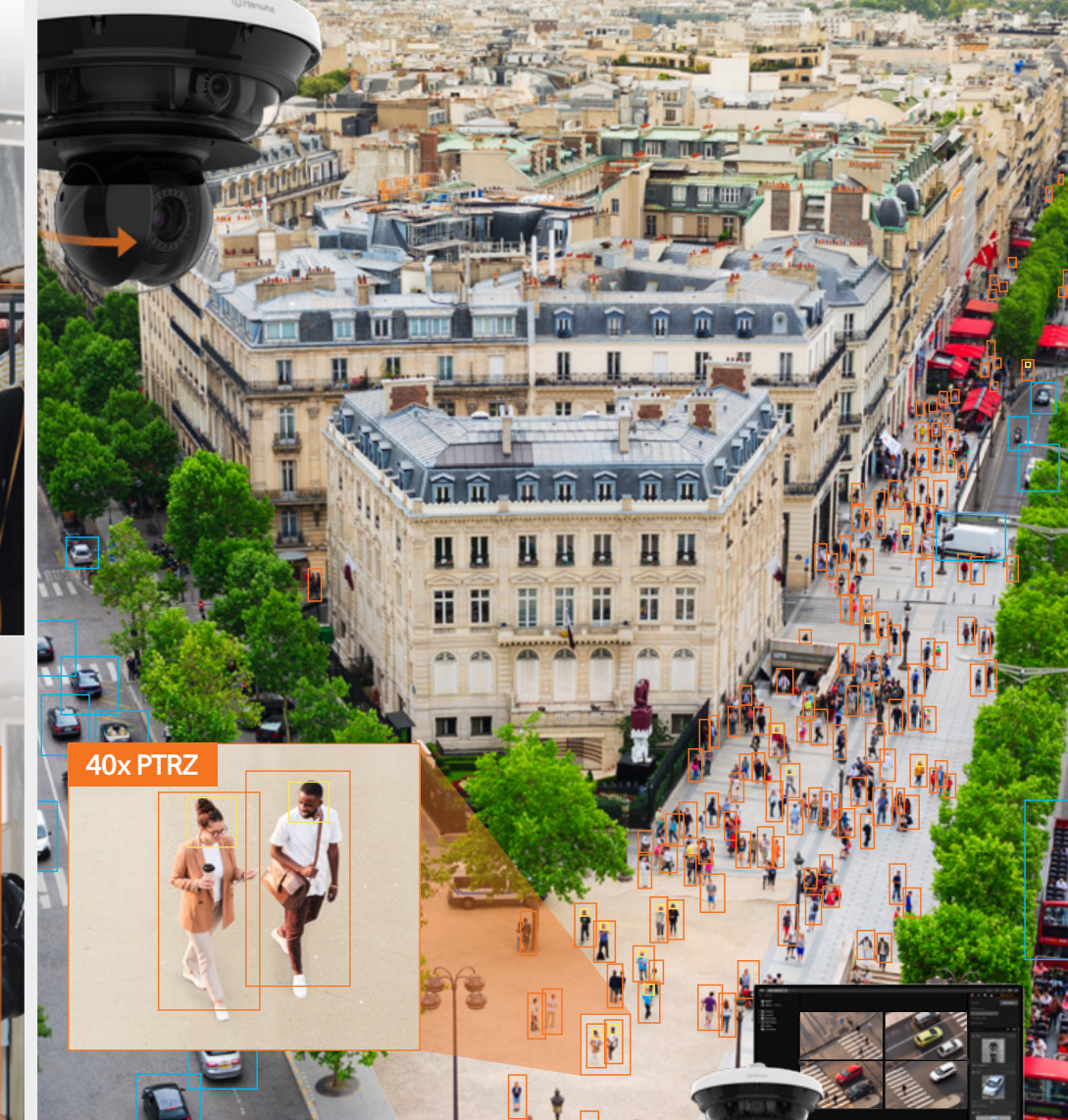
NO BLIND SPOTS

5 Channel AI and IR PTRZ multi-directional camera

PNM-C34404RQPZ

40x PTRZ

- 360° object detection and classification powered by AI engine
- False alarm reduction
- AI-based virtual area and line crossing detection
- Integrated motorised PTRZ for remote adjustment
- AI-based noise and motion blur reduction
- IR light for night surveillance
- AI-based bandwidth reduction and advanced LDC
- Next-level cybersecurity

Bi-spectrum AI Thermal Camera
TNM-C4960TD/4950TD/4940TD

Accurate AI-based object detection on the edge

- Ideal for perimeter monitoring with accurate AI-based object detection and classification including Person, Face, Vehicle (car/truck/bus/bicycle/motorcycle) and Licence Plate.

- Complete suite of Intelligent intruder detection video analytics including virtual line/area crossing, enter/exit, loitering, direction, audio and shock detection, sound classification, stopped vehicle

- Bi-spectrum multi-channel : VGA thermal & 8MP visible sensor

- 3 camera models to suit different fields of view

Road AI High Speed Camera

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

MAKE
MODEL
COLOUR
TYPE
NBR PLATE

TNO-7180RLP

FEATURES:
- Edge-based ANPR solution with Make, Model, Colour & Type Recognition
- 3MP Global Shutter technology for clear images at high speeds
- Smart search & statistical insights into road usage by vehicle type, make and model
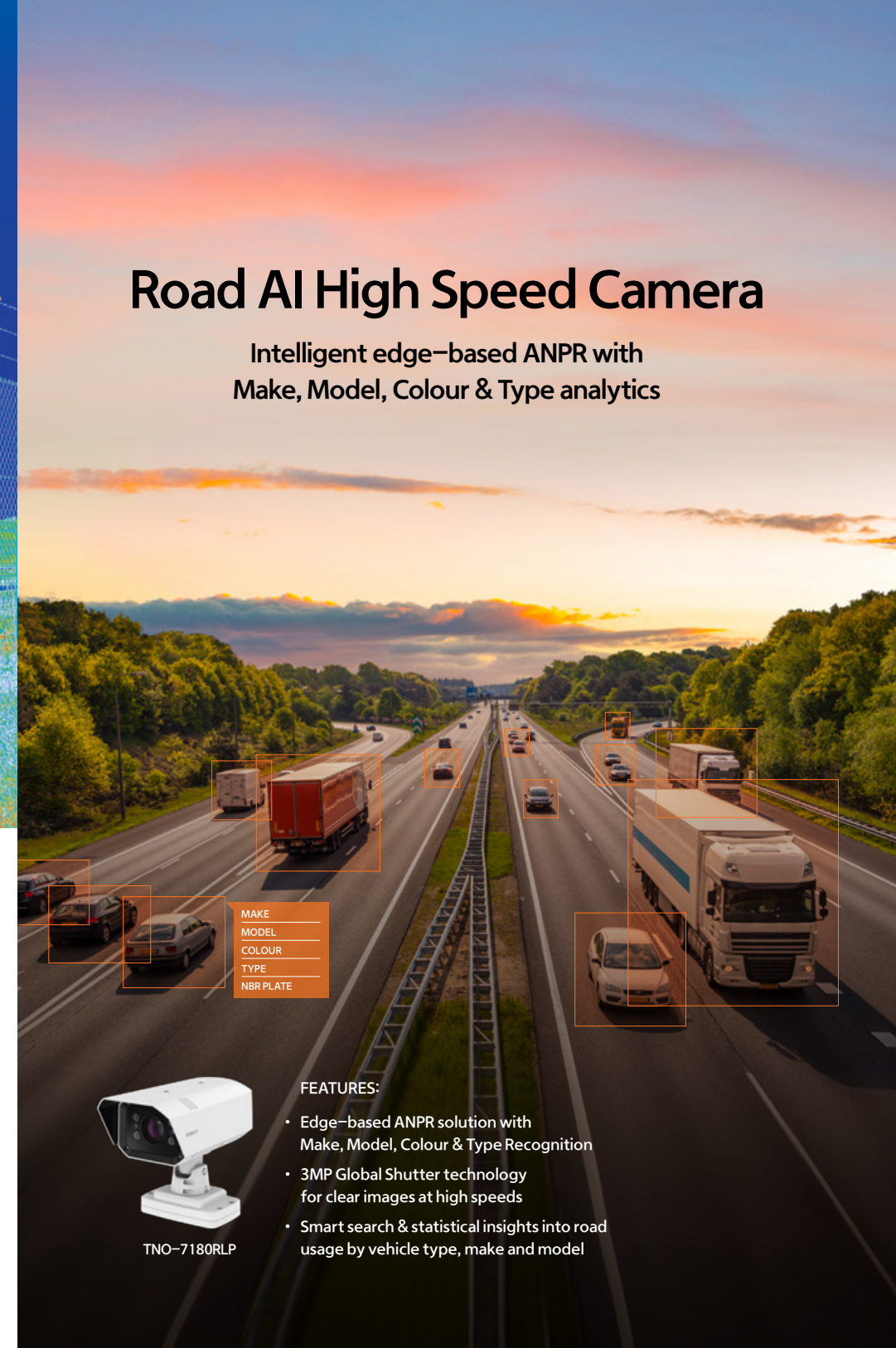
HANWHA VISION GLOBAL NETWORK

Hanwha Vision works with customers and partners around the world for global R&D, manufacturing and sales.

Hanwha Vision
Europe

Hanwha Vision
USA

Hanwha Vision
Korea (Headquarters)

Hanwha Vision
MEA FZE

Hanwha Vision
Vietnam

Hanwha Vision
Brazil

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

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 : 4Bay
2 : 8Bay
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

* 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

NETWORK
ANALOG
PERIPHERAL
INSTALLATION SOLUTION

	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	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE), 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.2, 1/30sec) BW: 0.003Lux (F1.2, 1/30sec)
Video Output	CVBS: 1.0 Vp-p, Micro USB Type B	CVBS: 1.0 Vp-p, Micro USB Type B		CVBS: 1.0 Vp-p, Micro USB Type B	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	WiseNRII(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:** 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	WiseStreamII, WiseStreamIII (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°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	-50℃ ~ +55℃ (-58°F ~ +131°F) * Maximum temperature : +60°C (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°F ~ +131°F) +74℃ (165°F) (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°F ~ +122°F) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non-condensing) Humidity control /w GORE vent	-10°C ~ +55°C (-14°F ~ +131°F) 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 22.5W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W
Dimensions (WxHxD) / Weight	Ø93.4 x 298.4mm (Ø3.68" x 11.75") 2.2kg (4.85 lb)	Ø180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.19 lb)	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W 81 x H 67 x D165mm (3.19" x 2.64" x 6.48") 880g (1.94 lb)

	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	Colour: 0.06Lux (F1.7, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.06Lux (F1.7, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 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	WiseNRII (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: 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, MPEG				
WiseStream	WiseStreamII, WiseStreamIII (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°F~+131°F) *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°F~+122°F) *Maximum temperature : +55℃ (intermittent) 0~95% RH (non-condensing) 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	−50℃~+55℃ (−58°F~+131°F) *Maximum temperature : +60℃ (intermittent) NEMA TS−2 : 74℃ * Start up should be done at above −30℃ 0~95%RH (non-condensing) Humidity control /w AIR vent	−50℃~+55℃ (−58°F~+131°F) +74℃ (165°F) (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, IP6K9K, 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)

	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	Colour: 0.03Lux (F1.3, 1/30sec, 30IRE) BW: 0.003Lux (F1.3, 1/30sec, 30IRE)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.03Lux (F1.2, 1/30sec, 30IRE) BW: 0.003Lux (F1.2, 1/30sec, 30IRE)	Colour: 0.03Lux (F1.6, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Colour: 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	WiseNRII(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: 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, MPEG				
WiseStream	WiseStreamII, WiseStreamIII (Based on AI engine)				
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles	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℃~+55℃ (−58°F~+131°F) +74℃ (165°F) (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°F~+122°F) *Maximum temperature: +55℃ (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−TS2 (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, NEMA4X, IK10+	IP52, IK10	–	IP66, IP67, IK10, NEMA4X, NEMA−TS2 (2.2.8, 2.2.9)	IP66, IP67, NEMA4X, IK10
Power Consumption	PoE+: Max 17.0W, typical 12.1W	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover	PoE: Max 12.95W, typical 9.8W 12VDC: Max 19W, typical 9.5W	PoE+: Max 19.5W, typical 15.5W 12VDC: Max 16.5W, typical 13.1W Power redundancy failover	PoE+: Max 22.5W, typical 17.9W 12VDC: Max 20W, typical 15.6W Power redundancy failover
Dimensions (WxHxD) /Weight	Ø180 x 135mm (Ø7.09" x 5.31") 2kg (4.41 lb)	Ø160 x 125mm (Ø6.3" x 4.92") 1.6kg (3.53 lb)	W81 x H67 x D165mm (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	Colour: 0.03Lux (F1.6, 1/30sec, 30IRE) B/W: 0Lux (IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) B/W: 0Lux (IR LED on), 30/25fps	Colour: 0.01Lux(F1.4, 1/30sec, 30IRE) BW: 0.001Lux(F1.4, 1/30sec, 30IRE), 30/25fps	Colour: 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	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
Digital Image 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	WiseStreamII, WiseStreamIII (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°F~+140°F) / 0~95% RH (Non-condensing) * Start up should be done above -30℃ Maximum Temperature based on NEMA-TS2 (2.2.7): +74℃ (+165°F) Humidity control /w GORE vent	-50℃~+55℃ (-58°F~+131°F) * Start up should be done at above -30℃ 0~95%RH(non-condensing)	-50℃~+55℃ (-58°F~+131°F) * 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°F~+131°F) * Start up should be done at above -30℃ 0~95%RH(non-condensing)	-25℃~+50℃ (-13°F~+122°F) * Maximum temperature : +55℃ (intermittent) 0~95% RH (non-condensing) Humidity control /w GORE vent
Certification	IP66, IP67, IP6K9K, NEMA4X, NEMA-TS2 (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	Ø180×138mm(Ø7.09" x 5.43") 2.13kg (4.70 lb)	Ø180×135mm(Ø7.09x5.31") 2000g(4.41 lb)	Ø180×125mm(Ø7.09 x 4.92") 1.9kg (4.19 lb)	Ø180×135mm(Ø7.09x5.31"), 2000g(4.41 lb)	Ø180×135mm(Ø7.09x5.31"), 2000g(4.41 lb)

	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	Colour: 0.007Lux (F1.2, 1/30sec, 30IRE) B/W: 0.0007Lux (F1.2, 1/30sec, 30IRE), 30/25fps	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W: 0Lux (IR LED on)
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	WiseNRII(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:** 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	WiseStreamII, WiseStreamIII (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°F~+131°F) 0~95%RH (non-condensing)	-40℃~+55℃ (-40°F~+131°F) * 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°F~+131°F) * 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°F~+122°F) * Maximum temperature : +55℃ (intermittent) 0~95%RH (non-condensing) Humidity control /w GORE vent	-40℃~+55℃ (-40°F~+131°F) * 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)

NETWORK · ANALOG · PERIPHERAL · INSTALLATION SOLUTION

	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	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.04Lux (F1.3, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.038Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)
Video Output	Micro USB Type B				
Focal Length	4.4~9.3mm (2.1x) motorized varifocal	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	WiseNRII(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	WiseStreamⅡ WiseStreamⅢ (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)

	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	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on)	Colour: 0.01Lux (F1.4, 1/30sec, 30IRE) B/W : 0Lux (IR LED on), 30/25fps	Colour: 0.39Lux (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	WiseNRII(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	WiseStreamⅡ WiseStreamⅢ (Based on AI engine)			
Streaming	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 3 virtual channel support	Up to 10 profiles, 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 (Page 24)

	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus
	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	Colour: 0.06Lux (F1.36, 1/30sec, 30IRE) B/W: 0Lux(IR LED on)¹	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (F1.6, 1/30sec)	Colour: 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)/Colour/BW/Schedule				
Wide Dynamic Range	extremeWDR(120dB)				
Digital Noise Reduction	WiseNRII(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), WiseStreamII, WiseStreamIII(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℃~+55℃ (–58˚F~+131˚F)/ +74℃(165˚F)(Max) based on NEMA TS–2(2.2.7) *Start up should be done at above –30℃ 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 (Page 25)

	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus	AI PTZ Plus
	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	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (F1.6, 1/30sec)	Colour:0.04Lux(F1.36, 1/30sec, 30IRE) B/W: 0Lux(IR LED on)¹	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 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)¹
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)/Colour/BW/Schedule					
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR(150dB)	extremeWDR(150dB)	extremeWDR(150dB)
Digital Noise Reduction	WiseNRII(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	Compatible with NW I/O Box(Optional: SPM-4210)					
Audio I/O						
Video Compression	H.265/H.264, MJPEG					
WiseStream	Manual (5ea area), WiseStreamII 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

4K AI Cameras

	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	Colour: 0.075Lux(F1.36, 1/30sec, 30IRE) BW: 0.0075Lux(F1.36, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec) BW: 0.005Lux(F1.6, 1/30sec), 0Lux(IR LED on)	Colour: 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	WiseNRⅢ(Based on AI engine), SSNRⅤ					
Digital Image Stabilization	Support(built-in gyro sensor)					
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour) **Support BestShot per object** **Analytics events based on AI engine** – Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, 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), WiseStreamⅡ, WiseStreamⅢ(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°C~+55°C(–58°F~+131°F) / Less than 90% RH * Start up should be done at above –30°C	–50°C~+55°C(–58°F~+131°F) / Less than 90% RH * Start up should be done at above –30°C	–25°C~+50°C(–13°F~+122°F) / Less than 90% RH	–25°C~+50°C(–13°F~+122°F) / Less than 90% RH	–10°C~+55°C(+14°F~+131°F) / Less than 90% RH
Certification	IP66, IP67, IK10, NEMA4X	IP66, IP67, 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 12.7W	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 : 1.90Kg (4.19lb)	Ø180x125mm(7.09x4.92"), 1.6kg (3.53lb)	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)					

2MP AI Cameras

	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	Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 0.007Lux(F1.3, 1/30sec, 30IRE) B/W : 0.0007Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps	Colour: 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	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	WiseNRⅢ(Based on AI engine), SSNRⅤ				
Digital Image Stabilization	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	**Classified object type:** Person/Face/Vehicle/License plate **Attributes:** Person(Gender, Colour and Bag), Face(Age, Gender, Mask and Glasses), Vehicle(Type: car/bus/truck/motorcycle/bicycle and Colour) **Support BestShot per object** **Analytics events based on AI engine** – Object detection, Virtual line *(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit), Face mask detection, 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), WiseStreamⅡ, WiseStreamⅢ(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°C~+55°C(–58°F~+131°F) / Less than 90% RH * Start up should be done at above –30°C	–40°C~+55°C(–40°F~+131°F) / Less than 90% RH * Start up should be done at above –30°C	–25°C~+50°C (–13°F~+122°F) / Less than 90% RH	–25°C~+50°C (–13°F~+122°F) / Less than 90% RH	–10°C~+55°C(+14°F~+131°F) / Less than 90% RH
Certification	IP66, IP67, IK10, NEMA4X	IP66, IP67, IP6K9K, IK10+, NEMA4X	IP52, IK10	IP52, IK10, Plenum rate	–
Power Consumption	PoE+: Max 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	Ø91x368.6mm(3.58" x 14.51") (Without sunshield) 2.48kg (5.47lb)	Ø180x125mm(7.09x4.92"), Weight : 1.90Kg (4.19lb) TBD	Ø160 x125mm (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 (page 28)

	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	Colour: 0.1Lux(F1.5, 1/30sec, 30IRE) BW: 0.01Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux(F1.6, 1/30sec, 30IRE) BW: 0.005Lux(F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.075Lux(F1.5, 1/30sec, 30IRE) BW: 0.0075Lux(F1.5, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 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	WiseNRII (Based on AI engine), SSNRV		WiseNRII (Based on AI engine), SSNRV	WiseNRII (Based on AI engine), SSNRV
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), WiseStreamII, WiseStreamIII(Based on AI engine)		Manual(5ea area), WiseStreamII, WiseStreamIII(Based on AI engine)	Manual(5ea area), WiseStreamII, WiseStreamIII(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 (page 29)

	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	Colour: 0.05Lux(F1.2, 1/30sec, 30IRE) BW: 0.005Lux(F1.2, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.16Lux (F1.67, 1/30sec, 30IRE) BW: 0Lux (IR LED on)	Colour: 0.035lux(F1.2, 1/30sec, 30IRE) BW: 0.0035lux(F2.2, 1/30sec, 30IRE), 0lux(IR LED on)	Colour: 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	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV
Digital Image 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), WiseStreamII, WiseStreamIII (Based on AI engine)	WiseStreamII, WiseStreamIII (Based on AI engine)	Manual(5ea area), WiseStreamII, WiseStreamIII (Based on AI engine)	Manual(5ea area), WiseStreamII, WiseStreamIII (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°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) / 0~95% RH (Non-condensing)	-40°C~+55°C (-40°F~+131°F) / Less than 95% RH(Non-condensing)	-40°C ~ +55°C (-40°F~+131°F) / 0~95% RH (non-condensing)
Certification	IP66, NEMA4X, IK09	IP66, IP67, NEMA4X, 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)

	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	Colour: 0.06Lux (F1.6, 1/30sec) B/W: 0.006Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.07Lux (F1.6, 1/30sec) B/W: 0.007Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 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), WiseStreamIII(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℃~+55℃(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30℃ Humidity control /w Air vent	-30℃~+55℃(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30℃ Humidity control /w Air vent	-30℃~+55℃(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30℃ Humidity control /w Air vent	-40℃~+55℃(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30℃ 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(ø 3.68x9.68″), 930g(2.05 lb)	ø93.4x245.8mm(ø 3.68x9.68″), 930g(2.05 lb)	ø93.4x245.8mm(ø 3.68x9.68″), 930g(2.05lb)	ø140x110.2mm(ø 5.51x4.34″), 875g(1.93 lb)

	QNV-C8083R 5MP IR Vandal Dome Camera	QNV-C9011R 8MP IR Vandal Dome Camera	QNV-C8011R 5MP IR Vandal Dome Camera	QNV-C8012 5MP Vandal Dome Camera
Imaging Device	1/2.8″ CMOS			
Resolution / Max. Frame Rate	5MP / 30fps	8MP / 30fps	5MP / 30fps	5MP / 30fps
Min. Illumination	Colour: 0.07Lux (F1.6, 1/30sec) B/W: 0.007Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.03Lux (F1.6, 1/30sec) B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 0.03Lux (F1.6, 1/30sec) B/W: 0.003Lux (F1.6, 1/30sec, 30IRE), 0lux(IR LED on)	Colour: 0.05Lux (F2.0, 1/30sec) BW: 0.005Lux (F2.0, 1/30sec, 30IRE)
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), WiseStreamIII(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℃~+55℃(-22°F ~ +131°F) / 0~95% RH(non-condensing) * Start up should be done at above -30℃ Humidity control /w Air vent	-40℃~+55℃(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30℃ Humidity control /w Air vapor control	-40℃~+55℃(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30℃ Humidity control /w Air vapor control	-40℃~+55℃(-40°F~+131°F) / 0~95% RH * Start up should be done at above -30℃ 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(ø 5.51x4.34″), 875g(1.93 lb)	ø110x77mm(ø 4.33x3.03″), 522g(1.15 lb)	ø110x77mm(ø 4.33x3.03″), 522g(1.15 lb)	ø110x77mm(ø 4.33x3.03″), 522g(1.15 lb)

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	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(17µm)	Uncooled micro bolometer(17µm)
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	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec, 30IRE), 0Lux(IR LED on)	Colour: 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	WiseNRII(Based on AI engine), SSNRV	WiseNRII(Based on AI engine), SSNRV	–	–
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), WiseStreamIII	Manual(5ea area), WiseStreamII, WiseStreamIII (Based on AI engine)	Manual(5ea area), WiseStreamIII, WiseStreamII (Based on AI engine)	Manual(5ea area), WiseStreamIII, WiseStreamII (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	ø 140x110.2mm(ø 5.51x4.34"), 875g(1.93 lb)		ø 93.8x233.5mm(ø 3.69x/9.19"), 1700g(3.75 lb)	ø 93.8x233.5mm(ø 3.69x/9.19"), 1700g(3.75 lb)
Additional Features	–	–	Radiometry 10 polygonal ROI zones, Temperature detection −40~550℃	Radiometry 10 polygonal ROI zones, Temperature detection −40~550℃

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	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(17µm)			
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), WiseStreamII, WiseStreamIII(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	ø 93.8x233.5mm(ø 3.69x/9.19"), 1700g(3.75 lb)			
Additional Features	Radiometry 10 polygonal ROI zones, Temperature detection −40~550℃			

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	TNM-C4960TD — Bi-spectrum AI Thermal Camera		TNM-C4950TD — Bi-spectrum AI Thermal Camera	
	Thermal	Visible	Thermal	Visible
Imaging Device	VGA Uncooled micro bolometer(12μm)	1/1.8" CMOS	VGA Uncooled micro bolometer (12μm)	1/1.8" CMOS
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps
Min. Illumination	–	Colour: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)	–	Colour: 0.06Lux (F1.7, 1/30sec) BW: 0.005Lux (F1.7, 1/30sec)
Video Output	USB: Micro USB Type B, 1280 x720 for installation		USB: Micro USB Type B, 1280 x720 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, SSNRV	–	WiseNR II, SSNRV
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	WiseStreamII	WiseStreamIII	WiseStreamII	WiseStreamIII
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°F ~ +140°F) * Start up should be done at above -30℃ 0~95% RH (non-condensing)		-40℃~ +60℃ (-58°F ~ +140°F) * 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 D 191.2mm (13.92" x 11.32" x 7.53") 4.53kg (9.99lb)	

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NEW

	TNM-C4940TD — Bi-spectrum AI Thermal Camera		TNM-C4942TDR — Bi-spectrum AI Radiometry Thermal Camera	
	Thermal	Visible	Thermal	Visible
Imaging Device	VGA Uncooled micro bolometer(12μm)	1/1.8" CMOS	VGA Uncooled micro bolometer(12μm)	1/1.8" CMOS
Resolution / Max. Frame Rate	640 x 480 (can be scaled up to 1280 x 960) / 30fps	8MP / 30fps	640 x 480 (can be scaled up to 1280 x 960) / 8fps	8MP / 30fps
Min. Illumination	–	Colour: 0.06Lux(F1.3, 1/30sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)	–	Colour: 0.06Lux(F1.3, 1/3 0sec) BW: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)
Video Output	USB: Micro USB Type B, 1280 x720 for installation		USB : Micro USB Type B, 1280 x720 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, SSNRV	–	WiseNR II, SSNRV
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	WiseStreamII	WiseStreamIII	WiseStreamII	Manual(5ea area), WiseStreamIII
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°F ~ +140°F) * Start up should be done at above -30℃ 0~95% RH (non-condensing)		-40℃ ~ +60℃ (-58°F ~ +140°F) * 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 ℃	

TNM-C4940TDR
Bi-spectrum Radiometry Thermal Camera

TNM-C3622TDR (NEW)
Bi-spectrum Radiometry Thermal Camera

	TNM-C4940TDR Thermal	TNM-C4940TDR Visible	TNM-C3622TDR Thermal	TNM-C3622TDR Visible
Imaging Device	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	–	Colour: 0.06Lux(F1.3, 1/30sec) B/W: 0.004Lux(F1.3, 1/30sec), 0Lux(IR LED on)	–	Colour: 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	WiseStreamⅡ	WiseStreamⅢ	WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ
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 ℃	

TNM-C3620TDR (NEW)
Bi-spectrum Radiometry Thermal Camera

TNB-9000
8K Box Camera

TNV-C7013RC
AI Corner Mount Camera

	TNM-C3620TDR Thermal	TNM-C3620TDR Visible	TNB-9000	TNV-C7013RC
Imaging Device	Uncooled micro bolometer	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	–	Colour: 0.05 lux(F1.6, 1/30sec) B/W: 0.005 lux(F1.6, 1/30sec)	Colour : 0.015Lux (F1.4) B/W: 0.0015Lux (F1.4)	Colour: 0.04Lux(F2.0, 1/30sec, 30IRE) B/W: 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: 30.5° 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 940nm wavelength
Day & Night	–	Auto(ICR)	Auto (ICR)	Auto (ICR)
Wide Dynamic Range	–	extremeWDR(150dB)	–	extremeWDR (120dB)
Digital Noise Reduction	–	SSNRⅤ	SSNRⅤ	WiseNRⅡ(Based on AI engine) , SSNRⅤ
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 Detection Shot** **Analytics events based on AI engine** : Object detection, Virtual line(Crossing/Direction), Virtual area(Loitering/Intrusion/Enter/Exit) **Analytics events** : Defocus detection, Motion detection, Tampering, Audio detection, Sound classification, Virtual area(Appear/Disappear), Clothes colour 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	WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ, WiseStreamⅢ(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°C ~ +45°C (32°F ~ +122°F)	–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 D188.5mm, (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	–

	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	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec), 0Lux (IR LED on)	Colour: 0.03Lux (F1.6, 1/30sec) B/W : 0.003Lux (F1.2, 1/30sec)	Colour 0.1 Lux (1/30sec, gain 48dB)
Video Output	CVBS: 1.0 Vp~p, Micro USB Type B	CVBS: 1.0 Vp~p, Micro USB Type B	CVBS: 1.0 Vp~p, 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	SSNRV	SSNRV	SSNRV	SSNRV
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), WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ	Manual(5ea area), WiseStreamⅡ	WiseStreamⅡ
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℃~+55℃(-40℉~+131℉) / Intermittent : -40℃~+60℃(-40℉ ~ +140℉) Cold start : -40℃Maximum Temperature based on NEMA-TS 2(2.2.7) : +74℃(+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 13.5W, 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 81x 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						
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 120kmh (65mph)	Up to 120kmh (75mph) for 2 lanes	Up to 200km/h (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+ / Colour : 11		Make : 70+ / Model : 600+ / Colour : 11		Make : 70+ / Model : 600+ / Colour : 11	Make : 70+ / Model : 600+ / Colour : 11	

	XNO-6080R/RW 2M IR Bullet Camera with RoadWatch ANPR	XNO-6120R/RW 2MP IR Bullet Camera with RoadWatch ANPR	XNO-6123R/RW 2MP IR Bullet Camera with RoadWatch ANPR	XNO-C6083R/RW 2MP IR Bullet Camera with RoadWatch ANPR	XNV-6080R/RW 2M IR Vandal Dome Camera with RoadWatch ANPR	XNV-C6083R/RW 2MP IR Vandal Dome Camera with RoadWatch ANPR
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" 2MP CMOS	1/2.8" progressive CMOS
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 120fps	2MP / 60fps	2MP / 60fps	2MP / 60fps
Min. Illumination	Colour: 0.015 lux(F1.4, 1./30sec) / B/W: 0 Lux (IR LED on)	Colour: 0.03Lux(F1.6, 1/30sec) / BW: 0Lux(IR LED on)	Colour: 0.03 Lux (F1.6, 1/30sec, 30IRE), 0Lux (IR LED on)	Colour: 0.011 Lux (F1.4, 1/30sec, 30IRE), 0 Lux (IR LED on)	Colour: 0.015 lux(F1.4, 1./30sec), B/W: 0 Lux (IR LED On)	Colour: 0.011 Lux (F1.4, 1/30sec, 30IRE), 0 Lux (IR LED on)
Video Output	CVBS: 1.0 Vp~p, Micro USB Type B					
Focal Length	2.8~12mm(4.3x) motorized varifocal	5.2~62.4mm (Optical 12X) motorized varifocal	5.2~62.4mm(12x) zoom (digital 32x, total 384x zoom)	2.8~12mm(4.3x) motorized varifocal	2.8~ 12mm (4.3x) motorized varifocal lens	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), T: 142.1° (Wide)~32.0° (Tele)	H: 54.58° (Wide)~5.30° (Tele) / V: 32.19° (Wide)~3.00° (Tele) / D: 61.4(Wide)~6.06(Tele)	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), T: 142.1° (Wide)~32.0° (Tele)	H: 120° (Wide)~27° (Tele) / V: 63° (Wide)~15° (Tele) / D: 143° (Wide)~32° (Tele)
IR Viewable Length	50m(164.04ft)	70m(229.66ft)	90m(295.28ft)	40m(131.23ft)	50m(164.04ft)	40m (131.23ft)
Day & Night	Auto(ICR)					
Wide Dynamic Range	150dB					
Digital Noise Reduction	SSNRV	SSNRV	WiseNR II (Based on AI engine), SSNRV	WiseNR II (Based on AI engine), SSNRV	SSNRV	WiseNR II (Based on AI engine), SSNRV
Digital Image Stabilization	Support (built-in gyro sensor)	Support	Support(built-in gyro sensor)	Support(built-in gyro sensor)	Support	Support(built-in gyro sensor)
Streaming	Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles)			Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support)	Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles)	Unicast(20 users) / Multicast Multiple streaming(Up to 10 profiles, 3 virtual channel support)
Edge Storage	Pre-installed SD Card (Data storage for RoadWatch application)					
Operating Temperature	-40° C~+55° C(-40° F~+131° F) / Less than 90% RH	-40° C~+55° C(-40° F~+131° F) / Less than 90% RH * Start up should be done at above -35° C	-40° C~+60° C(-40° F~+140° F) * Start up should be done at above -30° C	-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C	-40° C~+55° C(-40° F~+131° F) / Less than 90% RH	-40° C~+55° C(-40° F~+131° F) * Start up should be done at above -20° C
Certification	IP67/IP66/NEMA 4X, IK 10					
Power Consumption	PoE: Max 12.95W, 12VDC: Max 12W, 24VAC: Max 15W	PoE : Max 12.95W, 12VDC : Max. 12.5W, 24VAC : Max. 14.5W	PoE+: Max 19.5W, typical 15.5W: 12VDC: Max 16.5W, typical 13.1W: Power redundancy failover	PoE: Max 12.95W, typical 10.8W: 12VDC: Max 12.5W, typical 10.0W	PoE: Max 12.95W, 12VDC: Max 11.5W, 24VAC: Max 14W	PoE: Max 12.95W, typical 10.8W: 1 2VDC: Max 12.5W, typical 10.0W

RoadWatch						
Solution	Urban traffic					
Speed Description	Moderate speed		Regular speed			Moderate speed
Lane Coverage			1 lane (3.6m/12ft wide)			
Speed limit	up to 50km/h (30mph)		up to 90km/h (55mph)			up to 50km/h (30mph)
Min. Forward Distance	7m (23ft)		17m (55ft)			7m (23ft)
Max. Forward Distance	13m (42ft)		32m (105ft)			13m (42ft)
Max. Horizontal Angle			30°			
Max Vertical Angle			30°			
Horizontal Offset	up to 4m (13ft)		up to 9.8m (32ft)			up to 4m (13ft)
Camera Height	up to 4m (13ft)		up to 9.8m (32ft)			up to 4m (13ft)

NETWORK

	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	Colour: 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°F ~ +140°F) / 0~95% RH (non condensing) * Start up should be done at above −30℃	−50℃ ~ +60℃ (−58°F ~ +140°F) / 0~95% RH (non condensing) * Start up should be done at above −30℃	−25℃ ~ +60℃ (−13°F ~ +140°F) / 0~95% RH (non condensing)	−25℃ ~ +60℃ (−13°F ~ +140°F) / 0~95% RH (non condensing)	−10℃ ~ +55℃ (+14°F ~ +131°F) / 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	Ø 91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø 180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø 205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø 160 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				

NETWORK

	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	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0Lux (IR LED On)	Colour: 0.05Lux (F1.2, 1/30sec) B/W: 0.005Lux
Video Output	Micro USB Type B				
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	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/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	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°F ~ +140°F) / 0~95% RH (non condensing) * Start up should be done at above −30℃	−50℃~+60℃ (−58°F ~ +140°F) / 0~95% RH (non condensing) * Start up should be done at above −30℃	−25℃ ~ +60℃ (−13°F ~ +140°F) / 0~95% RH (non condensing)	−25℃ ~ +60℃ (−13°F ~ +140°F) / 0~95% RH (non condensing)	−10℃ ~ +55℃ (+14°F ~ +131°F) / 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	Ø 91 x 368.6mm (Ø3.85" x 14.51") 2.2kg (4.85lb)	Ø 180 x 125mm (Ø7.09" x 4.92") 1.9kg (4.18lb)	Ø 205 x 163mm (Ø8.07" x 6.42") 1.95kg (4.29lb)	Ø 160 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				

ANALOG PERIPHERAL INSTALLATION SOLUTION

NETWORK

	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	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.07 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	WiseStreamⅡ				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	−25℃ ～ +60℃ (−13°F ～ +140°F)	−25℃ ～ +60℃ (−13°F ～ +140°F)	−25℃ ～ +60℃ (−13°F ～ +140°F) / 0～90% RH	−25℃ ～ +60℃ (−13°F ～ +140°F)	−50℃ ～ +60℃ (−58°F ～ +140°F) * Start up above −35℃ (−31°F)
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

ANALOG PERIPHERAL INSTALLATION SOLUTION

NETWORK

	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	Colour : 0.07Lux (F1.3) BW : 0Lux (IR LED)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)
Video Output	CVBS 1.0 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	SSNRⅤ				
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)	Support
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	WiseStreamⅡ				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	−50℃ ～ +60℃ (−58°F ～ +140°F) * Start up above −35℃ (−31°F)	−25℃ ～ +60℃ (−13°F ～ +140°F)	−25℃ ～ +60℃ (−13°F ～ +140°F)	−25℃ ～ +60℃ (−13°F ～ +140°F)	−25℃ ～ +60℃ (−13°F ～ +140°F)
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

ANALOG PERIPHERAL INSTALLATION SOLUTION

	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	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.015 lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 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	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) / Line out	Selectable (mic in/line in) / Line out
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, 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 10.8W 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	Colour : 0.015 Lux (F1.4) B/W : 0.0015 Lux (F1.4)	Colour : 0.07Lux (F1.2) B/W : 0.007Lux (F1.2)	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 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	SSNRⅤ			
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	WiseStreamⅡ			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDHC/SDXC			
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform			
Operating Temperature	-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

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	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	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0.16Lux (F1.6)	Colour : 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	SSNRV			
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	WiseStreamII			
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°F~+131°F)	-10℃~+55℃ (+14°F~+131°F)	-10℃~+55℃ (+14°F~+131°F)	-40℃~+55℃ (-40°F~+131°F)
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			

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	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	Colour : 0.07Lux (F1.3) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 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	WiseStreamII		
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°F~+131°F)	-30℃~+55℃ (-22°F~+131°F)	-40℃~+60℃ (-40°F~+140°F) / 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)

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	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	Colour : 0.39 Lux (F2.2, 1/30sec) BW : 0Lux (IR LED on)	Colour : 0.1Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.006Lux (F1.2) B/W : 0.0006Lux (F1.2)	–	Colour : 0.01Lux (F1.2) B/W : 0.001Lux (F1.2)
Video Output	CVBS : 1.0 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	SSNRV	SSNRV	SSNRV	SSNRV, WiseNR	SSNRV
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	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	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	Ø167.9 x 72.1mm (Ø66.1" x 28.38") 2.98kg (6.57lb)	Ø146 x 54.8mm (Ø5.75" x 2.16") 730g (1.61lb) (XNF-8010R) Ø146 x 65.8mm (Ø5.75" x 2.59") 785g (1.73lb) (XNF-8010RV) 790g (1.74lb) (XNF-8010RVM)	W 73.1 x H 66.6 x D 147.8mm (2.88" x 2.62" x 5.82") 420g (0.93lb)	W 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

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	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	–	Colour : 0.06Lux (F2.5) B/W: 0.06Lux (F2.5)	Colour : 0.45Lux (F2.0) B/W: 0.45Lux (F2.0)	Colour : 0.03Lux (F1.6)
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	WiseStreamII	–	–	–
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 0.61" 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	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.004Lux (F0.94) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.03ux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.055lux (F2.0) (XNO-6010R) Colour : 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, 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	1/2.8" 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	Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Colour : 0.015Lux (F1.4) B/W : 0.0015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
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 140mm (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

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	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	Colour : 0.015 Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.03Lux (F1.6), B/W : 0.003Lux (F1.6) (XNV-6120) Colour : 0.03Lux (F1.6), B/W : 0Lux (IR LED on) (XNV-6120R)
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	SSNRV			
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°F ~ +131°F)	-10℃ ~ +55℃ (+14°F ~ +131°F)	-10℃ ~ +55℃ (+14°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F) * Start up above -35℃ (-31°F)
Certification	IK08	–	IK08	IP67, IP66, NEMA 4X, IK10
Power Consumption	PoE : Max 9W 12VDC : Max 8W	PoE : Max 4.7W	PoE : Max 6.5W 12VDC : Max 6W	PoE : Max. 7.8W, 12V DC : Max 7W, 24V AC : Max..8.2W (XNV-6120) PoE : Max. 12.95W, 12V DC : Max. 11.5W, 24V AC : Max. 14W (XNV-6120R)
Dimensions (WxHxD) / Weight	Ø110 x 90mm (Ø4.33" x 3.54") 380g (0.84lb)	Ø98.9 x 129mm (Ø3.89" x 5.08") 275g (0.61lb)	Ø140.8 x 113mm (Ø5.54" x 4.45") 610g (1.34lb)	Ø160 x 128.5mm (Ø6.3" x 5.06") 985g (2.17lb) (XNV-6120) 995g (2.19lb) (XNV-6120R)
Additional Features	Handover, Hallway View			

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	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
Resolution / Max. Frame Rate	2MP / 60fps				
Min. Illumination	Colour : 0.004Lux (F0.94) B/W : 0.0004Lux (F0.94)	Colour : 0.015Lux (F1.4) B/W : 0.015Lux (F1.4)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0.01Lux (F1.6)
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	SSNRV				
Digital Image Stabilization	Support (Built-in Gyro sensor)	Support	Support	Support	Support
Analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics Audio detection, Sound classification	Intelligent analytics
Business Intelligence	–				
Alarm I/O	1 / 1	1 / 1	1 / 1	1 / 1	–
Audio I/O	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	
Video Compression	H.265 / H.264, MJPEG				
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°F ~ +131°F) * Start up above -35℃ (-31°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)	-40℃ ~ +55℃ (-40°F ~ +131°F)
Certification	IP67, IP66, NEMA 4X, IK10	IP67, IP66, NEMA4X, IK10	IP67, IP66, NEMA4X, IK10	IP66, NEMA4X, IP6K9K, IK10+	IP66, IK10
Power Consumption	PoE : Max 12.1W 12VDC : Max 11.1W 24VAC : Max 13.5W	PoE : Max 7.8W 12VDC : Max 7W 24VAC : Max 8.2W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 12.95W 12VDC : Max 11.5W 24VAC : Max 14W	PoE : Max 8W
Dimensions (WxHxD) / Weight	Ø160 x 140mm (Ø6.3" 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				

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	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	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.04Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.015Lux (F1.4) B/W : 0Lux (IR LED on)	Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)	Colour : 0.04Lux (F2.0) B/W : 0.04Lux (F2.0)
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	SSNRV				
Digital Image Stabilization	Support	Support (Built-in Gyro sensor)	Support	Support (Built-in Gyro sensor)	Support (Built-in Gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics Audio detection Sound classification (w/ external MIC)	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification	Intelligent analytics Audio detection Sound classification (w/ external MIC)
Business Intelligence	–	–	People counting, Queue management, Heatmap	–	–
Alarm I/O	–	–	1 / 1	–	–
Audio I/O	–	Selectable (mic in/line in), Built-in mic / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in) / Line out	Selectable (mic in/line in), Built-in mic / Line out
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStreamII				
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°C ~ +55°C (-40°F ~ +131°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C(-4°F)	-40°C ~ +60°C (-40°F ~ +140°F) * Start up above -30°C (-22°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)
Certification	IP66, IK10	IP66, IK10, NEMA4X	IP67, IP66, IK10	IP67, IP6K9K, IK10, NEMA4X	IP66, IK10, NEMA4X
Power Consumption	PoE : Max 11W	PoE : Max 6.7W	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

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	XNV-6011 2MP Vandal Dome Camera	XNV-6010 2MP Vandal Dome Camera	XNP-9300RW (PTZ PLUS) 4K 30x Wiper + IR PTZ Camera	XNP-8300RW (PTZ PLUS) 6MP 30x Wiper + IR PTZ Camera	XNP-6400RW (PTZ PLUS) 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	Colour : 0.055Lux (F2.0) B/W : 0.055Lux (F2.0)	Colour : 0.055Lux (F2.0) B/W : 0.0055Lux (F2.0)	Colour : 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour : 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour : 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	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	SSNRV				
Digital Image Stabilization	Support	Support	Support (built-in gyro sensor)	Support (built-in gyro sensor)	Support (built-in gyro sensor)
Analytics	Intelligent analytics	Intelligent analytics Audio detection Sound classification	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM-4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM-4210)	Intelligent analytics * Audio detection, Sound classification (with NW I/O Box : SPM-4210)
Business Intelligence	People counting, Queue management, Heatmap	People counting, Queue management, Heatmap	–	–	–
Alarm I/O	–	1 / 1	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Audio I/O	–	Selectable (mic in/line in) / Line out	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)	Compatible with NW I/O Box (Optional)
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStreamII				
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°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	-30°C ~ +55°C (-22°F ~ +131°F) * Start up above -20°C (-4°F)	Normal : -40°C ~ +55°C(-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C (+165°F) * Start up should be done at above -30°C 0~95% RH (Non-condensing)	Normal : -40°C ~ +55°C (-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C(+165°F) * Start up should be done at above -30°C 0~95% RH (Non-condensing)	Normal : -40°C ~ +55°C (-40°F ~ +131°F) / Maximum Temperature based on NEMA-TS 2(2.2.7) : +74°C (+165°F) * Start up should be done at above -30°C 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 318.8mm (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		

NETWORK

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INSTALLATION SOLUTION

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	PTZ PLUS	PTZ PLUS	PTZ PLUS	PTZ PLUS	PTZ PLUS	PTZ PLUS
	XNP-9250R 4K 25x IR PTZ Camera	XNP-8250R 6MP 25x IR PTZ Camera 4	XNP-6400R 2MP 40x IR PTZ Camera	XNP-9250 4K 25x PTZ Camera	XNP-8250 6MP 25x PTZ Camera	XNP-6400 2MP 40x PTZ Camera
Imaging Device	1/2.8" CMOS					
Resolution / Max. Frame Rate	8MP / 30fps	6MP / 30fps	2MP / 60fps	8MP / 30fps	6MP / 30fps	2MP / 60fps
Min. Illumination	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (IR LED On)	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0.01Lux (IR LED On)	Colour: 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)/Colour/BW/Schedule	Auto (ICR)
Wide Dynamic Range	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)	extremeWDR (120dB)	extremeWDR (120dB)	extremeWDR (150dB)
Digital Noise Reduction	SSNRⅤ					
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	WiseStreamⅡ					
Streaming	Up to 10 profiles					
Edge Storage	micro SD/SDHC/SDXC					
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform					
Operating Temperature	-40℃~+55℃ (-40°F~+131°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (2.2.7) * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-40℃~+55℃ (-40°F~+131°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (2.2.7) * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-40℃~+50℃ (-40°F~+122°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (2.2.7) * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-40℃~+55℃ (-40°F~+131°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (2.2.7) * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-40℃~+55℃ (-40°F~+131°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (2.2.7) * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-40℃~+50℃ (-40°F~+122°F) / +74℃ (+165°F) (MAX) based on NEMA-TS2 (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" x 11.55") 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		

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	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	Colour: 0.02Lux (F1.6) B/W: 0Lux (IR LED on)	Colour: 0.01Lux (F1.5, 1/30sec) BW: 0Lux (IR LED)	Colour: 0.03Lux (F1.6) B/W: 0.003Lux (F1.6)	Colour: 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	SSNRⅤ			
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	WiseStreamⅡ			
Streaming	Up to 10 Profiles			
Edge Storage	micro SD/SDH C/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°F~+131°F) * Start up above -30℃ (HPoE Mode)	-50℃~+55℃ (-122°F~+131°F) / 0~90% RH	-30℃~+55℃ (-22°F~+131°F)	-30℃~+55℃ (-22°F~+131°F)
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)			

NETWORK / ANALOG / PERIPHERAL / INSTALLATION SOLUTION

	XNZ-6320A 2MP 32x Zoom Camera	XNZ-L6320A 2MP 32x Zoom Camera	SolidEDGE PNV-A6081R-E1T 2MP Camera with 1TB Rugged SSD	SolidEDGE PNV-A6081R-E2T 2MP Camera with 2TB Rugged SSD
Imaging Device	1/2.8" 2MP CMOS	1/2.8" 2MP CMOS	1/2" CMOS	1/2" CMOS
Resolution / Max. Frame Rate	2MP / 60fps	2MP / 60fps	2MP / 120fps	2MP / 120fps
Min. Illumination	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005Lux (1/30sec, F1.6)	Colour: 0.008Lux(F1.3, 1/30sec, 30IRE) BW: 0.0008Lux(F1.3, 1/30sec, 30IRE), 0Lux(IR LED on), 30/25fps Colour: 0.016Lux(F1.3, 1/60sec, 30IRE) BW: 0.0016Lux(F1.3, 1/60sec, 30IRE), 0Lux(IR LED on), 60/50fps Colour: 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	SSNRV	SSNRV	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	–	–
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	WiseStreamII	WiseStreamII	Manual (Sea area), WiseStreamII	Manual (Sea area), WiseStreamII
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°C ~ +55°C (-14°F ~ +131°F) / 0~90% RH	-10°C ~ +55°C (-14°F ~ +131°F) / 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)	Ø180x130mm (Ø7.09x5.12") 1900g (4.19 lb)	Ø180x130mm (Ø7.09x5.12") 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	

NETWORK / ANALOG / PERIPHERAL / INSTALLATION SOLUTION

	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	Colour: 0.1Lux (F1.6, 1/30sec) BW: 0Lux (IR LED on)	Colour: 0.3Lux (F1.6) Colour: 0.03Lux (F1.6)	Colour: 0.11Lux (F1.92, 30 IRE) BW: 0Lux (IR LED on)	Colour: 0.05lux (F1.6,30 IRE) BW: 0Lux (IR LED on)	Colour: 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: 57.44° (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	SSNRV				
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	WiseStreamII				
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°C ~ +55°C (-40°F ~ +131°F) * Startup should be above -30°C 0~95% RH (Non-condensing)	-40°C ~ +60°C (-40°F ~ +131°F) / 0~95% RH (Non-condensing) * Maximum temperature : +60°C (intermittent)	-40°C ~ +55°C (-40°F ~ +131°F) / 0~90% RH	-40°C ~ +55°C (-40°F ~ +131°F) / 0~90% RH	-40°C ~ +55°C (-40°F ~ +131°F) / 0~90% RH *Start up should be above at -35°C
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. 45W, Typical 33.7W 12VDC: Max. 42W, Typical 32W	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 145.9mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø315 x 145.9mm (Ø12.4" x 5.74") 5.2 kg (11.5lb)	Ø251 x 116.5mm 3kg (6.6lb)
Additional Features	–	4CH Stitching	Motorized PTRZ	Motorized PTRZ	Motorized PTRZ

NETWORK ANALOG PERIPHERAL INSTALLATION SOLUTION

	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	Colour: 0.04Lux(F2.2) BW: 0.004Lux(F2.2)	Colour: 0.16lux (F1.67, 1/30sec, 30IRE) BW: 0lux (IR LED on)	Colour: 0.035lux (F2.2, 1/30sec, 30IRE) BW: 0lux (IR LED on)
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	SSNRV	WiseNR, SSNRV	WiseNR, SSNRV
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	WiseStreamII		
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°F ~ +131°F) / 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	Ø 251 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	–	–

NETWORK ANALOG PERIPHERAL INSTALLATION SOLUTION

	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	–	Colour: 0.06Lux (F2.5)	Colour: 0.045Lux (F2.0, 1/30sec, 30IRE) BW: 0.045Lux(F2.0, 1/30sec, 30IRE) * with PNM-9000QB, XNB-6002	Colour: 0.045Lux (F2.0)	Colour: 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	SSNRV	–	–	–	–
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	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	-10℃ ~ +45℃ (-40°F ~ +113°F) / 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)	Ø 24 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)	Ø 24 x L49.8mm, 318g (SLA-T2480A) W 30 x H 27.9 x D 45mm, 328g (SLA-T2480VA)	Ø 35 x L68.9mm 430g (0.95lb)
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

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INSTALLATION SOLUTION

	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	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (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	WiseStreamII				
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 (QND–8012)
Q mini (QND–8022)
NEW (QND–8012)
NEW (QND–8022)

	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	Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Colour: 0.15Lux(F2.0, 1/30sec, 30IRE) BW: 0.15Lux(F2.0, 1/30sec, 30IRE)	Colour : 0.15Lux (F1.6)	Colour: 0.15Lux(F1.6, 1/30sec, 30IRE) BW: 0.15Lux(F1.6, 1/30sec, 30IRE)	Colour : 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	WiseStreamII				
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℉ ~ +122℉)	−10℃~+40℃(+14℉~+104℉) 0~90% RH(non-condensing)	−10℃ ~ +40℃ (+14℉ ~ +104℉)	−10℃~+40℃(+14℉~+104℉) 0~90% RH(non-condensing)	−10℃ ~ +40℃ (+14℉ ~ +104℉)
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	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.15Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.07Lux (F1.2)	Colour : 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	WiseStreamII				
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°F ~ +131°F) * Start up above –20℃ (–4°F)	–30℃ ~ +55℃ (–22°F ~ +131°F) * Start up above –20℃ (–4°F)	–30℃ ~ +55℃ (–22°F ~ +131°F) * Start up above –20℃ (–4°F)	–10℃ ~ +55℃ (+14°F ~ +131°F)	–30℃ ~ +55℃ (–22°F ~ +131°F) * Start up above –20℃ (–4°F)
Certification	IP66, IK10	IP66, IK10	IP66, IK10	–	IP67, IK10
Power Consumption	PoE : Max 8.9W, typical 6.6W	PoE : Max 7.2W, typical 5.4W	PoE : Max 7.5W, typical 5.8W	PoE : Max 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)	W73.8 x H66.6 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	Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)
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	WiseStreamII		
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°F ~ +131°F) / 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)

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2MP IR Bullet Cameras

	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	Colour : 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	WiseStreamⅡ			
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°F ~ +131°F) * Start up above −20℃ (−4°F)			
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			

4MP IR Dome Cameras

	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	Colour : 0.1Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)
Video Output	CVBS 1.0 Vp−p		
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	WiseStreamⅡ		
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°F ~ +131°F) / 0~95% RH		
Certification	−		
Power Consumption	PoE: Max 8.6W, typical 6.3W 12VDC: Max 7.1W, 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)

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	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	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 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	WiseStreamII			
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°F~+131°F)			
Certification	–			
Power Consumption	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.7W, typical 6W 12VDC : Max 6.5W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W	PoE : Max 7.4W, typical 6W 12VDC : Max 6.4W, typical 5.1W
Dimensions (WxHxD) / Weight	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø119.8 x 98.8mm (Ø4.72" x 3.89") 320g (0.705lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)	Ø110 x 86mm (Ø4.33" x 3.39") 255g (0.562lb)
Additional Features	Hallway View			

	QND-6021 2MP Dome Camera (O mini)	QND-6011 2MP Dome Camera (O mini)	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	Colour : 0.03Lux (F1.6)	Colour : 0.03Lux (F2.0)	Colour : 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	WiseStreamII		
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°F~+131°F)	-10℃~+55℃ (+14°F~+131°F)	-40℃~+55℃ (-40°F~+131°F) / 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

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	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	Colour : 0.15Lux (F1.6, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.15Lux (F2.0, 1/30sec) B/W : 0Lux (IR LED On)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)
Video Output	CVBS 1.0 Vp-p			
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	WiseStreamIII			
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°F ~ +131°F) / 0~95% RH * Start up should be done at -30℃ or above	-40℃ ~ +55℃ (-40°F ~ +131°F) / 0~95% RH * Start up should be done at -30℃ or above	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)
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 (1.124lb)	Ø120.3 x 91.7mm (Ø4.74″ x 3.61″) 510g (1.124lb)	Ø137 x 106.1mm (Ø5.39″ x 4.18″) 710g (1.565lb)	Ø137 x 106.1mm (Ø5.39″ x 4.18″) 710g (1.565lb)
Additional Features	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Defocus detection, Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line	Hallway View	Hallway View

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	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	Colour : 0.03Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Colour : 0.03Lux (F2.0) B/W : 0Lux (IR LED on)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)
Video Output	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	CVBS 1.0 Vp-p	–
Focal Length	4mm fixed	2.8mm fixed	3.6mm fixed	4.44~142.6mm (32x) zoom
Angular Field of View	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.74° / V : 61.5° / D : 134.45°	H : 94.8° / V : 49.3° / D : 114.3°	H: 64.66° (Wide)~2.29° (Tele) V: 38.08° (Wide)~1.30° (Tele)
Pan / Tilt / Rotate	0°~350° / 0°~67° / 0° ~355°	0°~350° / 0°~67° / 0° ~355°	±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	SSNRV
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	WiseStreamII			
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°F ~ +131°F) * Start up above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F) * Start up above -20℃ (-4°F)	-30℃ ~ +55℃ (-22°F ~ +131°F)	-10℃ ~ +55℃ (+14°F ~ +131°F) / 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. 1.2W
Dimensions (WxHxD) / Weight	Ø120.3 x 91.7mm (Ø4.74″ x 3.61″) 510g (1.124lb)	Ø120.3 x 91.7mm (Ø4.74″ x 3.61″) 510g (1.124lb)	W98.9 x H52 x D100mm (3.89″ x 2.05″ x 3.94″) 295g (0.65lb)	Ø152 x 218mm (Ø5.98″ x 8.58″) 1.7kg (3.75 lb)
Additional Features	Hallway View	Hallway View	M12 connector, Hallway View	Auto tracking(Based on MD)

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	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	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0Lux (IR LED On)
Video Output	–			
Focal Length	4.44~142.6mm (32x) zoom	4.44~142.6mm (32x) zoom	4.44~111mm (25x) zoom	4.44~111mm (25x) zoom
Angular Field of View	H: 64.66˚ (Wide)~2.29˚ (Tele) V: 38.08˚ (Wide)~1.3˚ (Tele)	H: 64.66˚ (Wide)~2.29˚ (Tele) V: 38.08˚ (Wide)~1.3˚ (Tele)	H: 64.66˚ (Wide)~2.99˚ (Tele) V: 38.08˚ (Wide)~1.68˚ (Tele)	H: 64.66˚ (Wide)~2.99˚ (Tele) V: 38.08˚ (Wide)~1.68˚ (Tele)
Pan / Tilt / Rotate	–			
IR Viewable Length	100m (328.08ft)	–	–	–
Day & Night	Auto (ICR)			
Wide Dynamic Range	120dB			
Digital Noise Reduction	SSNRV			
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	WiseStreamII			
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°F~+131°F) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	Normal : -35℃~+55℃ (-31°F~+131°F) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-10℃~+55℃ (+14°F~+131°F) / 0~95% RH	Normal : -35℃~+55℃ (-31°F~+131°F) / * 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	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour: 0.05Lux (F1.6, 1/30sec) BW: 0.005Lux (F1.6, 1/30sec)	Colour : 0.01Lux (F1.2)	Colour: 0.39 Lux (F2.2, 1/30sec)	Colour : 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	SSNRV	SSNRV	SSNR	SSNRV	SSNRV
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	WiseStreamII				
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°F~+131°F) / * Start up should be done at above -30℃ 0~95% RH (Non-condensing)	-35℃~+55℃ (-31°F~+131°F) / * Start up should be done at above -25℃ 0~95% RH (Non-condensing)	-10℃~+55℃ (-14°F~+131°F)	-10℃~+40℃ (+14°F~+104°F)	-10℃~+55℃ (+14°F~+131°F)
Certification	IP66, IK10, NEMA4X	IP66, IP67, IK10, NEMA4X	–	–	IP42
Power Consumption	Max. 23W, Typ. 14W	Max. 23W, Typ. 14W	PoE : Max 6.4W, typical 4.6W 12VDC : Max 5.8W, typical 4.1W	PoE: Max 7.7W, typical 6.4W	PoE : Max 6.4W, typical 4.6W
Dimensions (WxHxD) / Weight	Ø204.3 x 265mm (Ø8.04" x 10.43") 2.7kg (5.95lb)	Ø227 x 299.2mm (Ø8.94" x 11.78") 5.4 kg (11.93 lb)	W 73.8 x H 66.6 x D 136.2mm (2.91" x 2.62" x 5.36") 320g (0.71lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 370g (0.82lb)	Ø99 x 49 mm (Ø3.9" x 1.93") 320 g (0.705lb)
Additional Features	Auto tracking (Based on MD)	Auto tracking (Based on MD)	Hallway View	Panorama view, Busieness Intelligence	Panorama view, Busieness Intelligence

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	TNV-7011RC 3MP Corner Mount Camera	TNV-8011C 5MP Corner Mount Camera	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	3MP / 30fps	5MP / 30fps	2MP / 60fps		
Min. Illumination	Colour: 0.3 lux (F2.0, 1/30sec) B/W: 0 lux (F2.0, 1/30sec)	Colour: 0.1 lux (F2.3, 1/30sec) B/W: 0.02 lux (F2.3, 1/30sec)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0Lux (IR LED on)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0.005 Lux (1/30sec, F1.6)	Colour: 0.05Lux (1/30sec, F1.6) B/W: 0Lux (IR LED on)
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	4.44 ~ 142.6mm (32X) zoom		
Angular Field of View	H: 102° / V: 75° / D: 129°	H: 131° / V: 93.4° / D: 174°	H: 61.8°(Wide) ~ 2.19°(Tele) V: 36.2°(Wide) ~ 1.24°(Tele)		
Pan / Tilt / Rotate	– / 30° ~ 60° / –	–	–	360° Endless / 180°(-90° ~ 90°) / –	
IR Viewable Length	10m (32.8ft)	–	70m	–	200m
Day & Night	Auto (ICR)				
Wide Dynamic Range	120dB				
Digital Noise Reduction	SSNRⅤ	SSNR	SSNRⅤ		
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	Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection		Defocus detection, Directional detection, Fog detection, Face detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection
Business Intelligence	–				
Alarm I/O	1 / 1				
Audio I/O	Selectable (mic in/line in) / Line out				
Video Compression	H.265 / H.264, MJPEG				
WiseStream	WiseStreamⅡ				
Streaming	Up to 10 profiles	Up to 3 profiles	Up to 10 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	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	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~90% RH	-10℃ ~ +55℃ (+14℉ ~ +131℉) / 0~95% RH	IR Off: -40℃~+60℃(-40℉ ~ +140℉) / 0~95% RH IR On: -40℃~+55℃(-40℉ ~ +131℉) / 0~95% RH	-40℃ ~ +60℃ (-40℉ ~ +140℉) / 0~95% RH	-40℃ ~ +60℃ (-40℉ ~ +140℉) / 0~95% RH
Certification	IP66, IP6K9K, IK10+	IP66, IP6K9K, IK10	IP67, IK10, ATEX, IECEx, KCs		–
Power Consumption	PoE: Max 12W, typical 10.1W, 12VDC: Max. 11W, typical 8.6W	PoE: Max 6.49W, typical 4.6W	24VAC: Max 45W	24VAC: Max. 99W	24VAC: Max. 99W (Camera) 24VAC: Max. 50W (IR)
Dimensions (WxHxD) / Weight	Ø 295.5 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)	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	TNO-4050T VGA Thermal Bullet Camera	TNO-4040T VGA Thermal Bullet Camera	TNO-4050T VGA Thermal Bullet Camera
Imaging Device	VGA Uncooled micro bolometer (12μm)	Uncooled Micro bolometer			
Resolution / Max. Frame Rate	2MP / 60fps	640 x 480 / 30fps			
Min. Illumination	Colour: 0.05Lux (F1.6, 1/30sec) B/W: 0.005 Lux (F1.6, 1/30sec)	–			
Video Output	CVBS: 1.0 Vp-p	CVBS : 1.0 Vp-p, Micro USB Type B			
Focal Length	4.44 ~ 142.6mm (32x) zoom	19mm / 35mm fixed	35mm fixed	19mm fixed	35mm fixed
Angular Field of View	H: 61.8°(Wide) ~ 2.19°(Tele) V: 36.2°(Wide) ~ 1.24°(Tele)	H : 32° / V : 24.3° / D : 39.2° H : 17.2° / V : 13° / D : 22°	H : 17.2° / V : 13° / D : 22°	H : 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	SSNRⅤ	–			
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	Intelligent analytics, Audio detection, Sound classification, Shock detection, Temperature change 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	WiseStreamⅡ				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC	Micro SD/SDHC/SDXC 1slot 256GB	micro SD/SDHC/SDXC		
Application Programming Interface	ONVIF Profile S/G/T SUNAPI (HTTP API) Wisenet open platform		ONVIF profile S/G, SUNAPI, Wisenet open platform		
Operating Temperature	-40℃ ~ +55℃ (-40℉ ~ +131℉) / 0~90% RH		-40℃ ~ +60℃ (-40℉ ~ +140℉)		
Certification	IP66, Safety (UL, KC-SDOC), EMC (FCC, CE, VCCI, RCM, KC)	IP66, NEMA 4X, IK10	IP66, NEMA 4X	IP66, NEMA 4X, IK10	IP66, NEMA 4X
Power Consumption	Max 100W (Heater On), typical 25W (Heater Off)	24VAC: Max 84W(Heater on), Max 62W(Heater off)	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W		
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)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0 lb)		
Additional Features	–	Various colour palettes			

NETWORK

	TNO–4040T VGA Thermal Bullet Camera	TNO–4050T VGA Thermal Bullet Camera	TNO–4040T VGA Thermal Bullet Camera	TNO–4040TR VGA Radiometric Thermal Bullet Camera	TNO–4030T VGA Thermal Bullet Camera
Imaging Device	Uncooled Micro bolometer				
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	35mm fixed	19mm fixed		13mm fixed
Angular Field of View	H：32° / V：24.3° / D：39.2°	H：17.2° / V：13° / D：22°	H：32° / V：24.3° / D：39.2°	H：32° / V：24.3° / D：39.2°	H：48.6° / V：36.4° / D：61.6°
Pan / Tilt / Rotate	–				
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	WiseStreamII				
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, IK10	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)	Ø147.51 x 401.8mm (Ø5.81" x 15.82") 3.17kg (7.0 lb)		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 colour palettes	Various colour palettes		Various colour palettes Spot temperature reading	Various colour palettes

	TNO–4040TR VGA Radiometric Thermal Bullet Camera	TNO–4030T VGA Thermal Bullet Camera	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	640 x 480 / 30fps		320 x 240 / 30fps		
Min. Illumination	–				
Video Output	CVBS : 1.0 Vp–p, Micro USB Type B				
Focal Length	19mm fixed	13mm fixed	4.7mm fixed focal	13.7mm fixed focal	19mm fixed focal
Angular Field of View	H：32° / V：24.3° / D：39.2°	H：48.6° / V：36.4° / D：61.6°	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	WiseStreamII				
Streaming	Up to 10 Profiles				
Edge Storage	micro SD/SDHC/SDXC				
Application Programming Interface	ONVIF profile S/G/T, SUNAPI, Wisenet open platform				
Operating Temperature	–40℃ ~ +60℃ (–40℉ ~ +140℉)				
Certification	IP66, NEMA 4X, IK10				
Power Consumption	PoE : Max 10W 12VDC : Max 9W 24VAC : Max 10.5W		PoE : Max. 8.7W, typical 7.5W 12VDC : Max. 7.8W, typical 6.7W 24VAC : Max. 9.2W, typical 8W		
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)	Ø147.51 x 375.3mm (Ø5.81x14.78") 2.51kg (5.538lb)		
Additional Features	Various colour palettes Spot temperature reading	Various colour palettes			

NETWORK ANALOG PERIPHERAL INSTALLATION SOLUTION

NETWORK

	TNO−3050T	TNO−L3030T	TNO−L4030T	TID−600R
	QVGA Thermal Bullet Camera	QVGA Thermal Bullet Camera	VGA Thermal Bullet Camera	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	–	–	–	Colour: 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	–	–	–	SSNRV
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			WiseStreamⅡ	
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 colour palettes	Various colour palettes	Various colour palettes	SIP, Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Shock detection, Sound classification

NETWORK

	TNO−3010T	TNO−4030TR	TNO−L4030TR
	QVGA Thermal Bullet Camera	VGA Radiometric Thermal Bullet Camera	VGA Radiometric Thermal Bullet Camera
Imaging Device		Uncooled micro bolometer	
Resolution/ Max. FrameRate	640x480 / 30fps	640x480 / 30fps	640x480 / 8fps
NETD		<60mK	
Pixel Size		12μm	
Video Out		CVBS 1.0 Vp−p, Micro USB Type B, 1280x720 for installation	
Focal Length (Zoom Ratio)		2.7mm fixed focal	
Angular Field of View		H:92.0 ° / V:65.5 ° / D:125.7 °	
Min. Object Distance		0.3m(0.98ft)	
Digital Image Stabilization		Support(built−in gyro sensor)	
Analytics		Directional detection, Motion detection, Appear/Disappear, Enter/Exit, Loitering, Tampering, Virtual line, Audio detection, Abnormal Temperature change detection, Sound classification, Shock detection	
Temperature Detect Range		–	
Temperature Accuracy		–	
Temperature Detection		3 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		WiseStreamⅡ	
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		Ø147.51x375.3mm(58.07x147.76") / 2512g(5.538lb)	
Additional Features		Various Colour 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 colour palettes Spot temperature reading	Various colour palettes	Various colour palettes

High performance NVR

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

Hanwha Vision's NVR allows recording and streaming of videos in high resolution and enhancs efficiency of event and channel management with the leading UI. It also offers AI based object detection and classification in addition to smart search.
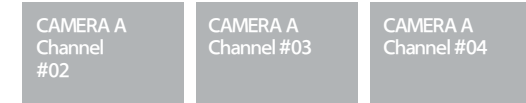
Monitor sub channels without registering them all

With the Virtual Channel View, user can register only one main channel for recording, and monitor sub channels without registering them to the NVR.

Registered channel
Recording and monitoring

CAMERA A Channel #01

Using one 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.
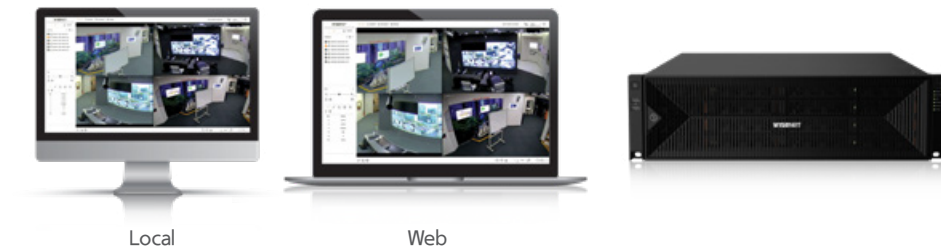
Local   Web

	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, 2.1 A	100 ~ 240 VAC ± 10%: 50/60 Hz, 2.1 A
Power Consumption	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 265W (16 HDD)	Max. 205W (With 10TB HDDs 8EA)	Max. 205W (With 10TB HDDs 8EA)
PoE Budget	–				
Additional Features	• LPR search (English, Numbers) • AI search attribute (Person, Face, Vehicle, License plate – with AI cameras) • N+1 failover supported • PTZ camera configuration and control • Dynamic layout • Virtual channel view				

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

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	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	

NETWORK

	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			

NETWORK

	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))

Viewer
Costless yet powerful NVR·DVR Management Software

Camera
Analog Camera /
Network Camera

Wisenet Viewer
PC

Recorder
DVR / NVR

Real-Time
Monitoring

Web Page

Video/Image
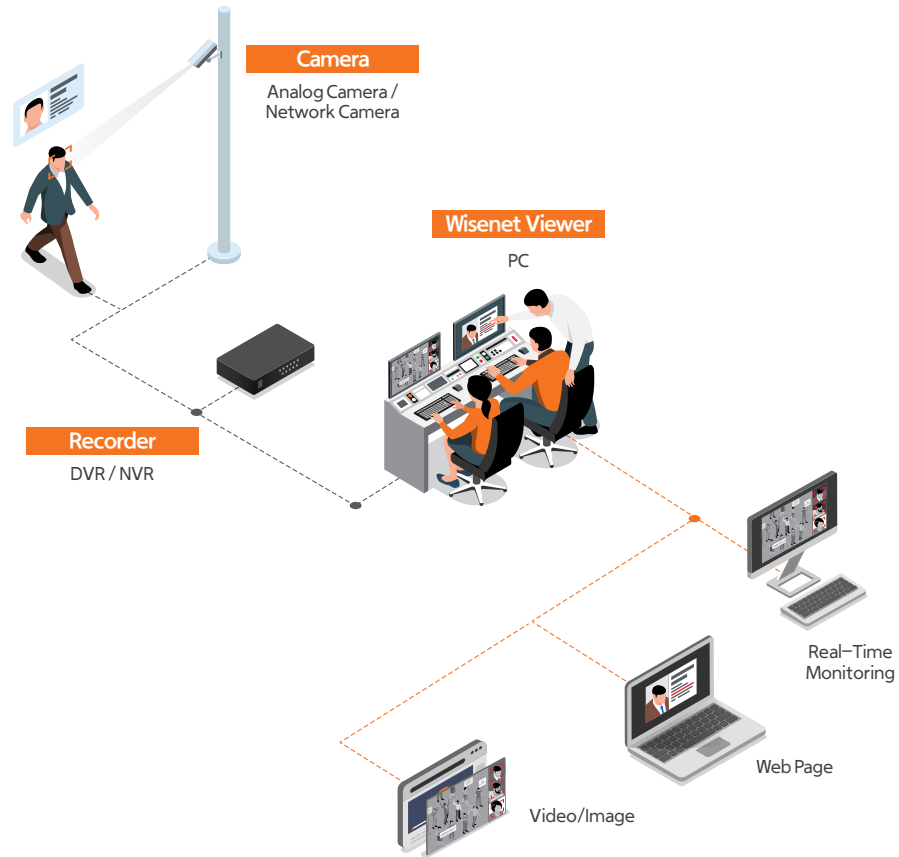
Monitoring with PC gets easier

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

＊ Available on Windows, macOS

Effective monitoring with essential features
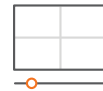
Customisable channel layout & Timeline

Easy monitoring with
Fisheye Dewarping

View Mode
① Single View
② Panoramic
③ Quad View

Intelligent monitoring powered by **AI Search**
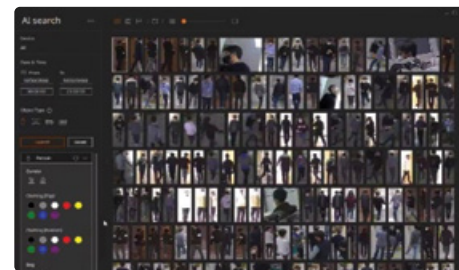
Encoder

	SPE–1630 16CH Encoder	SPE–420 4CH Encoder
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 easy for operators to set a display of live and recorded images on a single screen or video wall, with customisable layouts and sizes.
- Zoom windows enable 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 incidents occur.
- A wide range of smart, keyword, calendar and preview search options facilitate rapid retrieval of recorded video.

An Operating System to Suit Your Needs

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

WAVE Sync	Desktop	Mobile	Server
A cloud-based service that enables simple, centralised remote access and insight into any Wisenet WAVE system.	A rich media player designed to view and manage a single Wisenet WAVE system from a desktop or laptop PC.	A mobile app designed for viewing Wisenet WAVE system video and archives while on-the-go.	A media server responsible for discovering, connecting to, and managing system devices and data.

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

Cloud

Wisenet WAVE Sync

A cloud-based service that can be remotely accessed by an unlimited number of authorised 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 SSM

Ideal choice for integrated monitoring

Wisenet SSM (Smart Security Manager) is a video monitoring software that maximises the operational efficiency of Hanwha Vision products (Network camera, Encoder, DVR and NVR). It provides seamless system integration and central monitoring.

Cost Competitiveness	High reliability	Convenient Operation
Impressive features that are cost-effective	Superb device compatibility offered as a VMS of device manufacturer	A single manufacturer providing unified user experience
One time licensing cost (No cost for upgrades and maintenance)	Integrated operation of H/W and S/W for efficient maintenance and management	Leverage features to improve operations
High quality VMS features	Dashboard that can monitor device status	Highly versatile for different environments

AI video search

Connect Hanwha Vision AI cameras to SSM.

• Best Shot search

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

Hanwha Vision SSM search
Support quick search using attributes

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

Stable monitoring

SSM provides safe and stable monitoring environment through Failover.

• Vehicle management & event search

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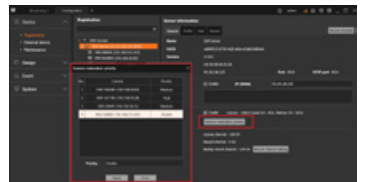
IP Audio System

IP audio meets network surveillance system for enhanced safety and operational efficiency.

🔊 Please stay away from the fence

🔔 Motion Detection

TTS
Text To Speech

PoE & PoE+
Dual Support +

SIP
PBX integration

Scheduler
Day, Week, Month and Year

IP Speakers

	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	101dB	101dB	125dB
Frequency Range (-10dB)	120Hz~20kHz	130Hz~20kHz	120Hz~20kHz	650Hz~5.3kHz
Sensitivity (1Watt)	90dB	91dB	91dB	111dB
Power	PoE/ PoE+			
TTS	Korean, English(US, UK), German, French, Spanish, Russian			

IP Audio Module

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

IP Audio Server

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

IP Microphone

	SPA-M1000 Microphone
Ethernet	100/1000 Base-T
Mic Input Sensitivity	-50dBV ± 3dB
Mic Frequency Response	100Hz ~ 18kHz
Power	Max.10W, DC24V PoE (IEEE 802.3 af type 1 Class 3)
Functional Monitoring	Connection verification, Built-in system logging

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	HCB-7000A QHD Box Camera	HCO-7070RA 1080p IR Bullet Camera	HCO-7010RA/20RA/30RA QHD IR Bullet Camera	HCD-7070RA QHD IR Dome Camera
Imaging Device	1/3″ CMOS			
Resolution	2560 x 1440			
Min. Illumination	Colour : 0.16Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCO-7010R) 0.27Lux (F2.0) (HCO-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	–	3.2~10mm (3.1x) varifocal	2.8mm fixed (HCO-7010R) 4.0mm fixed (HCO-7020R) 6.0mm fixed (HCO-7030R)	3.2~10mm (3.1x) varifocal
Angular Field of View	–	H : 93.48° (Wide)~29.44° (Tele) V : 50.47° (Wide)~16.64° (Tele) D : 112.53° (Wide)~33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCO-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCO-7020RA) H : 49.01° / V : 27.61° / D : 55.6° (HCO-7030RA)	H : 93.48° (Wide)~29.44° (Tele) V : 50.47° (Wide)~16.64° (Tele) D : 112.53° (Wide)~33.7° (Tele)
Pan / Tilt / Rotate	–	–	–	0°~350° / 0°~63° / 0°~355°
IR Viewable Length	–	30m (98.43ft)	20m (65.62ft) (HCO-7010R) 25m (82.02ft) (HCO-7020R) 30m (98.43ft) (HCO-7030R)	20m (65.62ft)
Day & Night	Auto (ICR)			
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
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), RS-485 : Samsung T, Pelco D/P	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron)
Operating Temperature	-10℃~+55℃ (+14°F~+131°F)	-30℃~+55℃ (-22°F~+131°F) * Start up above -10℃ (+14°F)	-30℃~+55℃ (-22°F~+13°F) * Start up above -10℃ (+14°F)	-10℃~+55℃ (+14°F~+131°F)
Certification	–	IP66, IK10	IP66, IK10	–
Power Consumption	12VDC & 24VAC : Max 3.6W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 5.8W
Dimensions (WxHxD) / Weight	W 59.6 × H 68.4 × 92.7mm (2.35″ × 2.69″ × 3.65″) 186g (0.41lb)	Ø78 x 259.8mm (Ø3.07″ x 10.23″) (Without sunshield) 914g (2.02lb)	Ø70 x 246mm (Ø2.76″ x 9.69″) (Without sunshield) 670g (1.48lb)	Ø119.8 x 98.5mm (Ø4.72″ x 3.88″) 320g (0.71lb)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)			

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	HCD-7010RA/20RA/30RA QHD IR Dome Camera	HCV-7070RA QHD IR Vandal Dome Camera	HCV-7010RA/20RA/30RA QHD IR Vandal Dome Camera	HCB-6001 1080p HD Box Camera
Imaging Device	1/3″ CMOS	1/3″ CMOS	1/3″ CMOS	1/2.8″ CMOS
Resolution	2560 x 1440	2560 x 1440	2560 x 1440	1920 x 1080
Min. Illumination	Colour : 0.26Lux (F1.8) (HCD-7010RA) 0.27Lux (F2.0) (HCD-7020R/7030RA) B/W : 0Lux (IR LED on)	Colour : 0.16Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.26Lux (F1.8) (HCV-7010R) 0.27Lux (F2.0) (HCV-7020R/7030R) B/W : 0Lux (IR LED on)	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)
Focal Length	2.8mm fixed (HCD-7010RA) 4.0mm fixed (HCD-7020RA) 6.0mm fixed (HCD-7030RA)	3.2~10mm (3.1x) varifocal	2.8mm fixed (HCV-7010R) 4.0mm fixed (HCV-7020R) 6.0mm fixed (HCV-7030R)	–
Angular Field of View	H : 107.48° / V : 59.67° / D : 122.01° (HCD-7010RA) H : 78.22° / V : 41.21° / D : 87.91° (HCD-7020RA) H : 49.02° / V : 27.61° / D : 55.6° (HCD-7030RA)	H : 93.48° (Wide)~29.44° (Tele) V : 50.47° (Wide)~16.64° (Tele) D : 112.53° (Wide)~33.7° (Tele)	H : 107.48° / V : 59.67° / D : 122.01° (HCV-7010R) H : 78.22° / V : 41.21° / D : 87.91° (HCV-7020R) H : 49.01° / V : 27.61° / D : 55.6° (HCV-7030R)	–
Pan / Tilt / Rotate	0°~350° / 0°~67° / 0°~355°	0°~350° / 0°~67° / 0°~355°	0°~350° / 0°~67° / 0°~355°	–
IR Viewable Length	20m (65.62ft) (HCD-7010RA) 25m (82.02ft) (HCD-7020RA) 30m (98.43ft) (HCD-7030RA)	30m (98.43ft)	20m (65.62ft) (HCV-7010R) 25m (82.02ft) (HCV-7020R) 30m (98.43ft) (HCV-7030R)	–
Day & Night	Auto (ICR)			
Backlight Compensation	BLC/HLC/DWDR	BLC / HLC / DWDR	BLC/HLC/DWDR	WDR (120dB)
Digital Noise Reduction	2D DNR			SSNRIV
Motion detection	Support			
Privacy Masking	2 Zones			4 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)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol), RS-485 : Samsung T, Pelco D/P, Panasonic, Bosch , Honeywell, Vicon, GE, AD
Operating Temperature	-10℃~+55℃ (+14°F~+131°F)	-30℃~+55℃ (-22°F~+131°F) * Start up above -10℃ (+14°F)	-30℃~+55℃ (-22°F~+131°F) * Start up above -10℃ (+14°F)	-10℃~+55℃ (+14°F~+131°F)
Certification	–	IP66, IK10	IP66, IK10	–
Power Consumption	12VDC : Max 5W	12VDC & 24VAC : Max 5.8W	12VDC : Max 5W	12VDC & 24VAC : Max 6W
Dimensions (WxHxD) / Weight	Ø110.1 x 86.1mm (Ø4.33″ x 3.39″) 240g (0.53 lb)	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)
Additional Features	Video Transmission up to 500m (5C2V Coaxial Cable)			

NETWORK · ANALOG · PERIPHERAL · INSTALLATION SOLUTION

	HCB-6000 1080p HD Box Camera	HCO-6080R 1080p HD IR Bullet Camera	HCO-6070R 1080p HD IR Bullet Camera	HCO-6020R 1080p HD IR Bullet Camera
Imaging Device	1/2.8" CMOS	1/2.8" CMOS	1/2.8" CMOS	
Resolution	1920 x 1080	1920 x 1080	1920 x 1080	
Min. Illumination	Colour : 0.09Lux (F1.2) B/W : 0.009Lux (F1.2)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	–	3.2~10mm (3.1x) motorized varifocal	3.2~10mm (3.1x) varifocal	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 : 110.2° (Wide)~32° (Tele) V : 55.4° (Wide)~18° (Tele) D : 128.4° (Wide)~36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°
Pan / Tilt / Rotate	–	–	–	–
IR Viewable Length	–	30m (98.43ft)	30m (98.43ft)	30m (98.43ft)
Day & Night	Auto (ICR)			
Backlight Compensation	WDR (120dB)			
Digital Noise Reduction	SSNRIV			
Motion detection	Support			
Privacy Masking	8 Zones			
Alarm I/O	MD Output 1			–
Protocol	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)	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)	
Operating Temperature	-10℃~+55℃ (+14°F~+131°F)	-30℃~+55℃ (-22°F~+131°F) * Start up above -10℃ (+14°F)	-30℃~+55℃ (-22°F~+131°F) *Start up above -10℃ (+14°F)	-30℃~+55℃ (-22°F~+131°F) *Start up above -10℃ (+14°F)
Certification	–	IP66, IK10	IP66, IK10	IP66
Power Consumption	12VDC & 24VAC : Max 3.5W	12VDC & 24VAC : Max 5.8W	12VDC & 24VAC : Max 6W	12VDC : Max 5.4W
Dimensions (WxHxD) / Weight	W 68.4 × H 59.6 × D 92.7mm (2.69" x 2.35" × 3.65") 186g (0.41 lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 948g (2.09lb)	Ø78 x 259.8mm (Ø3.07" x 10.23") (Without sunshield) 914g (2.02lb)	Ø58.6 x 165.2mm (Ø2.31" x 6.5") (Without sunshield) 279g (0.62 lb)
Additional Features	Video transmisstion up to 500m (5C2V Coaxial Cable)			

	HCD-6080R/6070R 1080p HD IR Dome Camera	HCD-6020R 1080p HD IR Dome Camera	HCD-6010 1080p HD Dome Camera	HCV-6080R/6070R 1080p HD IR Vandal Dome Camera
Imaging Device	1/2.8" CMOS			
Resolution	1920 x 1080			
Min. Illumination	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.17Lux (F1.6) B/W : 0Lux (IR LED on)	Colour : 0.27Lux (F2.0) B/W : 0.017 Lux (F2.0)	Colour : 0.11Lux (F1.6) B/W : 0Lux (IR LED on)
Focal Length	3.2~10mm (3.1x) motorized varifocal (HCD-6080R) varifocal (HCD-6070R)	4mm fixed (F1.6)	2.8mm fixed (F2.0)	3.2~10mm (3.1x) motorized varifocal (HCV-6080R) varifocal (HCV-6070R)
Angular Field of View	H : 110.2° (Wide)~32° (Tele) V : 55.4° (Wide)~18° (Tele) D : 128.4° (Wide)~36.6° (Tele)	H : 87.6° / V : 46.4° / D : 104.5°	H : 113.7° / V : 61.5° / D : 134.5°	H : 110.2° (Wide)~32° (Tele) V : 55.4° (Wide)~18° (Tele) D : 128.4° (Wide)~36.6° (Tele)
Pan / Tilt / Rotate	0° ~350° /0° ~67° /0° ~355°	0° ~350° /0° ~67° /0° ~355°	0° ~350° /0° ~67° /0° ~355°	0° ~350° /0° ~67° /0° ~355°
IR Viewable Length	20m (65.62ft)	20m (65.62ft)	–	30m (98.43ft)
Day & Night	Auto (ICR)			
Backlight Compensation	WDR (120dB)			
Digital Noise Reduction	SSNRIV			
Motion detection	Support			
Privacy Masking	8 Zones			
Alarm I/O	MD Output 1	–	–	MD Output 1
Protocol	AHD : ACP (AHD Coax Protocol), CVBS : Pelco-C (Coaxitron), CCP (CVI Coax Protocol), TCP (TVI Coax Protocol)			
Operating Temperature	-10℃~+55℃ (+14°F~+131°F)	-10℃~+55℃ (+14°F~+131°F)	-10℃~+55℃ (+14°F~+131°F)	-30℃~+55℃ (-22°F~+131°F) * Start up above -10℃ (+14°F)
Certification	–	–	–	IP66, IK10
Power Consumption	12VDC & 24VAC : Max 5.8W (HCD-6080R) 12VDC & 24VAC : Max 4.2W (HCD-6070R)	12VDC : Max 5.4W	12VDC : Max 3.6W	12VDC & 24VAC : Max 5.8W (HCV-6080R) 12VDC & 24VAC : Max 4.2W (HCV-6070R)
Dimensions (WxHxD) / Weight	Ø119.8 x 98.5mm (Ø4.72" x 3.88") 330g (0.73lb) (HCD-6080R) 320g (0.71lb) (HCD-6070R)	Ø110 x 86mm (Ø4.33" x 3.39") 320g (0.71lb)	Ø110 x 86mm (Ø4.33" x 3.39") 225g (0.49lb)	Ø137 x 106.1mm (Ø5.39" x 4.18") 725g (1.60lb) (HCV-6080R) 715g (1.58lb) (HCV-6070R)
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, WebViewer, 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
Screen Size	43"	32"	32"	27''	27''
Max. Resolution	3840 x 2160	3840 x 2160	1920 x 1080	3840 x 2160, 60Hz (UHD)	1920 x 1080, 60Hz (FHD)
Brightness	300 cd/m²	300 cd/m²	300 cd/m²	300 cd/m²	250 cd/m²
Contrast Ratio	1000:1	1000:1	2250:1	1200:1	4000:1
Aspect Ratio	16:9				
Viewing Angle(H/V)	178° /178°				
Response Time	8.5ms	14ms	8ms	−	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)
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
Power	100V ~ 240V AC	100V ~ 240V AC	100V ~ 240V AC	100V~240V AC	100V~240V AC
Stand	Optional	Yes	Optional	Yes	Yes
Tempered Glass Screen	−				

LED Monitor | ## Controller

|	SMT-2431 24" LED Monitor	SMT-2212 22" LED Monitor	SMT-1935 19" LED Monitor
Screen Size	24"	22"	19"
Max. Resolution	1920 x 1080	1920 x 1080	1280 x 1024
Brightness	250 cd/m²	250 cd/m²	250cd/m²
Contrast Ratio	4000:1	3000:1	1000:1
Aspect Ratio	16:9		4:3
Viewing Angle(H/V)	178° /178°		170° /160°
Response Time	14ms	6.5ms	5ms
Interface	HDMI (1), VGA (1)	HDMI (1), VGA (1)	HDMI (1), VGA (1)
Audio In/Out	−/−	−/−	−/−
Built-in Speakers	−	−	−
VESA Mount(mm)	100*100	100*100	100*100
Power	100V ~ 240V AC	DC 12V 5A	100 ~ 240V AC
Stand	Yes	Yes	Yes
Tempered Glass Screen	−		

SPC-2001
PTZ / DVR System Controller

Features	• 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

Lens

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

Toolbox Plus
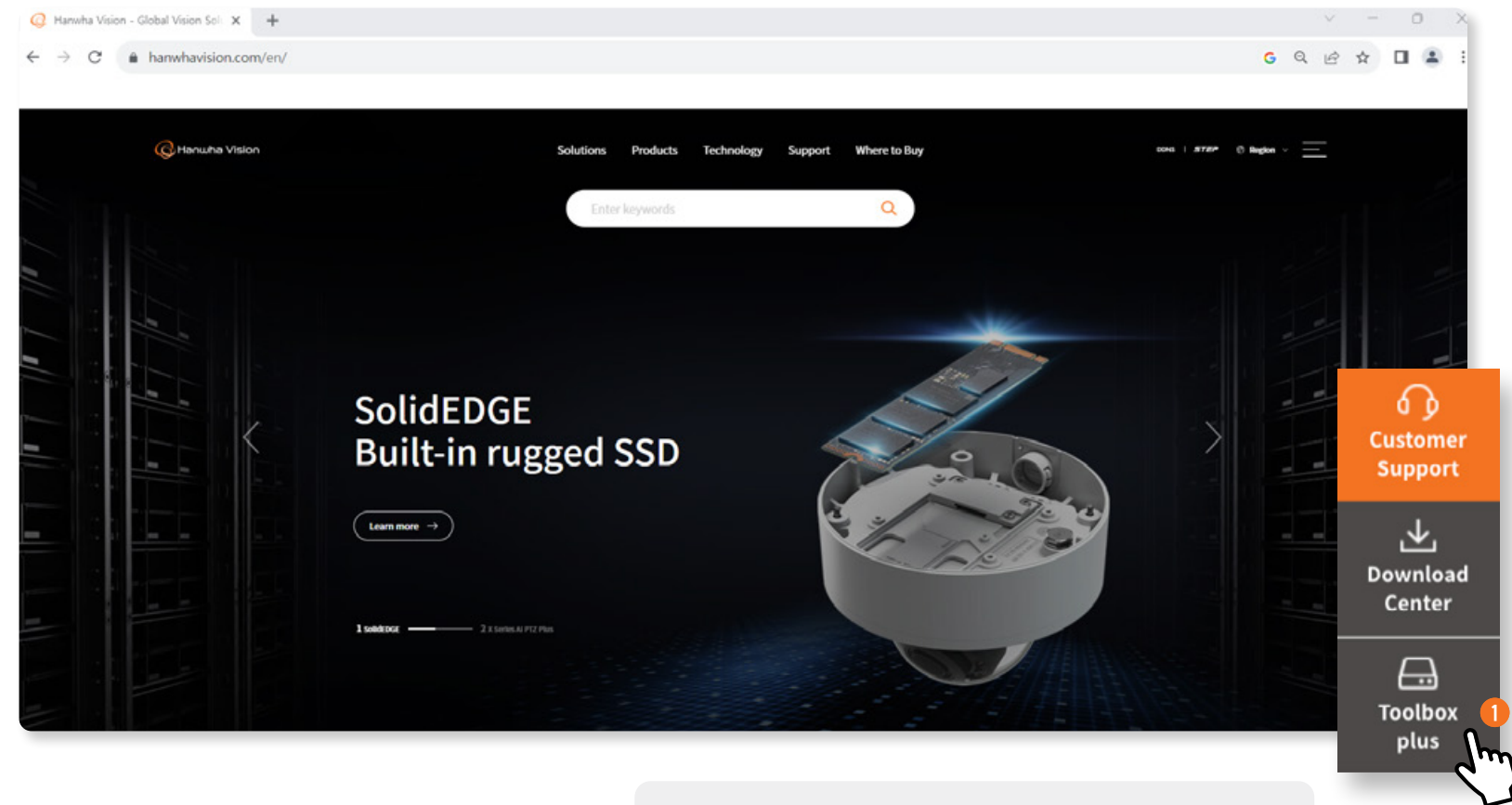
Click the Toolbox Plus on Hanwha Vision.com

Or you can also connect by using below URL
(https://www.hanwhavision.com/wisenettoolbox_plus)

NETWORK

ANALOG

PERIPHERAL

INSTALLATION SOLUTION

Choose a product

Select region and language
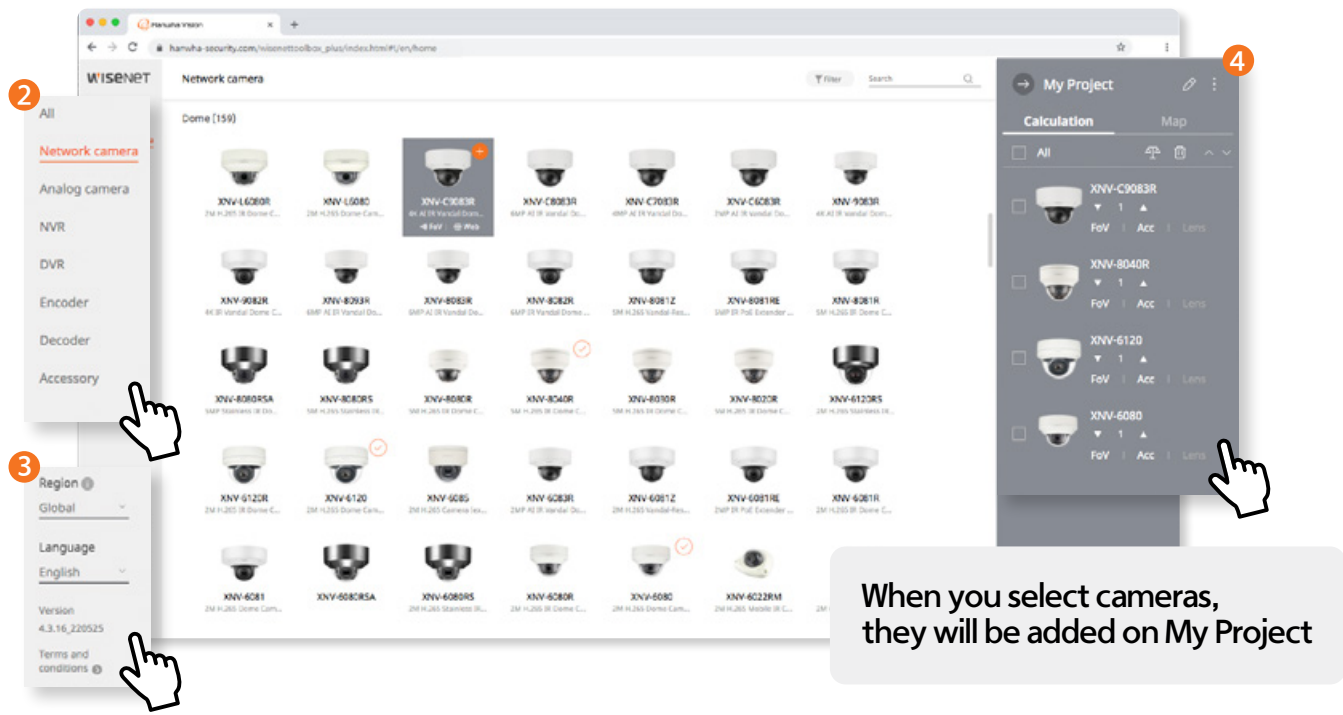
When you select cameras,
they will be added on My Project

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 |
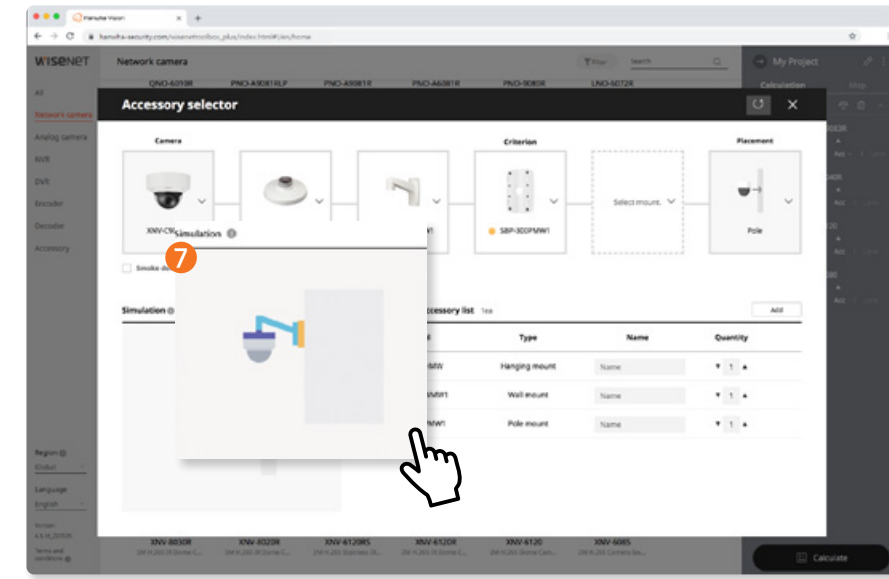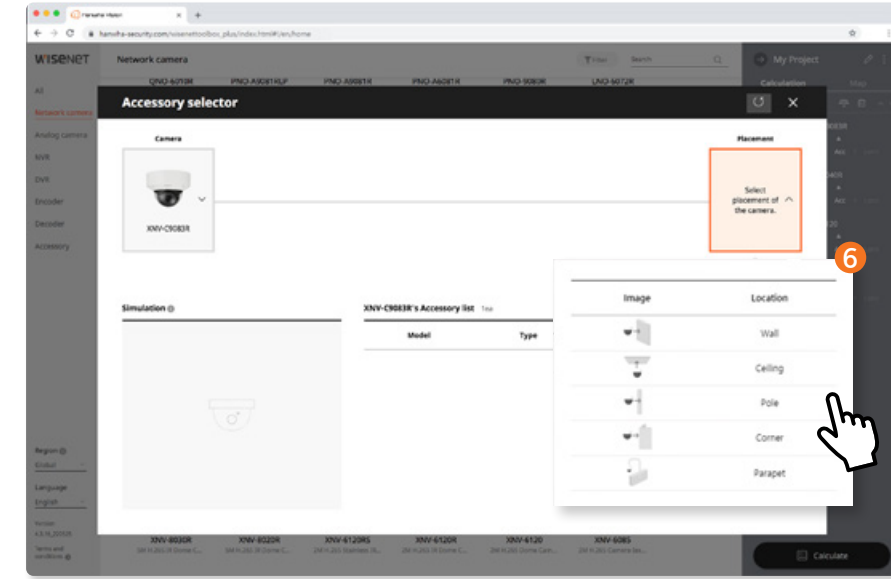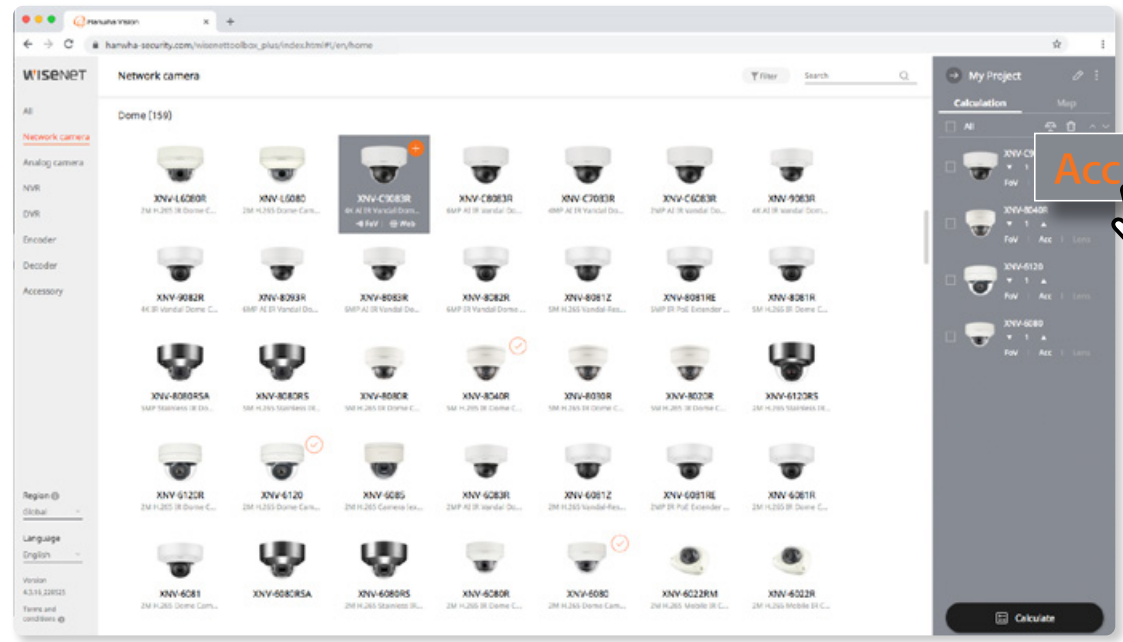
Newly updated in Toolbox Plus: Simulate on the map

Toolbox Plus helps you simulate
the best place for installing cameras.
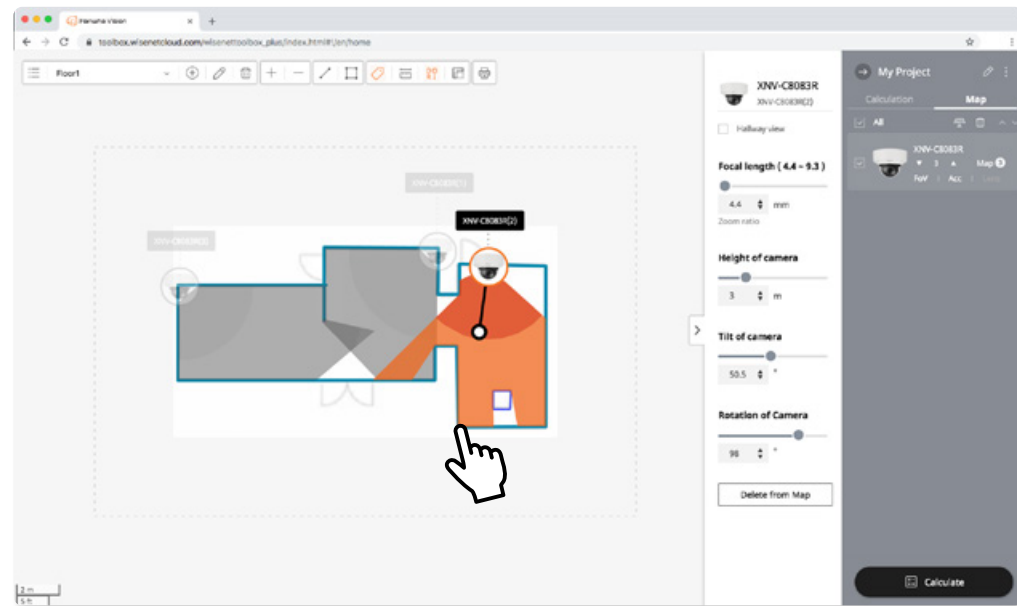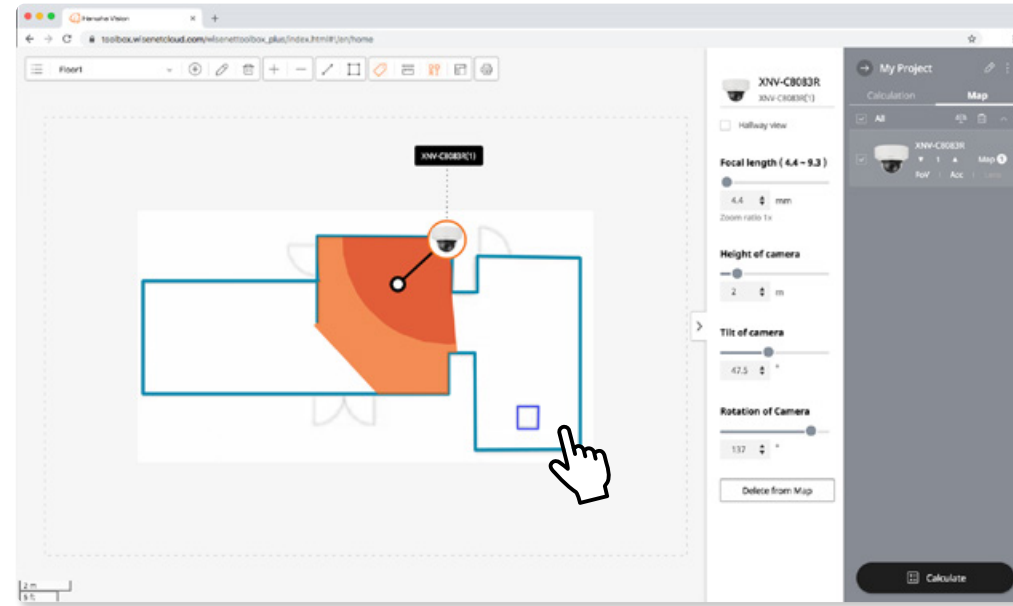
By uploading your map to Toolbox plus,
you can test how much
cameras can cover in your own space.

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

MEMO
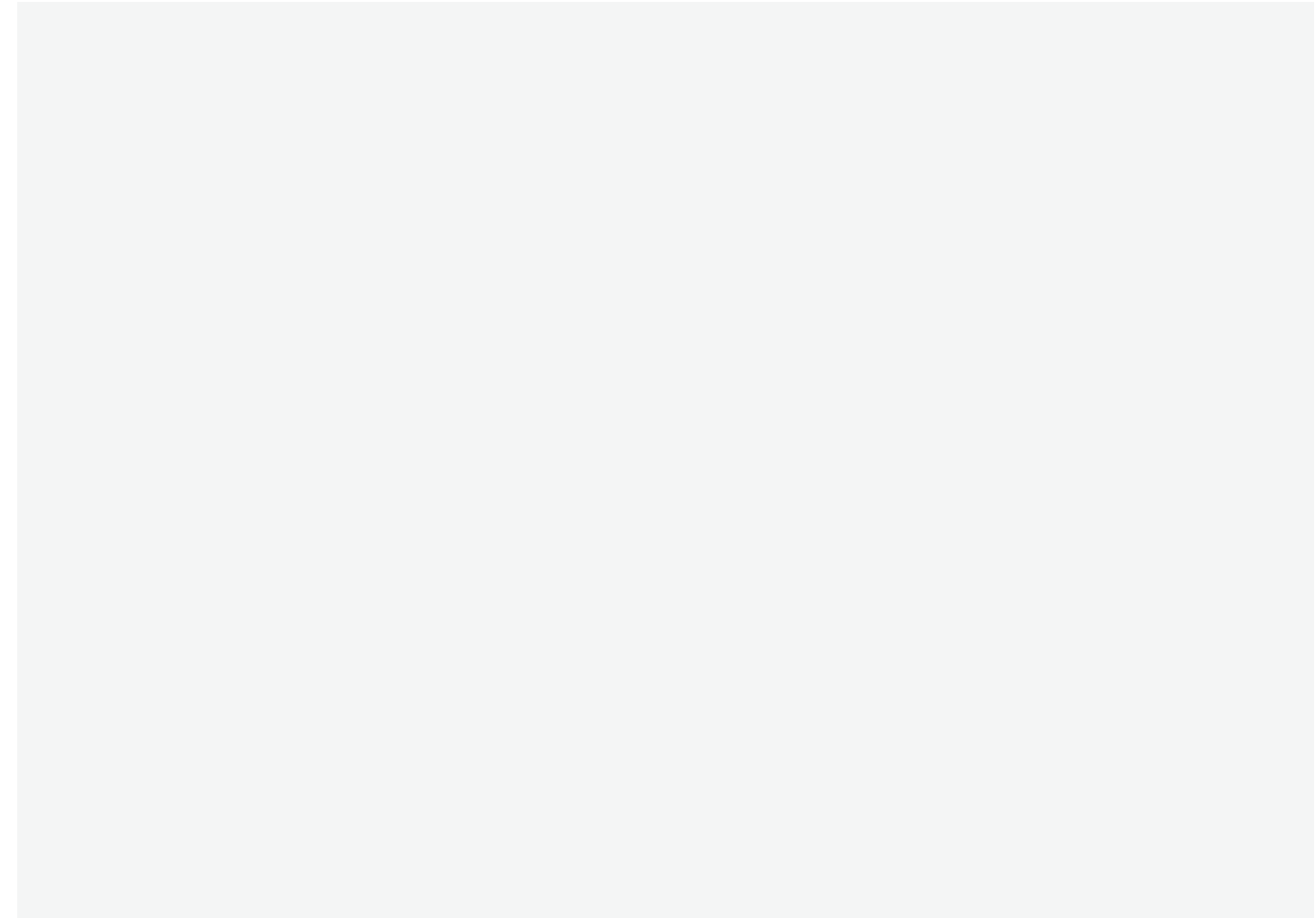
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